# A REVISION OF THE ORIENTAL SPECIES OF THE GENUS TACHYS BY H. E. ANDREWES (Plates III-IV)

This genus has been dealt with by many commentators, but no-one since the days of Putzeys has treated specially of the species found in the Oriental region. In this I include India, with Ceylon and Burma, Siam, Indo-China, the Philippine Islands, the Malay region including New Guinea, and, for the purposes of this memoir, Japan also. Several important works have appeared in recent years dealing with other regions, among which I may mention notices by Edmund Reitter (palaearctic species), L. Bedel (North Africa), Roland Hayward (N. America), and T. G. Sloane (Australia); in addition H. W. Bates has made some valuable contributions to our knowledge of the species of Central America, Japan, Burma, and Ceylon. References to them are given a little further on. Something like a hundred species and varieties have hitherto been described from South East Asia and the Malay Archipelago, including half a dozen from Japan, but I have been able to reduce this number by synonymy to approximately sixty-three species and seven varieties. I have seen the types, or at least typical examples, of nearly all these, but there are some half dozen which remain still in doubt. Three of these I have identified from the descriptions, though with some hesitation, and references to them are included in the text; the other three, all species of Motchulsky, I can make nothing of, but to render my work as complete as possible, I give the original descriptions in a note at the end. I have redescribed all the species of which I have been able to procure examples, and in addition I am here describing seventy-one new ones and twenty-four new varieties.

The latter may seem rather a large number, but in view of the frequent paucity of material available, I have often thought it desirable in the case of two closely allied forms to treat one as species and the other as variety, rather than both as distinct species. This raises the total to a hundred and thirty-four species and thirty-one varieties in all. After the genus *Tachys* I have given some account of the genus *Limnastis*, redescribing the three known species, adding the description of a new one, and also at the end the original description of a species of Motchulsky, which I have been unable to identify.

Tachys appears to me quite a well-defined genus, but the species are numerous and various attempts have been made to differentiate them by the formation of separate genera or subgenera. Of these the principal ones are as follows:

Tachyta Kirby Faun. Bor. Amer. IV, 1837, 56.

Elaphropus Motch. Bull. Mosc. 1839, I, 73.

Pericompsus Leconte Ann. Lyc. 1852, V, 191.

Tachylopha, Tachyura, Limnastis, Tachymenis (= Tachyta), and Polyderis Motch. Etud. Ent. XI, 1862, 27.

Barytachys Chaud. Rev. et Mag. Zool. 1868, 213.

Porotachys Net. Ent. Blätt. 1914, 174.

Of these *Limnastis* alone presents characters which seem to entitle it to generic rank, the remainder forming, along with the species generally grouped under Tachys sens. str., more or less natural groups in the genus, and later writers have in fact treated them for the most part as subgenera. While keeping an open mind on the subject of subgenera, I have not made use of any of the foregoing names here, partly because I should have had to introduce a number of new names, which in present circumstances I was unwilling to do, and partly because I think the name of a typical species in any group brings the group characters before the mind quite as readily as, if not more readily than a subgeneric name. I shall not therefore allude to them further except to say a word or two on the name Barytachys, because it has been extensively used by Bates in his papers of 1886 and 1892, when describing species from Ceylon and Burma, though without definition.

Leconte, when writing on the genus (Ann. Lyc. Nat. Hist. N. Y. IV. 1848, 468), divides the American species into sections,

based on the form of the body and of the hind angles of the prothorax, the dorsal pores, and the number of striae, though without forming any subgenera for his sections. It occurred to Chaudoir (Rev. et Mag. Zool. 1868, 213) to give the name of *Barytachys* to three sections in Leconte's table, embracing convex species, having a prothorax with rectangular hind angles, and 1 to 4 elytral striae. Bates (Biol. Centr. Amer. Ins. Col. I (1) 1882. 138) adopted Chaudoir's name with the definition « Elytris punctis duobus discoidalibus, altero ante altero post medium, striola recurva minime incurvata », and subsequently used it to include various convex species from the East, even when fully striate. Though otherwise defined, *Barytachys* appears to cover much the same ground as Motchulsky's *Tachyura*, described six years earlier.

I have to offer my thanks to numerous correspondents, who have helped me in various ways. For many specimens, including a number of types, I am indebted to Mr. H. Stevens, who has collected largely in Assam, Sikkim, and the Eastern Duars; to Mr. W. J. Saunders, who has placed at my disposal a small but most interesting collection formed by his brother, Hon. C. J. Saunders, in Singapore; to D.<sup>r</sup> Malcolm Cameron for specimens taken at Singapore and Saigon; to D." W. Horn for examples from Ceylon; to D.<sup>r</sup> C. F. Baker and Miss J. Barrington for some species from the Philippine Is.; to Mr. T. G. Sloane, who has given me a number of specimens from the Malay region; and to Mr. H. L. Andrewes, whose rich collection, formed principally in the Nilgiri Hills, has in this, as in many other directions, greatly increased our knowledge of the South Indian fauna. I have also to thank Mr. H. G. Champion, whose extensive and valuable collections from Kumaon, have enabled me to describe a number of new species from North India. Many types, or at least typical specimens, have been sent to me for examination, and my thanks are specially due to Dr. R. Gestro of the Genoa Civic Museum, Mr. G. Severin of the Brussels Museum, Dr. W. Horn of the Deutsches Entomologisches Museum, Dr. H. Kuntzen of the Berlin Zoological Museum, and Mr. René Oberthür. Mr. P. Lesne of the Paris Museum has kindly sent me material from Indo-China, Dr. K. L. Henriksen has sent from the Copenhagen Museum the specimens taken by the Galatea Expedition, and Dr. J. Obenberger has

329

entrusted to me all the specimens in the Helfer collection at Prague. Much interesting material has also been sent to me from various Indian Museums and Institutes, and I am indebted more particularly to Dr. N. Annandale and Dr. S. W. Kemp of the Indian Museum, Calcutta; Mr. T. Bainbrigge Fletcher, Imperial Entomologist, Pusa; Dr. C. F. C. Beeson, Imperial Forest Zoologist, Dehra Dun; Mr. G. M. Henry of the Colombo Museum; and Mr. E. A. D'Abreu of the Central Museum, Nagpur. I have also to acknowledge much kind assistance received from Prof. E. B. Poulton of Oxford, Dr. H. Karny of the Buitenzorg Museum, Dr. K. Holdhaus of the Vienna Museum, Dr. G. Schroeder of the Stettin Museum, Mr. E. Fleutiaux, Mr. R. Vitalis de Salvaza, Mr. G. Babault, Mr. T. R. D. Bell, Mr. F. W. Champion, Mr. G. E. Bryant, Prof. F. Netolitzky, Dr. E. A. Butler, and Mr. J. Omer Cooper. Lastly I have to thank the officials, and particularly Mr. G. J. Arrow, for much assistance, most willingly rendered, in facilitating my study of the considerable material in the British Museum collections.

The following are the principal works which will be found. useful for reference :

Jacquelin-Duval, Ann. Soc. Ent. France 1852, 189-211. Motchulsky, Etudes Entomologiques XI, 1862, 24-37. Putzeys, Ann. Mus. Civ. Gen. VII, 1875, 737-748. Bates, Trans. Ent. Soc. Lond. 1873, 296-300 and 331-2.

- » Biol. Centr. Amer. Ins. Col. I (1), 1882, 137-44.
- » Trans. Ent. Soc. Lond. 1883, 267-8.
- » Ann. Mag. Nat. Hist. (5) XVII, 1886, 151-6.
- » Ann. Soc. Ent. France 1889, 274-5.
- » Compt. rend. Soc. Ent. Belg. 1891, 326.
- » .Ann. Soc. Ent. Belg. 1892, 230.
- » Ann. Mus. Civ. Gen. XXXII, 1892, 288-297. Reitter, Wien. Ent. Zeit. 1884, 116-24.
- Bedel, Cat. rais. des Col. du Nord de l'Afrique, 1896, 71-80. Hayward, Trans. Amer. Ent. Soc. 1900, 191-238.
- Sloane, Proc. Linn. Soc. N. S. Wales 1921, 194-208.

In 1918 an American Entomologist, Mr. T. L. Casey, published a kind of «Catalogue raisonné» of the Bembidiini in his collection. In this the existing subgenera of *Tachys* are mostly transformed into genera, many new subgenera are proposed, and a

large number of specimens receive names. From a note at the end of the paper it appears that over eighty species were unknown to the author, from which it can only be inferred that he had not taken the trouble to consult the types. As only American insects are dealt with, I need not refer further to this memoir, which is no doubt comforting to the proprietor of the collection, but hardly likely to arouse enthusiasm among entomologists generally.

I have divided the species dealt with in this memoir into fourteen groups, some of which are natural, while others are largely artificial, but this in the present state of our knowledge seems almost inevitable: the first object aimed at has been to facilitate the determination of the various species. There is at the beginning a key for the groups, and under each group a key will be found for the species. One species (*poecilopterus*) appears twice in the *politus*-group, owing to a variability in one of the characters used in the key. These characters cannot all be seen adequately without the use of a microscope, and I have used one giving a magnification of about 75 diameters. At the end of the descriptions I have indicated as far as possible where the type

specimens are to be found, and in the case of new species, where no such indication is given, the type is in my own collection.

Except in the case of *nanus* the early stages are quite unknown. The habitat is almost always in the vicinity of water, but some species are found in moist places under refuse, dead leaves, etc.; a few species (*nanus* group) live under bark, and one or two (*haliploides* group) have been found in fungi. Little can be said at present regarding the area of distribution of the different species, though in certain cases it is known to be a wide one, e. g. triangularis, fumigatus, aratus, and bifoveatus.

The genus *Tachys* belongs to the tribe Bembidiini and presents therefore the subulate apical joint of the palpi exhibited by the genera of that group. It is further characterized by the truncature of the protibiae on the outer side at apex, the absence of a scutellary striole, the practical absence of pubescence (except in the *truncatus* group), the presence of eyes, and, except in rare instances, the presence of a recurved striole at the apex of the elytra.

I make below some observations on the various characters

presented by the numerous species; many of these have been made use of in the keys to the species at the head of the various groups.

Head. On the front there are always present two longitudinal furrows of varying depth, sometimes single, sometimes duplicated; they are usually short, parallel or diverging a little behind, and confined to the front, but in fumigatus they are very deep, converging and nearly meeting on the front of the clypeus (pl. III, fig. 17). The eyes are generally large and prominent, but sometimes flat, rarely pubescent (truncatus group), with two supraorbital setae (pl. III, ff. 13-18). A tooth is nearly always present in the emargination of the mentum, and in some species, just below the tooth, are two large forameniform punctures or pores (pl. IV, fig. 22); Mr. Roland Hayward drew attention to these in his paper on the American species, and their presence or absence provides a useful character for the primary subdivision of the species. The apical joint of the palpi is minute, as in all the Bembidiini, and easily broken off; the penultimate joint is more or less inflated and pubescent. The length of the antennae and of the joints is variable, but the submoniliform type predominates (pl. IV, fig. 20-21). A character of which some use is made is the relative length of joints 2 and 3; these are often equal, but sometimes joint 2 is longer than 3 (triangularis and truncatus groups), while sometimes joint 2 is shorter than 3 (nanus group). Prothorax. This varies a good deal in convexity, but in outline is usually subcordate, the base more or less truncate, often with oblique sides, and generally with the median part produced a little backwards. There are two setiferous punctures on each side, the front one a little before middle, the hind one on the hind angles or just in front of them. The hind angles may be acute, right, or obtuse, and sometimes project outwards as a sharp tooth (comptus) (pl. III, fig. 10); in the angle there is often a short longitudinal or oblique carina. The front transverse impression and median line are generally very slightly developed, but there is nearly always a transverse basal sulcus (wanting in the ovatus group). This sulcus is usually deep and often crenulate, frequently interrupted in the middle, with a pore at the centre of the interruption (two pores in the haliploides

332

group): as a rule it runs close to the base at sides and thence obliquely forwards on each side to the central line, thus forming a border of variable depth to the median part of the base. In looking for this character the specimen should be viewed from a little in front, when it can be clearly seen; it often happens that the sulcus is interrupted while the transverse basal depression is continuous (pl. III, ff. 1-12).

Elytra (pl. III, ff. 1-12). The elytral border is an important character, of considerable service in discriminating the various species. It is usually rounded at shoulder, but sometimes forms an angle, the basal part often directed slightly backwards : it does not reach the scutellum, but generally terminates near the base of stria 4, or if sufficient striae are not present it may be noted how far it passes the hind angles of the prothorax. In most groups the border is smooth, but in the *triangularis* group, and in some others, it is minutely setulose and occasionally dentate, sometimes quite strongly so (dentatus): the setae are very fugitive, but if the insect be examined sideways under the microscope, the minute pores from which they spring are, when present, clearly visible. In certain species (erotyloides and its allies), in which the border forms an angle at shoulder, a ridge runs downwards and inwards from the point of the angle towards the under side of the peduncle, isolating a triangular space on the basal area: this ridge is called the « clavicular fold », but it is a character of which I have not been able to make use in the classification. The striation is extremely variable and any number of striae may be present from 1 up to 9: the first to disappear is the seventh, then the sixth, and so on inwards to the first stria. This last is usually entire, but the other striae are 'nearly always shortened at both ends. The eighth stria is usually deep and entire, when it isolates a convex ninth interval, but in some groups it is interrupted at middle, sometimes disappearing also in front, and occasionally altogether; where not impressed it is represented by an irregular series of few but large punctures. At about three fifths from base it approaches stria 9, and at this point the two striae are only separated by the width of a setiferous pore. The striae may be smooth, but are often finely crenulate, sometimes punctate, or even formed entirely by punctures (porosus). A recurved striole is nearly always present at

the apex, and varies a good deal in shape, length, and position; as a rule its front end, which is sometimes hooked, is near the middle of the elytron, but in the nanus group it runs very near the margin, and exceptionally it may disappear altogether (acaroides and most of the truncatus group).

The setiferous dorsal pores on the elytra are of high taxonomic value. Occasionally the surface is covered with numerous punctures (interpunctatus), or there may be two rows of them (elegans), or they may occupy unusual positions, with or without accessory ones (comptus and its varieties). Normally, however, there are two dorsal pores, placed at about a third and two thirds from base on the inner margin of stria 3, and an additional pore on the inner margin of the striole, about half way along it. In the triangularis group the front pore may be displaced outwards as far as interval 6, the hind pore being then placed much further back, generally within or just in front of the hook of the striole, while the pore of the striole is far back near apex. In the *nanus* group these pores occupy a variety of different positions, and in the haliploides group only one very minute pore is present on the site of stria 3 and at about middle. Microsculpture (pl. IV, ff. 24-27). The microsculpture of the upper surface, to which attention has been devoted by Prof. F. Netolitzky in the allied genus *Bembidium*, offers a valuable character in Tachys also for differentiating the species. In examining the surface I have used throughout a magnification of 75 diameters, as I found that with a lower power the fine structure could not be adequately seen. In some species the surface is quite smooth (most of the *politus* group), but where microsculpture is visible, it may be roughly divided into four groups. -(1) isodiametric, when the somewhat irregular meshes of the reticulation are as long as wide. This is seen chiefly on the head, but may extend to the whole of the upper surface (nanus, gestroi, etc.); (2) moderately transverse, when the meshes are about twice as wide as long (elytra of *umbrosus*); (3) strongly transverse, when the meshes are four or five times as wide as long; (4) formed by extremely fine and closely placed transverse lines, which do not form any visible reticulation. The microsculpture is not by any means uniform on all parts of the body, but the head may show (1), the prothorax (2), and the elytra (4);

334

even on one part it may and frequently does vary considerably, and disclose two distinct forms on disk and at margins, so that in the descriptions it has often only been possible to indicate its character in general terms. It may be mentioned here that in some species and notably in those of the *haliploides* group there is sometimes the appearance of large pores on the upper side, without any break in the surface, and the course of the striae may sometimes be traced by their means. To a certain extent corresponding depressions may be seen on the under side of the elytra, but the source of this appearance seems to be chiefly intradermal, and I have referred to them as « underlying » pores.

Underside. The prosternum is generally more or less longitudinally sulcate (pl. IV, fig. 29). The metasternal process between the mesocoxae is usually, but not always, bordered (pl. IV, ff. 30-33); sometimes the border is fine (triangularis group); sometimes there is a deep arcuate groove, convex forwards, which leaves the process very widely bordered (common in the *politus* group); occasionally there is a straight transverse groove a little further back, tangential to the coxal cavities (fumigatus). On the ventral segments there is a single seta on each side of the median line: on the last segment there is also one on each side in the  $\mathcal{J}$ , on or near the margin, two on each side in the Q, generally all in line, but in the *triangularis* group the inner pair is more or less removed from margin (pl. IV, fig. 35). The surface is generally smooth, but in the triangularis group there are sometimes traces of pubescence on the last segment, and in the truncatus group the whole of the underside is minutely but always sparsely pubescent. Legs. The legs are rather slender and generally pale in colour. In the 3 protarsi (pl. IV, ff. 38, 39, 40) the two basal joints may be distinctly dilated (triangularis group), or slightly dilated (some of the politus group), but it often happens that they are not dilated at all. In pallescens and vilis only one joint is dilated. The material at my disposal, although plentiful in the case of some species, has been inadequate in others, and I have not therefore been able to make satisfactory use of this character beyond the indications given in the descriptions. As a rule the first joint of the hind tarsi is nearly or quite as long as the next three taken together. The claws are nearly always

smooth, but minutely denticulate in the nanus and haliploides groups.

The figures in the plates are diagrammatic, and are intended chiefly to represent the characters used in the keys. They are not necessarily drawn to scale, and in some of them, e. g. the denticulations on the elytral border of *dentatus*, a character has been exaggerated to render it visible. For greater clearness various omissions have been made, including the marginal channel and ninth stria of the elytra, and nearly all the fixed and other setae.

#### **KEY TO THE GROUPS**

- (8) Mentum with two circular pores (except 1 truncatus).
- (3) Elytra convex, short-ovate, a quarter to 2 three eighths only longer than wide, border practically smooth, antennae with joints 2 and 3 of equal length. recurvicollis - group
- (2) Elytra flat or moderately convex, gene-3 rally elongate (rarely less than half as long again as wide), border of elytra setulose, antennae with joint 2 longer than 3.

336

- Stria 8 impressed on apical half of elytron, 4 (7) apical striole present on middle of elytron. Length 1,8 - 4,0 mm.
- Elytra testaceous or piceous, rarely spot-5 (6) ted, form depressed and elongate, elytra nearly always more than half as long again as wide.

triangularis - group

- 6 (5) Elytra black (except var. languidus), with pale spots (except var. impictus), iridescent, elytra moderately convex and about half as long again as wide. quadrillum - group
- Stria 8 wanting, apical striole wanting 7 (4) or rudimentary (except ochrias). Length 1,0 - 1,8 mm.

truncatus - group

- (1) Mentum without circular pores. 8
- Apical striole on middle of elytron, or 9 (26) obsolete.
- 10 (25) Elytra with two dorsal pores (exceptionally more), basal sulcus of prothorax not having two pores at middle, claws not denticulate.

- 11 (24) Stria 8, at least on apical half, and apical striole both present.
- 12 (23) Frontal furrows not exceptionally deep, not converging in front and nearly meeting on front margin of clypeus, labrum truncate or moderately emarginate.
- 13 (16) Stria 8 interrupted at middle, or, if entire, only lightly impressed on basal half.
- 14 (15) Stria 8 completely interrupted at middle, and represented by large pores in front. expansicollis - group
- 15 (14) Stria8sub-interrupted at middle, or lightly and irregularly impressed on basal half, with distinct microsculpture.

exaratus - group

politus - group

- 16 (13) Stria 8 entire and at least moderately deep throughout, form generally convex, never depressed.
- 17 (18) Elytra fully striate, the striae punctate or crenulate, form moderately convex. notaphoides - group
- 18 (17) Elytra not fully striate (except klugi).
- 19 (22) Prothorax with a transverse basal sulcus, shoulders of elytra smooth and rounded.
- 20 (21) Hind angles of prothorax adjoining or close to base of elytra.
- 21 (20) Hind angles of prothorax projecting laterally as an acute tooth at some distance

337

from the part of base in contact with elytra. comptus - group 22 (19) Prothorax without a transverse basal sulcus, shoulders of elytra dentate. ovatus - group 23 (12) Frontal furrows long and deep, converging in front and nearly meeting on front margin of clypeus, labrum semicircularly emarginate. *fumigatus* - group 24 (11) Stria 8 and apical striole obsolete, border setulose and dentate. Length 1,5 mm. acaroides - group 25 (10) Elytra with only one dorsal pore, basal sulcus of prothorax with two pores at middle, claws denticulate, form very short and convex. Length 1,5 - 2,5 mm. haliploides - group 26 (9) Apical striole close to margin, border setulose, claws denticulate, form depressed or moderately convex. nanus - group

### recurvicollis-group.

Colour brown, form rather convex. Head with deep single furrows, diverging behind, mentum with two pores, antennae Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Marzo 1925). 22

with joints 2 and 3 equal. Hind angles of prothorax without carina. Elytra with border practically smooth, wide, convex, ovate, punctate-striate, stria 8 obsolete in front, striole fairly long and deep, not hooked, nearer margin than suture, the pore placed far back, two dorsal pores. Microsculpture present. Prosternum slightly sulcate, metasternal process finely bordered, Q with setae on last ventral segment all near margin, protarsi  $\mathcal{A}$  with two dilated joints, claws simple.

#### **KEY TO THE SPECIES**

(2) Dorsal pores on inner margin of stria 3

 at about a fourth and three fifths.
 *recurvicollis* nom. nov.

 2 (1) Dorsal pores on inner margin of stria 4

 at basal fourth and just in front of striole. *luxus* sp. nov.

### Tachys recurvicollis nom. nov.

Tachys reflexicollis Bates Trans. Ent. Soc. Lond. 1883, 268. Length: 2,75 - 3,0 mm. Dark testaceous red, elytra with a black transverse band at apical third; palpi, joints 1 to 3 of antennae (rest fuscous), legs, and underside light testaceous. Head with single deep elongate furrows, divergent behind, and extending to back of eye, eyes not prominent, mentum with two pores, antennae stout, joint 2 = 3. Prothorax cordate, though not much contracted behind, a third wider than long, base bisinuate, sides with rather wide marginal channel, gently rounded in front and sinuate behind, hind angles acute, reflexed, slightly projecting and without carina, the adjacent surface explanate, with a depression on the explanate part; median line distinct, basal sulcus moderately deep, not quite reaching hind angles, sinuate on each side between the point where it leaves base and middle, very clearly punctate, uninterrupted, the pore at middle no larger than the others. Elytra rather short, ovate, pointed behind, and very convex, sides strongly rounded, marginal channel wide, border smooth, almost angled at shoulder, and extending inwards to stria 4; striae 1 and 2 moderately impressed, 3 very lightly, all of them punctate, the other striae just traceable here and there, 1 entire, 2 and 3 abbreviated at extremities, 8 deep behind, widely interrupted though traceable in middle, represented by large pores

338

in front, striole fairly long and straight, though curving inwards in front, nearer margin than suture, the pore far back at about apical third; front dorsal pore on, hind one just inside stria 3, at about a fourth and three fifths respectively. The microsculpture of the elytra consists of fine almost invisible transverse lines; on the prothorax these lines are quite distinct and form very wide meshes; on the head the meshes are almost isodiametric. Prosternum slightly sulcate; metasternal process finely bordered; the setae on apical ventral segment Q not far from margin, protarsi  $\sigma$  with two dilated joints.

Very closely allied to the palaearctic T. bisulcatus Nic., but larger and darker, with the apical joints of the antennae fuscous, and a dark band on the elytra behind. Head a little larger, the eyes not quite so flat, prothorax and elytra similar, but striae 3 - 4seem a little less developed. In bisulcatus the microsculpture of the prothorax is barely visible; on the head the reticulation is less distinct, but the meshes are larger, and clearly isodiametric.

JAPAN: Nagasaki (G. Lewis). The type is in the British Museum. I have had to change the name on account of Motchulsky's T. reflexicollis from New York.

### Tachys luxus sp. nov.

Length: 2,8 mm. Chestnut-brown, very shiny, elytra a little lighter towards apex, antennae and legs testaceous. Head rather wide, with deep single furrows curving round behind eyes, which are moderately prominent, mentum with two pores, antennae slender, joint 2 = 3. Prothorax moderately convex, two thirds wider than long, base much wider than apex, sides with strongly reflexed border, explanate behind, rounded in front, and sinuate rather near hind angles, which are right, sharp, and a little reflexed, without carina: median line and front transverse impression clearly marked, basal sulcus deep, punctate, uninterrupted, and without special pore, the foveae inside hind angles wide and very deep. *Elytra* moderately convex, with strongly rounded sides, only a fourth longer than wide, border practically smooth, though one or two minute setae are visible, rounded at shoulder and extending inwards to stria 4; four vaguely crenulate dorsal striae, -1 entire and fairly deep, 2 shallower, 3 and 4 very lightly impressed, 5 visible close to base, 2 to 4 vaguely reaching base,

shortened behind, 8 deep on apical half, represented by pores in front, striole rather long, not far from margin, but curving strongly inwards in front, the pore far back near apex, dorsal pores on inner margin of stria 4, at basal fourth and just in front of . striole. Microsculpture of fine transverse lines, just visible on elytra, more distinct on prothorax, reticulate with wide meshes on the head. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two dilated joints.

Rather differently coloured from *recurvicollis*, wider, and less convex. Eyes rather more prominent, prothorax wide, basal sulcus less sinuate, foveae deeper, elytra much wider and less pointed at apex, the striae only vaguely crenulate, dorsal pores adjoining stria 4 instead of 3, microsculpture rather finer.

BURMA: Carin Asciuii Ghecu, 1400 - 1500 m. (L. Fea) 1 ex.  $\mathcal{J}$  in the Genoa Civic Museum.

### triangularis-group.

Colour generally testaceous, sometimes brown or piceous, form depressed and elongate. Head with frontal furrows single and generally deep, two pores on mentum (pl. IV, fig. 22), antennae usually filiform, joint 2 longer than 3. Prothorax without carina in the hind angles. Elytra flat, the border setulose and sometimes dentate, generally rounded at shoulder; striae variable in number, crenulate, 8 interrupted, striole on middle of elytron, fairly long, curved, generally hooked in front, with its pore far back; front dorsal pore at varying positions from stria 3 to stria 6, hind one generally behind hook of striole. Microsculpture nearly always present. Prosternum slightly sulcate, metasternal process narrowly bordered; last ventral segment often setulose, Q with inner pair of pores distant from border; protarsi 3 with 2, rarely 1, evidently dilated joints; claws simple. Owing to lack of material, I cannot say that the sexual characters mentioned above are constant throughout the group.

#### **KEY TO THE SPECIES**

- 1 (14) Front dorsal pore on or immediately adjoining stria 3.
- 2 (9) Elytra with border dentate.

- 3 (6) Elytra fully striate (outer striae lightly impressed), the striae punctate, border angulate at shoulder.
- 4 (5) Hind dorsal pore on inner margin of stria 3 at a third from apex. Length 2,0 mm. dentalus sp. nov.
- 5 (4) Hind dorsal pore on outer margin of stria 3 just in front of the striole. Length 1,9 mm. serratus sp. nov.
- 6 (3) Elytra 2-striate.
- (8) Hind dorsal pore just behind the hook 7 of the striole, border rounded, colour brown with two light spots on each elytron. Length 2,7 mm. orphninus sp. nov.
- (7) Hind dorsal pore in front of the hook 8 of the striole, border angulate, colour testaceous. Length 2,0 mm. impressipennis Motch.
- 9 (2) Elytra with border not or very indistinctly dentate.
- 10 (11) Shiny, flat, antennae short and pale. Length 2,5 mm.
- 11 (10) Sericeous, subconvex, antennae long and dark. Length. 2,75 mm.
- 12 (13) Stria 2 much more lightly impressed than 1.

341

zonatus nom. nov.

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- 13 (12) Stria 2 hardly less impressed than 1.
- 14 (1) Front dorsal pore placed nearer margin than stria 3.
- 15 (34) Front dorsal pore on or adjoining stria 4 (if on interval 4, then nearer to stria 4 than stria 3).
- 16 (33) Elytra not fully striate, border behind shoulder not dentate.
- 17 (32) Elytra with at least two moderately impressed striae.
- 18 (31) Elytra with stria 3 more or less similar to the others.
- 19 (28) Antennae long, filiform, colour testaceous, or if darker somewhat iridescent. Length 2,5 - 3,0 mm.
- 20 (27) Base of prothorax wider than apex, hind angles at least slightly obtuse, elytra with some dark markings, microsculpture present.
- 21 (26) Prothorax sinuate behind, elytra testaceous with a dark band across middle.

sericans Bates sericans var. vixstriatus Bates

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22 (23) Elytra with shallow striae, obsolete at sides, colour pale testaceous with a very faint dark transverse band. Length transumbratus Bates 2,75 mm. 23 (22) Elytra with fairly deep striae, colour dark testaceous, with a black band across middle. 24 (25) Elytra nearly two thirds longer than triangularis wide. Length 3,0 mm. var. incertus v. nov. 25 (24) Elytra less than a half longer than wide. triangularis Nietn. Length 2,75 mm. 26 (21) Sides of prothorax not sinuate behind, elytra brown with a dark cloud on disk. Length 2,75 mm. opalescens sp. nov. 27 (20) Prothorax equally contracted at extremities, hind angles right and sharp, elytra testaceous, with three deep striae, no microsculpture present. Length 2,5 mm. impressus Motch. 28 (19) Antennae short, submoniliform, elytra narrow. Length 2,0 mm. 29 (30) Microsculpture consisting of very fine transverse lines, colour piceous. vilis sp. nov. 30 (29) Microsculpture consisting of wide but

### 342

	evident meshes, colour dingy testaceous.	pallescens Bates
31 (18)	Elytra with stria 3 on each side present	
10.	and converging strongly in front, obso-	
	lete behind front dorsal pore, elytra	
	very shiny, with a dark band across	
	middle. Length 2,7 mm.	lissonotus sp. nov.
32 (17)	Elytra with one stria only, faintly im-	
	pressed, surface very shiny, colour testa-	
	ceous, with a black band across elytra.	
-	Length 2,5 mm.	cinctus Putz.
33 (16)	Elytra fully striate, border behind shoulder	
	dentate. Length 2,0 mm.	delicatus sp. nov.
34 (15)	Front dorsal pore ou stria 5 or interval 6.	
35 (36)	Front dorsal pore on stria 5, border	
	behind shoulder dentate, elytra piceous.	
	Length 2,2 mm.	cameroni sp. nov.
36 (35)	Front dorsal pore on interval 6, border	
	behind shoulder not dentate, elytra	and an in the party of
	testaceous, though often with a dark	a state in the state where the
	cloud on disk. Length 2,8 - 4,0 mm.	
37 (50)	Elytra not fully striate, or with the outer	
	striae very faint.	- Shart Stranger Stranger
38 (49)	Microsculpture on head between eyes	mines diffe southers

formed by isodiametric or moderately wide meshes.

- 39 (44) Basal sulcus of prothorax uninterrupted and without pore at middle. Length 2,75 - 3,0 mm.
- 40 (43) Head wide, eyes moderately prominent, inner striae fairly deep, intervals wide.
- 41 (42) Elytra with four or five impressed striae. euryodes Bates
- 42 (41) Elytra with two impressed striae.
- 43 (40) Head narrow, eyes very flat, striae fine, intervals narrow.
- 44 (39) Basal sulcus of prothorax more or less interrupted and with a pore at middle.
- 45 (48) Basal sulcus with an elongate pore at middle, or with the median line passing through it, elytra not more than two thirds longer than wide, the disk more or less clouded. Length 3,25 - 4,0 mm.
- 46 (47) Prothorax about half as wide again as long, stria 2 not interrupted before apex. sericeus Motch.
- 47 (46) Prothorax about a third as wide again as long, stria 2 interrupted for some disprolixus Bates tance before apex.

48 (45) Basal sulcus with a rounded pore at

obsolescens Bates

sundaicus sp. nov.

middle, elytra three fourths longer than wide, testaceous, with only the suture darker. Length 3,1 mm. cardoni sp. nov.

49 (38) Microsculpture on head between eyes formed by fine transverse lines, elytra testaceous, with a dark sericeous cloud. Length 3,0 mm.

tropicus Nietn.

50 (37) Elytra fully striate, elytra dark testaceous red with the whole of the disk bathyglyptus sp. nov. brown-black. Length 4,0 mm.

Tachys dentatus sp. nov. (pl. III, fig. 1).

Length: 2,0 mm. Testaceous, elytra sometimes with a faint dark band behind middle. Head wide, with fairly deep wide single furrows, very short and not diverging behind, but extending on to clypeus in front, eyes small and flat, mentum with two pores, submentum fringed with setae, which stretch forward over mentum, antenae short and submoniliform, joint 3 not much shorter than 2. Prothorax cordate, half as wide again as long, sides strongly sinuate behind, angles a little obtuse and rounded,

with a rudimentary carina; basal sulcus indistinctly crenulate, interrupted at middle by a longitudinal ridge, the median line sometimes continued along the ridge through the interruption, a few minute setae visible on the border near front angles. Elytra slightly truncate at apex, border angulate at shoulder, evidently dentate and setulose, the teeth rather widely placed; fully striate, the striae clearly punctate but shallow, especially at sides, and a little arcuate, 1 to 6 reaching, or nearly reaching base, 7 and 8 stopping short of base, 8 deep behind, represented by some large punctures in front and a few small ones along middle, 5 and 6 terminating a long way from apex, 7 curving round behind them, parallel with 8, apical striole short, curving inwards and ending a little nearer suture than margin, joining (or nearly so) the extremities of striae 3, 4, and 7, the pore rather behind middle; dorsal pores on inner side of stria 3, at about a third and two thirds. No obvious microsculpture, the head being particularly smooth and shiny. Body beneath minutely and sparsely setulose, prosternum not sulcate, metasternal process very faintly bordered.

MALAY STATES: Singapore (C. J. Saunders – coll. W. J. Saunders) 3 ex. SIAM: Renong (Doherty – Brit. Mus.) 1 ex.

CAMBODIA: Kompong Kedey (R. Vitalis de Salvaza) 1 ex. and « Cambodia » (Brussels Mus.) 1 ex. Cochin-China : Long Xuyen (Dorr - coll. E. Fleutiaux) 1 ex. Java: Batavia (Grabouvsky coll. Sloane) 1 ex.; Soekaboemi (Mrs. Walsh - Brit. Mus.) 1 ex.; Princes Island (Dr. Dammermann - Buitenzorg Mus.) 1 ex.; « Java » (Koller - Brussels Mus.) 1 ex. SUMATRA: Medan (J. B. Corporaal).

### Tachys serratus sp. nov.

Length: 1,8 - 2,0 mm. Testaceous, elytra each with a vague flavous patch towards apex. Head wide, furrows single short and fairly deep, eyes flat, mentum with two pores, antennae submoniliform. Prothorax cordate, half as wide again as long, base with its sides oblique, wider than apex, sides moderately sinuate behind, with the marginal pore projecting just in front of the angle, which is obtuse and appears truncated, the carina obsolete; basal sulcus vaguely crenulate, uninterrupted, angulate and without pore at middle, the basal margin behind the sulcus finely rugose. Elytra truncate at apex, border angulate at

shoulder, dentate and setulose, the teeth not far apart, visibly sinuate behind shoulder; fully though rather lightly striate, especially at sides and behind, stria 1 entire, inner striae nearly reaching base, 2 diverging outwards behind without reaching apex, 4 to 7 all terminating a long way from apex, 8 obsolete in front, striole short and straight, on middle of elytron, the pore far back near apex; dorsal pores on interval 4, adjoining stria 3, at two fifths, and just in front of striole. No appreciable microsculpture. Underside minutely setulose, prosternum not sulcate, metasternal process finely bordered.

Very near *dentatus* but a little smaller, flatter, and less shiny. The hind angles of the prothorax appear truncated, the basal sulcus without longitudinal ridge at middle; elytra with the denticulations of the border closer together, the striae less impressed, the striole straight, dorsal pores on interval 4.

CELEBES: Macassar (Dr. O. Beccari - Genoa Civic Mus.) 3 ex. and « Celebes » (Berlin Zool. Mus.) 2 ex. in coll. Schaum. Philippine Is.: Los Baños (Dr. C. F. Baker - Brussels Mus.) 1 ex. The type is in the Genoa Civic Museum. In the example from the Philippine Is. there is some transverse microsculpture on the back of the head.

### Tachys orphninus sp. nov.

Length: 2,7 mm. Brown, joints 1 to 3 of antennae and legs testaceous, two rather large pale yellowish spots on each elytron. Head with rather deep wide single furrows, eyes not prominent, mentum with two pores, antennae elongate, joint 2 longer than 3. Prothorax cordate, a little more than a third wider than long, base slightly narrower than apex, sides rounded in front, strongly contracted and somewhat explanate behind, only faintly sinuate, the hind lateral pore breaking the continuity of outline, hind angles right, without carina; median line fine, basal sulcus not far removed from margin, fairly deep, inconspicuously crenulate, and uninterrupted, without pore at middle. Elytra elongate, flat, border reaching inwards to stria 4, setulose and clearly denticulate behind shoulder, but not further back; stria 1 entire, rather lightly impressed, 2 faint and abbreviated at extremities, both vaguely and minutely crenulate, 3 and 4 just traceable, 8 deep behind, widely interrupted in middle, striole fairly long,

curved, hooked in front and ending a little nearer suture than margin, the pore rather far back and at some distance from its inner margin, interval 1 raised throughout; front dorsal pore on outer side of stria 3 at about two fifths, hind one adjoining the hook of the striole. Microsculpture very distinct, the reticulations on the elytra forming moderately wide meshes; on the prothorax behind the meshes are not so wide, while in front and on the head they are almost isodiametric.

Allied to *triangularis*, but, apart from its coloration, differring in several particulars. Head with much flatter eyes, prothorax narrower, basal sulcus less distinctly crenulate, and without any central pore; elytra longer, narrower, and flatter, shoulders dentate, only two lightly impressed dorsal striae, front dorsal pore placed on outer side of stria 3 instead of inner side of 4. Microsculpture of elytra and prothorax much more distinct.

TIMOR : Goenoeng Leo, 2000 - 4000 ft. (W. Doherty) 1 ex. in my collection.

Tachys impressipennis Motch. Etud. Ent. VIII, 1859, 39; Putz. Ann. Mus. Civ. Gen. VII, 1875, 745 (pl. III, fig. 2).

346

Tachys dohertyi Jord. Nov. Zool. I, 1894, 111.

Tachys sinuaticollis Sloane Proc. Linn. Soc. N. S. Wales 1903, 579; id. Proc. Linn. Soc. N. S. Wales 1921. 200 and 207.

Length: 1,75-2,0 mm. Pale testaceous, elytra sometimes faintly clouded on disk. Head (pl. III, fig. 13) with short shallow furrows, eyes flat, mentum with two pores, antennae submoniliform. Prothorax cordate; half as wide again as long, base with its sides oblique, hardly wider than apex, sides gently sinuate behind, the angles obtuse, somewhat reflexed, and rounded; - basal sulcus not crenulate, hardly interrupted, and without pore at middle. Elytra depressed, the border finely dentate and setulose, the denticulations placed moderately close together, forming a very obtuse angle at shoulder and thence directed a little backwards and inwards to a point well inside the hind angles of prothorax; strike 1 and 2 faintly impressed and equally faintly crenulate, the remainder obsolete, though here and there traceable, 8 very irregularly impressed on apical third, striole short, curving slightly inwards, its pore much nearer apex than front; dorsal pores small but clear, on or near the site of stria 3, at

347

two fifths from base and just in front of the striole. The fine transverse lines of the microsculpture are more clearly visible on the prothorax than on the elytra; on the head there is a faint transverse reticulation. Prosternum slightly sulcate, metasternal process finely bordered, last ventral segment with traces of pubescence.

Smaller, narrower, and lighter in colour than *triangularis*, without any black band across the elytra. Head with the eyes flat, antennae submoniliform; prothorax with basal sulcus not crenulate and without pore at middle; elytral border more distinctly dentate and setulose, only two shallow dorsal striae, hind dorsal pore in front of striole.

I have seen two typical specimens, one in the Brussels Museum (coll. Putzeys), and one in the Berlin Zoological Museum (coll. L. W. Schaufuss), and have examined others in the Deutsch. Ent. Museum (coll. Schaum). I saw D<sup>r</sup> Jordan's type in Mr. René Oberthür's collection at Rennes, and Mr. Sloane has identified an example of Motchulsky's species which I sent to him with his *sinuaticollis*. The species is found all over South East Asia, and extends southwards to Australia, though apparently not as far

north as Japan.

Tachys zonatus nom. nov.

Tachys ephippiatus Putz. (not Say) Ann. Mus. Civ. Gen., VII, 1875, 747.

Length: 2,3-2,5 mm. Light testaceous, faintly iridescent, with head, front margin of prothorax, elytra, and middle joints of antennae light brown. The shoulders of the elytra are quite covered by a large light testaceous spot, extending inwards at base to suture and along margin nearly to middle, and there is also an oblique oblong spot of the same colour at a third from apex. Head with short, moderately impressed, single furrows, eyes not prominent, mentum with two pores, antennae submoniliform, joint 2 longer than 3. Prothorax cordate, half as wide again as long, equally contracted at extremities, sides without any sinuation behind, the angles obtuse, a little reflexed, with the tubercle from which the hind seta springs only just showing in front of the angle, no carina; basal sulcus narrow, but fairly deep, indistinctly crenulate, uninterrupted and without pore at

middle. Elytra oval, rather flat, not quite half as long again as wide, border minutely setulose, rounded at shoulder, and extending inwards approximately to base of stria 4; striae shallow, vaguely crenulate, 4 entire, 2 very lightly impressed, 3 to 5 just traceable, 8 fairly deep at extremities, quite wanting at middle, striole curved but not hooked in front, the pore far back and a little removed from the striole; front dorsal pore placed just before middle on inner margin of stria 3, hind one behind the front end of striole. Microsculpture very fine and hardly appreciable on elytra and prothorax, nearly isodiametric on head. Prosternum slightly sulcate, metasternal process finely bordered, last ventral segment setulose, protarsi  $\Im$  with two dilated joints.

Allied to *triangularis*, but rather smaller and with the elytra quite otherwise coloured. Eyes less prominent, antennae submoniliform, sides of prothorax not sinuate, basal sulcus without pore at middle, striae of elytra very lightly impressed and with only a trace of crenulation, front dorsal pore on stria 3.

CELEBES: Macassar ( $D^r O. Beccari$ ) 3 ex. The type (Q), which I have examined, is in the Genoa Civic Museum; the two other examples, which are not apparently cotypes, are a little smaller than the type and the colour of the elytra is more uniform. Two further specimens, also from Celebes (coll. Schaum), are in the Berlin Zoological Museum. I have had to change the name on account of the American *T. ephippiatus* Say.

Tachys sericans Bates Trans. Ent. Soc. Lond. 1873, 297.

Length: 2,75 mm. Elongate, depressed, and sericeous. Testaceous, with light brown head, elytra with a very vague transverse band across middle slightly darker than the general coloration; palpi, joint 1 of antennae (rest brown), and legs light testaceous. *Head* with fairly deep wide single furrows, diverging behind, eyes not prominent, mentum with two pores, antennae long and filiform, joint 2 much longer than 3. *Prothorax* cordate, half as wide again as long, base with its sides slightly oblique, barely wider than apex, sides well rounded in front and sinuate before base, the angles right, reflexed, without carina; basal sulcus not very deep, rather indistinctly crenulate, interrupted at middle but without pore, the median line, which is clearly marked, widening near base and passing through the

interruption, though without reaching margin. *Elytra* rather flat, elongate-ovate, border minutely setulose but not dentate, reaching inwards a little beyond base of stria 4 and ending very abruptly; stria 1 shallow and vaguely crenulate, reaching apex but not base, 2 very lightly impressed, 3 and 4 just visible, the rest obsolete, 8 deep on apical third only, obsolete in front, striole fairly long and strongly curved, hooked in front, the pore far back near apex; front dorsal pore large, on stria 3, just before middle, hind one in the hook of the striole. Microsculpture distinct, consisting of very fine transverse lines on the elytra and prothorax, the meshes of the reticulation on the head moderately transverse. Prosternum sulcate, metasternal process narrowly bordered, protarsi  $\Im$  with two rather strongly dilated joints.

Bates compares his species with the palaearctic T. fulvicollis Dej., in which the front dorsal pore is placed much further forward and on stria 4. Compared with triangularis the species is larger, longer, and less deeply striate, sericeous and not iridescent. Head with much less prominent eyes; prothorax wider, with rectangular hind angles, the basal sulcus much less clearly crenulate; elytra longer and smoother, front dorsal pore placed further back and on stria 3 instead of on the inner side of stria 4, stria 2 not deepened at apex; microsculpture of prothorax and elytra much more visible.

Japan. The type is in the British Museum.

Var. vixstriatus Bates Trans. Ent. Soc. Lond. 1873, 331. It is curious that Bates should have described vixstriatus without any reference to sericans, which precedes it by only a few pages. The colour is darker, the head (and sometimes prothorax), the elytral band, and joints 2 to 10 of the antennae darker. The eyes are rather more prominent, and the striae, especially 2, a little more impressed. The only examples known seem to be those taken by Mr. George Lewis in China at Kiu-Kiang on the Yang-tsze-Kiang. The type is no doubt in Mr. René Oberthür's collection, but I was unable when at Rennes to discover it. I have, however, seen a cotype, now in the Berlin Zooloogical Museum. According to the description the colour is rather variable, and this cotype is evidently one of the darker specimens. Tachys transumbratus Bates Ann. Mus. Civ. Gen., XXXII, 1892, 291.

Length: 2.6-2.7 mm. Pale testaceous, the head and antennae a little lighter, elytra with only a vague fuscous transverse band, which hardly reaches side margins. Head with deep single furrows, diverging behind, eyes moderately prominent, mentum with two pores, antennae rather long, filiform, joint 2 much longer than 3. Prothorax cordate, nearly two thirds wider than long, base with its sides oblique, a little wider than apex, sides gently sinuate behind, the angles somewhat obtuse and reflexed, without carina; median line clearly impressed, basal sulcus deep, finely crenulate, narrowly interrupted and with a pore at middle. Elytra depressed, not much more than a third longer than wide, border finely setulose, rounded at shoulder, and extending inwards to base of stria 4; striae subcrenulate, inner striae moderately impressed, hardly reaching base, 1 and 2 reaching apex, 2 very shallow behind, arcuate and parallel with striole, 3 to 5 progressively fainter, 6 and 7 barely traceable, 8 widely interrupted at middle, striole curved and slightly hooked, the pore far back near apex; front dorsal pore on inner side of stria 4 at about a third, hind one in the hook of the striole. Microsculpture of elytra and prothorax hardly visible, distinct and formed by moderately transverse meshes on the head. Prosternum slightly sulcate, metasternal process finely bordered, protarsi J with two dilated joints.

350

At first sight this species seem hardly more than a variety of *triangularis*, but it is rather wider, much paler in colour, and has only a vague fuscous band across the elytra. Eyes less prominent, basal sulcus more distinctly interrupted and with a more evident pore at middle, the striae shallower, 2 much less impressed and interval 1 more contracted near apex, the meshes of the reticulation on the head wider.

BURMA : Senmigion (L. Fea - Genoa Civic Mus.); Moulmein (*Fieber* - Vienna Mus.) The type, which I have examined, is in the Genoa Civic Museum.

Tachys triangularis Nietn. Ann. Mag. Nat. Hist. (3) II 1858, 422; Schaum Berl. Ent. Zeitschr. 1863, 91; Bates Trans. Ent. Soc. Lond. 1873, 298; id. Ann. Mag. Nat. Hist. (5). XVII. 1886, 151; id. Ann. Soc. Ent. Fr. 1889, 274; Sloane Proc. Linn. Soc. N. S. Wales 1920, 321; id. Proc. Linn. Soc. N. S. Wales 1921, 200 and 207 (pl. III, fig. 3).

Tachys atriceps W. Macl. Trans. Ent. Soc. N. S. Wales II. 1871, 113; Sloane Proc. Linn. Soc. N. S. Wales 1896, 359 and 372.

Tachys trechiformis Jord. Nov. Zool. I, 1894, 111.

Length: 2.50 - 2.75 mm. Testaceous and slightly iridescent, with brown head and a black transverse band across middle of elytra (occasionally obsolete). Head (pl. III, fig. 14) with single deep wide frontal furrows, front supraorbital pore large, eyes prominent, antennae long and filiform (pl. IV, fig. 19), joint 2 much longer than 3. Prothorax more or less cordate, a little more than half as wide again as long, sides gently sinuate behind, base truncate with its sides a little oblique, slightly wider than apex, hind angles obtuse and reflexed, without carina, hind marginal pore large, on the angle and producing a slight prominence; median line fine but clear, basal sulcus crenulate, not far removed from base, nearly obsolete at sides, uninterrupted and with a pore at middle. Elytra flat, not quite half as long again as wide, the border minutely setulose, but hardly perceptibly dentate, rounded at shoulder and extending inwards to the base of stria 4; striae moderately impressed and finely crenulate, inner ones, especially 3 and 4, arcuate, 1 and 2 a little deeper than the others, 1 to 3 reaching base, 2 to 6 abbreviated behind, though 2 often deepens again near apex, where it curves a little outwards, parallel with the striole, 7 hardly visible, 8 impressed close to apex and for a short distance obliquely at apical third, obsolete at middle, represented by pores in front, striole curved and not very long, rather hooked in front, ending on middle of elytron, the pore far back near apex; front dorsal pore on inner side of stria 4 at a third, hind one just inside the hook of the striole. Microsculpture of prothorax and elytra inconspicuous, consisting of extremely fine transverse lines, that of head very clear, the meshes nearly isodiametric on vertex, but more or less transverse at sides and behind. Prosternum slightly sulcate, metasternal process finely bordered (pl. IV, fig. 30); last ventral segment minutely setulose (though the setae are extremely fugitive), the pores small, inner pair Q far removed from margin

(pl. IV, ff. 34, 35), protarsi 3 with two dilated joints (pl. IV, fig. 38).

I have examined the types of *triangularis* and *trechiformis* now in the Berlin Zoological Museum and Mr. René Oberthür's collection respectively. I have not seen the type of *atriceps*, but I have Australian examples in my collection; Bates in 1873 identified Macleays species with Nietner's, and Mr. Sloane accepts this identification.

The habitat of the species is a very wide one, extending from Japan to Australia, and westwards as far as Egypt.

### Var. incertus v. nov.

(5) XVII, 1886, 151.

Length: 3.0 mm. A little larger and darker than the type form. Frontal furrows a little deeper. Prothorax with sides more distinctly sinuate close to the hind angles, which are consequently less obtuse, median line widening behind to form an elongate pore, and extending a little beyond basal sulcus, which is further removed from base, the area between sulcus and base having some slight longitudinal striation. Elytra nearly two thirds as long again as wide, the striation more conspicuous, inner striae deeper, 8 moderately deep on whole of apical third (as it sometimes is in triangularis), front dorsal pore very large, occupying the whole of interval 4. Microsculpture similar, except on head, where the meshes of the reticulation are transverse.

This form is so very near *triangularis* that I hesitate to treat it as a different species. The two examples in the British Museum taken by Mr. George Lewis in Ceylon are the only ones I have seen.

### Tachys opalescens sp. nov.

Length: 2.75 mm. Dark castaneous, shiny, the head brown, elytra with an indeterminate dark shade on disk and along margins, joints 1 and 2 of antennae and legs flavous, surface iridescent, in certain lights opalescent. Head with deep single furrows, diverging behind, eyes moderately prominent, mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax cordate, half as wide again as long, sides with only a

trace of sinuation behind, caused by the projection of the hind lateral pore, base wider than apex, its sides very oblique, the hind angles obtuse and reflexed, without carina; basal sulcus deep, crenulate, uninterrupted, the pore at middle a little larger than the adjacent ones, a large rounded fovea on each side of base, the basal border with some longitudinal striation. Elytra moderately convex, not quite half as long again as wide, with square shoulders, border minutely setulose, rounded at shoulder, and reaching base of stria 4; striae rather lightly impressed, crenulate and somewhat arcuate, 4 especially being deflected outwards near the front dorsal pore, hardly reaching base, 1 reaching apex, 2 to 4 progressively fainter and disappearing behind, the rest obsolete, 2 interrupted behind but reappearing as a shallow fovea close to apex, 8 deep behind, obsolete in middle, represented by pores only in front, striole fairly long, curved and hooked in front, ending nearer suture than margin, its pore far back near apex; front dorsal pore fairly large, occupying the outer half of interval 4, the hind one in the hook of the striole. Microsculpture very fine but just visible on elytra and prothorax, distinct on head, where there is a reticulation of rather wide meshes. Prosternal process slightly sulcate, metasternal process narrowly bordered, protarsi 3 with two rather strongly dilated joints.

Longer and also wider than *triangularis*, with a dark shade, not a band, on the elytra. Sides of prothorax hardly sinuate behind, striae of the elytra much more lightly impressed, 2 less impressed behind, front dorsal pore occupying only outer half of interval 4.

CEVLON: Negombo (Dr. W. Horn). I am indebted to Dr. Horn for the type, but there are cotypes both in the Deutsch. Ent. Museum and the Brussels Museum.

Tachys impressus Motch. Bull. Mosc. 1851. IV. 508.

Length: 2.5-2.7 mm. Rather dark testaceous, shiny; head brown, elytra very faintly clouded. *Head* with fairly deep furrows, which though single are bounded outwardly by a rounded ridge, eyes rather prominent, mentum with two pores, antennae filiform, joint 2 much longer than 3. *Prothorax* cordate, half as wide again as long, equally contracted at extremities, sides strongly

Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Marzo 1925).

rounded and sinuate some little way before base, the angles right, very sharp and strongly reflexed; basal sulcus deep, punctate, very narrowly interrupted and with a large pore at middle. Elytra rather flat, two thirds as long again as wide, border setulose, rounding shoulder very sharply and reaching base of stria 4; striae very clearly punctate, 1 and 2 deep, hardly reaching base, though 1 reaches apex, 2 nearly obsolete behind, deflected outwards a little before apex, where it forms a shallow oblong fovea, 3 impressed in front only, where it curves inwards and reaches base, 4 rather faint, the remainder obsolete, 8 impressed over apical third only, striole fairly long, curved and slightly hooked in front, the pore near apex; front dorsal pore at about a third, occupying the whole of interval 4, the hind one in the hook of the striole. Microsculpture inconspicuous throughout, though some vague tranverse lines are just visible on head. Prosternum with a slight sulcus, metasternal process narrowly bordered, protarsi 3 with two moderately dilated joints.

There is a typical example of this species in the Deutsch. Ent. Museum (coll. von Manderstjerna > coll. von Heyden), and another specimen in the British Museum (coll. Jekel), which probably also came from Motchulsky's collection. In the Prague Museum there are several specimens taken by Helfer, ostensibly in Burma, and this was probably the source whence Motchulsky's material came.

INDIA: Calcutta. BURMA: Tenasserim. An example from Indrapoëra in S. W. Sumatra (J. Weyers - Brussels Mus.) differs a little from the typical form, but the differences seem slight and are probably individual only.

## Tachys vilis sp. nov.

Length: 2,0 mm. Piceous, prothorax above and beneath, sides and apex of elytra dark testaceous, joint 1 of antennae and legs flavous. Head with moderately deep single furrows, diverging behind, eyes rather flat, mentum with two pores, antennae submoniliform, joint 2 much longer than 3. Prothorax cordate, less than a half wider than long, sides gently rounded in front and very slightly sinuate behind, base a little wider than apex, its sides strongly oblique, hind angles obtuse and somewhat reflexed, without carina; median line with the area surrounding

it a little depressed, basal sulcus not very deep, vaguely crenulate, interrupted but without any distinct pore at middle. Elytra depressed, with nearly parallel sides, more than a half longer than wide, border minutely setulose, rounded at and faintly sinuate behind shoulder, extending inwards to stria 4; four shallow dorsal striae hardly reaching base, 3 and 4 very lightly impressed, 5 to 7 obsolete, 1 reaching apex but the rest disappearing behind, though 2 is deep quite close to apex, 8 fairly deep behind as far as the front end of striole and again for a short distance just behind middle, otherwise obsolete; striole rather long, curved, and slightly hooked in front, the pore far back; front dorsal pore on interval 4 at about a third, hind one in the hook of the striole. The fine transverse lines of the microsculpture can be clearly seen on the elytra, and even more clearly on the prothorax; on the head there is a reticulation of moderately transverse meshes. In the protarsi 3 only the basal joint is dilated (pl. IV, fig. 39).

This species is a good deal smaller and narrower than *trian*gularis, piceous in colour, protarsi  $\mathcal{F}$  with only one dilated joint. Head narrower, eyes flatter, antennae submoniliform, basal sulcus of prothorax without any distinct pore at middle, elytral striae much more lightly impressed. It seems most nearly allied to *pallescens*.

KASHMIR (H. T. Pease – Ind. Mus.) 3 ex. The type is in the Indian Museum.

**Tachys pallescens** Bates Trans. Ent. Soc. Lond. 1873, 297. Length: 2,0 mm. Dingy testaceous, head brown; palpi, joints 1 and 2 of antennae, and legs pallid, rest of antennae subfuscous. Head fairly wide, not contracted behind, frontal furrows single, short, and moderately deep, eyes flat, mentum with two pores, antennae short and submoniliform, joint 2 longer than 3. Prothorax cordate, half as wide again as long, strongly contracted behind, so that base is a little narrower than apex, sides slightly sinuate behind, the angles right, sharp, and reflexed, without carina; basal sulcus fairly deep, not crenulate, hardly interrupted and without pore at middle, traces of minute setae along margin in front. Elytra ovate, with the shoulders well marked, border slightly sinuate behind them, rounded and barely reaching base

of stria 4, setulose but not appreciably dentate, striae vaguely punctate, 1 and 2 moderately impressed, 3 shallower, 4 faint, 5 just visible, 6 and 7 obsolete, 8 impressed behind only, 1 entire, the rest not quite reaching base and abbreviated behind, 2 lightly impressed near apex, apical striole on middle of elytron, curving gently inwards and a little hooked in front, the pore far back; front dorsal pore at about a third, occupying the whole of interval 4, hind one just behind the hook of the striole. Microsculpture very distinct, the meshes very wide on the elytra and prothorax, isodiametric on the head. Prosternum not sulcate, metasternal process finely bordered; in the protarsi  $\sigma$  only the basal joint is dilated.

Most nearly allied to *vilis*, a new species from Kashmir. Smaller and narrower than *triangularis*, paler in colour and without the dark band across the elytra. Eyes flat, antennae submoniliform, basal sulcus of prothorax not crenulate and without pore at middle, the elytral striae more lightly impressed and much less distinctly punctate, the outer ones obsolete.

JAPAN. The type is in the British Museum.

### Tachys lissonotus sp. nov.

Length: 2,7 mm. Brownish red, head brown, elytra with a broad transverse black band across middle, very shiny and slightly iridescent: palpi, joint 1 of antennae (rest brown), legs, and underside testaceous. *Head* with deep single furrows, diverging a little both in front and behind, eyes moderately prominent, mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax cordate, half as wide again as long, sides rounded in front, moderately contracted behind, and gently sinuate at a little distance from base, which is wider than apex, hind angles right and fairly sharp, strongly reflexed, without carina; median line fine, basal sulcus deep, punctate, interrupted, and with an elongate pore at middle. Elytra moderately convex, with square shoulders, half as long again as wide, border almost imperceptibly setulose, rounded at shoulder, and reaching stria 4; two fairly deep, slightly arcuate, finely punctate, dorsal striae, neither of them quite reaching base, 1 reaching apex, 2 interrupted behind, but deep close to apex, 3 to 5 all visible in front of first dorsal pore, 3 bent strongly inwards, 8 deep on apical third, represented

by pores only in front, striole rather long and deep, slightly curved and ending, on middle of elytron, its pore far back near apex; front dorsal pore large, on interval 4, adjacent to stria 4, at about a third, hind one in the hook of the striole. Microsculpture very fine, practically inappreciable on elytra and prothorax, a reticulation of strongly transverse meshes on the head. Prosternum slightly sulcate, metasternal process rather faintly bordered, last ventral segment setulose, inner pores in  $\varphi$  removed from margin.

Not unlike *triangularis*, but larger and darker. Eyes less prominent, basal sulcus of prothorax more strongly punctate, and with a larger pore at middle, elytra with two striae only, deeper, further apart, and more strongly punctate, striae 3 to 5 visible only in front, microsculpture of elytra and prothorax inappreciable, head with more transverse meshes.

JAVA 2 ex. taken by the Galatea Expedition, one of which is labelled « Telegarvarna Mountains, Lake Megramendong ». The type is in the Copenhagen Museum, the cotype in my collection.

Tachys cinctus Putz. Ann. Mus. Civ. Gen. VII, 1875, 746. Length: 2,5 mm. Testaceous, very shiny: head, front and hind margins of prothorax, apex of elytra, and joints 3 to 5 of antennae more or less brown, a piceous band across elytra. Head with fairly deep single furrows, diverging behind, eyes moderately prominent, mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax cordate, moderately convex, a little more than a half wider than long, sides strongly rounded in front, contracted behind and sinuate rather before base, which is barely wider than apex, its sides hardly oblique, hind angles right and sharp, without carina; basal sulcus deep, crenulate, narrowly interrupted, with an elongate pore at middle formed by the base of the median line. Elytra rather flat, with well marked shoulders, a little more than a half longer than wide, border presumably setulose (though only the minute pores along its margin are visible), rounded at shoulder and continued inwards to stria 4; striae finely punctate, 1 lightly impressed, reaching apex but not base, 2 and 3 visible though hardly impressed, 2 comparatively deep close to apex, the other striae traceable by means of their fine punctures, 8 fairly deep on apical third, striole slightly curved, hooked in front, on middle of elytron, its

pore near apex; front dorsal pore on inner margin of stria 4 at about a third, hind one in the hook of the striole. No appreciable microsculpture except on head, which is covered with a reticulation of moderately transverse meshes. Prosternum slightly sulcate, metasternal process finely bordered, last ventral segment slightly setulose.

Narrower than *triangularis*, more shiny, lighter in colour, and with a narrower dark band across the elytra. Sides of prothorax more distinctly sinuate behind and the angles consequently sharper, only one impressed dorsal stria, so that the surface appears very smooth.

AMBOINA : Battu Gantong (Dr. O. Beccari) 1 ex. Q taken in an ants nest. This unique type is in the Genoa Civic Museum.

### Tachys delicatus sp. nov.

Length: 2,0 mm. Head and prothorax, margin and suture of elytra brown, elytra piceous, a large common spot covering nearly the whole of apical third of elytra, legs, antennae, and palpi testaceous. Head with deep furrows, diverging both in front and behind, the space between them and eye on each side convex, eyes not prominent, mentum with two pores, antennae fairly long but submoniliform, joint 2 longer than 3. Prothorax cordate, about a third wider than long, equally contracted at extremities, sides sinuate rather before base, hind marginal pore projecting strongly in front of angles, which are right, sharp, and a little reflexed, without carina; basal sulcus deep, not obsolete at sides, crenulate, widely interrupted and with a pore at middle. Elytra depressed, less than a half longer than wide, the border conspicuously dentate and setulose, the teeth not very close together, rounded at shoulder and reaching inwards to stria 4; fully striate, the striae punctate, inner ones fairly deep and a little arcuate, all reaching base (or nearly so) but only 1 and 2 reaching apex, where 2 is moderately deep and diverges a little outwards, outer striae only lightly impressed, though clearly marked, 3, 4, and 7 all terminating without joining near end of striole, 5 and 6 disappearing much earlier at about apical third, 8 deep behind, obsolete in front, irregularly impressed at middle, striole on middle of elytron, long, curved, slightly hooked in front, the pore near apex; front dorsal pore on stria 4 at a third from

358

base, hind one in the hook of the striole. The fine transverse lines of the microsculpture are more visible on the prothorax than on the elytra; the head is very shiny, but a faint reticulation of nearly isodiametric meshes can just be seen. Prosternum slightly sulcate, metasternal process finely bordered.

Smaller and darker than *triangularis*, the elytra piceous. Eyes flatter, prothorax narrower and sinuate before base, the hind angles sharply rectangular, elytra fully striate, the microsculpture more visible on prothorax, less so on head.

MALAY STATES : Singapore (C. J. Saunders) 1 ex. Q.

### Tachys cameroni sp. nov.

Length: 2,2 mm. Testaceous, head brown with clypeus and labrum lighter; elytra piceous, a little lighter towards apex and along margins. Head small, depressed across front, furrows short and deep, diverging behind, eyes exceptionally flat, mentum with two pores, antennae rather long, joint 2 longer than 3. Prothorax cordate, half as wide again as long, equally contracted at extremities, sides sinuate at a little distance from base, the angles sharply rectangular, with a rudimentary carina; basal sulcus deep, crenulate, vaguely interrupted and with a slight pore at middle, the basal area longitudinally strigose. Elytra oval, depressed, border dentate and setulose, sharply rounded at shoulder and reaching stria 4; striae clearly punctate, 1 and 2 moderately deep, not quite reaching base, 1 reaching apex, close to which 2 also is visible, the remainder effaced behind, 3 clearly marked in front, bent inwards and reaching base, 4 to 7 faint, represented by a few punctures, 8 irregular, deep behind, obsolete in middle, and represented in front by two or three large punctures, striole nearly straight, hooked inwards in front, the pore at apex; front dorsal pore conspicuous, on stria 5, at about a fourth, hind one in the hook of the striole. The microsculpture of the prothorax and elytra consists of fine transverse lines; on the head there is a reticulation of moderately transverse meshes. Prosternum sulcate, metasternal process finely bordered.

Very much like *delicatus* without the apical spot, the elytral border similarly denticulate, though the teeth are slighter and closer together. Eyes much flatter, the outer striae of the elytra much less impressed, and the front dorsal pore on stria 5. MALAY STATES: Singapore (Dr. M. Cameron) 1 ex. Q.

Tachys euryodes Bates Ann. Mus. Civ. Gen. XXXII, 1892, 289. Length: 2,75-3,0 mm. Reddish testaceous, a dark cloud on disk of elytra, antennae and legs rather lighter. Head with wide moderately deep furrows, diverging behind to back of eye, eyes rather prominent, mentum with two pores, antennae filiform, joint 2 nearly half as long again as 3. Prothorax cordate, a half wider than long, sides only appearing sinuate behind owing to the projection of the hind lateral pore, base wider than apex, its sides oblique quite close to angles, which are obtuse and reflexed, without carina; median line and front transverse impression fine but clear, basal sulcus deep, finely crenulate, uninterrupted and without pore at middle. Elytra moderately flat, more than a half longer than wide, border minutely setulose, rounded at shoulder and extending inwards a little beyond base of stria 4; striae 1 to 5 moderately deep, not crenulate, practically reaching base, 6 and especially 7 much fainter, 1 reaching apex, 2 faint behind, parallel with striole, deep close to apex, 3 to 7 all disappearing behind, 8 deep behind, widely interrupted at middle, striole slightly curved, hooked in front, on middle of elytron, the pore close to apex; front dorsal pore on interval 6 at about a fourth, hind one in the hook of the striole. Microsculpture consisting of fine transverse lines, a little less fine on prothorax than on elytra (pl. IV, fig. 27); head reticulate, the meshes between eyes nearly isodiametric. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two strongly dilated joints.

360

Nearly allied to *tropicus* and about the same size and colour, the head lighter. Eyes more prominent, frontal furrows wider and shallower, prothorax less contracted behind, the sides not sinuate, striae 4 and 5 much deeper, microsculpture of head reticulate.

BENGAL, BURMA, CEYLON, SINGAPORE, JAVA, BORNEO. The type (Burma) is in the Genoa Civic Museum.

Tachys obsolescens Bates Ann. Mus. Civ. Gen. XXXII, 1892, 289. Length : 3,0 mm. (Bates gives 2,5 mm.). Reddish testaceous, faintly iridescent, head a little darker, antennae and legs a little lighter, elytra very vaguely clouded on disk. Head with fairly wide and not very deep furrows, eyes moderately prominent,

mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax cordate, a little more than a half wider than long, sides sinuate near base, which is wider than apex, the hind lateral pore not projecting, hind angles right, sharp, and reflexed, without carina; median line very fine, basal sulcus deep, crenulate, subinterrupted but without any pore at middle, the basal area longitudinally strigose. Elytra rather flat, less than half as long again as wide, border setulose, rounded at shoulder, and reaching base of stria 4; striae crenulate, not quite reaching base, 1 only reaching apex, 1 and 2 moderately deep, 2 interrupted behind, but impressed close to apex, 3 lightly impressed, 4 visible in front, 5 to 7 obsolete, 8 moderately impressed on apical third only, striole curved, hooked in front, on middle of elytron, the pore near apex; front dorsal pore on site of interval 6, hind one in the hook of the striole. Microsculpture on elytra and prothorax formed by fine transverse lines; on the head there is a reticulation of almost isodiametric meshes. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two strongly dilated joints.

Very closely allied to *euryodes*, with the cloud on the elytra fainter. Sides of prothorax evidently sinuate before base, hind marginal pore not projecting, only striae 1 and 2 moderately impressed.

BURMA : Carin Ghecu (L. Fea). I have examined the type, which is in the Genoa Civic Museum.

In the collection of the Prague Museum there are two examples labelled Tenasserim (Helfer), in which only the sutural stria is distinctly impressed, 2 and 3 being just visible, and 4 to 7 wanting. The length is a little less than that of the typical form, the colour a little darker, the cloud on the elytra larger. For the present I can only regard these as a variety of obsolescens, but they may, should these differences prove constant, constitute a distinct species.

Two examples from Dehra Dun (Forest Res. Inst. –  $D^r M$ . Cameron) are a little lighter in colour and without any cloud on the elytra; the form is rather narrower and longer, the sides more parallel, the elytra with striae 3 and 4 more distinct. The specimens form a connecting link with euryodes, of which obsolescens is possibly only a variety, but more material is required for examination.

### Tachys sundaicus sp. nov.

Length: 2,7-3,0 mm. Uniformly testaceous, except that the suture of the elytra is dark, and there is the vaguest possible cloud on the elytra. *Head* narrow, furrows deep, diverging behind, eyes small and very flat, mentum with two pores, antennae filiform, though not very long, joint 2 longer than 3. Prothorax cordate, not quite a half wider than long, sides gently sinuate near base, which is a little wider than apex, its sides not oblique, hind angles right and reflexed, but not very sharp, without carina; median line clearly impressed, basal sulcus narrow but fairly deep, finely crenulate, uninterrupted and without pore at middle, basal area strigose. Elytra depressed, not quite two thirds longer than wide, sides parallel, border finely setulose, rounded at shoulder and reaching stria 4; four moderately impressed, vaguely crenulate striae, all practically reaching base, 3 and 4 disappearing behind, 5 lightly impressed in front, 6 and 7 obsolete, 1 and 2 reaching apex, where 2 is deep and diverges outwardly, 8 impressed behind only, striole on middle of elytron, nearly straight, but hooked in front, the pore near apex; front dorsal pore on interval 6 at about a fourth, hind one in the hook of the striole. Microsculpture of elytra and prothorax consisting of very fine transverse lines; on the head there is a reticulation of nearly isodiametric meshes. Prosternum slightly sulcate, metasternal process finely bordered.

362

Closely allied to *tropicus* and only a little smaller, but with testaceous head and only a very faint cloud on elytra. Eyes smaller and flatter, antennae shorter, elytra narrower and more depressed, the striae shallower, the intervals narrower, the microsculpture of the head reticulate.

JAVA: Buitenzorg (type) 1 ex. Q; Batavia (Grabowsky) 1 ex. Q. I am indebted for the type to the Director of the Buitenzorg Museum, and for the second specimen, unfortunately in poor condition, to Mr. T. G. Sloane.

Tachys sericeus Motch. Bull. Mosc. 1851. IV, 507.

Tachys photinus Bates. Ann. Mus. Civ. Gen. XXXII, 1892, 288.

Length: 3,25 - 4,0 mm. Dark chestnut red, subsericeous and faintly iridescent, head brown, elytra with disk nearly black, the

dark tint sometimes extending to side margins, antennae and legs testaceous. Head with deep furrows, diverging behind to back of eye, eyes moderately prominent; mentum with two pores, antennae fine, filiform, joint 2 longer than 3. Prothorax cordate, subconvex, very nearly half as wide again as long, sides very faintly sinuate behind, base evidently wider than apex, its sides somewhat oblique, hind angles obtuse, reflexed, without carina, the hind lateral pore projecting a little in front of them; basal sulcus fairly deep, crenulate, narrowly interrupted, the median line just passing through it and sometimes forming an elongate pore at middle. Elytra depressed, half as long again as wide, rather rounded at apex, border setulose, rounded at shoulder, and extending inwards a little beyond base of stria 4; striae all visible, converging inwards at base, inner ones punctate, moderately impressed and nearly reaching base, 1 and 2 only reaching apex, where 2 is deep and diverges outwards, 5 to 7 very faint, 8 deep on apical third, widely interrupted at middle, striole on middle of elytron, gently curved and hooked in front, the pore near apex; front dorsal pore at a fourth on interval 6, hind one in the hook of the striole. Microsculpture consisting of fine transverse lines; on the middle of the head it is very distinct, with a reticulation of only slightly transverse meshes. Prosternum sulcate, metasternal process bordered, last ventral segment finely setulose, protarsi 3 with two strongly dilated joints.

Larger wider and rather flatter than *tropicus*. Eyes more prominent, prothorax wider and less contracted behind, the hind angles not so sharp, elytra wider and less pointed behind, microsculpture of head reticulate.

BURMA: Bhamo, Palon in Pegu, Carin Asciuii Ghecu at 4600 to 4900 ft., and Kawkareet in Tenasserim (*L. Fea*). BORNEO: Telang (*Grabowsky*). The type of *photinus*, which I have examined, is in the Genoa Civic Museum. I have also seen a typical specimen of *sericeus*, now in the Deutsch. Ent. Museum (coll. von Manderstjerna > coll. von Heyden); this is darker and smaller than the other examples, with a more extensive dark patch on the elytra. No two of the examples I have seen are quite alike, the principal differences bring in size and colour, and in the form of the basal sulcus, of which the interruption and pore at middle are sometimes more, sometimes less distinct.

Tachys prolixus Bates Ann. Mus. Civ. Gen., XXXII, 1892, 288. Length: 3,5 mm. Reddish testaceous, sericeous and slightly iridescent, antennae and legs lighter, elytra with a dark cloud on disk extending to side margins. Head with deep curved furrows, extending to back of eye, eyes rather flat, mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax cordate, a third wider than long, sides slightly sinuate close to base, which is evidently wider than apex, with oblique sides, the pore projecting very slightly in front of the angles, which are obtuse, and reflexed; median line clearly marked, basal sulcus rather vaguely crenulate, subinterrupted and with the median line passing through it, basal area strigose. Elytra depressed, border setulose, rounding shoulder sharply and extending inwards rather beyond base of stria 4; striae crenulate, the four inner ones fairly deep and practically reaching base, 1 reaching apex but the remainder abbreviated behind, 2 deep close to but interrupted before apex, 5 to 7 just visible, 8 deep behind, widely interrupted at middle, striole on middle of elytron, deep, straight, hooked in front, the pore far back, a little removed from striole; front dorsal pore on interval 6 at a fourth, hind one in the hook

## 364

of the striole. Microsculpture hardly visible on elytra, but fine transverse lines are visible on prothorax; head reticulate, the meshes between eyes twice as wide as broad. Prosternum slightly sulcate, metasternal process finely bordered, protarsi  $\sigma$  with two strongly dilated joints.

A little larger and flatter than *tropicus*. Antennae thicker, sides of prothorax less sinuate, the basal sulcus more or less interrupted, elytra with four moderately deep striae, microsculpture of head more evidently reticulate.

BURMA : Carin Asciuii Ghecu, 4600 to 4900 feet (L. Fea). The type ( $\Im$ ), which is in the Genoa Civic Museum, is the only example I have seen.

# Tachys cardoni sp. nov.

Length: 3,0-3,2 mm. Testaceous, the head hardly darker, border of prothorax and border and suture of elytra brownish. Head with long, fairly deep, simple furrows, diverging behind and extending to back of eye, eyes rather flat, mentum with two pores, antennae long, joint 2 longer than 3. Prothorax cordate,

not quite half as wide again as long, base with its sides very slightly oblique, a little wider than apex, sides rounded and sinuate a little before hind angles, which are right and rather reflexed, without any appreciable carina; basal sulcus minutely crenulate, slightly interrupted, with a rounded pore at middle, the area behind the sulcus longitudinally striate. Elytra moderately flat, elongate, parallel, not very much wider than prothorax, border minutely setulose but not dentate, rounded at shoulder and extending straight inwards to rather beyond base of stria 4; striae 1 to 3 moderately impressed and crenulate, 4 to 7 more or less obsolete though visible, 4 and 5 fairly clear near base and 7 behind, 1 entire and all nearly reaching base but evanescent behind, 2 deep near apex, 8 deep behind, wanting in middle, represented by large pores in front, striole long, curved, hooked in front, on middle of elytron, its pore far back near apex; front dorsal pore on middle of interval 6 at a fourth from base, hind one in the hook of the striole. The microsculpture on the head is very distinct, the meshes slightly transverse; that of the prothorax and elytra consists in very fine, but quite visible transverse lines. Prosternum very slightly depressed, metasternal process

- 365

narrowly bordered, last ventral segment Q minutely setulose, the inner pores far removed from margin.

The type, described above, is a Q, but there is a second specimen ( $\Im$ ) in poor condition. This is slightly smaller, the head and disk of elytra a shade darker; only the basal joint of the front tarsi remains on one leg, but this appears to be dilated.

Very nearly allied to *tropicus*, but nearly uniformly testaceous and in form rather more elongate, the surface with a less sericeous appearance. The form of the head and prothorax is similar, the elytra a little longer and more parallel. The elytral border extends further inwards, the outer striae are rather more evident where impressed, the striole is less hooked, and the front dorsal pore is placed close to inner margin of stria 6. The microsculpture of prothorax and elytra is similar, that of the head very different, the meshes barely twice as wide as long, whereas in *tropicus* the surface is covered with closely placed tranverse lines. Were it not for this last character I should have considered the species a variety of *tropicus*.

CHOTA NAGPUR: Barway (Cardon) 2 ex.  $\mathcal{S} \ \mathcal{Q}$ . The type is in the Brussels Museum.

Tachys tropicus Nietn. Ann. Mag. Nat. Hist. (3) II, 1858, 421; Putz. Ann. Mus. Civ. Gen., VII, 1875, 746.

Tachys subvittatus Bates Ann. Mag. Nat. Hist. (5) XVII, 1886, 151.

Length: 3,0-3,25 mm. Testaceous: head, border of prothorax and of elytra brown, disk of elytra with a large iridescent sericeous dark patch. Head with deep and rather wide furrows, diverging behind, eyes not prominent, mentum with two pores, antennae rather long, filiform, joint 2 longer than 3. Prothorax cordate, half as wide again as long, sides evidently sinuate rather before base, which is slightly wider than apex, its sides not oblique, hind angles rectangular or a little obtuse (not strongly projecting as stated by Bates), without carina, the lateral pore projecting very slightly; median line clearly marked, basal sulcus uninterrupted, crenulate, and without pore, basal margin strigose. Elytra moderately depressed, about a half longer than wide, border setulose, rounded at shoulder, and reaching stria 4; striae crenulate, the four inner ones moderately impressed, reaching base, 1 and 2 reaching apex, near which 2 is rather deep and diverges outwards, the rest abbreviated behind, 5 to 7 visible but very faint, 8 deep behind, widely interrupted but sometimes visible at middle, striole on middle of elytron, gently curved, hooked in front, the pore far back; front dorsal pore on interval 6 at about a fourth (both the above authors are inaccurate regarding its position), hind one in the hook of the striole. Microsculpture of prothorax and elytra formed by very fine but quite visible transverse lines; on the head these are more conspicuous and form very wide meshes. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two widely dilated joints. Allied, though not very nearly, to triangularis, but a little larger and with a vague dark discal patch on the elytra, instead of a black band. Head with much flatter eyes, sides of prothorax more sinuate, hind angles nearly right, basal sulcus without pore at middle, striae of elytra shallower, front dorsal pore on interval 6 instead of 4, microsculpture of head formed by very wide meshes.

366

I have been able to compare Bates' type with Nietner's; the former is in the British Museum, the latter in the Berlin Zoolo-

gical Museum. Putzeys, while omitting the better known *trian*gularis, includes this species in his table, though from the characters given he seems to have misidentified it.

CEYLON.

# Tachys bathyglyptus sp. nov.

Length: 4,0 mm. Dark chestnut red, slightly sericeous, head brown, elytra with a large nearly black patch covering the whole of the disk. *Head* small, with deep furrows, curving outwards behind and reaching back of head, eyes flat, mentum with two pores, antennae long and slender, joint 2 longer than 3. Prothorax cordate, slightly convex, a third wider than long, sides appearing slightly sinuate behind owing to the projection of the lateral pore, apex rather deeply emarginate, the base much wider, its sides oblique close to the hind angles, which are obtuse, reflexed, and somewhat rounded, without carina; basal sulcus deep, punctate, narrowly interrupted by a slight ridge at middle, on which the fine median line terminates. Elytra depressed, two thirds longer than wide, border setulose, rounded at shoulder and reaching base of stria 4; fully punctate-striate, striae 1 to 6 deep on basal half and reaching base, 1 and 2 entire, 2 curving outwards just before and deep at apex, 3 to 6 disappearing behind, 3 nearly joining striole, 7 shallow, 8 deep behind, shallow at middle, striole long, on middle of elytron, curved, hooked in front, the pore far back; front dorsal pore on interval 6 at about a sixth, hind one in the hook of the striole. The fine transverse lines of the microsculpture are just visible on the prothorax, but hardly on the elytra; the head is reticulate, the meshes between eyes isodiametric. Prosternum sulcate, metasternal process with a reflexed border, behind which the metasternum is depressed along median line, protarsi 3 with two rather strongly dilated joints.

Allied to *sericeus*, a little larger in size, but similarly coloured. Prothorax with basal sulcus more distinctly crenulate and interrupted by a ridge at middle, elytra fully striate, the striae deeper and clearly punctulate, the front dorsal pore placed nearer to base.

BORNEO: Pontianak 1 ex.  $\mathcal{J}$ , for which I am indebted to Mr. T. G. Sloane.

368

# quadrillum - group.

Black and iridescent (except var. *languidus*), with pale spots on the elytra (except var. *impictus*). Head with the frontal furrows single, two pores on mentum, antennae usually filiform, joint 2 rather longer than 3. Prothorax without carina in the hind angles. Elytra generally moderately convex, sometimes flat, the border setulose and dentate, rounded at shoulder; 1 to 3 dorsal striae, 8 obsolete in front, striole long, on middle of elytron, curving inwards and sometimes slightly hooked, the pore at about apical third; two dorsal pores, the front one on stria 3 just before middle, the hind one just behind the front end of striole. Microsculpture always present. Prosternum slightly sulcate, metasternal process narrowly bordered, venter minutely punctulate and setulose, Q with the four pores on last segment more or less in line, protarsi  $o^{\neg}$  with two dilated joints, claws simple.

It will be seen that the characters enumerated above differ very little from those presented by the *triangularis* group, but

the species have a black and iridescent surface with pale spots, which at once differentiates them from the generally pallid *trian*gularis form, and the front dorsal pore is situated on stria 3 only just before middle. The species are closely related to one another and distinguishable chiefly by size, form, markings, and microsculpture. In the Q specimens examined the four pores on the apical ventral segment were nearly in line, whereas in the *triangularis* group the inner pair is somewhat distant from margin, but this may prove not to be a constant group character.

### KEY TO THE SPECIES

- 1 (4) Elytra more than half as long again as wide.
- 2 (3) Flat, two striae only lightly impressed on disk, a shoulder spot present, surface sericeous. Length 2,25 mm.
- 3 (2) Moderately convex, 3 impressed striae on disk, shoulder spot wanting, surface shiny. Length 3,0 mm.

cruciger Patz.

plagiatus var. longulus v. nov.

- 4 (1) Elytra not more than half as long again as wide, moderately convex, surface shiny.
- 5 (8) Elytra with three dorsal striae (4 faintly impressed). Length 3,0 mm.
- 6 (7) Elytra quadrimaculate, the apex dull red but hardly forming distinct spots.
- 7 (6) Elytra sexmaculate, the apex covered by two fairly large pale spots adjoining each other.
- 8 (5) Elytra with two dorsal striae (3 faintly impressed). Length 2,6 2,8 mm.
- 10 (11) Elytra quadrimaculate. the shoulder spot rather large, elongate, sometimes joining hind spot.
- 11 (10) Elytra not quadrimaculate.
- 12 (13) Colour of upper surface wholly testaceous.

13 (12) Colour of upper surface wholly black.

plagiatus Putz.

plagiatus Putz. var. sexmaculatus v. nov.

quadrillum Schaum.

quadrillum var. languidus v. nov. quadrillum var. impictus v. nov.

Tachys cruciger Putz. Ann. Mus. Civ. Gen., VII, 1875, 747. Tachys queenslandicus Sloane Proc. Linn. Soc. N. S. Wales 1903, 577; id. Proc. Linn. Soc. N. S. Wales 1921, 199 and 207. Length: 2,25 mm. Black, sericeous: antennae, legs, and extreme apex of elytra testaceous, two yellow-white spots on each elytron, the hind one round, the front one elongate and often joining it. Head with wide shallow furrows, extending on to clypeus, eyes moderately prominent, mentum with two pores, antennae submoniliform, joint 2 longer than 3. Prothorax quadrate, a third wider than long, equally contracted at extremities, sides gently rounded and slightly sinuate before the hind angles, which are sharp and hardly more than right, without carina, the lateral pore projecting a little, the sides of base oblique; median line very fine, front transverse impression rather deep at middle, basal sulcus not crenulate, uninterrupted and without pore. Elytra flat, nearly two thirds longer than wide, with very square shoulders, border very finely setulose and dentate, rounding shoulder sharply and continuing inwards to base of stria 4; two lightly impressed striae, reaching apex but not nearly reaching base, 3 shallow and inconspicuous, remainder barely trace-

Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Marzo 1925).

24

able, 8 deep behind, obsolete in front, striole rather long, curved, on middle of elytron, hooked in front, the pore at apical fourth, a little removed from striole; front dorsal pore on stria 3, rather before middle, hind one in the hook of the striole. The transverse lines of the microsculpture are very clear, forming wide meshes on the elytra, less wide and more distinct on prothorax; the head between eyes with isodiametric meshes. Prosternum slightly sulcate, metasternal process finely bordered, ventral surface setulose towards apex, protarsi 3 with two dilated joints.

Nearly allied to *quadrillum*, but narrower, flatter, with a silky gloss, elytral spots whiter and usually larger, elytra with only two lightly impressed striae.

CELEBES : Macassar  $(D^r \ O. \ Beccari)$ . New GUINEA : Dorey *(Wallace)*. AUSTRALIA. The type of *cruciger*, which I have examined, is in the Genoa Civic Museum, and I have received from the author an example of his *queenslandicus*.

Tachys plagiatus Putz. Ann. Mus. Civ. Gen., VII, 1875, 745. *Tachys doddi* Sloane Proc. Linn. Soc. N. S. Wales 1903, 578; id. Proc. Linn. Soc. N. S. Wales N. S. Wales 1921, 199 and 206.

Length : 3,0 mm. Upper surface black and iridescent, underside piceous; joints 1 and 2 of antennae (rest more or less brown), legs, margin of prothorax, margin and apex of elytra, with two spots on each elytron testaceous, the front spot elongate, the hind one rounded, but slightly transverse. Head with moderately deep furrows, extending on to clypeus, diverging behind, eyes rather prominent, mentum with two pores, antennae filiform, joint 2 a little longer than 3. Prothorax slightly convex, a half wider than long, sides rounded with hardly a trace of sinuation behind, base wider than apex, its sides oblique, hind angles reflexed, obtuse but sharp, without carina; basal sulcus not very deep, finely crenulate, just interrupted but without any evident pore at middle. Elytra moderately convex, less than a half longer than wide, border minutely dentate and setulose, rounded at shoulder, and reaching stria 4; three impressed, slightly crenulate dorsal striae, hardly reaching base, 4 rather faint, 5 to 7 just traceable, 1 reaching apex, the rest all shortened behind, 8 fairly deep in front and behind, widely interrupted at middle, striole on middle of elytron, long, curved, hardly hooked in front,

its pore at apical third; front dorsal pore on stria 3, just before middle, hind one just behind front end of striole. Microsculpture of elytra consisting of very fine transverse lines, that of prothorax similar but more visible, head with a reticulation of small conspicuous isodiametric meshes. Prosternum slightly sulcate, metasternal process narrowly bordered, last three ventral segments (especially apical one) minutely punctate and setulose, protarsi  $\sigma^2$ with two dilated joints.

CELEBES: Macassar ( $D^r O.$  Beccari - Genoa Civic Museum). NEW GUINEA: Dorey (Wallace - British Museum). PHILIPPINE IS. (coll. Sloane). SUMBAWA (Brussels Museum and coll. Sloane). I have seen the type of *plagiatus*, now in the Genoa Civic Museum, and Mr. Sloane has sent me specimens of his species. The examples taken by Wallace in New Guinea are a little variable. One of them conforms very well to the type; the others, both in their rather larger size and more conspicuous apical spot, approach the specimens from Siam and elsewhere mentioned below.

## Var. sexmaculatus v. nov.

In two specimens from Siam, one in the British Museum (coll. Bowring) and the other in the Genoa Civic Museum (coll. Castelnau), in two from Haiphong and Luc-nam in Tonkin (*L. Blaise* -Paris Museum), as also in one from Tainan and a considerable series from Anping in Formosa (*H. Sauter* - Deutsch. Ent. Museum and Berlin Zoological Museum) all the spots on the elytra, and especially those at extreme apex, are larger than in the type form, the shoulder spot being also longer; the elytra are a little longer, approximately a half longer than wide, and the denticulations of the border behind the shoulder are a little more pronounced. The type of this variety is in the British Museum.

## Var. longulus v. nov.

In some examples from Manila in Miss J. Barrington's collection, the elytra, instead of being less, are a little more than a half longer than wide : the hind and apical spots though reduced in size are present, but the shoulder spot has disappeared altogether. Tachys quadrillum Schaum Berl. Ent. Zeitschr. 1860, 201.

Tachys pictipennis Putz. Ann. Mus. Civ. Gen., VII, 1875, 745; Bates Ann. Soc. Ent. Fr. 1889, 274; Andr. Trans. Ent. Soc. Lond. 1921, 178.

Tachys spilotus, Bates Ann. Mag. Nat. Hist. (5). XVII, 1886, 152.

Length: 2,6-2,8 mm. Black, iridescent; joints 1 and 2 of antennae (rest brown), legs, margin of prothorax, margin and apex of elytra, with two spots on each elytron reddish testaceous, the front spot fairly large and elongate, the hind one smaller and somewhat transverse. *Head* with rather wide shallow furrows, extending on to clypeus, eyes moderately prominent, mentum with two pores, antennae filiform, joint 2 longer than 3. Prothorax subconvex, half as wide again as long, sides rounded, very faintly sinuate behind, base rather wider than apex, its sides a little oblique, the angles somewhat obtuse and reflexed, without carina; basal sulcus finely crenulate, hardly interrupted, and without pore. Elytra moderately convex, about half as long again as wide, border setulose and dentate, rounded at shoulder and reaching base of stria 4; two moderately impressed, slightly crenulate dorsal striae, not reaching base, 3 lightly impressed, 4 visible, 5 to 7 obsolete, 1 reaching apex, the others abbreviated behind, 8 deep but widely interrupted at middle, striole on middle of elytron, long, curved, hardly hooked, the pore at apical third; front dorsal pore on stria 3 just before middle, hind one just behind front end of striole. Microsculpture consisting of fine transverse lines on prothorax and elytra, varying in visibility; head with a reticulation of small isodiametric meshes. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two dilated joints.

372

The species does not differ greatly from *plagialus*, but it is smaller, with a narrower head, flatter eyes, prothorax more contracted behind, and the third elytral stria less impressed.

I have compared Schaum's and Putzeys's types, now in the Berlin Zoological Museum, and Genoa Civic Museum respectively; in the former the antennae are unusually pale, but on the whole the two specimens agree fairly well. Both of them, along with other examples, came from Celebes: those in the Genoa Civic Museum were taken at Macassar by Dr. O. Beccari. Some specimens in the British Museum were taken by Wallace, both in Celebes and at Dorey in New Guinea.

Bates' type, which is in the British Museum, was taken by Mr. George Lewis at Colombo, on coast level, and there is a similar example in the Brussels Museum, taken by Dr. W. Horn at Weligama, also in Ceylon. Only traces of microsculpture are visible on the prothorax, and the spots, especially that on shoulder, are very small or wanting. The form is a little narrower and flatter than in the Celebes examples.

I have seen a good many other specimens from various parts of the East, which show considerable variation in form, degree of convexity, depth of striation, size of the elytral spots, etc., but these differences show themselves, not only in examples from different countries, but also in those taken in one locality, and after repeated efforts to separate them I have not been able to distinguish more than one species.

The example from Annam mentioned by Bates, and now in Mr. E. Fleutiaux's collection, agrees fairly with the type, but the spots practically join along the sides and the striation is fainter. A long series of examples from Anping and Alikang in Formosa (H. Sauter - Berlin Zool. Mus. and Deutsch. Ent. Mus.) differs in the rather more elongate form, many of these specimens having the two spots completely joined and forming a broad stripe down each side. There is a somewhat similar series from Siam in the British Museum. I have also seen examples from India and Ceylon in the British Museum, and from Rambha and Barkuda Island in Lake Chilka, both in the Ganjam district of Madras, in the Indian Museum (Dr. N. Annandale). In the Berlin Zool. Mus. is an example taken by Wallace in Batchian, which is very shiny and has very small spots. Chinese specimens from Haining (J. J. Walker) and Amoy (S. F. Light) differ a little, the former in its coarser and more conspicuous microsculpture, the latter in the entire absence of the shoulder spot.

## Var. impictus v. nov.

In three examples from Manila, viz. two in Miss J. Barrington's collection and one in the Berlin Zoological Museum, the spots have entirely disappeared. The antennae are darker than in the

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type form, and the microsculpture is very distinct: in one of the examples there is some red at the apex of the elytra.

# Var. languidus v. nov.

Of the examples from Anping in Formosa some show a tendency to lose the dark colour of the upper surface, and in two of them, to which I have given the above name, the whole insect is of a pale whitish - yellow. The type of this form is in the Berlin Zoological Museum.

## truncatus - group ...

Colour testaceous to brown, form moderately flat, subelongate, apex of elytra truncate. Head wide, with short single furrows, eyes rather flat, pubescent, mentum with two pores (except *truncatus*), antennae submoniliform, joint 2 much longer than 3. Prothorax without carina in the angles. Elytra with the border setulose (the setae rather long) and more or less dentate, subangulate at shoulder, sutural stria only present, 8 wanting, striole vestigial (except *ochrias*), on middle of elytron, two dorsal pores, the hind one placed rather far back. Microsculpture present (except *brachys*). Prosternum hardly impressed, metasternal process without appreciable border, venter setulose, last segment Q with inner pores a little removed from margin, protarsi  $\sigma^{7}$ without dilated joints, claws simple. Upper surface sometimes sparsely setulose, in one case distinctly.

The fact that *truncatus* should have no pores on the mentum is very curious, but I have been unable to detect them : the species must remain in the group because in the rest of its characters it agrees generally with the other species.

### **KEY TO THE SPECIES**

 (2) Mentum without pores, sutural stria impressed on apical half only, colour brown. Length 1,5 mm.

truncatus Nietn.

- 2 (1) Mentum with two pores.
- 3 (4) Elytra with a distinct apical striole, colour pale testaceous. Length 1,8 mm.

ochrias sp. nov.

- 4 (3) Elytra without a distinct apical striole, colour dark (except var. *decolor*). Length 1,0-1,6 mm.
- 5 (8) Elytra with stria 1 moderately impressed and reaching base, no appreciable microsculpture.

6 (7) Colour chiefly piceous. Length 1,6 mm.

7 (6) Colour testaceous. Length 1,4 mm.

brachys sp. nov. brachys var. decolor v. nov.

- 8 (5) Elytra with stria 1 lightly impressed and not reaching base, microsculpture distinct.
- 9 (12) Upper surface not or indistinctly setulose. Length 1,5 mm.
- 10 (11) Prothorax equally contracted at extremities, the sides faintly sinuate close to base, the hind angles slightly obtuse.
- 11 (10) Prothorax with base wider than apex, sides distinctly sinuate before base, hind angles right.

12 (9) Upper surface distinctly setulose. Length 1,0 mm.

microscopicus Bates

brunneus sp. nov.

mus sp. nov.

Tachys (Bembidium) truncatus Nietn. Ann. Mag. Nat. Hist.

(3), II, 1858, 421; Motch. Bull. Mosc. 1861, I, 100; Fauvel Rev. d' Ent. 1907, 101.

Length: 1,5 mm. Testaceous brown, head and elytra generally darker than prothorax: palpi, joints 1 and 2 of antennae (rest darker), and legs pale testaceous. Head large, not contracted behind eyes, frontal furrows short wide and fairly deep, eyes rather small and flat, minutely pubescent, mentum with two rounded depressions rather than pores, penultimate joint of labial palpi much dilated, antennae short, moniliform, joint 2 considerably longer than 3 (pl. IV, fig. 20). Prothorax moderately transverse, about equally contracted at extremities, base with its sides oblique, sides rounded in front and slightly sinuate before base, the hind lateral pore on the angle, usually projecting a little and breaking the continuity of outline, the angles somewhat obtuse and reflexed, without carina; median line fine, front transverse impression very distinct, basal sulcus shallow, not crenulate, uninterrupted, without any distinct pore at middle. Elytra flat and rather elongate, depressed in middle behind base, truncate at apex, shoulders well marked, border setulose and finely dentate,

the setae long (compared with those on other species), the. denticulations far apart, forming an obtuse angle at shoulder and extending inwards and slightly backwards to just beyond hind angles of prothorax; one dorsal stria, feebly impressed and hardly crenulate, not reaching base in front, deeper behind and reaching apex, 2 to 7 obsolete though traceable chiefly by the appearance of pores, 8 indicated only by large pores, striole vestigial, though its pore is visible near apex; dorsal pores fairly distinct on site of stria 3, at about a third and three fourths. Microsculpture evident, though not sharply defined, consisting of transverse lines forming wide meshes on prothorax and elytra, the disk of prothorax practically smooth, the meshes on head nearly isodiametric. Prosternum with a slight fovea (pl. IV, fig. 28), metasternal process unbordered (pl. IV, fig. 31), venter setulose, protarsi 3 undilated. Some minute setae round front angles of prothorax, and here and there on upper surface.

Extremely like *T. brevicornis* Chaud. in nearly all its characters, but in that species there are two pores on the mentum, which I have not been able to detect in *truncatus*. The latter species is a little narrower, the elytra a little more parallel-sided, and depressed behind the base along the suture. The microsculpture of the elytra is finer; on the prothorax it is much more transverse and less conspicuous; the head is similar.

INDIA: Calcutta, Kumaon, Eastern Duars. - CEYLON. - MALAY STATES: Singapore. - Cochin-China: Saigon. - Tonkin: Hanoi. -Borneo. - JAVA.

## Tachys ochrias sp. nov.

Length: 1,8 mm. Pale testaceous, head rather darker, prothorax lighter than elytra: as the elytra are translucent, some vague dark markings are often seen through them, the border and suture being generally darker. Head wide, with short wide furrows, diverging a little behind, mentum with two pores, eyes small and not prominent, setulose, antennae short, moniliform, joint 2 much longer than 3. Prothorax slightly convex, transverse, base with sides strongly oblique close to hind angles, sides rounded and gently sinuate before base, the angles reflexed and obtuse, without carina; median line very faint, basal foveae shallow, the sulcus deep, without any crenulation, its sides running forward

to form an obtuse angle at middle. *Elytra* depressed, slightly truncate at apex, quite a third as wide again as prothorax, border minutely dentate and setose, forming a very wide angle at shoulder and extending inwards for some little distance beyond hind angles of prothorax; stria 4 vaguely crenulate, lightly impressed and not reaching base, 8 traceable only by its large punctures, surface otherwise smooth, but with vague indications of punctures by means of which most of the other striae can be traced, apical striole short but distinct, curved, on middle of elytron, the pore far back near apex; dorsal pores small but clear, on stria 3, at two fifths and three quarters. Microsculpture formed by very fine transverse lines on elytra, obsolete on head and prothorax. Body beneath minutely and sparsely setose, prosternum faintly depressed, metasternal process very indistinctly bordered, protarsi  $\sigma^2$  with hardly dilated joints.

Allied to *truncatus*, but pallid in colour, quite half as long again, and with pores on the mentum. Antennae with longer joints, sides of prothorax sinuate before base, the elytra with a distinct striole,

EASTERN DUARS (H. Stevens). KUMAON: West Almora, Tanakpur, River Sarda Gorge, and Haldwani - Nandhaur River (all H. G. Champion); Mussoorie, 5500 feet, and Dehra Dun (Dr. M. Cameron and S. N. Chatterjee - Forest Res. Inst.). BURMA: Moulmein (Fieber - Vienna Mus.)

# Tachys brachys sp. nov.

? Tachys atomarius Bates (not Woll.) Ann. Mag. Nat. Hist. (5), XVII, 1886, 152.

Length: 1,5-1,65 mm. Prothorax dark red, head and elytra piceous black: palpi, antennae (darker towards apex), and legs testaceous. Head with short wide furrows, eyes very flat, setulose, mentum with two pores, antennae moniliform, joint 2 much longer than 3. Prothorax slightly convex, not quite half as wide again as long, sides of base straight, sides rounded, and gently sinuate before the hind angles, which are sharp, slightly obtuse, and very little reflexed; median line and transverse impressions clearly marked, basal sulcus moderately deep, smooth, uninterrupted, and without pore at middle, the space between it and the margin very uneven. Elytra short, wide and a little convex, evidently dilated behind, only slightly truncate at apex, border minutely setulose and dentate, but only forming a vague angle at shoulder; sutural stria moderately impressed, practically reaching base, hardly crenulate, all the other striae obsolete but generally traceable, stria 8 represented by pores only, striole vestigial; dorsal pores on inner side of site of stria 3, at a third and two thirds. No appreciable microsculpture.

KUMAON: Haldwani (H. G. Champion). BENGAL: (Galatea Expedition - Copenhagen Mus.). MADRAS: Nilgiri Hills (H. L. Andrewes); Palni Hills, shore of Lake Kodaikanal, 6850 feet (Dr. S. W. Kemp - Ind. Mus.). MALAY STATES: Singapore (C. J. Saunders - coll. W. J. Saunders). One of the two examples from Singapore is coloured like the Indian specimens, but the other, though otherwise similar, is dark testaceous.

Var. decolor v. nov.

Some examples from Formosa, viz. Akau (H. Sauter - Deutsch. Ent. Mus., Berlin Zool. Mus., and my collection) and Takao (H. Sauter - Berlin Zool. Mus.) are about 1,4 mm. in length and pale testaceous in colour; the form is slightly narrower, and the elytra are rather more contracted towards base. Two almost exactly similar examples were taken, one by Dr. M. Cameron at Singapore, and one by Commander J. J. Walker at Da-laen-saen, near Ningpo, in China (Brit. Mus.). Two further examples were taken by the Galatea expedition at Pulo Milu, Nicobar minor (Copenhagen Mus.). This form seems hardly distinct enough to constitute a fresh species, and I am therefore treating it as a variety. I have compared the specimen in the British Museum, taken by Mr. George Lewis in Ceylon and identified by Bates as T. atomarius Woll., with the type of that species. While it is true that the two examples are much alike, I cannot believe that they belong to the same species, if only on account of the extremely fine but distinct microsculpture of the elytra in Wollaston's insect. The head and elytra in the Ceylon specimen are brownish, the prothorax light testaceous. In size and form it agrees rather better with truncatus than with brachys, but there are pores on the mentum, the microsculpture on the elytra is very faint, while on the head and prothorax it is wanting altogether.

Tachys (Tachyta) microscopicus Bates Trans. Ent. Soc. Lond. 1873, 299; id. Ann. Mag. Nat. Hist. (5), XVII, 1886, 153.

Length: 1,5 mm. Head and elytra brown, prothorax reddish, antennae, palpi, and legs testaceous. Head wide, with short wide shallow furrows, eyes flat, minutely setulose, mentum with two pores, antennae moniliform, joint 2 much longer than 3. Prothorax slightly convex, half as wide again as long, equally contracted at extremities, sides gently rounded and sinuate close to base, the sides of which are rather oblique, the angles a little obtuse and reflexed, without carina; front transverse impression distinct, median line fine, basal sulcus rather narrow, not crenulate, uninterrupted, and without pore. Elytra moderately convex, sides rather rounded, widest behind middle, apex slightly truncate, border very finely setulose and denticulate, forming a wide angle at shoulder, and extending inwards well beyond hind angles of prothorax; sutural stria lightly impressed, deeper behind, reaching apex, but not base, the other striae just traceable here and there, 8 represented only by its pores, striole vestigial, on middle of elytron, with the pore not far from apex; dorsal pores on stria 3 at two fifths and four fifths. The fine transverse lines of the

microsculpture are clearly visible on the elytra, less so on the prothorax; on the head there is an indistinct reticulation with isodiametric meshes.

Very near *truncatus*, but with more red in the coloration, and with pores on the mentum. Prothorax with its sides less oblique, the hind angles less reflexed, elytra a little more convex, / the sides more rounded, the sutural stria slightly deeper and more nearly reaching base.

Bates does not seem to have observed the vestige of a striole on the middle of the elytron, and described the species as a *Tachyta*, i. e. allied to the *nanus* group, a view with which I am quite unable to concur.

JAPAN: Nagasaki (G. Lewis).

# Tachys brunneus sp. nov.

Length: 1,5 mm. Brown, head and disk of prothorax rather darker; palpi, joints 1 and 2 of antennae, and legs more or less testaceous. *Head* with short wide furrows, diverging a little behind, eyes moderately flat, setulose, mentum with two pores,

antennae moniliform, joint 2 much longer than 3. Prothorax slightly convex, half as wide again as long, base wider than apex, sides rounded in front and sinuate rather before hind angles, which are right and somewhat reflexed, with the setiferous pore placed rather conspicuously just in front of them; front transverse impression and median line distinct, basal sulcus fine, fairly deep, uninterrupted, and without pore at middle, the space between it and basal margin longitudinally striate. Elytra moderately convex, widest behind middle, border setulose and denticulate, hardly forming any angle at shoulder, extending inwards well beyond hind angles of prothorax; sutural stria slightly arcuate, clearly impressed on apical half only, but visible on basal half, as are striae 2 to 4, all vaguely subpunctulate, 8 represented by pores, striole obsolete, though its pore is visible near apex; dorsal pores on stria 3, rather behind a third and two thirds. Microsculpture conspicuous, the meshes very wide on elytra and prothorax, nearly isodiametric on head.

Closely allied to *truncatus*, but brown in colour, and with pores on the mentum. Prothorax a little wider, base wider than apex, elytra a little more convex, with more rounded sides, and

380

with rather more evidence of striae 3 and 4, the microsculpture a little coarser and more evident.

SOUTH EAST BORNEO (Grabowsky) - The type is in the Berlin Zoological Museum.

# Tachys mus sp. nov.

Length: 1,05 mm. Upper surface, as well as lower, plainly though sparsely setulose. Prothorax brown, head and elytra piceous brown, antennae and legs testaceous. Head (pl. III, fig. 15) wide, with small inconspicuous rounded furrows, eyes very flat, pubescent, mentum with two pores, antennae moniliform, joint 2 twice as long as 3. Prothorax slighty convex, nearly a half wider than long, base just narrower than apex, sides rounded in front, rather strongly contracted behind, faintly sinuate before the angles, which are obtuse and slightly rounded, the sides of base oblique; median line very faint, front transverse impression clearly marked, distant from margin, basal sulcus narrow but fairly deep, not crenulate, uninterrupted and without pore at middle. Elytra depressed, parallel, subtruncate at apex,

with a re-entrant angle at suture, border setulose and denticulate, hardly angulate at shoulder, extending inwards a little beyond hind angles of prothorax; sutural stria lightly impressed, not reaching base, deeper at apex, the other striae wanting, 8 represented by pores, striole obsolete, its pore clearly visible near apex; dorsal pores on site of stria 3, at about a third and two thirds. Microsculpture quite clear and formed by wide meshes on elytra, indistinct with narrower meshes on prothorax, isodiametric between eyes.

A reproduction in miniature of *truncatus*, but with pores on the mentum, and the upper surface evidently setulose. Prothorax and antennae a little lighter, median line of prothorax fainter, elytra not depressed along suture, the microsculpture on the prothorax indistinct.

JAVA: Batavia (Buitenzorg Mus.) 2 ex.

# expansicollis - group.

The four species placed in this group have as common characters (1) the absence of pores on the mentum, (2) stria 8 deep behind, but disappearing and represented only by pores in front, (3) the presence of two dorsal pores. There is no pretence that these species form a natural group : on the contrary it is quite an artiticial one, for, although there should be no difficulty in identification by the aid of the characters mentioned above, in other respects there is wide variability. Two courses other than that adopted were open, one to make four separate groups, the other to alter the basis of classification : it seemed to me that the latter alternative would probably create greater difficulties than it removed, while the former presented no advantages, in as much as the characters of the species, which are all set forth in the descriptions, would be the same as those of the groups. The present arrangement is proposed as a temporary expedient only, pending the further exploration of vast and relatively unknown regions in the East, where fresh discoveries may be expected to throw new light on the affinities of the species here dealt with.

### **KEY TO THE SPECIES**

1	(4)	Surface shiny, 1 dorsal stria only, front dorsal pore close to base.	
9	(2)	Black, iridescent, prothorax with its sides not	a first south that
0	(0)		ambiguus sp. nov.
3	(2)	Black, each elytron with two reddish spots,	
	E.	prothorax with its sides strongly sinuate	The second standard
			expansicollis Bates
4	(1)	Surface a little dull, more than 1 dorsal stria,	
		front dorsal pore at about a third from base.	
5	(6)	Flavous with black marking on elytra, 2 dor-	
		sal striae (at least behind), border of elytra	
		smooth. Length 3,25 mm.	gestroi sp. nov.
6	(5)	Black with white spots, 3 dorsal striae, border	
		of elytra setulose. Length 2,7 mm.	bombycinus sp. nov

# Tachys ambiguus sp. nov.

Length: 2,2 mm. Oval in shape, moderately convex, and rather wide. Black above, piceous beneath; palpi, antennae, and legs testaceous. *Head* with rather shallow, single furrows, diverging strongly behind, eyes small and not prominent, mentum very wide, without pores, antennae submoniliform, 2 a little longer than 3. Prothorax convex, two thirds wider than long, base bisinuate, much wider than apex, sides evenly rounded, moderately contracted behind, without sinuation, hind angles slightly obtuse and not very sharp, with a very rudimentary carina, the pore just in front of them; median line fine, basal sulcus fairly deep, not crenulate, interrupted but without any distinct pore at middle, the foveae near the angles and rather deep. Elytra convex, ovate, only a fourth longer than wide, border smooth, rounded at shoulder, and extending inwards to base of stria 4; stria 1 very lightly impressed and minutely punctate, deeper towards apex, 2 to 4 just indicated by minute punctures, 8 deep behind, obsolete in front, striole fairly long, rather near and nearly parallel with margin behind, but curving sharply inwards in front, though ending much nearer margin than suture, the pore far back near apex; two dorsal pores on stria 3, one close to base, the other at about three fifths. Microsculpture consisting in very fine transverse lines, just visible on elytra and prothorax,

more distinct on head. Prosternum not sulcate, metasternal process rather narrowly bordered, last ventral segment punctate and sparsely setose, epipleurae of elytra and prothorax wide, tarsal claws simple.

I cannot fit this species into any of the larger groups. In appearance it is much like *haliploides* var. *nigrinus*, both as to colour and form, but differing in various important characters. There are two unusually situated dorsal pores (very much as in *comptus*), the tarsal claws are simple, and there is a distinct microsculpture; the form of the frontal furrows differs, the border of the elytra extends for some distance inwards beyond hind angles of prothorax, and the deep arcuate groove on the metasternum is wanting.

MENTAWEI ISLANDS: Sipora, Sereinu, V - VI, 94, (Modigliani) 1 ex. Q in the Genoa Civic Museum.

Tachys expansicollis Bates. Ann. Mus. Civ. Gen., XXXII, 1892, 293.

Length: 2,5 mm. Black, very vaguely aeneous, antennae with joints 1 and 2 testaceous, the rest brown; the reddish elytral spots are small, just behind shoulder and at apical third. Head with duplicated furrows, inner ones deep, semicircular (convex inwards), extending on to clypeus, outer ones narrower, also deep and continued behind eye, mentum very short, without pores, penultimate joint of labial palpi much inflated, eyes very prominent, supraorbital pores small, tuberculiform, a little removed from eye and rather near together, antennae with joint 2 a little shorter than 3. Prothorax convex, cordate, not quite half as wide again as long, base slightly bisinuate, its sides turning a little backwards, very strongly contracted in front, so that the angles are adjacent to neck and the apex much narrower than base, sides very sharply rounded in front, sinuate at a third from and then straight to base, the margin rather widely explanate in middle, hind angles right and slightly reflexed, with a strongly marked carina, just inside which on each side is a deep fovea; apex rather faintly bordered throughout, basal sulcus deep, not crenulate, interrupted by the median line, which is deep at that point though not reaching base. Elytra convex, ovate, rather pointed at extremity, border smooth, forming an obtuse angle at

shoulder and continuing to rather beyond hind angles of prothorax, behind which there is on each side a distinct depression; stria 1 deep throughout, reaching basal pore, 2 just traceable, 8 deep but widely interrupted at middle, apical striole very short and straight, a pore at its termination, round which the surface is depressed, another small pore far back near apex; dorsal pores at about a sixth from base and at middle, on site of stria 3, the front larger than the hind one. There is no evident microsculpture. Prosternum sulcate, metasternum with an arcuate groove in front, protarsi  $\Im$  with two slightly dilated joints.

I have seen only the type, which is in the Genoa Civic Museum collection; it is a  $\Im$  and is the example from Carin Asciuii Ghecu in Burma (L. Fea).

# Tachys gestroi sp. nov. (pl. III, fig. 5).

Length: 3,25 mm. Form long and narrow, reminiscent of a Clavicorn or an Erotylid. Flavous, middle of under side piceous, venter brown; head, base of prothorax, and margin of elytra darker than the general surface; a hastate spot, behind middle of elytra, the shaft running forward along suture, the point not nearly reaching apex, piceous-black. Head (0,68 mm. across eyes) with short, shallow, single furrows, eyes only moderately prominent, mentum without pores, a short blunt tooth in the emargination, the lobes large and strongly rounded externally, penultimate joint of labial palpi moderately dilated, antennae subclavate, joints 1-6 moderately long, 2 equalling 3, 7 to 11 rather strongly dilated, especially the three apical joints. Prothorax quadrate, transverse  $(0,68 \times 1,00 \text{ mm.})$ , the base, which is produced backwards in middle, adjusted exactly to the base of elytra, its sides a little oblique, apex slightly emarginate, so that the rounded front angles project, sides rounded in front, but not contracted or sinuate behind, border a little reflexed, hind angles very slightly obtuse but not rounded, without carina; median line very fine, front transverse impression indicated by underlying brown pores, basal sulcus not very deep, crenulate, interrupted at middle-by a fairly wide depression, which is bounded on each side by a slight longitudinal ridge, outside which is some further slight striation, basal foveae quite distinct, midway between hind angles and median line. Elytra moderately convex, elongate

384

 $(2,0 \times 1,25 \text{ mm.})$ , widest just behind shoulders and tapering gradually to apex, border smooth, forming an angle at shoulder and continuing for some little distance inwards; stria 1 entire, moderately deep, impunctate, 2 visible on apical half only, fairly distinct in front, faint behind, though nearly reaching apex, where it diverges strongly outwards, the other dorsal striae obsolete, 8 deep behind as far as middle, represented in front by three pores just behind shoulder, and another larger one at a fourth from base, between which and middle the stria is just traceable, striole fairly long and strongly curved, ending on middle of elytron, its pore half way along it; two rather small dorsal pores on stria 3, at about a third and two thirds. The microsculpture over the whole upper surface, is very distinct and isodiametric. Prosternum slightly sulcate, metasternal process widely bordered, last ventral segment Q with four large setiferous pores nearly in a straight line.

The species appears to have no very near ally. In some respects it resembles *erotyloides*, and especially in its elongate form, microsculpture, and the rather shallow basal sulcus of the prothorax. The colour is quite different, the prothorax not contracted behind, the antennae much more dilated at apex, two dorsal striae only, and the microsculpture much more distinct and isodiametric • throughout.

MENTAWEI ISLANDS: Si Matobe, VII, 94 (Modigliani) 1 ex. Q in the Genoa Civic Museum.

# Tachys bombycinus sp. nov.

Length: 2,4-3,0 mm. Black, upper surface with strong sericeous lustre, prothorax very dark red, joint 1 of antennae with base of 2 and 3, palpi, and legs testaceous (femora darker, sometimes almost piceous, tibiae very pale), elytra each with two white spots, front one fairly large, running obliquely backwards from shoulder to stria 2 and tapering a little inwards, a small round apical one bounded inwardly by stria 3. Head small, with single shallow furrows, diverging behind, but with a fine impressed line, along inner margin of eye, mentum without pores, eyes not prominent, antennae long and thick, strongly dilated towards apex, joint 2 shorter than 3. Prothorax quadrate, a little less than half as wide again as long, moderately convex,

Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Marzo 1925),

25

sides of base rather oblique, sides with the border minutely setulose, gently rounded in front, then straight to hind angles, which are slightly obtuse but not rounded, with a rudimentary carina; median line very fine, basal sulcus uninterrupted and very deep, with traces of crenulation only, its sides meeting in an obtuse angle at middle at about a fourth from base. Elytra rather flat, elongate-ovate, border minutely setulose throughout, rounded at shoulder and extending inwards very little beyond hind angles of prothorax; three very fine dorsal striae, faintly crenulate, with traces of striae 4-6, visible chiefly on the front white spot, 1 reaching base, 2 and 3 a little shorter, but both fairly long, 2 a little longer than 3, 8 fairly deep near apex, but barely reaching half way to base, and represented in front by one or two large punctures, striole fairly long, curving a little inwards and ending midway between margin and suture, the pore half way along inner margin; two small dorsal pores on stria 3, at about a third and two thirds. Prosternum without sulcus, metasternum not grooved in front, (though the extremity of the pointed process is depressed), or protarsi with two slightly dilated joints. The microsculpture is conspicuous and consists of fine parallel lines, more or less transverse, but

386

 rather wavy, covering both prothorax and elytra, while on the front and vertex it is nearly isodiametric: the surface also is microscopically punctulate.

Superficially the species is not unlike *T. callispilotus* Bates, but rather wider and flatter, with whiter spots, of which the front one is larger, the hind one smaller. In reality the species is very distinct, with longer and thicker antennae, the elytra with setulose border, and three dorsal striae *(callispilotus being fully striate)*, the dorsal pores similarly placed, the prosternum not sulcate, the metasternum without groove. The microsculpture also is quite different.

KUMAON: Tanakpur, Swal River Basin, River Sarda Gorge, and Haldwani-Nandhaur River (all *H. G. Champion*); Dehra Dun (Dr. M. Cameron – Forest Res. Inst.). EASTERN DUARS (H. Stevens). SIKKIM: Gopaldhara (H. Stevens).

# exaratus - group.

Colour variable, form subelongate and moderately convex. Head with single frontal furrows, eyes not prominent, mentum without pores, antennae generally submoniliform, with joints 2 and 3 equal. A carina is sometimes present in the hind angles of the prothorax, though generally rudimentary. Elytra with border rounded at shoulder, sometimes setulose, and in one case dentate, with 2 to 6 crenulate or punctate striae, 8 subinterrupted at middle, or lightly and irregularly impressed on front half, striole well developed and usually placed a little nearer margin than suture, two dorsal pores. Microsculpture present. Prosternum only slightly impressed; metasternal process more or less bordered.

#### **KEY TO THE SPECIES**

- (4) Border of elytra not setulose, colour 1 testaceous.
- 2 (3) Elytra 3-striate, surface rather dull, microsculpture of prothorax isodiametric. Length 2,0 mm. 3 (2) Elytra 2-striate, surface moderately shiny, microsculpture of prothorax strongly transverse. Length 2,3 mm. loriae sp. nov. 4 (1) Border of elytra setulose, colour variable. 5 (14) Border of elytra not dentate. 6 (11) Colour testaceous, surface shiny, microsculpture of elytra formed by fine transverse lines, or obsolescent. 7 (8) Elytra uniformly testaceous, striae clearly punctate, microsculpture of elytra obsolescent. Length 2,4 mm. luteus sp. nov. (7) Elytra with a black discal spot, striae 8 crenulate, microsculpture of elytra finely transverse. Length about 3,0 mm. 9 (10) Black discal spot on elytra diamondshaped, extending to sides and apex. rhombophorus sp. nov. 10 (9) Black discal spot on elytra oval, not ( rhombophorus extending to sides and apex. var. evanidus v. nov. (6) Colour piceous with a vague reddish spot 11 near apex, microsculpture of elytra very distinct, the transverse lines forming wide meshes. Length 2,3 mm.

reticulatus sp. nov.

- 12 (13) Elytra depressed, two thirds longer than wide, sides parallel, striae clearly impressed.
- 13 (12) Elytra slightly convex, one half longer than wide, sides somewhat rounded, ( exaratus striae rather lightly impressed. | var. curtus v. nov.
- 14 (5) Border dentate, elytra 5-striate (at least near base), colour testaceous. Length 1,75 mm.

exaratus Bates

singularis sp. nov.

# Tachys reticulatus sp. nov.

Length: 2,0 mm. Dark testaceous; head, with base, sutural area, and sides of elytra brown, joints 1 to 4 of antennae (rest fuscous) and legs light testaceous. Head with furrows very indistinctly duplicated, inner ones short and straight, but moderately deep, eyes rather prominent, mentum without pores, antennae submoniliform, slightly dilated towards apex, joint 2 very little longer than 3. Prothorax cordate, half as wide again as long, about equally contracted at extremities, sides of base a little oblique, sides rounded in front and very gently sinuate behind, angles slightly obtuse but sharp, with a rudimentary carina; median line faint, basal sulcus moderately impressed, uneven but not crenulate, interrupted and with a pore at middle. Elytra oval, only moderately convex, border smooth, rounded at shoulder and just reaching hind angles of prothorax; three slightly crenulate dorsal striae, moderately impressed on disk, 1 only reaching base and apex, 2 and 3 only a little shortened, 4 just visible, 5 to 7 obsolete, 8 entire but nearly interrupted at middle, striole short but deep and wide, a little nearer margin than suture, the pore rather in front of middle; dorsal pores distinct, on inside of stria 3, at about a third and two thirds. Microsculpture very clear, the meshes moderately transverse on the elytra, isodiametric on head and prothorax. Prosternum slightly sulcate, metasternal process depressed at extremity, with an arcuate groove behind, protarsi 3 with two slightly dilated joints.

388

Smaller, narrower, and paler in colour than ceylanicus. Head with frontal furrows less impressed; prothorax with sides less sinuate behind, the carina, basal sulcus, and median pore all slighter, elytra with shallower striae, the dorsal pores placed further back. Microsculpture strongly developed, an arcuate groove behind metasternal process.

389

NEW GUINEA: Dilo, 5 ex., and Kapakapa, 3 ex. (all *L. Loria*). The type is in the Genoa Civic Museum.

## Tachys loriae sp. nov.

Length: 2,3 mm. Testaceous; underside, head, front margin of prothorax, suture and border of elytra brownish; legs flavous. On each elytron there are two large vague testaceous spots. *Head* rather small, with short, fairly deep, single furrows, eyes not prominent, mentum without pores, antennae slender, joint 2 = 3. Prothorax cordate, half as wide again as long, base produced in middle, sinuate at sides, a little wider than apex, sides rounded and gently sinuate before hind angles, which are right and project a little backwards, with a slight carina; median line fine, basal sulcus not very deep, hardly crenulate, obsolete at sides, interrupted and with a pore at middle. Elytra much wider than prothorax, rather flat, broadly ovate, with square shoulders, border smooth, rounded at shoulder and extending inwards a little beyond hind angle of prothorax; striation faint, vaguely crenulate, stria 1 only entire, 1 and 2 moderately impressed, 3 and 4 just traceable, 8 more distinctly impressed, obsolete in middle, striole wide, curved, carinate on outer margin and ending on middle of elytron, its pore a little nearer front than apex; dorsal pores on inside of stria 3 at a third and two thirds. The fine transverse lines of the microsculpture are just visible on prothorax and elytra; on the head the meshes of the reticulation are isodiametric. Prosternum with only a faint depression, metasternal process with a rather shallow arcuate groove behind it, protarsi of with two hardly perceptibly dilated joints. Not unlike *ceylanicus* and about the same size and colour, but duller and much less convex. Head with shorter furrows, finer antennae, and less prominent eyes; sides of prothorax less sinuate behind, basal sulcus shallower, the carinae fainter; elytra with shallower striae, 3 hardly visible, 8 obsolete at middle. Microsculpture more evident and clearly isodiametric on head, whereas in *ceylanicus* the head is practically smooth.

NEW GUINEA: Ighibirei (Loria) VII-VIII, 90, 1 ex. 3 in the Genoa Civic Museum.

# Tachys luteus sp. nov.

Length: 2,4 mm. Testaceous: head, prothorax, and antennae (except joint 1) light brown. Head with wide, rather deep furrows, diverging a little behind, some slight irregular striation behind them, mentum without pores, eyes flat, hind supraorbital distant from and a little behind posterior margin of eye, antennae fairly long and a little dilated at apex, joint 2 = 3. Prothorax slightly cordate, rather less than a half wider than long, base truncate, rather wider than apex, sides gently rounded in front and almost straight to hind angles, which are right and very sharp, with clearly marked carina; median line fairly deep, basal sulcus deep but narrow, not crenulate, interrupted at middle, without pore. Elytra elongate-oval, rather flat, half as wide again as prothorax, border smooth, rounded at shoulder and curving a little backwards to rather beyond base of stria 5; striae 1 to 6 indicated and clearly punctate, inner ones moderately impressed, outer ones rather faint, and all (except 1) evanescent behind and near base, 7 obsolete, 8 deep behind but only faintly impressed in middle, striole curved and outwardly carinate, deep though not very long, a little dilated at front extremity and ending on middle of elytron, the pore large and placed a little in front of middle; dorsal pores just inside stria 3, at about a third and two thirds respectively. Prosternum not sulcate, the process very narrow, metasternal process finely bordered, but without transverse groove behind it. The microsculpture consists of very fine inconspicuous transverse lines: on the middle of head there is a faint transverse reticulation.

## 390

Resembling' *ceylanicus*, but larger, flatter, and a little lighter in colour. Head with the antennae longer and dilated at apex; prothorax less contracted behind, basal sulcus smooth, without pore at middle; elytra with striae 4-6 distinct, though short, striole longer and deeper, dorsal pores placed further back.

MALAY STATES: Singapore (C. J. Saunders) 1 ex. I am indebted for this specimen to Mr. W. J. Saunders.

# Tachys rhombophorus sp. nov.

Length: 2,75-3,50 mm. Dark red beneath; head, prothorax, and apical border of elytra pale red brown; prosternum, palpi, joints 1 to 4 of antennae, legs, and elytra (including front half -

of epipleurae) testaceous; rest of antennae, margin of venter, a large diamond-shaped spot on elytra (which is iridescent), with margin in middle, apex, and apical half of epipleurae black. Head with slight, single, shallow furrows, diverging a little behind, mentum without pores, eyes moderately prominent, antennae rather short, submoniliform towards apex, joint 2=3. *Prothorax* quadrate, barely a half wider than long, moderately convex, base rather wider than apex, its sides a little oblique, sides rounded in front, nearly straight behind, hind angles right and projecting a little laterally, without trace of carina; median line clearly marked in middle, basal sulcus uninterrupted, faintly crenulate. Elytra wide, ovate, moderately convex, border smooth, rounded at shoulder, hardly extending inwards beyond hind angles of prothorax; striae slightly arcuate (convex outwards), finely crenulate, 1 to 4 moderately deep, 5 lightly impressed, 6 and 7 obsolete but just visible, 8 deep behind, rather shallow on basal third, 1 reaching base, the others evanescent before and behind, though all the inner striae are fairly long, striole rather long, curving inwards and ending a little nearer margin than suture, the pore midway along its length; two dorsal pores on stria 3

at about a third and two thirds. Prosternum with a rounded depression in middle, metasternum with a fine groove in front,  $\sigma$  protarsi with two slightly dilated joints. The microsculpture of the elytra consists of very fine wavy transverse lines; it is much more conspicuous on the prothorax, on the middle of which the meshes of the reticulation become almost isodiametric, as are those of the head.

I know of no near ally to this species. Superficially it is rather like T. triangularis Nietn., but lighter in colour, wider, and with a diamond-shaped, instead of a transverse patch on the elytra: Nietner's species, too, has two large circular pores on the mentum, which are wanting here, and differs in many other ways.

## Var. evanidus v. nov.

In the type form the elytral spot reaches nearly to base, and joins both the black apex and side margins, so that the testaceous marking consists of two large triangular shoulder spots and two oblong apical ones between striae 2-8. In some specimens, to which I have given the above name, the black marking on the

elytra is much reduced, and the central spot becomes a small oblong, hardly extending outwards beyond stria 3, or 4, though the suture remains infuscate.

EASTERN DUARS (H. Stevens). SIKKIM: Gopaldhara, Namsoo, Gielle Khola and Tarkhola in the Tista Valley (all H. Stevens). KUMAON: West Almora, Ranikhet, Tanakpur, River Sarda Gorge, Haldwani – Nandhaur River, and Hardwar – River Ganges, 2000 feet (all H. G. Champion); Dehra Dun and Lachiwala, Siwalik Hills (Dr. M. Cameron – Forest Res. Inst.); River Song (S. N. Chatterjee – Forest Res. Inst.).

Tachys exaratus Bates Trans. Ent. Soc. Lond. 1873, 296. (pl. III, fig. 4).

Length: 2,2-2,4 mm. Bates' brief description hardly does justice to this species and is in one respect inaccurate. Colour piceous, joint 1 of antennae, tibiae, tarsi, and apex of femora dark testaceous, a vague reddish spot on elytra at apical third. Head with rather short and shallow single furrows, eyes not prominent, mentum without pores, antennae submoniliform, slightly dilated at apex, joint 2 = 3. Prothorax subcordate, a half wider than long, base a little wider than apex, sides minutely setulose, gently rounded, faintly sinuate behind, the hind angles right, with a rudimentary carina; transverse impressions well marked, the fine median line extending between them, basal sulcus moderately deep, indistinctly crenulate, slightly interrupted and with only a vague pore at middle. Elytra elongate, flat, border setulose, extending inwards a little beyond hind angles of prothorax, and curving slightly backwards to a point midway between striae 4 and 5; striae long, abbreviated at extremities only, rather vaguely crenulate, 1 entire, 2 not reaching apex (as stated by Bates), but curving outwards towards, though not quite reaching the pore in the striole, 1-4 moderately deep, 5 and 6 nearly, 7 quite obsolete, 8 widely interrupted, though just traceable in middle, striole distinct and rather long, curving inwards to middle of elytron and bounded outwardly by a sharp ridge, the pore half way along it; dorsal pores at a third and three fourths, on inner margin of stria 3. Microsculpture distinct, consisting of closely placed transverse lines, forming wide meshes, on elytra, the head and prothorax irregularly reticulate, the meshes mostly

a little transverse, but nearly isodiametric on disk. Prosternum vaguely sulcate, metasternal process slightly bordered but without transverse groove behind it, inner pores on last ventral segment Q distant from margin.

Bates compares his species with T. bistriatus Dufts., belonging to quite a different group. Its general form and depressed elytra give it more the appearance of a small species of the nanus group, from which otherwise it is quite distinct.

JAPAN.

## Var. curtus v. nov.

A single example taken by Mr. George Lewis in Japan, and now in the British Museum, differs in several respects from the typical form, and, should these differences prove constant over a series of specimens, probably represents a distinct species. The antennae are brown instead of piceous, the red spot at apex of elytra extremely vague. The eyes are a little flatter, but otherwise the head and prothorax are similar. The elytra are distinctly shorter and not so flat, more rounded at sides and behind, widest at apical third; the striae are not so strongly impressed, the striole does not bend so sharply inwards, but is quite as deep: the hind

dorsal pore is placed a little further forward. For the present I treat this as a variety.

# Tachys singularis sp. nov.

Length: 1,75 mm. Light brown, antennae and legs testaceous, elytra sometimes with a very faint darker band across disk, the apex a little lighter. Head with short wide shallow single furrows, eyes rather flat, mentum without pores, antennae moderately long, slightly dilated towards apex, joint 2 barely longer than 3. Prothorax cordate, half as wide again as long, base rather narrower than apex, produced backwards at middle, its sides sinuate, sides rounded in front to a fifth from base, sinuate and then straight to the angles, which are sharply rectangular, with only a vestige of a carina; median line fine, but deeper behind, where it just passes through the sulcus without reaching base, basal sulcus not crenulate, interrupted, moderately deep at middle, very shallow at sides. Elytra ovate and rather flat, border setulose and strongly denticulate (as in dentatus) behind shoulder, almost imperceptibly so behind, rounded at shoulder, and extending inwards to base of stria 4; three moderately impressed, faintly crenulate striae, though 4 and 5 are clearly visible from above, especially near base, 1 only reaching base and apex, the remaining striae just traceable, 8 rather lightly and irregularly impressed, striole fairly long straight and wide, much nearer margin than suture, bounded outwardly by a distinct carina, the pore much nearer apex than front; dorsal pores rather small, on inner margin of stria 3, at about a fourth and two thirds. Microsculpture of elytra very distinct, the meshes moderately transverse; the meshes on head and prothorax appear nearly isodiametric, but are very faint. Prosternum with only a faint depression, metasternal process narrowly bordered, inner pores on last ventral segment Q not far removed from margin.

The dentate border of the elytra, a character associated with the *triangularis* group, renders this species quite aberrant. From *dentatus* and *serratus*, which belong to that group, and are the only ones with which this species is likely to be confused, it may easily be distinguished by the absence of pores on the mentum, the unreflexed rectangular hind angles of the prothorax, the elytral border rounded at shoulder, and the character of the microsculpture.

CELEBES: Macassar (Dr. O. Beccari) 5 ex. The type is in the Genoa Civic Museum.

# notaphoides - group.

Colour variable, form moderately convex. Head with frontal furrows single or duplicated, eyes rather flat, mentum without pores, antennae generally submoniliform. Prothorax with a carina in the hind angles, which becomes sometimes very rudimentary. Elytra with border either smooth or minutely setulose, fully striate, the striae punctate or minutely crenulate, outer ones sometimes very fine, 8 deep or moderately deep throughout, striole on middle of elytron, two dorsal pores. Except in one species a microsculpture is present. Metasternal process bordered.

The five species which I have included in this group do not make a very homogeneous whole, the first three species in the key forming one sub-group, and the other two another one. If

the number of striae only were taken into account, klugi would have to be included here: in nearly all its other characters it belongs to the *politus* group and I have accordingly put it there.

#### KEY TO THE SPECIES

- 1 (6) Elytra with outer striae clearly impressed, the striae punctate and moderately deep, basal sulcus interrupted at middle, colour dark castaneous or black.
- 2 (5) Eyes flat, elytral striae rather coarsely punctate, colour castaneous.
- 3 (4) Antennae distinctly dilated at apex, no microsculpture. Length 2,4 mm. dulcis sp. nov.

- 4 (3) Antennae hardly dilated at apex, a distinct microsculpture. Length 3,5 mm.
- 5 (2) Eyes moderately convex, elytral striae finely punctate, colour black, with two light spots on each elytron, microsculpture present. Length 2,7-3,5 mm. micraulax Andr.
- 6 (1) Elytra with outer striae very fine, the striae finely crenulate and not very deep, colour bronze or brown.

castaneus sp. nov.

- 7 (8) Colour brown, basal sulcus without or with only a vague pore at middle. Length 2,5 mm. notaphoides Bates
- 8 (7) Colour bronze, basal sulcus with an elongate pore at middle formed by base of median line. Length 2,1 mm.

notaphoides. var. callispilotus Bates

# Tachys dulcis sp. nov.

Length: 2,4 mm. Light brown, margin of prothorax and elytra, with suture of latter rather darker, antennae and legs testaceous, basal joints of antennae, palpi, and a large vaguely defined apical spot on each elytron pale testaceous. Head very small, with flat eyes, frontal furrows single short and rather deep, mentum without pores, antennae submoniliform, joint 2 hardly shorter than 3. Prothorax transverse, sides of base slightly oblique, sides rounded in front, nearly straight behind, a rather wide marginal channel, hind angles projecting on each side as a small rectangular tooth, with a short but distinct carina; median line very fine, the surface near its apex with a small triangular depression, basal sulcus moderately deep, vaguely

crenulate, interrupted and with a large pore at middle. *Elytra* ovate, only moderately convex, border with one or two minute setae on shoulder, forming a very distinct dentiform angle at shoulder, and then bent back for a short distance to the base of stria 5; fully striate, the striae moderately deep and distinctly punctate, 1 entire, 2 to 7 only slightly shortened at base, rather more so towards apex, 7 represented chiefly by fine punctures, 8 entire and fairly deep, striole rather short, on middle of elytron, hooked in front, with the pore half way along it; dorsal pores on stria 3, at a third and two thirds, not very conspicuous, owing to the punctures in the striae. Microsculpture inconspicuous. Metasternal process finely bordered; protarsi 3<sup>r</sup> with 2 slightly dilated joints.

I do not know of any very near ally, among species already described. *T. ceylanicus* is a little smaller, but of much the same colour, though the antennae and the disk of the elytron are more or less fuscous. In Nietner's species too the eyes are relatively prominent, the prothorax is more contracted and distinctly sinuate behind, the elytral border is hardly angulate at shoulder, there are only three dorsal striae, and the hind pore is placed further forward.

396

UNITED PROVINCES: Bareilly (H. G. Champion) 1 ex.  $\mathcal{J}$  in. the British Museum.

# Tachys castaneus sp. nov.

Length: 3,5 mm. Form rather wide and flat. Chestnut-brown, faintly iridescent: palpi, femora, epipleurae and apical third of elytra lighter. Head with fairly deep furrows, diverging a little behind, a slight oblong depression on each side between them and eye, both supraorbital pores at some distance from eye, mentum without pores, labrum very distinctly but widely emarginate, eyes flat, antennae fairly long and slightly dilated towards apex, joint 2 a little shorter than 3, and 3 than 4. Prothorax cordate, moderately convex, base bisinuate, its sides curving a little backwards, wider than apex, sides rounded and slightly sinuate behind, marginal channel wide, border reflexed, marginal pores very distinct, hind angles right and sharp with a strongly marked carina; median line rather fine, basal sulcus crenulate, narrow but deep, interrupted at middle, where there

397

is a large elongate pore, which joins the median line. Elytra wide, flat, rather pointed at apex, half as wide again as prothorax, border smooth, forming a distinct angle at shoulder, but not continued beyond stria 5, which is opposite hind angle of prothorax; fully striate, the striae not deep but very clearly punctate, 8 deep behind, but hardly more impressed in front than the other striae, 1 reaching basal pore, 2 to 4 not reaching base, 2 to 7 all abbreviated behind, apical striole fairly long and curving slightly inwards in front, ending midway between margin and suture, the pore half way along it; dorsal pores distinct, on inner margin of stria 3 at about a fourth and three fifths from base. Prosternal process longitudinally depressed in middle, metasternal process with a deep arcuate groove close to margin, 3 protarsi with two slightly dilated joints. The microsculpture of the elytra consists of very fine, almost invisible transverse lines; on the prothorax it can be clearly seen, the lines which form it being very variable in direction; on the front of the head it is isodiametric.

I am unable to compare this species with any other nearly allied to it, but in appearance it is not unlike *sericeus*, from which, however, it differs in many important characters. The colour is similar, but the elytra have no dark cloud on the disk. The frontal sulci are shallower, the prothorax more cordate and with sharper hind angles, the elytra wider and more pointed at apex, fully striate and with the dorsal pores on stria 3.

SIKKIM : Gopaldhara (H. Stevens) 1 ex. KUMAON : West Almora (H. G. Champion) 1 ex.

Tachys micraulax Andr. Rec. Ind. Mus. XXVI (1), 1924, 115. Length: 2,7-3,5 mm. Black, iridescent, and shiny: palpi, joints 1 to 4 of antennae (rest dark), legs, apical border and two fairly large spots on each elytron, the front one a little oblique, the hind one round, testaceous. Head with indistinctly duplicated furrows, inner ones wide, not very deep, diverging behind, eyes moderately prominent, mentum without pores, antennae rather slender, slightly dilated towards apex, joint 2 a little shorter than 3. Prothorax rather small, cordate, moderately convex, a third wider than long, sides gently rounded, and equally gently sinuate rather in front of the hind angles, which are slightly

acute and projecting, with a short but distinct carina; median line moderately impressed on disk, basal sulcus distant from margin, fairly deep, crenulate, interrupted and with a pore at middle. Elytra convex, ovate, pointed at apex, three fourths wider than prothorax, border rounded at shoulder, where one or two minute setae are visible, and reaching stria 5; fully striate, the striae moderately deep and punctate, 1 and 8 deep throughout, 2 to 7 almost reaching base but disappearing behind near apex, striole curved, on middle of elytron, the pore half way along it; dorsal pores distinct, on stria 3, at about a third and three fifths. Microsculpture of the elytra consisting of very fine transverse lines, that of the head and prothorax isodiametric, or nearly so. Prosternum narrowly sulcate, metasternal process depressed, with a deep angular groove near extremity, ventral surface minutely punctulate, last segment Q with the four pores in line, protarsi 3 with two slightly dilated joints.

In the original description I compared this species with *tetra-spilus*, to which, apart from the fact that it is fully striate, it bears a strong ressemblance. It will be seen, however, from the key that it is actually more nearly related to two new species, *castaneus* and *dulcis*, also from North India.

ASSAM, SIKKIM, and KUMAON. The type is in my collection.

Tachys notaphoides Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 156.

Length: 2,5 mm. Brown, faintly aeneous, head and margins of elytra piceous, palpi and antennae black, joint 1 of latter (with base of 2) and legs testaceous, each elytron with two vague flavous transverse spots, the front one oblique. Head with short and rather shallow indistinctly duplicated furrows, eyes rather flat, mentum without pores, antennae stout, submoniliform, joint 2 = 3. Prothorax quadrate, about a third wider than long, with evenly and gently rounded sides, equally contracted at extremities, with only a suggestion of sinuation behind, hind angles slightly obtuse but not rounded, with a rudimentary carina; median line fine, basal sulcus fairly deep, not crenulate, slightly interrupted and without, or with only a vague pore at middle, basal area a little uneven, hind margin minutely longitudinally striate. Elytra oval, border minutely setulose but not

perceptibly denticulate, almost angled at shoulder and extending inwards to stria 4; fully striate, the striae fine and vaguely crenulate, 1 entire, the rest nearly reaching base in front, abbreviated behind, 6 rather and 7 very faintly impressed, 8 fairly deep throughout, striole moderately long, slightly curved, very deep and wide, ending on middle of elytron, the pore a little behind middle; dorsal pores small, on inner side of stria 3, at about a third and two thirds. Microsculpture very clear, isodiametric on head and prothorax, the meshes on the elytra moderately transverse. Prosternum rather flat, not sulcate, metasternal process bordered, protarsi 3 with two moderately dilated joints.

I know no eastern species nearly allied to this one.

CEYLON: Dikoya (G. Lewis) 1 ex. INDIA: Tranquebar (Copenhagen Museum) 4 ex. taken by the Galatea Expedition. The type (Dikoya) is in the British Museum.

Var. callispilotus Bates Ann. Mus. Civ. Gen. 1892, XXXII, 291. Length: 2,0-2,2 mm. A little smaller and narrower than the type form, bronze-black in colour, femora infuscate, elytra with smaller and more rounded spots. Head and prothorax similar, but the base of the median line forms an elongate pore at middle of basal sulcus and the sides of the prothorax behind show some transverse striation; elytra also similar, but, whereas in the type form they are only half as long again as wide, in the variety they are proportionately longer.

BURMA: Teinzò (L. Fea), Taung-ngu (C. F. C. Beeson). BENGAL: Sarda (F. W. Champion), «Bengal» (Copenhagen Museum), several examples taken by the Galatea Expedition. KUMAON: West Almora, Tanakpur, and Haldwani (H. G. Champion). I have examined the type (Teinzò), which is in the Genoa Civic Museum.

# politus - group.

Generally black or red, with or without pale spots, form convex. Head with the furrows single or duplicated, eyes moderately prominent, mentum without pores, (pl. IV, fig. 23), antennae filiform or submoniliform, joint 2 equal to or a little shorter than 3. The carina in hind angles of prothorax usually very distinct, sometimes rudimentary, rarely wanting; basal sulcus

a little variable, but generally deep, interrupted, and with a pore at middle. Elytra with smooth border, rounded or sometimes angulate at shoulder, 1 to 6 dorsal striae (except klugi, which is fully striate), 8 deep throughout, striole on middle of elytron, the pore generally half way along it, two dorsal pores on stria 3. Microsculpture usually wanting, occasionally present. Prosternum generally sulcate, the metasternum as a rule with an arcuate groove behind the process, last ventral segment Q with the four pores in line, protarsi 3 with two joints either very slightly or not dilated, claws simple.

I have not been able to split up this large group satisfactorily into smaller sections, though there are evident sub-groups centreing round aratus, erotyloides, etc., and the whole of them are therefore included in the following table.

#### **KEY TO THE SPECIES**

- (36) Elytra with at least 4 fairly deep striae.
- 2 (11) Frontal furrows forming with the clypeal suture a deep, more or less horse-shoe-shaped impression.

- 3 (10) Prothorax with three distinct pores in middle of basal sulcus, stria 6 wanting.
- (7) Prothorax only slightly contracted 4 behind, striae moderately deep. Length about 2,7 mm.
- 5 (6) Elytra black, with a small pale spot at apex.
- (5) Elytra reddish, with a pale stripe 6 along sides.

aratus nom. nov.

aratus var. virgatus v. nov.

- (4) Prothorax rather strongly contracted 7 behind, striae deep.
- (9) Elytra black, each with a large vague 8 reddish spot at apex. Length 3,0 mm.

aratus var. vigens v. nov.

- 9 (8) Elytra chestnut, each with a small pale spot on a dark background. Length 2,6 mm. ocellatus Bates
- (3) Prothorax with the three pores in 10 middle of basal sulcus indistinct, a trace of stria 7 opposite front dorsal pore. Length 2,7 mm. belli sp. nov.

- 11 (2) Frontal furrows normal, not forming a horse-shoe-shaped impression.
- 12 (27) Stria 1 reaching or very nearly reaching base.
- 13 (16) Prothorax strongly contracted and distinctly sinuate behind, elytra 5-striate, striae 2-3 much shorter in front than the others, no microsculpture.
- 14 (15) Dorsal striae not crenulate, basal sulcus of prothorax interrupted and with a pore at middle. Length 2,75 mm. nitens sp. nov.
- 15 (14) Dorsal striae crenulate, basal sulcus uninterrupted and without special pore at middle. Length 2,6 mm.
- 16 (13) Prothorax not or only moderately contracted and barely sinuate behind (except quite close to angles), striae 2-3 not much if at all shorter than the others.
- (18) Elytra fully striate, without micro-17 sculpture. Length 2,9 mm. klugi Nietn.
- (17) Elytra with not more than 6 dorsal 18

imperfectus sp. nov.

striae, microsculpture present. (20) Elytra with 6 dorsal striae. Length 19 2,75 mm. chalceus sp. nov. (19) Elytra with not more than 5 dorsal 20 striae. (26) Elytra with 5 dorsal striae (a trace 21 of 6 sometimes in ornatus). (23) Form subelongate, elytra parallel in 22 middle, with two pale spots on each. Length about 3,25 mm. ornatus Apetz (22) Form short, ovate, elytra with round-23 ed sides. Length 2,75 mm. (25) Elytra without spots. 24 aeneus Putz. aeneus (24) Elytra each with an apical spot. 25 (21) Elytra with 4 dorsal striae. Length 26 2,9 mm. 27(12) Stria 1 disappearing a long way from base. 28 (33) Form elongate, shoulders rounded, base of prothorax hardly depressed. Length at least 3,0 mm. 29 (32) Basal sulcus of prothorax hardly im-Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Maggio 1925).

var. biplagiatus Jord.

borneensis sp. nov.

26

pressed, occupied chiefly by a row of minute pores, widely interrupted and without any pore at middle, elytral striae rather fine. (31) Elytra two thirds longer than wide, 30 surface shiny, apical spots small. Length 3,2 mm. erotyloides sp. nov. (30) Elytra not more than a half longer 31 than wide, surface dull, apical spots large. Length 3,5 mm. fusiformis sp. nov. 32 (29) Basal sulcus of prothorax shallow, but distinct, and crenulate, interrupted and with a pore at middle, elytral striae deep. Length 3,0 mm. papuae sp. nov. (28) Form short, ovate, with square shoul-33 ders, and strongly impressed basal sulcus. Length under 3,0 mm. (35) Elytral striae deep, intervals of equal 34 width, surface glabrous. Length 2,75 mm. bembidiiformis Jord. (34) Elytral striae shallow, intervals of 35 unequal width, surface pilose. Length 2,8 mm. barringtoni sp. nov.

(1) Elytra with not more than 3 striae. 36

- 37 (44) Basal sulcus of prothorax uninterrupted at middle. Length about 2,0 mm.
- 38 (41) Colour red brown, each elytron with two pale spots (unitarius sometimes dark).
- 39 (40) Elytra 2-striate, prothorax without carina in hind angles. decoratus nom. nov.
- 40 (39) Elytra 1-striate, prothorax with a small but distinct carina in hind angles.

unitarius Bates

- (38) Colour black or piceous without spots. 41
- 42 (43) Elytra 2-striate, no distinct pore at middle of basal sulcus of prothorax, a faint microsculpture present. *fusculus* Schaum

43 (42) Elytra 3-striate, a pore at middle of basal sulcus of prothorax, no microsculpture.

forus sp. nov.

- 44 (37) Basal sulcus of prothorax interrupted at middle:
- 45 (50) Basal sulcus interrupted three times, so that there are three deep pores

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at middle, in addition to a deep fovea inside hind angles.

- 46 (47) Colour testaceous, elytra each with two deep crenulate striae. Length 3,25 mm. sp
  - spurcus sp. nov.
- 47 (46) Colour piceous, elytra each with two smooth striae. Length 3,25 mm.
- 48 (49) Elytra each with two large reddish spots. *pulcher* sp. nov.
- 49 (48) Elytra with reddish spots nearly obsolete.
- 50 (45) Basal sulcus of prothorax interrupted and with a single pore at middle.
- 51 (56) Elytra 1-striate.
- 52 (55) Basal sulcus of prothorax with a deeply impressed median pore, colour black, with two dark red spots on each elytron.
- 53 (54) Median pore elongate, head with distinct microsculpture. Length 2,75 mm. psilus sp. nov.
- 54 (53) Median pore round, head without microsculpture. Length 3,0 mm.
- 55 (52) Basal sulcus of prothorax with a slight

pulcher var. celebensis v. nov.

403

narrow pore, colour dark testaceous, with suture of elytra darker. Length about 2,75 mm.

suturalis Motch.

var. unisculptus v. nov.

nilgiricus

- 56 (51) Elytra 2- or 3-striate.
- 57 (74) Elytra with three impressed dorsal striae (3 faint in *peryphinus*).
- 58 (63) Form very convex, elytra more than half as wide again as prothorax, which is strongly contracted and sinuate behind, elytral striae widely placed, colour black or aeneous, with a vague apical reddish spot.
- 59 (62) Surface glabrous, elytral striae very deep.
- 60 (61) Stria 3 diverging outwardly in front, frontal furrows parallel, head without microsculpture. Length 2,75 mm.
- 61 (60) Stria 3 not diverging outwardly in front, frontal furrows diverging behind, head with a faint isodiametric microsculpture between eyes. Length 3,0 mm.

triloris sp. nov.

laotinus sp. nov.

- 62 (59) Surface of elytra pilose, elytral striae not very deep. Length 2,75 mm. interpunctatus Putz.
- (58) Form moderately convex, elytra not 63 more than half as wide again as prothorax, which is moderately contracled and sinuate behind, elytral striae fairly close together.
- (69) Black, with two light spots on each 64 elytron (sometimes disappearing in peryphinus). Length 2,5 - 2,8 mm.
- (68) Prothorax half as wide again as long, 65 stria 3 distinctly impressed, at least between dorsal pores.
- (67) Stria 3 extending behind far beyond 66 dorsal pore, apical border of elytra red, head with distinct microsculpture.

tetraspilus Solsky

- (66) Stria 3 extending behind barely beyond 67 dorsal pore, the whole apex reddish, head without distinct microsculpture. gradatus Bates
- (65) Prothorax only a third as wide again 68 as long, stria 3 formed by a lightly impressed crenulate line, head with isodiametric microsculpture.

peryphinus Bates

- (64) Colour more or less testaceous. Length 69 1,8-2,1 mm.
- 70 (73) Prothorax distinctly sinuate behind, frontal furrows not or indistinctly duplicated.
- (72) Elytra with two dorsal pores only. 71
- (71) Elytra with more than two dorsal 72 pores.
  - (70) Prothorax hardly sinuate behind, frontal furrows distinctly duplicated.
- 74 (57) Elytra with two impressed dorsal striae (3 sometimes visible but hardly impressed).
- 75 (100) Prothorax with basal sulcus not or only indistinctly crenulate.
- 76 (79) Stria I much deeper than 2.

73

(78) Stria 1 very deep, 2 arcuate, interval 77 2 very wide at middle, prothorax not more than a third wider than long. Length 3,5 mm. arcuatus Putz.

ceylanicus Nietn. ceylanicus var. polyporus v. nov.

fuscicauda Bates

- 78 (77) Stria 1 moderately, 2 very lightly impressed, not arcuate, prothorax more than half as wide again as long. Length 2,4 mm.
- 79 (76) Stria 2 not or hardly less deep than 1.
- (81) Stria 2 not extending in front beyond 80 the dorsal pore (front or side view), elytra dark but suffused with red, with two pale spots on each, apical joints of antennae fuscous. Length 2,3 mm.
- (80) Stria 2 extending in front beyond the 81 dorsal pore.
- 82 (91) Sides of prothorax not sinuate behind (though the hind angles project as a minute tooth).
- (84) Black, iridescent, apex of elytra red, 83 antennae pale, sides of elytra rounded. Length about 2,75 mm.
- 84 (83) Black, brown, or dark red, with two pale or reddish spots on each elytron, sides of elytra subparallel.
- (90) Stria 1 entire, apical joints of anten-85 nae dark.

pictus sp. nov.

## poecilopterus Bates

nalandae sp. nov.

## 405

86 (89) Dark red or brown, elytral spots distinct, antennae rather short, submoniliform. Length about 2,25 mm.

- 87 (88) Dark red, the disk of elytra nearly black, spots small and pale, prothorax equally contracted at extremities. poecilopterus Bates
- 88 (87) Dark brown, elytra with large light red spots, prothorax with base wider than apex.
- (86) Black with vague dark red elytral 89 spots, antennae long, thick, and black. Length 2,75 mm. malabaricus sp. nov.
- (85) Stria 1 not reaching base, antennae 90 pale, elytral spots small, pale, and transverse. Length 2,7 mm.

(82) Sides of prothorax sinuate before hind 91 angles.

- (93) Elytra entirely black, antennae pale 92 testaceous. tagax sp. nov.
- (92) Elytra black with two red or testa-93 ceous spots on each.

mediocris sp. nov.

pallidicornis sp. nov.

- 94 (99) Stria 2, viewed from above, not extending in front far beyond the dorsal pore, antennae more or less testaceous.
- (98) Upper surface without iridescence, 95 stria 3 invisible.
- (97) Striae terminating very abruptly in 96 front, antennae darker towards apex, elytral spots large.

stevensi sp. nov.

- (96) Striae melting away gradually in front, 97 antennae pale throughout, elytral spots small. nilgiricus sp. nov.
- 98 (95) Upper surface more or less iridescent, stria 3 (side view) visible between dorsal pores, and even close to base. nannodes sp. nov.
- (94) Stria 2, viewed from above, extending 99 half way from dorsal pore to base, apical joints of antennae fuscous. | var. constrictus v. nov.

politus

- 100 (75) Prothorax with basal sulcus distinctly, though sometimes finely crenulate.
- 101 (118) Dorsal striae crenulate.
- 102 (115) Elytra with stria 3 invisible.
- 103 (114) Elytra with dorsal striae deep, 2 arcuate (much nearer to 1 behind

than at middle).

104 (109) Prothorax more than two thirds as wide as the elytra, upper surface with an aeneous tinge. Length about 3,3 mm.

105 (106) Elytra unicolorous.

106 (105) Elytra with reddish spots.

107 (108) Elytra each with an apical spot.

108 (107) Elytra each with an apical and shoulder spot.

politus var. aspilotus v. nov.

politus Motch.

politus var. homostictus Bates

109 (104) Prothorax less than two thirds as wide as elytra, upper surface partly reddish, not aeneous, elytra each with two pale spots. Length 2,5 -3,0 mm.

110 (111) Upper surface with microsculpture. Length 3,0 mm. compactus sp. nov. 111 (110) Upper surface without microsculpture. 112 (113) Interval 2 on disk much wider than 1,

colour mainly reddish. Length about 2,7 mm.

gongylus sp. nov.

113 (112) Interval 2 on disk not much wider than 1, colour mainly black. Length about 2,9 mm. charactus sp. nov.

114 (103) Elytra with dorsal striae shallow and nearly parallel, the spots on elytra faint, no microsculpture. Length 2,7 mm.

115 (102) Elytra with stria 3 visible, though hardly impressed, surface iridescent, a fine microsculpture present, isodiametric between eyes.

116 (117) Elytra without spots. Length 2,5 mm. babaulti Andr.

117 (116) Elytra each with two large pale spots. Length 3,0 mm.

championi sp. nov.

118 (101) Dorsal striae not crenulate.

- 119 (134) Sides of prothorax sinuate, if at all, close to hind angles, form moderately convex. Length not exceeding 2,8 mm.
- 120 (133) Metasternal process narrowly bordered, or with a transverse groove behind it, or both.
- 121 (130) Elytra quadrimaculate, the spots sometimes vaguely defined.

407

vixmaculatus sp. nov.

- 122 (129) Elytra without microsculpture, metasternal process slightly bordered, and with a straight transverse groove behind it.
- 123 (128) Frontal furrows duplicated.
- 124 (127) Elytral spots pale and fairly distinct, antennae pale, submoniliform.
- 125 (126) Elytra black, sides of prothorax gently sinuate near hind angles. Length 2,5 mm.
- 126 (125) Elytra red, sides of prothorax hardly sinuate near hind angles. Length 2,2 mm.

127 (124) Elytral spots vague, dull red, antennae filiform, with apical joints fuscous. Length 2,75 mm.

- 128 (123) Frontal furrows triplicated, elytra reddish, antennae pale.
- 129 (122) Elytra with a microsculpture of fine transverse lines, metasternal process

charis sp. nov.

charis. var. rubescens v. nov.

finitimus Walk.

striatifrons sp. nov.

with an arcuate groove behind it. Length 2,5 mm. laetificus Bates 130 (121) Elytra without spots. Length 2,5 mm. 131 (132) Elytra black, vaguely red on apical half, stria 3 visible from in front. javanicus sp. nov. 132 (131) Elytra dark red, stria 3 quite obliterated. blandus Andr. 133 (120) Metasternal process unbordered and without transverse groove behind it, elytra dull red. Length 2,1 mm. tostus sp. nov. 134 (119) Sides of prothorax strongly sinuate at some little distance from hind angles, form convex, elytra black, quadrimaculate. Length 3,3 mm. eueides Bates

# Tachys aratus nom. nov.

- » sulcatus Motch. (not Putz.) Bull. Mosc. 1851, IV, 509; Putz. Ann. Mus. Civ. Gen. VII, 1875, 740; Andr. Trans. Ent. Soc. Lond. 1919, 199.
- ? » latus Peyron Ann. Soc. Ent. Fr. 1858, 364, t. 9, f. 3; Bates Ann. Soc. Ent. Fr. 1889, 275; id. Ann. Mus. Civ. Gen. XXXII, 1892, 293.

Length: 2, 4 - 3, 0 mm. Black; upper surface often with

# 408

an aeneous tinge and occasionally suffused with a deep chestnut colour, apex of elytra light red; palpi, antennae, legs, and an apical round spot on each elytron between striae 2 and 8 flavous; antennae darker towards apex, sometimes fuscous. Head with duplicated furrows, the outer ones slight, inner ones forming with the clypeal suture a rather deep horse-shoe-shaped impression (convex forwards), a little flattened in front, the ends generally curving a little inwards behind, mentum without pores, eyes rather flat, joints 2 to 4 of antennae equal, apical joints moniliform. Prothorax convex, about a third wider than long, base truncate, much wider than apex, sides rounded in front, but straight and very little contracted behind, the faintest possible sinuation before hind angles, which are slightly obtuse but not rounded, with clearly marked carina; median line very faint or wanting, basal sulcus moderately impressed, not crenulate, interrupted and with three large punctures at middle, the foveae small but fairly deep. Elytra convex, elongate, not much wider than prothorax, with parallel sides, border smooth, forming an

obtuse angle at shoulder and extending inwards to a point opposite stria 4; 6 fairly deep impunctate dorsal striae, though with traces of minute crenulation, 1 reaching apex and also base, where it curves round in a deep groove to the basal pore, 2 to 4 and 6 not nearly reaching base, 5 extending rather further forward and ending in a punctiform impression, 2 to 6 just reaching apical spot behind, 8 very deep, striole rather short and straight, ending much nearer margin than suture, a distinct ridge between it and stria 8, the pore rather far forward; dorsal pores minute, on inner margin of stria 3, at basal third and just behind middle. Surface smooth and very shiny, without microsculpture. Prosternum sulcate, metasternum with a small but deep arcuate groove in front; protarsi  $\Im$  with two very slightly dilated joints.

I have seen four typical examples, viz. one in the British Museum (coll. F. Walker), one in the Deutsch. Ent. Museum (coll. von Manderstjerna > coll. von Heyden), and two in the Berlin Zoological Museum (coll. Schaum and coll. L. W. Schaufuss).

The species seems to be well distributed throughout North India from Kumaon to Northern Burma, and there are a number of specimens in the Helfer collection at the Prague Museum reputed to come from Tenasserim. Burmese specimens, including the example from Bhamo, now in the Genoa Civic Museum, determined by Bates as T. latus Peyr., are rather more brassy than Indian ones, and have the prothorax a little more contracted behind. In the Paris Museum there are also examples from various localities in Tonkin, viz. Luc-nam (L. Blaise), Hanoi (Vauloger), and Bao-Lac. Mr. Lesne has kindly sent me for examination the only example of Peyrons' latus in the Paris Museum: this came from Adana in Asia Minor and was in the collection of the late Mr. L. Bedel. It agrees well with Indian examples of aratus, but not at all with Peyron's diagnosis « Ovale, élargi, peu convexe, et rappelant les Amara»; the figure, however agrees better than the text. Bates does not claim to have seen Peyron's type, nor does the Paris Museum example appear to be typical. I have not been able to ascertain the whereabouts of Peyron's collection and have therefore not been able to examine the type. This leaves the identity of the two species in doubt and I have not therefore felt justified in substituting latus for sulcatus. It is evident,

however, that Motchulsky's species has a range from Indo-China to Asia Minor, almost equal to that of *triangularis*.

Var. virgatus v. nov.

Five examples taken by Mr F. W. Champion at Sarda in Bengal are lighter than the typical form, with pale antennae, venter light red, elytra red with a dark circle round the apical spots, which are yellow white, the colour extending along intervals 7 and 8 up to and over the shoulder. Another Bengal specimen in the Copenhagen Museum (Galatea Expedition) is darker, but the spots are similarly united. In two specimens from Pusa in Bihar (D.<sup>r</sup> M. Cameron - Forest Res. Inst. and N. P. Nandi – Pusa Res. Inst.) the light stripe is interrupted at middle. The type of this variety is in the British Museum.

Var. vigens v. nov.

In the Paris Museum there is a series of specimens from Tonkin, which are longer (3,0 mm.) than the typical form, wider, the prothorax more contracted behind, the frontal furrows and elytral striae both deeper, the elytra often suffused with dark red, the apical spot larger, darker, and less clearly defined. These examples are labelled Tonkin (Langue), Hanoi (Vauloger), and Bao-Lac, and apparently occur along with the typical form. The type is in the Paris Museum. Bates' example, determined as *T. latus* Peyr., from Pnomh Penh in Cambodia, now in Mr. E. Fleutiaux' collection, belongs to this variety.

410

**Tachys ocellatus** Bates Ann. Mus. Civ. Gen. XXXII, 1892, 292. Length: 2, 6 mm. Chestnut-red; antennae, palpi, and legs pale testaceous, elytra with a pale apical spot on a dark background. Head with duplicated furrows, outer ones short and deep, but uneven, inner ones forming with the clypeal suture a deep horse - shoe - shaped impression, eyes not prominent, mentum without pores, antennae short and slender, joint 2 = 3. Prothorax convex, a fourth only wider than long, very little wider at base than apex, sides narrowly bordered, evenly rounded and slightly sinuate just before hind angles, which are right, with only a rudimentary carina; basal sulcus fairly deep, smooth, widely interrupted, with a pore at middle, the inner ends of the two

parts depressed, so that from above there appear to be three pores, the foveae wide and rounded. *Elytra* convex, elongate-oval, border smooth, subangulate at shoulder and extending inwards to a point nearly opposite stria 4; six fairly deep impunctate dorsal striae; which terminate very abruptly in front, 1 entire, 2 to 6 much abbreviated behind, 2 disappearing at a sixth from base, 2 to 5 gradually increasing in length in front, 6 a little shorter than 5, 7 wanting, 8 deep throughout, striole short and straight, much nearer margin than suture, the pore rather in front of middle; dorsal pores small, on stria 3, at a third and three fifths. No microsculpture.

Closely allied to *aratus*, but smaller and chestnut-red. Frontal impression rounded in front, deeper, and narrower, the clypeus — which lies between the outer furrows — convex, prothorax narrower and more contracted behind, elytra shorter, less parallel, more rounded at shoulder, the striae deeper.

BURMA: Teinzo (L. Fea). I have kept the species distinct from *aratus* with some hesitation, but in addition to the type, which is in the Genoa Civic Museum, I have seen a second example taken in the Naga Hills, Assam, at 5000 ft. (S. N. Chatterjee-Forest. Res. Inst.).

# Tachys belli sp. nov.

Length: 2,7 mm. Black: antennae, palpi, and legs very dark testaceous, each elytron with apex and a large dull apical spot reddish. Head with duplicated furrows, outer ones short, inner ones longer, fairly deep, sinuate, curving inwards behind, clypeal suture deep, eyes not prominent, mentum without pores, antennae slight, joint 2 = 3. Prothorax convex, half as wide again as long, base considerably wider than apex, sides gently rounded and sinuate rather before hind angles, which are slightly obtuse with a small straight carina; basal sulcus shallow, smooth, widely interrupted, the three central pores of the allied species almost obsolete. Elytra convex, with parallel sides, border smooth, angulate, extending inwards to a point opposite stria 4; six moderately impressed impunctate dorsal striae, not ending abruptly in front, 1 entire, 2 practically reaching base and extending to a sixth from apex, 3 to 6 not quite reaching base and much shortened behind, 5 extending forward a little in front of the

others and ending in a punctiform impression, a rudiment of 7 present opposite front dorsal pore, 8 deep throughout, striole short and deep, much nearer margin than suture, the pore in front of middle; dorsal pores on stria 3 at a third and three fifths. No microsculpture. Prosternum deeply sulcate, metasternum with a transverse arcuate groove in front.

Presenting most of the characters of *aratus*, but wider and with the light parts darker. Prothorax wider, with more rounded sides, basal sulcus and foveae shallower, the three pores at middle almost obsolete; elytra wider, striae shallower, not ending abruptly in front, a rudiment of 7 present.

SIND: Karachi (T. R. D. Bell) 14 ex.

## Tachys nitens sp. nov.

Length: 2,75 mm. Black without any aeneous tinge; joints 1 and 2 of antennae (rest brown), legs, and two small round apical spots on elytra testaceous. Head with short parallel duplicated furrows, eyes moderately prominent, mentum without pores, antennae short and slight, joint 2 = 3. Prothorax convex, not quite half as wide again as long, base wider than apex, sides rounded and rather strongly sinuate at a little distance from hind angles, channel widening at middle, angles sharp, a little acute, and projecting laterally, with a well marked carina; median line distinct, basal sulcus deep, finely crenulate, interrupted, and with a pore at middle. Elytra short ovate, convex, border forming a distinct angle at shoulder, continuing inwards and backwards a little beyond hind angles of prothorax; five dorsal striae, deep and impunctate, 1 entire, 2 to 5 gradually increasing in length in front (as in bembidiiformis), 4 and 5 diverging a little outwards in front, 6 and 7 wanting, 8 deep throughout, striole rather short and deep, nearly straight, on middle of elytron, the pore half way along it, interval 5 much wider than the first four; dorsal pores on stria 3 at a third and three fifths. No appreciable microsculpture. Prosternum sulcate, metasternal process with a wide and not very deep groove behind it, protarsi 3 with two dilated joints.

Smaller and narrower than *klugi*, and in form more nearly resembling *bembidiiformis*. Prothorax narrow, the marginal channel widening at middle, as in the latter, the sides sinuate

at a little distance from base, as in *klugi*; differing from both in the interrupted basal sulcus, and the presence of only five dorsal striae.

BRITISH NEW GUINEA: Dilo (Loria) 1 ex.  $\mathcal{J}$  in the Genoa Civic Museum.

## Tachys imperfectus sp. nov.

Length: 2, 6 mm. Black and shiny above, piceous beneath: joints 1 and 2 of antennae (rest brown), basal joints of palpi, and legs testaceous; each elytron with two light spots, the front one reddish, covering the shoulder, the hind one smaller, transverse, flavous edged with red, apex of elytra also red. *Head* with fairly deep, duplicated furrows, diverging a little behind, eyes moderately prominent, no pores on mentum, antennae rather short, joint 2 a little shorter than 3. Prothorax convex, transverse, base distinctly wider than apex, with its sides a little oblique, sides rather strongly rounded, with narrow border, gently sinuate a little before hind angles, which are slightly obtuse though sharp, with a short but distinct carina; median line fine, basal sulcus deep, crenulate, uninterrupted and without any special pore at middle. *Elytra* convex, ovate, border smooth, indistinctly angulate at shoulder and extending inwards to stria 4; five dorsal striae, crenulate and fairly deep, 1 reaching apex, the rest progressively shorter behind, 5 barely reaching middle; 1 nearly reaching base, 2 to 5 all ending very abruptly in front, 2 and 3 at basal third, 4 and 5 at basal sixth, 5 reaching a little further forward than 4, 6 and 7 wanting, 8 deep throughout, striole short and straight, a little nearer margin than suture, the pore half way along it; dorsal pores on inner margin of stria 3 at about a fourth and a little behind a half. No appreciable microsculpture. Prosternum deeply sulcate, metasternal process with an arcuate groove behind it.

A little smaller and more convex than *politus*, with more distinct elytral spots. Head nearly similar, basal sulcus of prothorax uninterrupted and without a distinct pore at middle, elytra shorter and with more rounded sides, with 5 dorsal striae instead of 2.

PHILIPPINE IS.: Montalban, Prov. Rizal, Central Luzon, (Ex. Coll. Miss J. Barrington) 1 ex.

 Tachys klugi Nietn. Ann. Mag. Nat. Hist. (3). II, 1858, 423; Bates Ann. Mag. Nat. Hist. (5) XVII, 1886, 155; id. Ann. Mus. Civ. Gen. XXXII, 1892, 291 (pl. III, fig. 6).
 *sulculatus* Putz. Ann. Mus. Civ. Gen. VII, 1875, 743; Bouch. Ann. Soc. Ent. Fr. 1903, 170.

» euglyptus Bates Trans. Ent. Soc. Lond. 1883, 268; Andr. Ann. Mag. Nat. Hist. (9), III, 1919, 472.

» feanus Bates Compt. rend. Soc. Ent. Belg. 1891, 326; id. Ann. Mus. Civ. Gen. XXXII, 1892, 292.

 var. sulcatopunctatus Putz. Ann. Mus. Civ. Gen., VII, 1875, 742; Bates Ann. Mus. Civ. Gen. XXXII, 1892, 292; Bouch. Ann. Soc. Ent. Fr. 1903, 170.

Length: 2,75-3,0 mm. Brassy, very shiny, more or less brown beneath; joints 1 to 3 of antennae and legs testaceous, the femora sometimes infuscate, elytra each with a small pale oblique apical spot. *Head* with nearly parallel duplicated frontal furrows, diverging slightly behind, eyes not prominent, mentum without pores, antennae slight, joint 2 = 3. *Prothorax* convex, nearly two thirds as wide again as long, base much wider than apex, sides gently rounded in front, slightly contracted and faintly sinuate near base, the angles right, with a very conspicuous carina, bounded inwardly by a rounded fovea; median line rather slight, basal sulcus deep, strongly crenulate, not interrupted, and with a large elongate pore at middle. Elytra convex, ovate, pointed at apex, border smooth, angulate, extending inwards and backwards to a point midway between striae 4 and 5; fully striate, the striae deep, wide, and clearly punctate, 1 reaching apex and very nearly base, the rest shortened at extremities, 5 reaching nearest to base and 2 to apex, 8 entire and very deep, striole deep and nearly straight, a little nearer margin than suture, the pore half way along it; dorsal pores rather indistinct, on stria 3, at about a fourth and just behind middle. No microsculpture. Prosternum slightly sulcate, metasternal process with a transverse arcuate groove.

Of the above species I have seen the types of *klugi* (Berlin Zoological Museum), *euglyptus* (British Museum), and *sulcatopunctatus* (Brussels Museum); of *feanus* I have a cotype in my collection. The type of *sulculatus* should be in the Brussels Museum, but cannot be found there; I think this determination

is almost certainly correct, for the species is found at Hongkong and the description agrees with the other types.

The principal characters relied on by Putzeys to distinguish his two species, and by Bates to distinguish his *feanus* from *klugi*, were size and the form of the prothorax, which in some examples is narrower and more contracted behind than in typical specimens. I have hitherto tried to keep the two forms distinct, but have seen so many of an intermediate character, that I no longer feel able to do so. I consider that all the above belong to one species, which is unusually variable in the form of the prothorax, though, as far as width goes, *politus* is quite as variable. In the variety *sulcatopunctatus* there is no apical spot.

The species seems to be fairly common throughout the whole of S. E. Asia, extending northwards as far as Japan.

# Tachys chalceus sp. nov.

Length: 2,75 mm. Deep bronze; joints 1 to 4 of antennae (rest brown), basal joints of palpi, and legs flavous. Head with short slight duplicated furrows, eyes moderately prominent, mentum without pores, antennae short and slender, joint 2 = 3. Prothorax convex, two thirds as wide again as long, base much wider than apex, sides strongly contracted in front, hardly at all behind, without sinuation before base, hind angles right, the carina short but evident; basal sulcus rather fine and not very deep, finely punctate, not interrupted and with the pore at middle hardly larger than the others. Elytra short-ovate, very convex, border smooth, angulate at shoulder, and extending inwards to a point half way between striae 4 and 5; six deep impunctate dorsal striae, 1 entire, 2 to 6 shortened behind, 2 reaching base, 3 to 5 disappearing a little before base, 6 rather shorter, 4 to 6 all turning slightly outwards in front, 7 wanting, 8 deep throughout, striole curved, on middle of elytron, the pore half way along it; dorsal pores minute, on stria 3, at a third and three fifths, only visible under strong magnification. Microsculpture very distinct, elytra with the meshes moderately transverse, head and prothorax with isodiametric meshes. Prosternum not sulcate, metasternal process transversely grooved.

Both in size and appearance very similar to *aeneus*, but bronze in colour, the antennae and legs lighter. Frontal furrows

more distinctly duplicated, prothorax hardly contracted behind, basal sulcus punctate, stria 6 present on the elytra, and all the striae extending rather further both towards base and apex.

KUMAON: West Almora and Haldwani (H. G. Champion) 4 ex. The type is in the British Museum.

Tachys (Bembidium) ornatus Apetz Col. Brehm 1854, 12;
 Schaum Berl. Ent. Zeitschr. 1863, 92; Bates Ann.
 Soc. Ent. Fr. 1889, 275; id. Ann. Mus. Civ. Gen.
 XXXII, 1892, 295; Kuntz. Mitt. Zool. Mus. Berl. 1919, 154; Andr. Rec. Ind. Mus. XXII, 1921, 341.

(*Bembidium*) orientalis Nietn, Ann. Mag. Nat. Hist. (3), II, 1858, 425; Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 156.

Length: 3, 0 - 3, 5 mm. Brassy, joints 1 to 3 of antennae (rest fuscous) and legs testaceous, two spots on each elytron flavous, the front one extending inwards to stria 5, the hind one to stria 3. *Head* with rather short straight duplicated furrows, eyes moderately prominent, mentum without pores, antennae rather short and a little dilated at apex, joint 2 = 3. Prothorax rather convex, half as wide again as long, strongly contracted at apex, but not at all behind, the sides, which have rather a thick border, running straight back from middle to hind angles, which are right, with a well marked carina, bounded inwardly by an elongate depression; basal sulcus not very deep, clearly crenulate, barely interrupted, but with a pore at middle, a small fovea an each side half way between middle and margin. Elytra moderately convex, parallel, not much wider than prothorax, half as long again as wide, border smooth, strongly angled at shoulder, and extending inwards to a point half way between striae 4 and 5; 5 fairly deep dorsal striae, not crenulate, 6 often visible as a fine line on the middle of the elytron, 8 deep throughout, striole short and straight, rather nearer margin than suture, the pore half way along it; dorsal pores small and indistinct, on stria 3, at a fourth and rather behind middle. Microsculpture fine but distinct, the meshes isodiametric on head and prothorax, moderately transverse on elytra. Prosternum slightly sulcate, metasternal process with a transverse arcuate groove behind it. Larger and longer than klugi, with an elongate shoulder

416

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spot. Prothorax not contracted behind, basal sulcus more finely crenulate (almost punctate in klugi), elytra with impunctate striae, stria 7 and generally also 6 wanting.

I have seen Nietner's type, which is in the Berlin Zoological Museum, but I have not been able to ascertain the whereabouts of Apetz' collection. I find, however, that examples both from the Sudan and from India agree exactly with the description given by the latter, except that Apetz puts the length at "2 lin.", which seems a little high. In African and Arabian specimens the two spots sometimes unite down the side of the elytron, and the two apical spots also occasionally unite, but I have seen other African examples in which the spots were much reduced, so that in this respect the species is evidently variable.

INDIA: Bengal, Orissa, United Provinces, Central Provinces, Madras, Mysore. - CEYLON, PHILIPPINE IS., SUDAN, ABYSSINIA, YEMEN, ADEN, DAMARALAND. D. Kuntzen mentions a specimen in the Berlin Zoological Museum labelled Sicily and coming from Motchulsky's collection. It is of course possible that the species occurs in Southern Europe, but confirmation is desirable.

Tachys aeneus Putz. Ann. Mus. Civ. Gen. VII, 1875, 744.

Length: 2,75 mm. Aeneous above, piceous beneath: antennae, palpi, legs, and apical border of elytra dark testaceous, joints 1-2 of antennae lighter. *Head* with short rather deep indistinctly duplicated furrows, clypeal suture deep, eyes moderately prominent, mentum without pores, antennae rather slight, joint 2 = 3. Prothorax convex, two thirds wider than long, base much wider. than apex, sides gently rounded in front, not much contracted and only faintly sinuate behind, the angles right and sharp, with a distinct carina; median line very fine, foveae slight, basal sulcus moderately deep, vaguely crenulate, uninterrupted, without special pore at middle. Elytra convex, ovate, rather pointed at apex, border smooth, forming a wide angle at shoulder, and extending inwards a little beyond stria 5; 5 deep dorsal striae, hardly perceptibly crenulate, 1 entire, 2 to 5 progressively shorter from within outwards, 6 and 7 wanting, 8 very deep, apical striole short and straight, much nearer margin than suture, with the pore rather before middle; dorsal pores small, just inside stria 3, at about a third and behind middle. Prosternum not sulcate,

Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Maggio 1925).

27

metasternum unbordered and without any transverse groove. Microsculpture very clear, the reticulation on the elytra forming very wide meshes, the prothorax (on disk) and head with the meshes not much wider than long.

About the size and shape of *klugi*, but less shiny. The frontal furrows shorter and finer, prothorax more contracted behind, with a smaller carina, the basal sulcus and foveae much less impressed, only 5 dorsal striae, which are much less impressed and impunctate.

CELEBES, SUMBAWA, and NEW GUINEA. I have seen Putzeys' type which is in the Genoa Civic Museum.

Var. biplagiatus Jord. Nov. Zool. I, 1894, 112.

This form, of which I saw the type in Mr. R. Oberthür's collection, differs only in the presence of a pale pre-apical spot on the elytra.

# Tachys borneensis sp. nov.

Length: 2,75-3,0 mm. Piceous, elytra brassy or brown with brassy reflections: joints 1 and 2 of antennae (rest fuscous), legs, and an ill-defined apical spot on each elytron testaceous. *Head* with short duplicated furrows, inner ones moderately deep, mentum without pores, eyes fairly prominent, antennae short, joint 2 = 3. *Prothorax* quadrate, moderately convex, rather more than half as wide again as long, base hardly wider than apex, marginal channel rather wide, sides gently and evenly rounded, sinuate quite close to hind angles, which are right, with a distinct carina; median line short and rather fine, crossing basal sulcus, which is finely crenulate, moderately deep, and uninterrupted. Elytra ovate, rather flat on disk, about half as wide again as prothorax, border smooth, forming an obtuse angle at shoulder, and not extending inwards beyond middle of interval 5; four equally deep arcuate minutely crenulate dorsal striae, 1 entire, 2 to 4 not quite reaching base and more or less obliterated behind, though sometimes 2 is distinct and curves strongly outwards to the pore in the striole, while 3 occasionally joins the striole, 4 shorter, 5 just visible, 6 and 7 obsolete, 8 deep throughout, striole moderately long, curved, ending a little nearer suture than margin, the pore large and just behind middle;

418

dorsal pores small, on inside of stria 3, at about a third, and a little in front of two thirds. Microsculpture very clear, the elytra with fine transverse lines, disk of prothorax with a more distinct and rather oblique reticulation, but in front and behind, as also head, with nearly isodiametric meshes. Prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two dilated joints.

I know of no very near ally, but in size, shape and coloration the species is not unlike *notaphoides*, though it is darker, the upper surface more or less aeneous, the elytra without shoulder spot and with only four dorsal striae.

BORNEO: Baram (Brussels Mus.), and «Borneo» (Grabowsky). BRITISH NEW GUINEA: Dilo (Loria - Genoa Civic Mus.). I am indebted for the type to Mr. T. G. Sloane.

# Tachys erotyloides sp. nov.

Length: 3, 0 - 3, 4 mm. Aeneous, shiny, venter and extreme apex of elytra brown; palpi, joints 1 to 4 of antennae (rest dark brown), legs, and a small round apical spot on each elytron between striae 3 and 8 flavous. Head with short, slightly impressed, duplicated furrows, eyes rather flat, neck wide, mentum without pores, antennae slender, joint 2 = 3. Prothorax convex, a third wider than long, base evidently wider than apex, basal margin faintly crenulate, sides gently rounded in front, with a slightly explanate unreflexed border, moderately contracted behind and very faintly sinuate just before hind angles, which are a little obtuse and not very sharp, with a short oblique carina; median line obsolete, basal sulcus very lightly impressed, minutely punctate, generally widely interrupted (hardly at all in type), without special pore at middle, the foveae very slight. Elytra convex, elongate, widest just behind shoulders, thence gradually contracted and rather pointed at apex, border smooth, forming a very obtuse but distinct angle at shoulder and extending inwards to stria 4; six moderately impressed impunctate dorsal striae, 1 reaching apex behind, obsolete on basal fourth in front, 2 to 6 shortened behind, 2 to 4 gradually increasing in length, but melting away insensibly, 5 nearly reaching base and deep at that point, 6 a little shorter than 5, 7 wanting, 8 deep throughout, striole short, a little nearer margin than suture, the

pore at its middle; dorsal pores small, on inside of stria 3, at a third and three fifths. Microsculpture fine, but quite clear, the meshes of the reticulation a little transverse on the elytra, isodiametric on head and prothorax. Prosternum and metasternum both sulcate, metasternal process with a wide shallow arcuate groove behind it, protarsi  $\mathcal{F}$  with two slightly dilated joints.

Not unlike a narrow example of *ornatus*, without shoulder spot. Head with slighter furrows, prothorax more contracted behind, the impressions all shallower, elytra narrower and more pointed behind, the striae shallower, 1 and 2 much shorter in front, 6 clearly impressed.

BRITISH NEW GUINEA: Dilo (Loria). I am indebted to Mr. T. G. Sloane for the type, and there are five other examples, all from the same source, in the Genoa Civic Museum.

# Tachys fusiformis sp. nov.

Length: 3, 5 mm. Aeneous, rather dull: joints 1 to 4 of antennae (rest fuscous), legs, and a fairly large oblique apical spot on each elytron between stria 2 and 8 flavous. Head wide, frontal furrows duplicated, inner ones enlarged inwardly behind, so that from above the middle of front and clypeus appear to form a raised area, eyes not prominent, mentum without pores, antennae short and slender, joint 2 = 3. Prothorax convex, half as wide again as long, base rather wider than apex, sides rounded, moderately contracted but hardly sinuate behind, the basal margin crenulate, hind angles approximately right, the carina rudimentary; basal sulcus very shallow, finely punctate, vaguely interrupted, but without any special pore at middle. Elytra convex, subelongate, widest behind shoulders, nearly parallel in middle, border smooth, angulate at shoulder and extending inwards to a point opposite stria 4; six moderately impressed impunctate dorsal striae, melting away insensibly in front, 1 reaching apex, obsolete on basal fourth, 2 to 6 shortened behind, 2 to 5 gradually increasing in length, 5 reaching nearest to base, 6 a little shorter, 7 wanting, 8 deep throughout, striole short and deep, nearly straight, nearer margin than suture, the pore large, near front end; dorsal pores small, on stria 3, at a third and three fifths. Microsculpture clear and isodiametric throughout, fine and distinctly impressed on head and prothorax, very fine

420

along base of prothorax. Prosternum sulcate, metasternum with an arcuate groove in front and a rounded depression behind it, last ventral segment Q with the four pores in line.

Rather like a large dull example of *ornatus*, without shoulder spot. Frontal furrows more conspicuous and much wider behind. Prothorax similar in shape but with the basal impressions all very faint and no carina, elytra a little longer, with shallower striae, inner ones obsolete in front, and 6 well developed. The species is very closely allied to *erotyloides*.

BRITISH NEW GUINEA: Dilo (Loria) 1 ex. Q in the Genoa Civic Museum.

# Tachys papuae sp. nov.

Length: 3,0 mm. Dark aeneous, shiny: joints 1 to 4 of antennae (rest fuscous), legs, and a small round apical spot on each elytron flavous. Head with short duplicated furrows, the inner ones deep, enlarged inwardly, front somewhat depressed, eyes not prominent, mentum without pores, antennae short and slight, joint 2 = 3. Prothorax convex, rather less than half as wide again as long, base not much wider than apex, sides strongly and evenly rounded, without sinuation, the hind angles projecting as a minute rectangular tooth, with a short straight carina, basal sulcus moderately impressed, crenulate, interrupted, and with a pore at middle. Elytra convex, ovate, a little pointed at apex, border smooth, forming a very distinct angle at shoulder, thence directed obliquely backwards, but not extending inwards much beyond stria 5; six deep impunctate dorsal striae, ending very abruptly in front, 1 reaching apex, obsolete on basal fourth, 2 to 6 shortened behind, 2 to 5 gradually increasing in length, 5 reaching nearest to base, 6 a little shorter, 7 wanting, 8 deep throughout, striole curved, on middle of elytron, the pore half way along it, intervals 5 and 6 wider than 1 to 4; dorsal pores on stria 3, at a third and three fifths. Microsculpture rather faint, the meshes moderately transverse on elytra, isodiametric on head and prothorax, but obsolete on disk of latter: Prosternum with a very faint depression, metasternum with a transverse arcuate groove in front.

About the same size as ornatus, but a little darker and without shoulder spot. Frontal furrows deeper, prothorax with

the sides much more contracted behind, so that base is not much wider than apex, hind angles dentiform and projecting, basal sulcus shallower, elytra with more rounded sides, striae quite as deep, inner ones obsolete in front, and 6 present. The species is nearly allied to *erotyloides* and *fusiformis*.

NEW GUINEA: Fly River (L. M. D'Albertis) 1 ex., Dilo (Loria) 1 ex. The type, from the Fly River, is in the Genoa Civic Museum.

Tachys bembidiiformis Jordan Nov. Zool. 1, 1894, 111.

» helmsi Sloane Proc. Linn. Soc. N. S. Wales 1898, 476; id. Proc. Linn. Soc. N. S. Wales 1921, 198 and 202.

Length: 2,75 mm. Black: joints 1 and 2 of antennae (rest a little darker) and legs pale testaceous, elytra with a small apical reddish spot. Head with moderately long, but not very deep duplicated furrows, front depressed, eyes rather prominent, mentum without pores, antennae a little dilated at apex, joint 2 = 3. Prothorax convex, a third wider than long, equally contracted at extremities, sides rather strongly rounded, and slightly sinuate close to the rectangular, dentiform hind angles, carina indistinct, marginal channel deep, widening at middle; median line very faint, basal sulcus uninterrupted, finely punctate, the pore at middle no larger than those adjoining it. Elytra very convex, the border smooth, rounded at shoulder and hardly extending inwards beyond hind angles of prothorax; six deep impunctate dorsal striae, none reaching base, 1 only reaching apex, but shorter than all in front and barely reaching basal fourth, 2 to 5 gradually lengthening in front, 5 extending furthest, 6 a little shorter, 7 wanting, 2 longest behind, 8 very deep, striole curved, on middle of elytron, the pore half way along it; dorsal pores indistinct, on stria 3, at about a fourth and just behind middle. No appreciable microsculpture. Prosternum depressed in middle, metasternal process depressed at sides and almost carinate in the middle, with a deep curved groove behind.

Allied to *klugi* but black, with a much narrower prothorax, more contracted behind, elytra with stria 7 wanting and 1 not nearly reaching base.

The type, now in Mr. René Oberthür's collection, was taken by Doherty in Tenimber, and I have compared with it two

examples in my own collection taken by Doherty at Laboenarang, 2000 to 4000 feet, in the island of Adonara, just east of Flores. Another example comes from Buitenzorg in Java (I. Z. Kannegieter), and yet another from some Malay locality (label undecipherable) was sent me by Mr. Sloane as agreeing with his *helmsi* from Australia.

# Tachys barringtoni sp. nov.

Length: 2,65-2,90 mm. Black, shiny; joint 1 of antennae and legs testaceous. Head with fairly deep, nearly parallel, distinctly duplicated furrows, eyes moderately prominent, no pores on mentum, antennae rather short, joint 2 shorter than 3. Prothorax cordate, convex, transverse, base with its sides slightly oblique, sides strongly rounded and equally contracted at extremities, sinuate a little before hind angles, which are right, with a short but well marked carina, marginal channel fairly wide; median line very faint, basal sulcus deep, rather coarsely punctate, uninterrupted, with a pore at middle no larger than the adjoining pores. Elytra ovate, convex, widest just behind shoulder, distinctly pointed at apex, border smooth, with a slight angle at shoulder, extending inwards to a point midway between striae 4 and 5; six impunctate dorsal striae, of which 1 only reaches apex, 2 to 6 considerably shortened, 1 to 3 obsolete on basal third, 4 to 6 fairly deep, not quite reaching base, though 5 nearly does so, 7 wanting, 8 very deep throughout, striole very deep, slightly curved, on middle of elytron, the pore half way along it; intervals 1 and 2 narrow, 3 and 4 half as wide again, 5 and 6 twice as wide as 1 and 2, each interval with a row of about a dozen small setiferous pores, the setae long and erect, the inner rows adjoining the striae, the outer ones on the middle of the intervals. I cannot detect any dorsal pores differing materially from the others. No appreciable microsculpture. Prosternum slightly sulcate, metasternal process bordered by a rather angular groove.

The nearest ally is perhaps *interpunctatus*, which has similar setiferous pores on the elytra, but the unequal width of the intervals and the fading away of the first three striae in front make the species a very aberrant one.

PHILIPPINE IS.: Montalban, Prov. Rizal, Central Luzon (coll. Miss J. Barrington) 3 ex.; Mount Makiling, Luzon (D.<sup>r</sup> C. F. Baker) 1 ex.

Tachys decoratus nom. nov.

» (Bembidium) ornatus Nietn. (not Apetz.) Ann. Mag. Nat. Hist. (3) II, 1858, 426; Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 154.

Length: 2,0 mm. Brown-red, antennae and legs flavous, two fairly large transverse spots on each elytron whitish yellow. *Head* with short slight parallel duplicated furrows, eyes moderately prominent, labrum somewhat emarginate, no pores on mentum, antennae submoniliform, joint 2 = 3. Prothorax transverse, rather convex, about equally contracted at extremities, sides evenly rounded, with only the faintest trace of sinuation just before base, hind angles distinctly obtuse, though not rounded, without carina, so that the marginal channel runs round and joins basal sulcus; median line fine, basal sulcus rather shallow, especially at sides, not appreciably crenulate, uninterrupted and without pore at middle. Elytra short, ovate though with well marked shoulders, border smooth, rounded at shoulder and extending inwards well beyond hind angles of prothorax; two impunctate but not very deep dorsal striae, 1 entire, 2 extending beyond dorsal pores, 8 entire, striole rather short, curved, on middle of elytron, the pore at about middle; dorsal pores small, on inner side of site of stria 3, at about a third and three fifths. No microsculpture. Prosternum depressed, metasternal process bordered, with a straight transverse groove behind it. Nietner compares the species with his own emarginatus (= fumigatus), but the colour is quite different from that of even light examples of *fumigatus*, and the antennae are pale: the frontal furrows are slight and parallel, the labrum much less emarginate, the prothorax larger and wider in proportion to the elytra, and there is no microsculpture. It is much more nearly allied to *poecilopterus*, but is smaller and lighter in colour, the prothorax with basal sulcus uninterrupted and without pore, no carina in the hind angles, the second dorsal stria of the elytra reaching well in advance of the front dorsal pore.

424

CEYLON. I have seen four examples, three of them typical, in the collection of the Berlin Zoological Museum, two in the British Museum taken by Mr. George Lewis at Kandy, and several in the Deutsch. Ent. Mus. and Brussels Museum taken by D.<sup>r</sup> W. Horn.

Tachys unitarius Bates Ann. Mus. Civ. Gen. XXXII, 1892, 295. Length: 2, 1 - 2, 3 mm. Dark red, with two large pale spots on each elytron: antennae, palpi, and legs testaceous. Head with very short duplicated furrows, eyes moderately prominent, mentum without pores, antennae submoniliform, joint 2 = 3. Prothorax convex, half as wide again as long, base a shade wider than apex, sides gently rounded, not sinuate behind, the angles slightly obtuse, with a short carina, marginal channel rather wide; basal sulcus moderately deep, finely crenulate, uninterrupted and without pore at middle. Elytra moderately convex, ovate, border smooth, rounded at shoulder and extending inwards, very little beyond hind angles of prothorax; sutural stria only present, not crenulate, entire but shallow, 2 just visible, 3 to 7 wanting, 8 deep throughout, striole rather short and nearly straight, nearer margin than suture, the pore a little in front of middle; dorsal pores very small, on stria 3, at a third and rather behind middle. No microsculpture. Prosternum sulcate, metasternal process bordered, and with a shallow groove behind it.

Very near decoratus and similarly coloured, but a little larger. Prothorax with a small carina in the hind angles, basal sulcus evidently though finely crenulate, stria 2 obsolete.

425

BURMA. Bates mentions two localities and I have seen examples from both of them. The type, which came from Pegu and is now in the Genoa Civic Museum, is very light in colour, testaceous red, darker towards apex, the legs and two spots on each elytron testaceous. The variety from the Karen Mountains is very dark, with only the base of the elytra reddish. An example in the Prague. Museum labelled Tenasserim agrees with the type, and I have in my collection a dark specimen labelled Burma agreeing with the variety.

Tachys fusculus Schaum Berl. Ent. Zeitschr. 1860, 200; Putz. Ann. Mus. Civ. Gen. VII, 1875, 741.

Length: 1,75 mm. Piceous, elytra faintly brown along suture behind, underside brown: antennae, palpi, and legs testaceous, but joints 5 to 11 of antennae darker. Head with short narrow duplicated furrows, mentum without pores, eyes not prominent, antennae submoniliform and rather dilated towards apex, joint 2 = 3. Prothorax moderately convex, transverse, quadrate, base

slightly arcuate, sides rounded in front, then straight to hind angles, with a slight sinuation close to angles, which are not therefore much more than right, carina rather rudimentary; median line very faint, basal sulcus uninterrupted, finely crenulate, without pore at middle. Elytra ovate, moderately convex, border smooth, rounded at shoulder, thence directed inwards and slightly backwards to a point rather inside hind angles of prothorax; two microscopically crenulate dorsal striae, 1 entire but 2 abbreviated at extremities, 8 deep and entire, apical striole not very long, curved, on middle of elytron, with pore at middle; dorsal pores small, on site of stria 3, at about a third and two thirds. The fine transverse lines of the microsculpture are clearly visible on the elytra, but not on the head or prothorax. Prosternum with an elongate fovea, metasternal process rather widely bordered, with a faint transverse impression across its base, last ventral segment Q with the four pores in line.

Schaum compares the species with T. haemorrhoidalis Dej. It is otherwise coloured and less convex, with frontal furrows parallel and much less deeply impressed, prothorax with a less developed carina in the angles and without central pore in basal sulcus. The microsculpture of the elytra is similar; on both head and prothorax it is wanting, whereas in haemorrhoidalis some faint reticulation is visible. The type, which I have examined, and three other examples are in the Berlin Zoological Museum. These were taken by Bowring in Hongkong, but the labels have been removed. Schaum mentions the number which they bore in the Bowring collection, viz. 761, and this corresponds with that on the labels of other similar specimens from the same collection in the British Museum. These specimens and some others taken by Commander J. J. Walker, also at Hongkong, are the only examples I have seen, except for one example in the Paris Museum taken by Mr. L. Blaise at Luc-nam in Tonkin, and another in the British Museum taken by Mr. S. F. Light at Amoy in China.

# Tachys florus sp. nov.

Length: 2,0 mm. Black, the elytra with faint iridescence; antennae, palpi, and legs testaceous, but middle joints of antennae and apex of palpi fuscous. *Head* with short shallow duplicated

furrows, outer ones very lightly impressed, mentum without pores, eyes moderately prominent, antennae rather short, submoniliform, joint 2 = 3. Prothorax transverse, moderately convex, base slightly bisinuate, sides rounded in front and faintly sinuate before hind angles, which are sharp but a little obtuse, with a short distinct carina; median line very faint, basal sulcus not very deep, indistinctly crenulate, hardly interrupted, but with a small pore at middle. Elytra ovate and moderately convex, border smooth, almost angulate at shoulder, continuing inwards, and a little backwards rather beyond hind angles of prothorax; three moderately impressed impunctate, though microscopically. crenulate, dorsal striae, 1 entire, 2 rather shorter, 3 shorter than 2 and limited in front by the dorsal pore, 8 deep throughout, striole of moderate length, curving inwards and ending rather nearer suture than margin, the pore half way along it; dorsal pores on stria 3 at about a third and three fifths. No evident microsculpture. Prosternum with a short channel, metasternal process rather widely bordered, protarsi 3 with two very slightly dilated joints.

Compared with *T. fusculus* the frontal furrows are wider, the ridge on each side between them more rounded, the antennae lighter at apex; prothorax more transverse, sides of base less oblique, a distinct carina in the angle, and a small pore at middle of basal sulcus; elytra a little wider, slightly iridescent, with three dorsal striae, and without evident microsculpture.

MALAY STATES: Singapore (Hon. C. J. Saunders) 2 ex.  $\mathcal{F}\mathcal{F}$ . There is another example taken by D.<sup>r</sup> Cameron, probably in the Malay region, but the locality is uncertain.

# Tachys spurcus sp. nov.

Length: 2, 5 mm. Dirty testaceous, head and prothorax lighter in front, joints 1 to 4 of antennae and legs pale flavous. Somewhat similar in shape to *interpunctatus*, but much wider, and light in colour. *Head* depressed across middle, with slight short duplicated furrows, eyes not prominent, mentum without pores, antennae long and very slender, joint 2 a little shorter than 3. *Prothorax* convex and narrow, like that of *interpunctatus*, though a little wider, sides rather strongly rounded and sinuate well in front of hind angles, which are right, with a slight

carina; basal sulcus deep, three times interrupted, formed by large pores, the outer and larger ones representing the basal foveae. *Elytra* short and wide, border smooth, almost forming an angle at shoulder, directed obliquely inwards for a very short distance, but not extending beyond hind angles of prothorax; two deep crenulate dorsal striae, 1 entire and parallel with suture, 2 shortened a little in front and rather more behind, strongly arcuate, 8 deep throughout, 3 to 7 represented by rows of minute punctiform black spots, which do not break the surface, striole very short and straight, nearer margin than suture, the pore midway along it; dorsal pores large and conspicuous, rather close together, at about a third and just behind middle, on the site of stria 3. Microsculpture inconspicuous. Prosternum slightly sulcate; metasternal process bordered; protarsi 3<sup>n</sup> with two hardly perceptibly dilated joints.

BORNEO; Martapura (W. Doherty) 1 ex. J.

# Tachys pulcher sp. nov.

Length: 3, 25 mm. Piceous: antennae with joints 1 to 3 and base of 4 flavous, rest of antennae and legs testaceous, two very large ill-defined spots on each elytron testaceous-red. Head with single short deep furrows, eyes prominent, no pores on mentum, joint 2 of antennae a little shorter than 3. Prothorax convex, narrow, barely a third wider than long, sides strongly rounded, and sinuate some little way before hind angles, which are sharp and only slightly obtuse, with a very distinct carina; base depressed, three large rounded pores at middle taking the place of the usual sulcus, a deep fovea on each side near hind angles, which has the effect of making the carina longer and more conspicuous. Elytra very convex, border smooth, slightly angulate at shoulder, and hardly passing the hind angles of prothorax; two fairly deep impunctate dorsal striae, 1 entire, 2 extending beyond dorsal pores, 8 deep throughout, striole short straight and deep, nearer margin than suture, the pore a little in front of middle; dorsal pores large, on site of stria 3, at a fourth and three fifths. No appreciable microsculpture. Prosternum sulcate, metasternal process with a deep arcuate groove behind it.

Near *politus*, but differing in its testaceous antennae and large elytral spots. The frontal furrows are shorter, wider, and

deeper; the prothorax is narrower, with three pores replacing the usual basal sulcus; the elytra with impunctate dorsal striae. PHILIPPINE I.: Mindanao (coll. Miss J. Barrington) 3 ex., Zamboangan (Comm. J. J. Walker - Brit. Mus.) 1 ex.

## Var. celebensis v. nov.

In examples from Celebes, agreeing otherwise with the Philippine specimens, the elytral spots are much reduced and vague in outline, that on the shoulder very indistinct. One ex. (type) is in the British Museum, two ex. are in the Berlin Zoological Museum, and two, received from Mr. Sloane and labelled «East Celebes, Tombugu, H. Kühn », are in my own collection.

# Tachys psilus sp. nov.

Length: 2,75 mm. Black above, the neck and margins of prothorax vaguely reddish, underside brown, venter lighter; palpi, joints 1 to 4 of antennae (rest fuscous), and legs testaceous; elytra each with two light reddish spots, the front one rather vague, the hind one distinct. Allied to polilus, but in form more like expansicollis. Head with indistinctly duplicated frontal furrows, inner ones short, fairly deep, curving outwards behind to front supraorbitals, which are small and placed at mid-eye level, eyes fairly prominent, antennae filiform, joint 2 a little shorter than 3. Prothorax cordate, transverse, much wider than head, base truncate, a little wider than apex, sides rather strongly rounded, with a wide marginal channel, sinuate at some distance from base, hind angles sharp and slightly acute, with a very distinct carina; median line rather fine, basal sulcus fairly deep, uneven but not crenulate, rather flattened out in front, interrupted at middle, where the basal part of the median line forms a deep elongate pore. Elytra ovate, convex, border smooth, forming a distinct angle at shoulder, thence turning inwards and backwards for a very short distance, hardly beyond hind angles of prothorax; stria 1 entire, not crenulate, and fairly deep, except near base, 2 and even 3 (in places) just visible and subcrenulate, 8 entire, striole short, deep, and nearly straight, much nearer margin than suture, its pore large, rather nearer front end than apex; dorsal pores small, on inner margin of stria 3, at a fourth and three fifths. Some slight vague microsculpture is visible on the head only. Underside and  $\mathcal{S}$  protarsi as in *politus*.

The species differs from *politus* in its curved frontal furrows, sides of prothorax sinuate at some distance from base, longer and more distinct carinae, the basal sulcus not crenulate, the elytra with a single impunctate dorsal stria.

SOUTHERN NEW GUINEA: Rigo (L. Loria) 3 ex. The type is in the Genoa Civic Museum.

Tachys suturalis Motch. Bull. Mosc. 1851, IV, 508; Putz. Ann. Mus. Civ. Gen. VII, 1875, 746; Andr. Trans. Ent. Soc. Lond. 1919, 198.

Length: 2, 5-3, 0 mm. Dark testaceous, underside more or less piceous; joints 1 to 4 of antennae, palpi, and legs lighter, elytra also a little lighter, but with the sutural area more or less widely infuscate. *Head* with indistinctly duplicated parallel furrows, inner ones widening inwardly behind into two foveae, eyes rather flat, mentum without pores, antennae with joint 2 = 3. *Prothorax* convex, hardly more than a third wider than long, base a little wider than apex, sides gently rounded and sinuate at a little distance from base, marginal channel fairly wide, hind angles right, with a very rudimentary carina; median line obsolete but visible towards base, basal sulcus not very deep, a little uneven but not crenulate, rather widely interrupted in middle, with only a slight narrow pore formed by the end of the median line. Elytra elongate-ovate, moderately convex, border smooth, turning shoulder rather sharply though hardly angulate, and extending rather beyond hind angles of prothorax; stria 1 entire, moderately impressed and very vaguely crenulate, 8 deep throughout, 2 just traceable, the rest wanting, apical striole, rather short and straight, ending on middle of elytron, the pore a little nearer front than apex; dorsal pores rather small, on site of stria 3, at a third and just behind middle. No visible microsculpture. Prosternum sulcate, metasternum also sulcate, without transverse groove, the process unbordered but depressed, protarsi 3 with two slightly dilated joints.

430

About the same shape as *laetificus*, though a little larger. I do not know of any nearly related eastern species.

« IND. OR. » and TENASSERIM. I have seen a number of typical examples, viz. four in the British Museum (coll. F. Walker and coll. Jekel), two in the Berlin Zoological Museum (coll. Schaum

and coll. L. W. Schaufuss), one in the Deutsch. Ent. Museum (coll. Manderstjerna > von Heyden), and one in Mr. T. G. Sloane's collection. There is also a large number of specimens in the Prague Museum, taken by Helfer in Burma, and, as no examples from other localities have come to light, this may quite possibly be the source whence they all came.

# Tachys triloris sp. nov.

Length: 2,75 mm. Dark aeneous above, piceous beneath, palpi, joints 1 and 2 of antennae (rest fuscous), and legs testaceous; elytra each with a small transverse apical reddish spot. Head with shallow duplicated furrows, eyes rather prominent, no pores on mentum, antennae with joint 2 = 3. Prothorax cordate, narrow, and convex, not very much wider than head, sides with narrow border, rounded in front and contracted behind, so that base is no wider than apex, sinuate at some distance from hind angles, which are very sharp and slightly acute, with a short carina; median line fine, transverse basal impression deep, basal sulcus deep, coarsely crenulate, interrupted and with a large pore at middle. Elytra ovate and convex, border smooth, forming an obtuse angle opposite hind angle of prothorax and thence directed for a short distance obliquely backwards to a point opposite stria 3; three deep impunctate dorsal striae, 1 entire, slightly arcuate at middle, 2 nearly parallel with suture, 3 directed a little outwards in front, 2 and 3 shortened at extremities, equally in front, 2 longer than 3 behind, 8 very deep throughout, striole fairly long, on middle of elytron, curving a little inwards in front, the pore half way along it; front dorsal pore, if it exists (as I think it does), very inconspicuous, in the front end of stria 3, hind pore on stria 3, rather behind middle. No microsculpture. Prosternum sulcate, metasternal process bordered. Rather smaller and narrower than politus, prothorax much narrower, more contracted behind, the sides sinuate further from base, the sulcus deeper and more coarsely crenulate, elytra with three impunctate dorsal striae, front dorsal pore very inconspicuous. In its general shape the species closely resembles *interpunctatus*. TIMOR; Goenoeng Leo, 2000 - 4000 ft. (W. Doherty) 1 ex. Q.

## Tachys laotinus sp. nov.

Length: 3,0 mm. Black, with an aeneous tinge: joints 1 and 2 of antennae (rest fuscous), legs, apex of elytra and a rather vague transverse apical spot testaceous red. Head with the frontal furrows vaguely duplicated, inner ones short deep and slightly divergent behind, eyes moderately prominent, mentum without pores, antennae rather short and a little\_dilated at apex, joint 2 slightly shorter than 3. Prothorax convex, a third wider than long, base a little wider than apex, sides rounded and moderately contracted behind, sinuate at a little distance from base, the hind angles sharp and projecting a little laterally, with a distinct carina; basal sulcus fairly deep, finely and rather indistinctly crenulate, widely interrupted and with an elongate pore at middle. Elytra convex, with smooth border, rounded at shoulder; three crenulate and somewhat arcuate dorsal striae, 1 entire, 2 extending well beyond dorsal pores and ending. rather abruptly in front, 3 distinctly impressed between the two pores, 4 and even 5 just visible at middle, 8 deep throughout, striole slightly curved, a little nearer margin than suture, with its pore placed well before middle; dorsal pores on stria 3, at a fourth and a little behind middle. No microsculpture on elytra or prothorax, but on head very faint isodiametric meshes are visible between eyes. Prosternum sulcate, metasternum with an arcuate groove in front.

432

Smaller and darker than *politus*, prothorax narrower and less rounded at sides, which are sinuate further from base; elytra with three dorsal striae, which are quite as deep and similarly arcuate, striae 4-5 just visible, though hardly impressed.

LAOS: Pak Teu (R. Vitalis de Salvaza) 1 ex. Q in the British Museum.

Tachys interpunctatus Putz. Ann. Mus. Civ. Gen. VII, 1875, 741 (pl. III, fig. 7).

Length: 2,75 mm. Black, faintly aeneous; joints 1 to 3 of antennae and an apical spot on each elytron testaceous, rest of antennae and apex of elytra brownish red. *Head* with frontal furrows hardly duplicated, inner ones short and deep, eyes not prominent, mentum without pores, antennae short and thick, joint 2 = 3. *Prothorax* convex, narrow, barely a third wider

than long, about equally contracted at extremities, sides rounded in front and sinuate at some little distance from base, hind angles sharp and slightly acute, with a carina, marginal channel slightly dilated at middle; base depressed, basal sulcus deep, the inner ends of the two parts impressed, so that from above there appear to be three pores at middle, hardly crenulate, widely interrupted, with the deepened end of median line at middle, the foveae deep, adjoining hind angles. Elytra with smooth border, rounded at shoulder; three rather deep impunctate dorsal striae, 1 entire, 2 and 3 shortened at extremities, 8 deep throughout, striole short straight and rather shallow, nearer margin than suture, the pore close to front extremity, the whole surface, except interval 1, covered — though not closely — with fairly large punctures, which at all events on disk run in longitudinal rows down the middle of the intervals and from which protrude long erect hairs; dorsal pores quite masked by the puncturation. No microsculpture. Prosternum deeply sulcate, metasternal process with a deep rather narrow border.

In form almost exactly like *eueides*, but smaller, with much shorter and thicker antennae, and with three dorsal striae. The

only other eastern species known to me which have numerous erect setae on the elytra are *elegans* and *barringtoni*, which differ widely in their other characters.

The few specimens which I have seen, including the type, now in the Brussels Museum, all came from Celebes.

Tachys tetraspilus Solsky in Fedchenko's Turkestan II, Zool. Ins. I, 1874, 114; Reitter Deutsch. Ent. Zeitschr. 1894, 33.

Length: 2,8 mm. Black, slightly iridescent, underside piceous brown; palpi, joints 1 and 2 of antennae (rest fuscous), and legs testaceous; each elytron with two flavous spots, an oblong one on shoulder, a round one towards apex. Head with short parallel vaguely duplicated furrows, eyes moderately prominent, mentum without pores, antennae rather short and stout, joint 2 = 3. Prothorax fully half as wide again as long, base a little wider than apex, sides lightly rounded in front, very moderately contracted and only faintly sinuate before base, hind angles slightly obtuse but sharp, with a short carina; median line faint, basal sulcus moderately deep, crenulate, just interrupted, the pore

Ann. del Mus. Civ. di St. Nat., Vol. LI. (10 Maggio 1925).

28

at middle not very distinct from the general crenulation. Elytra ovate, moderately convex, border smooth and extending inwards some little way beyond hind angles of prothorax; three dorsal striae, not crenulate, diminishing in length outwards, 1 entire, 2 extending a little beyond first dorsal pore in front, both 2 and 3 extending far beyond the second one behind, 3 as seen from above limited by the front pore, but viewed sideways it can be traced nearly to base, 4 just visible, 8 entire, but not quite so deep as in most of the allied species, striole fairly long and gently curved to middle of elytron, the pore half way along it; dorsal pores small, on stria 3, at about a third and three fifths. Microsculpture faint, elytra with fine transverse lines just visible, obsolete on disk of prothorax, head with a slight reticulation of moderately transverse meshes. Prosternum only faintly depressed in middle, metasternal process with a sharply curved arcuate groove behind it.

Very near *gradatus*, both prothorax and elytra rather wider, elytra a little less convex, the striae longer, the surface more iridescent, and without any suffusion of red colour.

The species was described from Turkestan, and, though I have not seen the type, I have seen a number of specimens from Central Asia agreeing with the description. I cannot differentiate from them some Indian examples I now have before me, viz. from Pusa in Bihar (Pusa Agric. Inst.), from « India » (*Hearsey*), and an example labelled « Capt. Boys », probably from North India. The Hearsey and Boys examples are in the Hope Dept. of the Oxford Univ. Museum.

Tachys gradatus Bates Trans. Ent. Soc. Lond. 1873, 331.

Length: 2,8 mm. Black: joints 1 to 4 of antennae (rest fuscous), palpi, and two spots on each elytron testaceous, the elytra largely suffused with red, especially round the spots and at apex. Head with short parallel duplicated furrows, eyes moderately prominent, mentum without pores, antennae slightly dilated at apex, joint 2 = 3. Prothorax convex, subquadrate, barely half as wide again as long, base a little wider than apex, sides gently rounded in front and very faintly sinuate behind, the angles fairly sharp but a little obtuse, with a clearly marked carina; basal sulcus crenulate, narrowly interrupted, and with a

435

pore at middle. *Elytra* ovate, moderately convex, border smooth, rounded at shoulder, and extending inwards well beyond the hind angles of prothorax; three dorsal striae, not crenulate, 1 entire, 2 extending well beyond dorsal pores, 3 limited by the first dorsal pore in front, and extending only a little way beyond the second one behind, 4 to 7 wanting, 8 deep throughout, striole curved, fairly long, on middle of elytron, the pore half way along it; dorsal pores on stria 3, at about a fourth and rather behind middle. No appreciable microsculpture. Prosternum sulcate, metasternal process finely bordered, protarsi  $\Im$  with two slightly dilated joints.

Very near *peryphinus* and *tetraspilus*. A little narrower than the latter, the elytra more or less suffused with red, and no appreciable microsculpture. Prothorax and elytra both a triffe narrower, striae a little deeper, 2 and 3 much shorter behind.

CHINA: Fuchau (G. Lewis), Shanghai, Kiang-si; Haining, Nimrod Sound, and Da-laen-saen near Ningpo (Commander J. J. Walker).

Tachys peryphinus Bates Ann. Mag. Nat. Hist. (5), XVII,

1886, 153.

Length: 2,8 mm. Black or piceous, with an aeneous tinge; joints 1 to 3 of antennae (rest brown), and legs flavous, penultimate joint of palpi fuscous, two faint light spots (sometimes wanting) on each elytron. Head with short indistinctly duplicated furrows, diverging slightly behind, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 = 3. Prothorax moderately convex, a third wider than long, base a little wider than apex, sides very gently rounded and sinuate just before the hind angles, which are right, with a distinct carina; median line very fine, basal sulcus fairly deep, finely crenulate, interrupted and with a pore at middle. Elytra moderately convex, slightly pointed at apex, border smooth, rounded at shoulder and extending inwards a little beyond hind angles of prothorax; three finely crenulate dorsal striae, 1 entire, but all (though subinterrupted) nearly reaching base, 2 shortened behind, 3 not extending behind beyond dorsal pore, 1 and 2 fairly deep, 3 very lightly impressed and very clearly crenulate, 4 just visible, 8 deep throughout, striole rather short, on middle of elytron, the pore half way

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along it; dorsal pores distinct, on stria 3, at a third and three fifths. Microsculpture fine but quite distinct, consisting of fine transverse lines on the elytra, which become rather more visible on the prothorax, where the lines form wide transverse meshes, isodiametric on vertex. Prosternum rather deeply sulcate, metasternum with a fairly deep arcuate groove behind the process.

Allied to *tetraspilus*, but narrower throughout, and with flatter eyes, elytra with the spots much smaller and less distinct, and without iridescence. Prothorax much narrower, striae 1 and 2 of the elytra deeper, 3 shallower, and all traceable to near base.

CEYLON: In addition to the examples taken by Mr. George Lewis, I have seen a single specimen only taken by D.<sup>r</sup> W. Horn at Nalanda.

Tachys ceylanicus Nietn. Ann. Mag. Nat. Hist. (3) II, 1858, 423.

- *flaviculus* Motch. Etud. Ent. VIII, 1859, 39; Putz. Ann. Mus. Civ. Gen. VII, 1875, 746; Andr. Trans. Ent. Soc. Lond. 1919, 191.
- » anceps Putz. Ann. Mus. Civ. Gen. VII, 1875, 742.

» infans Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 154; id. Ann. Mus. Civ. Gen. XXXII, 1892, 294.

Length: 1,8-2,0 mm. Testaceous; palpi, joints 1 to 3 of antennae, and legs, a little lighter, elytra usually with a vague dark band across the middle. Head with fairly deep, but short inner furrows, slightly divergent behind, outer ones obsolete, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 = 3. *Prothorax* cordate, moderately transverse, about equally contracted at extremities, sides rounded in front and sinuate at some little distance from base, the angles right, with a short slight carina; median line fine, basal sulcus fairly deep, hardly crenulate, interrupted and with a pore at middle (practically with two others, one on each side, owing to the deepening of the basal sulcus at those points), basal foveae small but deep, just inside the carina. Elytra with the border minutely setulose (but the setae are so small and fugitive that they are very difficult to see), hardly angulate at shoulder, extending inwards and slightly backwards just beyond hind angles of prothorax; three fairly deep crenulate dorsal striae, 4 to 7 obsolete, 1 entire,

2 and 3 shortened at extremities, 8 deep and entire though a little shallower at middle, striole not very long, curving inwards in front and ending on middle of elytron, the pore about half way along it; dorsal pores on stria 3, at about a fourth and a little behind middle. No microsculpture. Prosternum with a small rounded depression, metasternal process strongly bordered, protarsi  $\mathcal{A}$  with two joints hardly perceptibly dilated.

In the Berlin Zoological Museum there are five specimens, indicated as type and paratypes of Nietner's species. Of Motchulsky's species there are three typical examples in the British Museum, Brussels Museum, and Berlin Zoological Museum respectively. Putzey's type is in the Brussels Museum, and Bates' type in the British Museum. I have examined all these and found them to be practically similar. All of them came from Ceylon, except perhaps Putzey' examples, the locality of which is vaguely indicated as « Ind. Or. », and all are about 1,75 mm. in length. I have received similar examples from the Philippine Is. (D.<sup>r</sup> C. F. Baker).

Elsewhere a rather larger form is prevalent, attaining as much as 2,0 mm. in length. The form is more convex, the sides of the prothorax and elytra a little more rounded, the carina

in the hind angles of the prothorax more distinct, the elytral striae a little further apart, and all the impressions on the upper surface rather deeper. I have seen examples from North India, Mysore, Burma, Malay States, Tonkin, Philippine Is., Celebes, and Hongkong, but these have not all been identical, and I refrain from giving them any distinctive name.

# Var. polyporus v. nov.

In numerous specimens from Kumaon, measuring about 2,0 mm. in length, the dorsal pores are larger and more numerous than in the type form, though very variable in size, number, and position. As a rule there are three or four along the course of stria 3, and a very large one on stria 4 (or interval 5) at about a fourth from base; between this pore and the base of stria 3 there are sometimes one or two other large pores.

KUMAON: West Almora, Tanakpur, and Haldwani - Nandhaur River (H. G. Champion), many ex.; Dehra Dun (D.<sup>r</sup> M. Cameron - Forest Res. Inst.) 2 ex. The type is in the British Museum.

Tachys fuscicauda Bates Trans. Ent. Soc. Lond. 1873, 298. Length: 1, 9-2, 1 mm. Light to dark chestnut-red; joints 1 to 3 of antennae and legs testaceous, elytra each with two very vague pale spots. Head with duplicated furrows, inner ones fairly deep and rather uneven, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 = 3. Prothorax moderately convex, a half wider than long, sides rounded and barely sinuate before base, hind angles right, with a distinct carina; basal sulcus fairly deep, strongly crenulate, narrowly interrupted, and with a pore at middle. Elytra ovate, moderately convex, border presumably setulose, though only minute pores are visible along margin, curving inwards and backwards at shoulder, but hardly angulate; three impressed and crenulate dorsal striae, 1 entire, 2 and 3 only slightly abbreviated, though faint at extremities, 4 just visible, the rest obsolete, 8 deep throughout, striole long, curved, on middle of elytron, the pore half way along it; dorsal pores on stria 3 at a third and three fifths. No microsculpture. Prosternum slightly sulcate, metasternal process with an arcuate groove behind it.

Very near ceylanicus, but with rather darker antennae, the

# 438

pale markings on the elytra slightly more evident. Head with more distinctly duplicated furrows, prothorax a little less contracted and less sinuate behind, elytra slightly wider, more convex, sides more rounded, striole longer and curving less sharply inwards at extremity. I have kept the species distinct, but considering the variability of *ceylanicus*, I cannot regard *fuscicauda* as much more than a local form of it.

JAPAN. CHINA: Da-laen-saen near Ningpo (Commander J. J. Walker).

Tachys arcuatus Putz. Ann. Mus. Civ. Gen. VII, 1875, 744; Andr. Trans. Ent. Soc. Lond. 1922, 247.

Length: 3, 5 mm. Black to dark red: joints 1 to 4 of antennae (rest fuscous), legs, and two rather small elytral spots reddishtestaceous (shoulder spot wanting in the type). Head with short deep frontal furrows, almost foveolate, not duplicated, eyes moderately prominent, mentum without pores, joint 2 of antennae almost as long as 3. Prothorax convex, quadrate, not quite a third wider than long, base a little wider than apex, sides very

439

gently rounded, not sinuate, except that the hind angles project slightly as a sharp tooth, the carina rudimentary; median line very fine, basal sulcus fairly deep, nearly smooth, widely interrupted, and with a large pore at middle, but the two parts are deeper at their inner extremities, so that from above there appear to be five pores, of which the outer ones (the basal foveae) are the largest. Elytra convex, with border smooth, rounded at shoulders, and only just reaching hind angles of prothorax; two impunctate dorsal striae, 1 entire and very deep, 2 deep and strongly arcuate, extending well beyond dorsal pores, 8 deep throughout, striole short and nearly straight, much nearer margin than suture, the pore a little nearer front than apex, interval 2 at middle nearly twice as wide as 1; dorsal pores large and close together, on site of stria 3, at a fifth and middle respectively. No evident microsculpture. Prosternum slightly sulcate, metasternum with a deep arcuate groove rather near front border, last ventral segment Q with the four pores in line.

The narrow prothorax, with its very gently rounded sides, and the peculiar form of the elytral striation distinguish this from any other eastern species known at present.

When I referred to the species before, I had seen only the type, which is in the Stettin Museum. A second example, also from the Stettin Museum and also taken by Nietner in Ceylon agrees more nearly with Putzeys' description, the colour being black with distinct reddish - testaceous shoulder and apical spots, on the elytra. These are the only two specimens I have seen. CEYLON.

# Tachys pictus sp. nov.

Length:: 2, 3 - 2, 5 mm. Reddish brown, median part of the elytra piceous black: palpi, joints 1 to 4 of antennae (rest fuscous), and legs testaceous; two large transverse yellowish-white spots on each elytron, which leave only the sutural interval darker. *Head* rather small, with short, moderately impressed, indistinctly duplicated furrows, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 hardly shorter than 3. Prothorax cordate, convex, rather more than half as wide again as long, base a little wider than apex, sides rounded and gently sinuate before base, hind angle very sharp, slightly acute, and

440

projecting a little laterally, with a clearly marked carina; median line faint, basal sulcus moderately impressed, indistinctly crenulate, interrupted and with a pore at middle. *Elytra* shortly oval, convex, border smooth, forming an angle at shoulder, and extending inwards a little beyond hind angles of prothorax; two very vaguely crenulate dorsal striae, 1 entire, moderately deep behind, faint near base, 2 very lightly impressed (more lightly in type than in the second example), but clearly visible from above, extending beyond dorsal pores, but very faint before front one, 3 to 7 wanting, 8 entire and deep, striole not very long, on middle of elytron, nearly straight, with the pore half way along it; dorsal pores very small, apparently on interval 3, at a third and three fifths. No microsculpture. Prosternum sulcate in front, metasternal process not bordered, a deep depression on each side behind mesocoxae, but not connected by a groove.

About the same size as *poecilopterus*, with much larger lighter spots on the elytra. Head much smaller, frontal furrows hardly duplicated; prothorax wider and less contracted behind, hind angles acute and very sharp, the carina more evident; elytra shorter, wider, with more rounded sides, stria 2 very faint, but visible in front of first dorsal pore, metasternal process unbordered.

SOUTH NEW GUINEA: Rigo (L. Loria) 2 ex. The type is in the Genoa Civic Museum.

Tachys poecilopterus Bates Trans. Ent. Soc. Lond. 1873, 331;

id. Ann. Mus. Civ. Gen. XXXII, 1892, 295. *deliciolus* Bates An. Soc. Ent. Fr. 1889, 274.

Length: 2, 3 mm. Dark red: joints 4 and 2 of antennae (rest fuscous), palpi, and legs testaceous, elytra chestnut-red (disk darker) with four pale spots, the front ones large and vague, the hind ones transverse and on a darker background. Head (pl. III, fig. 16) with rather short clearly duplicated furrows, rather widely separated, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 = 3. Prothorax convex, a third wider than long, equally contracted at extremities, sides narrowly bordered and gently rounded, barely sinuate close to hind angles, which are slightly obtuse and not very sharp, with a very slight carina; median line obsolete, basal sulcus not very

deep, very indistinctly crenulate, interrupted, and with a pore at middle. *Elytra* convex, ovate, with smooth rounded border, extending inwards just beyond hind angles of prothorax; two rather shallow dorsal striae, not crenulate, 1 entire, 2 shortened at extremities, and, viewed either sideways or from in front, not extending forward beyond the first dorsal pore, 3 to 7 wanting, 8 deep throughout, striole on middle of elytron, slightly curved, the pore at middle; dorsal pores small, on stria 3, at a third and three fifths. No microsculpture. Prosternum slightly sulcate, metasternal process finely bordered, without transverse groove behind it.

A little larger and wider than *decoratus*, but similarly coloured, except that joints 3 to 11 of the antennae are fuscous. Prothorax with a slight carina; basal sulcus interrupted and with a pore at middle, stria 2 of the elytra not extending beyond the front dorsal pore.

The type is in Mr. René Oberthür's collection. The type of *deliciolus*, which I have compared with an example of *poeci-lopterus* determined by the author, is in Mr. E. Fleutiaux' collection.

Common throughout S. E. Asia, but in India confined to the Northern Provinces. In the type of *deliciolus* and some other examples from Indo - China, Siam, Java, and Sumbawa stria 2 extends a little in front of the first dorsal pore.

# Tachys nalandae sp. nov.

Length: 2, 5 - 3, 0 mm. Piceous, elytra vaguely red and opalescent, venter a lighter red, antennae, palpi, and legs flavous. Head with very short but deep, almost punctiform, inner furrows, outer ones obsolete, the oblique sides of head in front reflexed, mentum without pores, eyes not prominent, antennae short and slender, joint 2 = 3. Prothorax transverse, more contracted in front than behind, moderately convex, base truncate, sides evenly rounded in front, and practically straight behind to the angles, which would be obtuse but for a minute tooth which projects a little laterally; median line obsolete, basal sulcus rather shallow, not crenulate and not far removed from base, interrupted and with a small pore at middle. Elytra short-ovate, convex, very nearly half as wide again as prothorax, border smooth, forming a very obtuse angle at shoulder, thence directed inwards and a

little backwards to a point rather beyond hind angles of prothorax; two very vaguely crenulate dorsal striae, 1 reaching apex but not quite reaching base, 2 abbreviated at extremities, 8 entire, striole moderately long, curved, ending on middle of elytron, the pore half way along it; dorsal pores small, on site of stria 3, at about a fourth and three fifths. Microsculpture evident only on front of head, where there is some slight transverse reticulation. Prosternum sulcate, metasternum with a short, slightly angular groove in front,  $\sigma$  protarsi with two slightly dilated joints, last ventral segment Q with the four pores in line, rather a wide space between the two inner ones.

CEYLON: Nalanda  $(D.^r W. Horn)$ .

## Tachys mediocris sp. nov.

Length: 2, 25 mm. Brown, slightly iridescent: elytra nearly black, with two rather large vaguely defined light reddish spots on each; antennae with joints 1 and 2 testaceous, 3 to 5 fuscous, 6 to 11 brown, legs testaceous. Head with short but fairly deep parallel furrows, hardly duplicated, eyes not prominent, mentum without pores, antennae short and slight, joint 2 = 3. *Prothorax* convex, half as wide again as long, base wider than apex, the sides rounded, not sinuate in front of the minute rectangular hind angles, in which is a rather slight carina; basal sulcus not very deep, indistinctly crenulate, interrupted, and with a small pore rather behind middle, formed by the end of the median line. Elytra ovate, moderately convex, with smooth border, just passing hind angles of prothorax; two rather fine dorsal striae, not crenulate, 1 entire, 2 extending beyond dorsal pores, 3 to 7 wanting, 8 deep behind, not quite so deep in front, striole on middle of elytron, curving inwards in front, the pore a little in front of middle; dorsal pores on stria 3, at a third and two thirds. No microsculpture. Metasternal process rather indistinctly bordered.

442

Near *poecilopterus*, but flatter and wider, slightly iridescent, the elytra almost black. Frontal furrows, not duplicated, prothorax less contracted behind, elytra much less convex and with stria 2 extending in front beyond the dorsal pore.

SOUTH NEW GUINEA: Kapakapa (L. Loria) 2 ex. the type is in the Genoa Civic Museum.

### Tachys malabaricus sp. nov.

Length: 2, 75 mm. Black: joint 1 of antennae, with base of 2, and legs testaceous, each elytron with two vague transverse reddish spots, the front larger than the hind one. Head with fairly deep duplicated furrows, eyes rather prominent, mentum without pores, antennae filiform, exceptionally long and thick, somewhat dilated towards apex, joint 2 = 3. *Prothorax* transverse, equally contracted at extremities, sides rounded in front, straight behind to the minute rectangular hind angles, carina rudimentary, basal sulcus fairly deep, indistinctly crenulate, vaguely interrupted and with a small pore at middle just behind the sulcus (but unless viewed from in front the sulcus appears uninterrupted). Elytra ovate and moderately convex, border smooth, rounded at shoulder, and extending inwards a little beyond hind angles of prothorax; two moderately deep impunctate dorsal striae, 1 entire, 2 extending rather beyond dorsal pores, a suggestion only of stria 3, 8 entire, striole of medium length, curved, on middle of elytron, the pore at its middle; dorsal pores distinct, on the inside of site of stria 3, at a fourth and three fifths. No microsculpture. Prosternum depressed, metasternal process bordered, with a transverse groove behind it.

Allied to *finitimus*, but black, narrower, with longer and thicker antennae; basal sulcus only vaguely interrupted, finely and indistinctly crenulate, elytral striae not so deep.

MALABAR: Cannanore, at 50 ft. above sea level (A. K. W. Down-ing) 1 ex.

# Tachys pallidicornis sp. nov.

Length: 2,7 mm. Black, underside piceous red: antennae, legs, and two small transverse spots on each elytron testaceous. Head with short, fairly deep furrows, indistinctly duplicated, diverging slightly behind, eyes moderately prominent, mentum without pores, antennae rather short and stout, joint 2 = 3. Prothorax subcordate, a little more than a third wider than long, base rather wider than apex, sides rounded in front, straight behind, but sharply sinuate close to hind angles, which form on each side a rectangular tooth, with a clearly marked carina; median line fine, basal sulcus fairly deep, smooth, interrupted and with an elongate pore at middle. Elytra moderately convex,

ovate, border smooth, subangulate at shoulder, and extending inwards well beyond hind angles of prothorax; two moderately deep crenulate dorsal striae, 1 reaching apex, but stopping at about a sixth from base, 2 shortened at both ends but reaching beyond the dorsal pores, 8 deep throughout, striole rather short but deep, on middle of elytron, the pore half way along it; dorsal pores distinct, on site of striae 3, at a third and three fifths. Microsculpture wanting. Prosternum deeply sulcate, metasternal process depressed at extremity, a deep arcuate groove behind, protarsi  $\Im$  with two barely dilated joints.

Rather like *laetificus*, but with pale antennae, the elytral spots smaller and evidently transverse. The basal sulcus of the prothorax is not crenulate, the interruption is clearer, and there is a larger pore at middle; the elytra are less convex, the sides less rounded and the shoulder more evident, stria 1 not reaching base.

BOMBAY: Khandesh (T. R. D. Bell) 1 ex.  $\mathcal{T}$ .

Tachys tagax sp. nov.

Length: 2, 25 - 2, 75 mm. Black, sometimes faintly aeneous, apex of elytra reddish, underside piceous: antennae, palpi, and legs flavous (in a solitary example from Sikkim each elytron has two small indistinct reddish spots). Head with short parallel more or less duplicated furrows, eyes hardly prominent, mentum without pores, antennae submoniliform, joint 2 equal to 3. Prothorax convex, half as wide again as long, base wider than apex, sides rounded in front and sinuate at a little distance from base, marginal channel fairly wide, hind angles right, with a distinct carina; basal sulcus deep, a little uneven at bottom, but not crenulate, interrupted and with an elongate pore at middle. Elytra with smooth border, angulate at shoulder, extending inwards and a little backwards beyond hind angles of prothorax; two very indistinctly crenulate striae, 1 reaching apex but not base, 2 extending a little beyond the dorsal pores, 8 deep throughout, striole short but deep, on middle of elytron, the pore half way along it; dorsal pores small, on stria 3, at about a fourth and a half. No microsculpture. Prosternum sulcate, metasternum with an arcuate groove in front.

Much smaller than politus, upper side black and without

spots, antennae pale. Sides of prothorax sinuate further from base, the basal sulcus not crenulate; elytral striae only indistinctly crenulate, much finer, nearer together, and straighter, dorsal pores smaller.

Кимаом: West Almora, Nainital, Ranikhet, Haldwani-Nandhaur River, Upper Gumti Valley (all *H. G. Champion*): Dehra Dun - Kaligad, Siwalik Hills, Mussoorie - Mossy Falls and Kemti Falls, Arni Gad, Tehri Garhwal-Aglar River (all *D.<sup>r</sup> M. Cameron* – Forest Res. Inst.); Chaubattia, 6000 - 7000 feet (S. R. Archer – Brit. Mus.). SIKKIM: Tista Valley, Tarkhola, and Rangit River (*H. Stevens*).

### Tachys stevensi sp. nov.

Length: 2, 75-3, 25 mm. Black, without aeneous tinge or iridescence, palpi, antennae (darker towards apex), and two large well marked spots on each elytron testaceous, venter red. Head rather narrow, frontal furrows short and straight, hardly duplicated, eyes prominent, mentum without pores, antennae filiform, joint 2 hardly shorter than 3. Prothorax convex, transverse, base wider than apex, sides rather strongly rounded and sinuate at a little distance from base, hind angles right, with a short carina; basal sulcus deep, not crenulate, rather widely interrupted, and with a pore at middle. Elytra convex, ovate, with smooth rounded border; two fairly deep, vaguely crenulate dorsal striae, 1 reaching apex but terminating a little before base, 2 not extending far beyond first pore in front, and ending rather abruptly, 8 deep throughout, striole fairly deep, on middle of elytron, the pore half way along it; dorsal pores rather small but distinct, at a third and just behind middle, on stria 3. No microsculpture. Prosternum deeply sulcate, metasternum with an arcuate groove in front, protarsi 3 with two hardly dilated joints.

Closely allied to *politus*, but not aeneous, antennae pale, elytra each with two very clear spots. Sides of prothorax sinuate further from base, basal sulcus not crenulate, striae of elytra only vaguely crenulate but quite as deep, 2 not extending so far in front of first dorsal pore.

SIKKIM: Gopaldhara (H. Stevens). EASTERN DUARS (H. Stevens). KUMAON: West Almora, Nainital, Swal River basin, Haldwani-Nandhaur River, Khaula 4500 feet (all H. G. Champion);

Bhim Tal. 4500 feet (N. Annandale - Ind. Mus.). Римлав: Simla Hills - Barogh 5000 feet (N. Annandale - Ind. Mus.); Bajaura - Kangra district (G. Babault). Спота NAGPUR: Barway (Cardon - Brussels Mus.).

In two examples taken by Mr. L. Fea in the Karen Hills, and now in the British Museum, the elytral spots are rather vague, and the second stria is rather longer at-both ends.

# Tachys nilgiricus sp. nov.

Length: 3, 0 - 3, 5 mm. Black, sometimes faintly aeneous, but without iridescence, antennae and palpi flavous, elytra each with two rather small testaceous spots. Head rather narrow, with more or less duplicated furrows, the inner ones short and straight, eyes moderately prominent, mentum without pores, antennae filiform, joint 2 = 3. Prothorax convex, transverse, base a little wider than apex, sides rounded in front and sinuate behind at a little distance from base, hind angles slightly acute, with a small carina; basal sulcus deep, but not crenulate, interrupted at middle, the median pore exceptionally large. Elytra convex, ovate, with smooth border, slightly angulate at shoulder; two dorsal striae, not crenulate, rather shallow, straight and close together, 1 reaching apex but not base, 2 extending as a faint impression in front beyond the first dorsal pore, 8 deep throughout, striole fairly long, on middle of elytron, the pore at its middle; dorsal pores at a third and two thirds on site of stria 3. No microsculpture. Prosternum sulcate, metasternum with an arcuate groove in front.

Near *politus*, but even more nearly allied to *stevensi*, the antennae paler, the elytral spots smaller, the hind one more transverse, the prothorax a little narrower, but similarly shaped. It differs from both species in having finer dorsal striae, with hardly a trace of crenulation, and terminating less abruptly in front.

MADRAS: Nilgiri Hills, Bhavani Valley, 1500 feet, and Kallar, 1000 feet. South Mysore: Teppukadu (all H. L. Andrewes).

# Var. unisculptus v. nov.

A solitary example taken by Mr. Andrewes in the Nilgiri Hills, and two examples taken by D.<sup>r</sup> W. Horn at Kanthalay

and Trincomali in Ceylon (Deutsch. Ent. Mus. and Brussels Mus.) agree with the type, except that stria 2 has disappeared, leaving only a trace behind.

### Tachys nannodes sp. nov.

Length: 2, 50 - 2, 75 mm. Black, both faintly aeneous and iridescent, antennae and palpi flavous, each elytron with two small vague reddish spots, the whole apical area often vaguely red. Head with short, slightly divergent inner furrows, outer ones generally indistinct, eyes moderately prominent, mentum without pores, antennae short but filiform, joint 2 hardly shorter than 3. Prothorax convex, half as wide again as long, base wider than apex, sides rounded in front and sinuate at a little distance from base, hind angles right, with a distinct carina; basal sulcus deep, indistinctly crenulate, and interrupted, the two parts ending inwardly in a slight punctiform depression on each side of an elongate central pore. Elytra short and convex, border smooth, forming a very wide angle at shoulder; two faintly crenulate dorsal striae, 1 reaching apex but barely longer than . 2 in front, both appearing when viewed from above to terminate just in front of the first pore, though viewed sideways they can be traced nearer to base, 2 extending beyond the hind pore, 3 when viewed sideways distinct, though scarcely impressed, almost to base, 8 deep throughout, striole on middle of elytron, the pore half way along it; dorsal pores on stria 3, at a third and just behind middle. No microsculpture. Prosternum sulcate, metasternum with an arcuate groove in front, protarsi 3 with two slightly dilated joints.

Shorter and wider than *politus*, with pale antennae, and two spots on each elytron. Prothorax with basal sulcus less distinctly crenulate; elytra with dorsal striae only faintly crenulate, less impressed, straighter, closer together, and ending further from base in front, 3 quite visible

BOMBAY: Belgaum (H. E. Andrewes). MADRAS: Nilgiri Hills, 3500 feet (H. L. Andrewes).

 Tachys politus Motch. Bull. Mosc. 1851, IV, 509; Putz. Ann. Mus. Civ. Gen. VII, 1875, 743; Bouch. Ann. Soc. Ent. Fr. 1903, 170; Andr. Trans. Ent. Soc. Lond. 1919, 199; id. Trans. Ent. Soc. Lond. 1921, 146.

*Bembidium) ebeninus* Nietn. Ann. Mag. Nat. Hist.
 (3), II, 1858, 424; Motch. Etud. Ent. XI, 1862, 55.

bioculatus Putz. Ann. Mus. Civ. Gen. VII, 1875, 743;
Bates. Ann. Mag. Nat. Hist. (5), XVII, 1886, 153;
id. Ann. Mus. Civ. Gen. XXVII, 1889, 105; id. Compt.
rend. Soc. Ent. Belg. 1891, 326; id. Ann. Mus. Civ.
Gen. XXXII, 1892, 293.

(Pl. III, fig. 8 - pl. IV. fig. 23, 29, 32, 36, 37, 40). Length: 3, 0 - 3, 5 mm. Dark aeneous and slightly iridescent above, piceous beneath, venter dark red: elytra each with an ill-defined spot near apex and apical border reddish; joints 1 and 2 of antennae, with base of 3 and 4, greater part of palpi, and legs flavous; rest of antennae and penultimate joint of palpi fuscous. Head with feebly duplicated furrows, inner ones short and parallel, eyes moderately prominent, mentum without pores, antennae fairly long, slightly dilated towards apex, joint 2 a little shorter than 3. Prothorax convex, transverse, base hardly wider than apex, sides strongly rounded and sinuate quite close to base, hind angles right and sharp, with a short distinct carina; median line fine, basal sulcus deep, crenulate, interrupted and with a large pore at middle, the foveae deep. Elytra ovate, moderately convex, border smooth, extending inwards a little beyond hind angles of prothorax and forming a very obtuse angle at shoulder; two dorsal striae, slightly crenulate and arcuate, 1 reaching apex but stopping a little short of base, 2 extending rather beyond dorsal pores, 8 deep throughout, striole not very long, curved, on middle of elytron, the pore half way along it; dorsal pores conspicuous, on site of stria 3, at basal third and a little behind middle. Prosternum sulcate (pl. IV, fig. 29), metasternal process with an arcuate groove behind it (pl. IV, fig. 32), protarsi 3 with two slightly dilated joints (pl. IV, fig. 40). The microsculpture of fine transverse lines on prothorax and elytra is hardly visible; on the head the meshes of the reticulation are nearly isodiametric, though very faintly impressed.

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I have seen three typical specimens of politus, viz. one in

the British Museum (coll. F. Walker), one in the Deutsch. Ent. Museum (coll. von Manderstjerna > coll. von Heyden), and one in the Berlin Zoological Museum (coll. L. W. Schaufuss), all apparently authentic. I have also examined the types of *ebeninus* and *bioculatus*, now in the Berlin Zoological Museum, and Brussels Museum respectively.

The species is found abundantly all over South East Asia, but does not reach Japan or Australia.

Var. homostictus Bates Ann. Mus. Civ. Gen. XXXII, 1892, 293. This differs only from the ordinary form in the presence of a spot on the shoulder in addition to that at apex.

### Var. aspilotus v. nov.

In this form the spot has disappeared altogether, leaving only the apical border reddish.

### Var. constrictus v. nov.

Some examples from Indo - China are a little smaller (3,0 mm. long) and darker than the typical form. The prothorax is narrower and slightly more contracted behind, so that it appears almost constricted in front of base, sinuate further from the hind angles, which are sharp and project a little laterally, the basal sulcus rather indistinctly crenulate. The elytral border does not form any angle at shoulder and is not continued quite so far inwards; the striae are a little deeper.

# Tachys compactus sp. nov.

Length: 3,0 mm. Deep red: elytra each with two fairly large testaceous spots, palpi, joints 1 and 2 of antennae, with base of 3 and 4 (rest brown), and legs flavous. Head with duplicated furrows, outer ones slight, inner ones very short and straight, eyes not prominent, mentum without pores, antennae filiform and slender, joint 2 = 3. Prothorax convex, moderately transverse, equally contracted at extremities, sides rather strongly rounded, and sharply sinuate close to base, hind angles sharply rectangular, projecting a little laterally, with a short carina; basal sulcus fairly deep, crenulate, interrupted and with a pore at middle. Elytra wide, ovate, very convex, with smooth border,

Ann. del Mus. Civ. di St. Nat., Vol. LI. (2 Giugno 1925).

29

rounded at shoulder, and reaching inwards a little beyond hind angles of prothorax; two fairly deep, arcuate, slightly crenulate dorsal striae, 1 entire, 2 reaching well beyond dorsal pores, 3 to 7 wanting, 8 very deep, striole moderately long and slightly curved, on middle of elytron, its pore slightly in front of middle; dorsal pores distinct, on inside of site of stria 3, at a third and three fifths. Microsculpture fine, but quite distinct, consisting of transverse lines on prothorax and elytra, the head with very faint isodiametric meshes. Prosternum deeply sulcate, metasternal process with a deep arcuate groove behind it.

A little smaller and more convex than politus, deep red instead of brassy and with two fairly large spots on each elytron. Eyes a little less prominent, prothorax narrower, the basal sulcus less distinctly crenulate, as are the dorsal striae, the microsculpture much more distinct. Larger and redder than gongylus, the spots larger and less clearly defined, prothorax less contracted behind, elytral striae and dorsal pores not so deep.

TONKIN: Sept - Pagodes (L. Blaise) 5 ex. The type is in the Paris Museum.

450

Tachys gongylus sp. nov.

Length: 2, 5-3, 0 mm. Dark red above, piceous beneath: base and apex of antennae, legs, and two fairly large transverse spots on each elytron extending between striae 2 and 8 flavous, palpi and middle joints of antennae reddish. Head small, furrows short and parallel, outer ones indistinct, eyes moderately prominent, antennae short, dilated at apex, joint 2 = 3. Prothorax convex, a third wider than long, equally contracted at extremities, base arcuate, its sides oblique, sides strongly rounded, and sinuate quite close to hind angles, which are sharp but obtuse, with a slight carina; median line fine, basal sulcus deep, crenulate, widely interrupted, and with a pore at middle. Eiytra convex, border smooth, rounded, just reaching hind angles of prothorax; two dorsal striae, very deep and strongly crenulate, 1 reaching apex but not quite reaching base, 2 arcuate, rather distant from 1 and ending very abruptly in front, extending well beyond dorsal pores, 8 deep throughout, striole short, on middle of elytron, its pore very large, at about middle; dorsal pores large and conspicuous, on site of stria 3, at a third and rather behind

middle. No microsculpture. Prothorax deeply sulcate, metasternum with a deep arcuate groove in front.

Smaller, more convex, and much more brightly coloured than *politus*, the prothorax narrower and a little more contracted behind, the elytra shorter, with deeper striae, 2 more arcuate and further removed from 1.

CHINA: Hongkong  $(D.^r M. Cameron - my coll., and Comm.^r J. J. Walker - British Museum).$ 

# Tachys charactus sp. nov.

Length: 2,9 mm. Black, shiny, base and apex of elytra sometimes reddish: joints 1 and 2 of antennae (rest fuscous) and legs flavous. Head with indistinctly duplicated furrows, inner ones fairly deep, short and parallel, eyes not prominent, mentum without pores, antennae short, rather dilated at apex, joints 2 and 3 equal. Prothorax convex, just over a third wider than long, equally contracted at extremities, sides narrowly bordered, strongly and evenly rounded, and only sinuate before the small, sharp, and nearly rectangular tooth, which forms the hind angles, the carina rather slight; median line obsolete, basal sulcus deep, finely crenulate, widely interrupted and with a pore at middle. Elytra convex, with the border smooth and rounded, just reaching hind angles of prothorax; two deep crenulate dorsal striae, 1 reaching apex but not quite reaching base, 2 slightly arcuate, extending well beyond dorsal pores, 8 deep throughout, striole short and nearly straight, rather nearer margin than suture, the pore a little in front of middle; dorsal pores at a third and just behind middle, on site of stria 3. No microsculpture. Prosternum sulcate, metasternal process with a deep arcuate groove. Closely allied to gongylus and differing from politus in much the same way. Smaller than the latter species, without any aeneous tinge, the elytra generally with some slight suffusion of red at base and apex. Prothorax narrower, elytra shorter, more convex, and a little more pointed behind, stria 2 rather more arcuate, dorsal pores larger.

KUMAON: West Almora, Tanakpur, Haldwani, Swal River basin (H. G. Champion) 8 ex. - BURMA: Prome (G. Q. Corbett) 2 ex. in very poor condition. The type (Tanakpur) is in the British Museum.

### Tachys vixmaculatus sp. nov.

Length: 2,7 mm. Black: joints 1 and 2 of antennae, basal joints of palpi, and legs testaceous, elytra each with two vague reddish spots, that on shoulder almost invisible. Head with indistinctly duplicated furrows, inner ones fairly deep and somewhat divergent behind, eyes not prominent, mentum without pores, antennae slender, with joints 2 and 3 equal. Prothorax convex, narrow, barely a third wider than long, about equally contracted at extremities, base arcuate, sides narrowly bordered, rather gently and evenly rounded, sinuate not much before base, hind angles sharp and a little acute, with a slight carina; basal sulcus rather indistinctly crenulate, interrupted, and with a pore at middle. Elytra convex, with smooth rounded border just reaching hind angles of prothorax; two moderately impressed crenulate dorsal striae, 1 reaching apex but not quite reaching base, 2 extending well beyond dorsal pores, 8 deep throughout, striole short and straight, much nearer margin than suture, the pore not far from front extremity, apex with a rounded depression on each side (possibly accidental) between striole and suture; dorsal pores on stria 3, at a third and three fifths. Some vague microsculpture is visible on the head, but none on prothorax and elytra. Prosternum sulcate, metasternum with an arcuate groove in front. Allied to *politus*, but smaller, narrower, and a little less convex. Prothorax much narrower, the basal sulcus less evidently crenulate; elytral striae finer, straighter, and less crenulate, striole shorter and nearer margin, with the pore well in front of middle.

452

LAOS: Pak Pha (R. Vitalis de Salvaza) 1 ex. Q in the British Museum.

Tachys babaulti Andr. Miss. Bab. Ind. Carab. 1924. 87. t. 2. f. 1. Length: 2,5 mm. Bronze-black, iridescent: joints 1 to 3 of antennae (rest brown), and legs testaceous. Head with frontal furrows short, not very deep, hardly duplicated, eyes moderately prominent, mentum without pores, antennae filiform, joint 2 = 3. Prothorax convex, a little more than a third wider than long, base a trifle wider than apex, sides evenly rounded and sinuate just in front of hind angles, which are sharp and rectangular,

with a short carina; median line fine but visible, basal sulcus fairly deep, finely crenulate, interrupted, and with a rather shallow pore at middle. *Elytra* moderately convex, border smooth, extending inwards rather beyond hind angles of prothorax; two dorsal striae, finely crenulate and disappearing very gradually in front, 4 reaching apex but not quite reaching base, 2 extending well beyond dorsal pores and nearly as long as 4 in front, 3 and even 4 visible, but hardly impressed, 8 deep throughout, striole on middle of elytron, the pore half way along it; dorsal pores distinct, on stria 3, at a third and three fifths. The fine transverse lines of the microsculpture are just visible on elytra and prothorax, more visible on the back of the head, while on the front there is a distinct, if fine, isodiametric reticulation. Metasternal process with a rather shallow arcuate groove.

Smaller and less convex than *politus*, with more distinct iridescence, and no apical spot. Prothorax with sides much more gently rounded, a smaller carina in the angles, elytra with finer, straighter, and much less distinctly crenulate striae, 3 more visible.

UNITED PROVINCES, CENTRAL PROVINCES, RAJPUTANA, and BOMBAY.

# Tachys championi sp. nov.

Length: 2,75-3,25 mm. Black, iridescent, without any aeneous tinge, joints 1 to 4 of antennae (rest brown), palpi, legs, and two fairly large spots on each elytron testaceous, underside piceous red. *Head* with inner furrows short and straight, outer ones obsolete, eyes moderately prominent, mentum without pores, antennae short, joint 2 = 3. *Prothorax* moderately convex, transverse, base a little wider than apex, sides rather gently rounded, sinuate not far from base, hind angles right with a small carina; basal sulcus not very deep, distinctly though finely crenulate, interrupted and with a pore at middle. Elytra moderately convex, with smooth border, rounded at shoulder; two finely crenulate dorsal striae, not deeply impressed or ending abruptly, 1 reaching apex but not base, 2 extending beyond dorsal pores, 3 just visible between them, 8 deep throughout, striole slightly curved, on middle of elytron, the pore half way along it; dorsal pores small but distinct, at a third and two thirds,

on stria 3. Microsculpture hardly appreciable on elytra and prothorax, but visible though faint on head, where between the eyes the meshes are isodiametric. Prosternum sulcate, metasternum with an arcuate groove in front, protarsi  $\Im$  with 2 joints very slightly dilated.

A little smaller and less convex than *politus*, iridescent and not aeneous, with two distinct testaceous spots on each elytron. Prothorax narrower, elytra flatter, the striae finer, less distinctly crenulate, ending less abruptly in front.

KUMAON: West Almora, Ranikhet, and Haldwani - Nandhaur River (all H. G. Champion); Kathgodam 1200 feet (S. W. Kemp -Ind. Mus.). EASTERN DUARS (H. Stevens). SIKKIM: Gopaldhara (H. Stevens); Nurbong (W. K. Webb).

# Tachys charis sp. nov.

- » ornatus Putz. (not Nietn.) Ann. Mus. Civ. Gen. VII, 1875, 741.
- » scydmaenoides Bates (not Nietn.) Ann. Mag. Nat. Hist. (5), XVII, 1886, 154; id. Compt. rend. Soc. Ent. Belg. 1891, 326.

» nietneri Bates (not Schaum) Ann. Mus. Civ. Gen. XXXII, 1892, 295.

Length: 2, 2 - 2, 7 mm. Black or very dark red: antennae, palpi, and legs, with two spots on each elytron pale testaceous. Head with rather short slight duplicated furrows, eyes not prominent, mentum without pores, antennae almost moniliform, joint 2 = 3. Prothorax convex, not quite half as wide again as long, base a shade narrower than apex, sides narrowly bordered, rounded, and rather sharply sinuate close to hind angles, which are sharp, right, and practically without carina; median line very fine, basal sulcus fairly deep, distinctly though finely crenulate, interrupted and with a pore at middle. Elytra moderately convex, ovate, border smooth, rounded at shoulder and extending inwards a little beyond hind angles of prothorax; two fine impunctate dorsal striae, 1 entire, 2 extending beyond dorsal pores, 3 to 7 wanting, 8 deep throughout, striole slightly curved, on middle of elytron, the pore half way along it; dorsal pores small, on stria 3, at a third and three fifths. No microsculpture. Prosternum sulcate, metasternal process rather narrowly bordered, with a straight rather shallow transverse groove behind it.

Nearly allied to *poecilopterus*, but a little larger, darker, and with pale antennae. Prothorax rather more contracted behind, the sides more distinctly sinuate, the angles sharper, without carina, the basal sulcus crenulate; elytra with stria 2 extending in front of the first dorsal pore.

CEVLON (J. Nietner, D.<sup>r</sup> W. Horn, and G. M. Henry). CENTRAL PROVINCES: Nagpur (E. A. D'Abreu - type). BOMBAY: Belgaum (H. E. Andrewes). CHOTA NAGPUR: Konbir (Cardon). ORISSA: Kallikote (D.<sup>r</sup> N. Annandale). BENGAL (Galatea Expedition - Copenhagen Mus.). MADRAS: Nilgiri Hills (H. L. Andrewes and M. Maindron); Vizagapatam (R. S. Patuck). Mysore (H. L. Andrewes and D.<sup>r</sup> T. V. Campbell).

I have seen the various examples determined by Putzeys and Bates. The species appears to replace *poecilopterus* in Central and Southern India.

In the specimen taken by Mr. Fea at Mandalay, and referred to by Bates under the name of *nietneri*, the basal sulcus of the prothorax is hardly interrupted and there is only a small

pore at middle : in its size, colour, and other characters it seems more nearly allied to *charis* than to *decoratus*.

### Var. rubescens v. nov.

Ceylon examples are usually slightly smaller (2, 2 mm.) than Indian ones, chiefly red-brown in colour, with sides of prothorax less rounded in front and consequently less sinuate behind, so that base is at least as wide as apex. The type of this variety is in the British Museum. I have also seen a single example taken by Mr. R. S. Patuck at Vizagapatam.

Tachys (*Bembidium*) finitimus Walker Ann. Mag. Nat. Hist. (3), II, 1858, 204; Bates Ann. Mag. Nat. Hist. (5) XVII, 1886, 211; Andr. Trans. Ent. Soc. Lond. 1919, 191.

Length: 2,75 mm. Black, joint 1 of antennae, with basal half of 2, and legs testaceous, elytra each with two large vague reddish spots, more or less joined along suture. *Head* with fairly deep duplicated furrows, inner ones very uneven, eyes moderately prominent, mentum without pores, antennae filiform, slightly

dilated at apex, joint 2 = 3. *Prothorax* convex, a third wider than long, about equally contracted at extremities, sides barely sinuate close to hind angles, which project as a rectangular tooth, with only a rudimentary carina, marginal channel fairly wide; basal sulcus moderately deep, crenulate, interrupted, and with a pore at middle (rather indistinct in type). *Elytra* moderately convex, ovate, border smooth, subangulate at shoulder, and extending inwards very little beyond hind angles of prothorax; two dorsal striae, not crenulate, 1 entire, 2 shorter, but extending beyond dorsal pores, 3 to 7 wanting, 8 deep throughout, striole curved, on middle of elytron, the pore half way along it; dorsal pores rather small, on stria 3, at a third and three fifths. No microsculpture. Prosternum more or less sulcate, metasternal process vaguely bordered, deeply depressed behind extremity, a slight straight transverse groove behind it.

I compared this species before with *peryphinus*, but it is even more nearly related to *charis* and *laetificus*. Rather larger than the latter, the elytra with very vague dull red spots. Antennae filiform and longer, prothorax more contracted behind, the carina in hind angles less evident, the crenulation of the basal sulcus less evident, no microsculpture.

CEVLON. The type, which is in the British Museum, is damaged, and the elytra are partly dissociated from the body. Examples taken by Mr. D.<sup>r</sup> W. Horn at Anuradhapura (Deutsch. Ent. Mus., Brussel Mus., and coll. F. Netolitzky), and others taken by Nietner (Berlin Zool. Mus.) agree with the type, but have a distinct pore at middle of the basal sulcus of prothorax.

# Tachys striatifrons sp. nov.

Length: 2, 15 mm. Black, shiny, elytra dark red, with two paler spots on each, the front one somewhat oblique; antennae and legs testaceous. Head with deep parallel inner furrows, reaching mid-eye level, bounded outwardly by a rounded ridge, between which and the eye are two carinae, so that the head is in effect quadrisulcate on each side, eyes moderately prominent, mentum without pores, antennae submoniliform, joint 2 = 3. Prothorax convex, not quite a half wider than long, sides rather strongly rounded and contracted behind, sinuate quite close to base, which is only a little wider than apex, the angles

457

slightly obtuse, but not rounded, with a slight oblique carina; marginal channel wide, basal sulcus deep, finely crenulate, interrupted and with a pore at middle. *Elytra* convex, ovate, border smooth, rounded at shoulder and extending inwards rather beyond hind angles of prothorax; two fairly deep smooth dorsal striae, 1 entire, 2 reaching well beyond dorsal pores, 3 to 7 wanting, 8 deep throughout, striole short, on middle of elytron, the pore half way along it; dorsal pores on stria 3 at a fourth and three fifths. No microsculpture. Prosternum deeply sulcate, metasternal process finely and narrowly bordered, with a deep straight transverse groove behind it.

In size, form, and colour almost exactly reproducing *poecilopterus*, but the head has three ridges on each side in front instead of two, stria 2 extends in front well beyond the first dorsal pore, and the antennae are pale throughout.

MALAY STATES: Singapore (C. J. Saunders) 1 ex. Q. I am indebted for this specimen to Mr. W. J. Saunders.

**Tachys laetificus** Bates Trans. Ent. Soc. Lond. 1873, 298. Length: 2, 5 mm. Black, upper surface with a faint aeneous

tinge: palpi, joints 1 and 2 of antennae, and legs testaceous, penultimate joint of palpi and rest of antennae fuscous, elytra each with two pale spots, shading off vaguely into red at margins. *Head* with short parallel duplicated furrows, neck rather wide, eyes not prominent, mentum without pores, antennae short and stout, joint 2 = 3. Prothorax quadrate, half as wide again as long, base a little wider than apex, sides gently rounded in front, moderately contracted and barely sinuate behind, hind angles sharp but a little obtuse, with a small carina; median line fine, basal sulcus fairly deep, crenulate, rather slightly interrupted at middle and with an elongate pore. Elytra convex, ovate, rather pointed at apex, border smooth, rounded at shoulder, extending inwards only a little beyond hind angles of prothorax; two indistinctly crenulate dorsal striae, 1 entire, 2 shortened at extremities, but extending forward in front of first dorsal pore, 8 deep throughout, striole moderately long and slightly curved, ending on middle of elytron, the pore half way along it; dorsal pores distinct, on site of stria 3, at about a third and three fifths. Microsculpture of elytra and prothorax rather indistinct, the fine

lines forming wide meshes, transverse on elytra, oblique on prothorax; on the head the meshes are more distinct and isodiametric. Prosternum deeply sulcate, metasternal process finely bordered, protarsi 3 with two slightly dilated joints.

Allied to *finitimus*, but more nearly resembling *tetraspilus*. Smaller than the latter, and with rather smaller elytral spots, antennae darker. Prothorax rather more contracted and hardly sinuate behind, elytra narrower, a little more convex, and with only two dorsal striae.

JAPAN. The type is in the British Museum.

# Tachys javanicus sp. nov.

Length: 2, 5 mm. Black: joints 1 and 2 of antennae (rest fuscous) and legs testaceous, apical half of elytra a vague dull red. Head with short divergent duplicated furrows, eyes moderately prominent, mentum without pores, antennae with joint 2 = 3. Prothorax convex, half as wide again as long, about equally contracted at extremities, sides strongly and evenly rounded from apex to base, without any sinuation, the hind angles projecting as a small rectangular tooth, carina rudimentary; basal sulcus finely crenulate, interrupted, and with a pore at middle. Elytra moderately convex, border smooth, rounded at shoulder, and extending inwards only a little beyond hind angles of prothorax; two dorsal striae, with a trace only of minute crenulation, 1 entire, 2 shortened behind but practically reaching base in front, both 1 and 2 very lightly impressed in front of first dorsal pore, 3 and 4 just visible but not impressed, 8 deep throughout, striole curved, on middle of elytron, the pore half way along it; dorsal pores small, placed distinctly on third interval, though nearer stria 3 than 2, at about a third and three fifths. No microsculpture. Prosternum only slightly sulcate, metasternal process with a narrow but fairly deep border, the depressions behind mesocoxae not uniting to form a groove.

458

This species is very close to *blandus*, but only the apical half of the elytra is faintly red. Prothorax with more rounded sides, elytra a little shorter, the striae placed further apart, stria 1 parallel with suture in front (approaching suture in *blandus*), striae 3-4 visible from in front.

JAVA: Batavia (Grabowsky) 1 ex.

Tachys blandus Andr. Miss. Bab. Ind. Carab. 1924. 85. t. 1. f. 8.
 » haemorrhoidalis Bates (not Dej.) Ann. Soc. Ent.
 Belg. 1892, 230.

Length: 2, 5 mm. Black above, brown beneath, the elytra faintly suffused with a deep reddish tinge; joints 1 to 3 of antennae (rest fuscous) and legs testaceous, femora sometimes infuscate in middle. Head with short, fairly deep, duplicated furrows, inner ones uneven, clypeal suture rather deep, eyes moderately prominent, mentum without pores, antennae submoniliform, dilated at apex, joint 2 = 3. Prothorax convex, half as wide again as long, equally contracted at extremities, sides evenly rounded, not sinuate before base, the hind angles projecting as a small rectangular tooth, carina rudimentary; basal sulcus moderately deep, finely crenulate, interrupted and with a pore at middle. Elytra ovate, moderately convex, border smooth, rounded at shoulder and extending inwards well beyond hind angles of prothorax; two moderately deep dorsal striae, which are only microscopically crenulate, 1 entire, 2 extending beyond dorsal pores, 3 to 7 wanting, 8 deep throughout, striole rather deep, curved, on middle of elytron, the pore half way along it; dorsal pores small at about a third and three fifths on inner margin of stria 3. No microsculpture. Prosternum slightly sulcate, metasternal process rather narrowly bordered, a faint transverse groove behind it.

The species is nearly allied to *javanicus* and *finitimus*. Rather smaller than the latter species, vaguely red, but not spotted, the antennae with three pale joints at base. Prothorax rather wider, elytra with the striae a little less deep, the metasternal process more distinctly bordered.

UNITED PROVINCES, CENTRAL PROVINCES, CHOTA NAGPUR, RAJPUTANA, and BOMBAY.

### Tachys tostus sp. nov.

» scydmaenoides Bates (not Nietn.) Trans. Ent. Soc. Lond. 1873, 299; id. Trans. Ent. Soc. Lond. 1883, 267 (part).

Length: 2, 1 mm. Piceous: underside and elytra dull red, latter a little darker along margins; joints 1 to 3 of antennae, with basal half of 4, and legs testaceous. *Head* with short, nearly parallel duplicated furrows, eyes not prominent, mentum

without pores, antennae short and stout, submoniliform, rather dilated towards apex, joint 2 = 3. *Prothorax* transverse, with a narrow marginal channel, sides rounded and faintly sinuate before the hind angles, which are sharply rectangular, with a distinct carina; median line obsolete, basal sulcus moderately deep, finely crenulate, interrupted, and with a pore at middle. *Elytra* ovate, moderately convex, border smooth, rounded at shoulder, and extending inwards rather beyond hind angles of prothorax; two dorsal striae, not crenulate, rather close together and not very deep, 1 entire, 2 extending well beyond dorsal pores, 8 entire, striole slightly curved, a little nearer margin than suture, its pore at about middle; dorsal pores on interval 3, but close to stria 3, at a third and three fifths. No microsculpture. Prosternum distinctly sulcate, metasternal process unbordered and without any transverse groove behind it.

In size, shape, and the form of the elytral striation like *fusculus*, but the colour is red and there is no microsculpture. More nearly allied to *charis*, but rather smaller, the prothorax less contracted behind, the elytral striae a little shallower and nearer together, the elytra red and without spots, joints 5 - 11 of the antennae dark. The absence of any border or groove on, or behind the metasternal process is very unusual.

460

The type and only example I have seen is one of the specimens taken by Mr. George Lewis in China at Kiukiang on the Yangtsze-Kiang and erroneously labelled by Bates as « *Tachys scydmaenoides* Nietner Bates »: this is in the Berlin Zoological Museum, and no doubt there are other examples in Mr. René Oberthür's collection.

**Tachys eueides** Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 153. Length: 3, 2-3, 4 mm. Black, with a faint aeneous tinge, underside piceous; antennae and legs pale testaceous, each elytron with two small vague reddish spots. Head with short deep single furrows, eyes moderately prominent, mentum without pores, antennae long and filiform, joint 2 = 3. Prothorax convex, narrow, a fourth wider than long, equally contracted at extremities, sides strongly rounded and sinuate at a little distance from base, the hind angles very sharp, a little acute and projecting, with a distinct carina, marginal channel fairly wide; median line

obsolete, basal sulcus deep, crenulate, interrupted and with a large pore at middle. *Elytra* ovate, convex, with smooth rounded border, extending inwards a little beyond hind angles of prothorax; two impunctate deep dorsal striae, 1 reaching apex but not base, 2 extending beyond dorsal pores, 8 deep throughout. striole deep, slightly curved, on middle of elytron, the pore half way along it; dorsal pores large, on site of stria 3 at a third and three fifths. No microsculpture. Prosternum sulcate, metasternal process with a deep arcuate groove behind it.

Nearly allied to *politus*, but with testaceous antennae. Frontal furrows not duplicated, prothorax much narrower, the base almost constricted, elytral striae not crenulate, and not quite so deep.

CEYLON: Dikoya (G. Lewis). I have seen no other specimens.

# comptus - group.

Black with pale spots, form convex. Head with shallow duplicated furrows, inner ones almost obsolete, antennae submoniliform, joint 2 shorter than 3. Prothorax with sides of base very oblique, not in contact with elytra, hind angles dentiform and prominent. Elytra with smooth rounded border, one dorsal stria, 8 entire, striole on middle of elytron, dorsal pores variable in number. No microsculpture. Prosternum sulcate, metasternal process narrowly bordered, protarsi 3 with two very slightly dilated joints.

The group contains only one species and two varieties.

#### KEY TO THE SPECIES

- 1 (4) Dorsal pores on stria 3 only.
- 2 (3) Two dorsal pores.
- 3 (2) Three dorsal pores.
- 4 (1) Dorsal pores numerous, on striae 3, 5, and 7.

comptus Andr. comptus. var. borealis v. nov.

comptus. var. pluripunctus v. nov.

Tachys comptus Andr. Ann. Mag. Nat. Hist. (9), X, 1922, 161. Length: 2,5 mm. Black, shiny: prothorax, base, margin, and epipleurae of elytra dark red; palpi, antennae, two transverse spots on each elytron, and venter testaceous. Head small, with

shallow duplicated furrows, inner ones almost obsolete, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 much shorter than 3. Prothorax convex, a third wider than long (not a half, as in original description), base where in contact with elytra a little narrower than apex, sides strongly rounded, marginal channel widened at middle, hind angles projecting strongly as an acute tooth at some distance from elytra, with a well marked carina, sides of base very oblique and not in contact with elytra; median line faint, basal sulcus finely crenulate, neither very deep nor distant from margin, parallel throughout with the apparent base, hardly interrupted and without any distinct pore at middle. Elytra convex, ovate, border smooth, rounded at shoulder, and disappearing long before reaching the apparent base; only one rather shallow, simple dorsal stria, not nearly reaching base, 8 deep throughout, striole slightly curved, on middle of elytron, the pore half way along it; dorsal pores on site of stria 3, close to base and at three fifths (pl. III, fig. 10). No microsculpture. Prosternum sulcate, metasternal process narrowly bordered, last ventral segment Q with the four pores in line, 3 protarsi with two slightly dilated joints.

462

In size and general coloration the species is a little like *poecilopterus*, but the unusual form of the prothorax differentiates it at once from any other eastern species. The type form appears to be confined to India, and its range, so far as at present known, extends from Assam to Ceylon.

## Var. borealis v. nov.

The examples to which I have given this name differ from the type form in having three pores on interval 3, the second placed not far behind the first.

SIKKIM: Gopaldhara (H. Stevens). KUMAON: Dehra Dun (D.<sup>r</sup> M. Cameron and S. N. Chatterjee - Forest Res. Inst.). CHOTA NAGPUR: Barway (Cardon - Brussels Mus.). FORMOSA: Takao (H. Sauter - Berlin Zool. Mus.). « IND. OR. » (Helfer -Berlin Zool. Mus.).

# Var. pluripunctus v. nov.

This form is darker than the type, with very little red at the base of the elytra, the spots smaller, more transverse, and

more clearly defined. The chief character which distinguishes this variety is the presence of numerous dorsal pores, which vary a little both in number and position; there are approximately four pores on site of stria 3 (two close to base), one on 4 (near front end of striole), three on 5 (one close to base), and one on 7, all fairly conspicuous. Type in the British Museum. KUMAON: West Almora (H. G. Champion).

# ovatus - group.

Black, generally with two reddish spots on each elytron, antennae particoloured, form convex. Head with duplicated furrows, mentum without pores, antennae filiform, joints 2 and 3 equal. Prothorax without basal sulcus, a tubercle bearing hind lateral seta projecting in front of hind angles. Elytra with border smooth but bearing a tooth at shoulder, one dorsal stria, 8 entire, an additional stria running from base some little way down middle of each elytron, two dorsal pores on site of stria 3 near base and middle, but sometimes there are numerous dorsal pores. No microsculpture. Prosternum not sulcate, metasternal process narrowly bordered, protarsi ♂ with two slightly dilated joints.

#### KEY TO THE SPECIES

1	(2)	A CONTRACTOR OF A CONTRACT	with two dorsal pores only, reddish spots on each elytron.	
2	(1)	Elytra	with more than two dorsal pores.	
		THE REAL PROPERTY	with rows of few pores on inter- and 5, colour black without spots.	
4	(3) Elytra with rows of numerous pores on			
	intervals 3 and 5, two reddish spots			
		on ea	ch elytron.	elegans sp. nov.
		S. Cas		
Tachys ovatus Motch. Bull. Mosc. 1851, IV, 509; Andr. Trans.				
			Ent. Soc. Lond. 1919, 198.	
		))	albicornis Schaum Berl. En	nt. Zeitschr. 1860, 199;
			Motch. Etud. Ent. XI, 1862,	27 and 55.
		»	mirabilis Bates Ann. Mus.	Civ. Gen. XXXII, 1892,
			294; Dupuis Ann. Soc. Ent.	Belg. 1913, 175; Andr.
			Trans. Ent. Soc. Lond. 1921	, 146.
		Ŋ	mirandus Dupuis Ann. Soc.	Ent. Belg. 1913, 170.

Length: 2, 6 mm. Piceous black: two rather larger vague spots on each elytron, one just below shoulder, the other at apical third, apex of elytra, and venter reddish; palpi and legs testaceous, antennae with joints 1 and 2 testaceous, 7 to 11 white, the four intervening joints usually fuscous, but 5 and 6 are often lighter. Head with duplicated furrows, the inner ones wide and shallow, but with an impressed line at bottom, outer ones narrow, a slight ridge between them, a depression between front and vertex, mentum without pores, eyes rather prominent, antennae with joints 2 and 3 approximately equal. Prothorax cordate, nearly as long as wide, the sides rather gently rounded, marginal channel wide at middle narrowing at extremities, a tubercle bearing the hind seta projecting laterally in front of the inconspicuous hind angles; median line obsolete, basal sulcus wanting, the foveae deep, semicircular (convex inwards), bounded on each side by a carina. Elytra convex, ovate, border smooth, disappearing just behind shoulder, where there is an indentation, with a rounded tooth in front of it, the border continuing inwards to a point opposite hind angles of prothorax; striae 1 and 8 entire and impunctate, the remainder wanting, 1 approaching suture near base and then curving outwards, to the basal pore, and additional stria (possibly the basal portion of stria 4 or 5), with its inner side slightly carinate, running from the base down the middle of the elytron, sometimes very short, but generally extending to a third, sometimes a half, curving outwards at base and forming a small tooth at point where border terminates; apical striole short and slight, the pore a little nearer front extremity than apex; two small dorsal pores on the site of stria 3, one close to base (not just before middle as mentioned by Bates), the other at about middle. Surface smooth, without evident microsculpture (pl. III, fig. 9). Prosternum not sulcate, metasternal process narrowly bordered, protarsi 3 with two slightly dilated joints. The species occurs all over South East Asia, including Assam and Ceylon, but I have not seen examples from Central or Southern India. I have examined typical examples of all the above, viz: of ovatus in the British Museum (coll. F. Walker) and in the Berlin Zoological Museum (coll. L. W. Schaufuss), of albicornis in the latter Museum (coll. L. W. Schaufuss) and

464

465

the Deutsch. Ent. Mus., of *mirabilis* in the Genoa Civic Museum and Mr. R. Oberthür's collection, and of *mirandus* in the Brussels Museum and the Deutsch. Ent. Mus.

# Var. obliteratus v. nov.

If the example indicated as the type of *albicornis* in the Berlin Zoological Museum really came from Bowring, his label (N.<sup>o</sup> 763) has been removed, though one is attached to the second specimen from the Schaufuss collection. The example in question is clearly not the type, for it does not agree with the description: the elytra are black, reddish only at apex, and instead of the two usual dorsal pores, there is a row of about five near stria 3, and two in the neighbourhood of stria 5, the setae being more or less abraded. This is a smaller number than in *elegans*, described further on, and in other respects the example agrees with the typical form of *ovatus*, so that for the present I can only regard it as a variety of that species, for which I propose the above name. A second rather larger example, also from the Schaum collection, is labelled Celebes.

# Tachys elegans sp. nov.

Length: 2, 6 mm. The dimensions and colours are practically those of ovatus, to which the species is very nearly related. Head with rather deeper inner furrows. Prothorax a little narrower, with wider marginal channel, the setiferous tubercles at base jutting out much more prominently at sides in the form of a sharp rectangular tooth. Elytra similar in shape, the tooth at shoulder more pointed and prominent, striation similar with the basal stria very short: the character which chiefly distinguishes the species from ovatus is the presence on each elytron of two rows of long erect setae, of which there are about five in the first row on the site of stria 3, and nearly twice as many in the second, which is placed apparently on the outer margin of interval 5 The surface and underside do not differ.

MADRAS: Nilgiri Hills (H. L. Andrewes) 2 ex. A third example is in the collection of Mr. T. G. Sloane, and is the one refered to in his recent paper on the Australian species of this genus (Proc. Linn. Soc. N. S. Wales 1922, 196).

Ann. del Mus, Civ. di St. Nat., Vol. LI. (2 Giugno 1925).

30

# fumigatus - group.

Colour black to pale chestnut, with an apical and sometimes a shoulder spot, form short and moderately convex. Head with long deep furrows, converging in front, and nearly meeting on front margin of clypeus, labrum semicircularly emarginate, no pores on mentum, antennae submoniliform, joints 2 and 3 equal. Prothorax with at most a rudimentary carina in the angles. Elytra with smooth border, two dorsal striae, 8 deep throughout, striole short and straight, on middle of elytron, two dorsal pores on interval 3. Microsculpture present. Prosternum sulcate, metasternal process unbordered, but with a deep straight groove behind it, protarsi  $\mathcal{J}$  not dilated, claws simple.

The group contains a single species only.

Tachys fumigatus Motch. Bull. Mosc. 1851, IV, 509.

» (Bembidium) emarginatus Nietn. Ann. Mag. Nat. Hist. (3) II, 1858, 425; Putz. Ann. Mus. Civ. Gen. VII, 1875, 739; Bates. Ann. Mag. Nat. Hist. (5) XVII, 1886, 155; id. Ann. Soc. Ent. Fr. 1889, 275; id. Ann. Mus. Civ. Gen. 1892, XXXII, 295; Bouch. Ann. Soc. Ent. Fr. 1903, 170; Dupuis Ann. Soc. Ent. Belg. 1913, 426; Andr. Rec. Ind. Mus. XXII, 1921, 341.

466

Var. scydmaenoides (Bembidium) Nietn. Ann. Mag. Nat. Hist. (3), II, 1858, 427; Bates Trans. Ent. Soc. Lond. 1883, 267 (part).

Var. geminatus Schaum Berl. Ent. Zeitschr. 1860, 200; Putz. Ann. Mus. Civ. Gen. VII, 1875, 740.

Var. socius Schaum Berl. Ent. Zeitschr. 1863, 92; de la Brûl. Ann. Soc. Ent. Fr. 1875, 438 note (82); Reitt. Wien. Ent. Zeit. 1884, 118; Net. Ent. Blätt. 1914, 175; Sloane Proc. Linn. Soc. N. S. Wales 1921, 203.

Var. *pallidus* Dupuis (not Chaud., not Reitt.) Ann. Soc. Ent. Belg. 1913, 175 and 427.

Var. putzeysi Dupuis Ann. Soc. Ent. Belg. 1913, 427.

Length: 2,0 mm. Colour varying from black to light chestnut, elytra with a small apical, and sometimes also a vaguer humeral spot, legs, joints 1 and 2 of antennae, and palpi flavous, rest of antennae and penultimate joint of palpi fuscous. *Head* (pl. III

467

fig. 17) with long and very deep furrows, converging in front and nearly meeting on front margin of clypeus, the surface convex between them and striate between furrows and eyes, both labrum and clypeus deeply emarginate, eyes rather prominent, mentum without pores, antennae submoniliform. Prothorax cordate, half as wide again as long, sides rounded in front, contracted and slightly sinuate behind, the base hardly wider than apex, the angles a little obtuse but sharp, without or with only a very rudimentary carina; median line fine, basal sulcus not very deep, joining marginal channel at side, faintly crenulate, barely interrupted, and with only a very slight pore at middle. Elytra rather short and convex, the border smooth, extending inwards very little beyond hind angles of prothorax; two rather lightly impressed dorsal striae, minutely crenulate, 1 only reaching base and apex, 3 and 4 just traceable, 8 very deep, apical striole short and nearly straight, on middle of elytron, the pore at about middle; dorsal pores small at a third and three fifths, placed on the third interval, though nearer stria 3 than 2. Microsculpture distinct, consisting of fine, rather irregular, transverse lines, forming very wide meshes on elytra and neck, front of head quite smooth, prothorax (at least on disk) with the meshes nearly isodiametric. Prosternum sulcate, metasternal process unbordered, depressed, a deep straight groove running across metasternum behind it (pl. IV, fig. 33), protarsi 3 not dilated. The species is more nearly allied to the palaearctic T. haemor*rhoidalis* Dej. than to any eastern one. The frontal furrows are deeper and longer than in Dejean's species, the sides of head pluristriate, the labrum and clypeus much more deeply emarginate; there is no appreciable carina in the hind angles of the prothorax, so that the marginal channel and basal sulcus usually join; the elytra are a little less contracted at base, but otherwise do not differ, except that there are two light spots at apex instead of the whole apical area being red. The microsculpture is much more conspicuous, the metasternal process is unbordered and the transverse groove deeper.

I have seen an example of *fumigatus* marked as type and see no reason to doubt its authenticity : originally in the collection of General von Manderstjerna, it passed thence into the von Heyden collection, and is now in the Deutsch. Ent. Museum. 468

With this I have compared the solitary type of Nietner's *emarginatus*, now in the Berlin Zoological Museum, and find the specimens to agree well:

I have also examined a number of typical examples of *scydmaenoides*, now in the Berlin Zoological Museum, one of which agrees entirely with the type form. That Nietner should have described the same species twice over in the same paper is so unexpected that subsequent workers have been quite thrown off the track. The only author who has successfully determined *scydmaenoides* is Bates, and he changed his mind later on, for when dealing with Mr. George Lewis' Ceylon Carabidae he identified with it quite another insect. In the specimen marked type and four other typical examples the elytra are more or less red-brown, and the microsculpture of the prothorax is distinctly transverse, approaching that of *geminatus*. There are examples of this form also in the British Museum, taken by Mr. Lewis in Ceylon, as well as the Japanese specimens identified by Bates.

The type of geminatus, which I have examined, is in the Deutsch. Ent. Museum : in this form, prevalent chiefly in the Malay region, there is a shoulder as well as an apical spot. The carina in the hind angles of the prothorax is slightly developed, so that the marginal channel and basal sulcus do not quite meet, and there is rather more evidence of a pore at middle of the sulcus. The microsculpture is also distinctly finer, the meshes being strongly transverse even on the prothorax: occasionally it becomes much fainter or even obsolete. Dupuis' var. putzeysi is identical with geminatus, and his var. pallidus (name preoccupied, and hardly worth replacing) refers to light chestnut coloured examples of the type form. Schaum's socius was described from Upper Egypt, and has hitherto been treated as a variety of haemorrhoidalis. In 1914 Prof. Netolitzky pointed out that the frontal furrows in specimens from this region agreed in their form with those of *emarginatus*. I have seen four typical examples of socius from the Schaum collection, now in the Berlin Zool. Mus., and find them to agree fairly well with the same author's geminatus: striae 3-5 seem to be a little more visible, and this is particularly the case in a dark example from Cairo in my own collection. Motchulsky's species has therefore almost as wide a range as triangularis,

extending over the whole of S. E. Asia and as far west as Egypt. Dr. Kuntzen informs me that Schaum intended to describe the species under the name *consocius*, and omitted, after the description was published, to make the necessary correction in his collection: his own label was destroyed, and the existing one is in the handwriting of Gerstäcker, who apparently was unaware of the change of name, and followed what he found in the collection, placing the name of *consocius* under these four specimens.

acaroides - group.

Colour reddish testaceous and form convex. Mentum without pores, antennae short and slender, submoniliform, joint 2 longer than 3. Prothorax without carina in hind angles. Border of elytra setulose and dentate, only one dorsal stria, 8 nearly obsolete, no striole, two dorsal punctures. No microsculpture. Metasternal process hardly bordered, but with a groove behind it. Claws simple.

The characters of the group are those of the single species it contains.

Tachys acaroides Motch. Etud. Ent. VIII, 1859, 39; Putz. Ann. Mus. Civ. Gen. VII, 1875, 740; Bouch. Ann. Soc. Ent. Fr. 1903, 170.

Length: 1,5 mm. Reddish testaceous, with palpi, joint 1 of antennae, and legs paler. Head wide, not contracted behind eyes, which are rather flat, frontal furrows single and very short, though fairly deep and wide, mentum without pores, antennae short and rather slender, submoniliform, joint 2 longer than 3. Prothorax convex, quadrate, half as wide again as long, base a little narrower than apex, very distinctly produced backwards at middle, with its sides oblique, sides rounded, without trace of sinuation before base, border continued only a little way along base, slightly thickened round the hind angles, which are distinct though obtuse and without carina; median line just visible, basal sulcus shallow, near margin, not crenulate, uninterrupted, obsolete at sides, the base hardly depressed and without foveae. Elytra convex, short ovate, border setulose, and minutely dentate, forming almost an angle at shoulder, but continuing

470

straight inwards a little beyond hind angles of prothorax; one rather feebly impressed smooth dorsal stria, which does not quite reach either base or apex, 8 represented by large punctures, though faintly and vaguely impressed on apical third, striole wanting; dorsal pores small and rather close together on the site of stria 3, at about a third and three fifths. No microsculpture. Prosternum depressed in middle, metasternal process depressed but not clearly bordered, a straight fransverse groove behind it. Claws simple.

Superficially like a small member of the *haliploides* group, but differing in many characters, and not nearly allied to any other species. The characters assigned to this species by Putzeys in his table are largely chimerical.

CEYLON. I have examined two typical specimens, one in the Brussels Museum and one in the Berlin Zoological Museum; in the latter Museum there are also five examples taken in Ceylon by Nietner. Bouchard records having taken the species in Sumatra, but I suspect a misidentification here.

# haliploides - group.

Colour mainly testaceous or piceous, form short and often

subglobose. Head with short single furrows, sometimes indistinctly duplicated, mentum without pores, antennae generally submoniliform, joints 2 and 3 equal. Prothorax with the carina in the hind angle rudimentary or absent, basal sulcus with two pores at middle. Elytra usually with only the sutural stria present, but occasionally there are more, 8 deep near apex, obsolete in front, striole short, on middle of elytron, one dorsal pore only at about middle on or near site of stria 3. Microsculpture sometimes but not usually present. Prosternum not sulcate, metasternal process with a deep, generally arcuate groove behind it, protarsi in  $\Im$  without dilated joints, claws minutely denticulate.

#### KEY TO THE SPECIES

 (6) Elytra with at least six dorsal striae, either impressed or indicated by punctures.
 (3) Stria 1 lightly impressed, formed chiefly by punctures, sides of prothorax very sharply rounded, almost angulate, colour piceous. Length 1,5 mm. porosus sp. nov.

- 3 (2) Stria 1 deeply impressed, slightly crenulate, sides of prothorax evenly rounded. Length 1,8 - 2,1 mm.
- 4 (5) Elytra with seven dorsal striae, 2 to 7 formed by rather closely placed punctures, colour castaneous.
- 5 (4) Elytra with six or seven dorsal striae, punctures more distant, very few in outer striae, colour piceous.
  - { punctus var. variabilis v. nov.

punctus sp. nov.

- 6 (1) Elytra with not more than five dorsal striae.
- 7 (10) Elytra with at least three dorsal striae visible on basal half.
- 8 (9) Elytra with stria 1 distinctly and striae 2 to 5 lightly impressed, colour dark testaceous. Length 2,1 mm.
  - striatulus sp. nov.
- 9 (8) Elytra with three impressed and crenulate dorsal striae, 4 just visible on disk, colour light testaceous. Length 1,8 mm. amplians Bates
- 10 (7) Elytra with one dorsal stria (the rest obsolete).
- 11 (30) Surface shiny, without appreciable microsculpture.
- 12 (27) Colour more or less testaceous, elytra

471

often darker at apex.

- 13 (18) Antennae with joints 3 to 11 dark brown or fuscous.
- 14 (17) Elytra testaceous, vaguely darker behind.
- 15 (16) Antennae subfiliform, joints 6 to 8 three times as long as wide. Length 2,5 mm. *buxans* sp. nov.
- 16 (15) Antennae submoniliform, joints 6 to 8 not more than twice as long as wide. Length 2,0 mm.
  bifoveatus Macl.
- 17 (14) Elytra with apical half darker and a light spot on the darker back ground. Length 2,1 mm.

unistriatus Putz.

- 18 (13) Antennae with joints 3 to 11 testaceous or light brown.
- 19 (26) Elytra not more than a third wider than prothorax, stria I and dorsal pore only moderately impressed.
- 20 (23) Upper surface testaceous, the elytra sometimes darker along suture or at apex.
- 21 (22) Antennae rather strongly dilated towards apex, sides of prothorax somewhat explanate behind. Length 2-3 mm.

haliploides Bates

472

22	(21)	Antennae only slightly dilated towards	the mean of the other of the
		apex, sides of prothorax hardly explan-	
		ate behind. Length 1-6 mm.	nanophyes sp. nov.
23	(20)	Upper surface with at least half its area	
		brown or black.	
24	(25)	Head and prothorax brown, elytra mottled with brown, apex piceous.	haliploides.
		mottled with brown, apex piceous.	var. asthenes v. nov.
		Head brown, prothorax red, elytra deep	
		brown, with shoulders and an apical spot testaceous.	halintoides
		spot testaceous.	von diverse v nov
96	(10)	Elytra half as wide again as prothorax,	val. utersus v. 10v.
20	(13)	stria 1 and dorsal pore very deep.	the real of the second states
			glis sp. nov.
27	(12)	Elytra mainly black.	gus sp. nov.
	a state of the sta	Elytra with apical third dark red, stria	
~0	(20)	1 ending very abruptly in front, pro-	
		thorax distinctly contracted behind.	saundersi sp nov .
29	(28)	Elytra black, suture and margin sometimes	station of sp. non.
~~~	(20)	reddish, stria 1 not ending abruptly in	
		front prothorax distinctly contracted	Ball the second s
		behind.	haliploides. var. nigrinus v. nov.
			var. nigrinus v. nov.
30	(11)	Surface dull with a conspicuous micro-	

sculpture of transverse lines.

31 (32) Sutural stria clearly impressed, colour dark testaceous, with head, disk of prothorax, sutural area, and apex of elytra brown. Length 2,5 mm. opacus sp. nov. 32 (31) Sutural stria lightly impressed, colour light testaceous, with head and proopacus. thorax piceous. Length 1,75 mm. var. bicolor v. nov.

## Tachys porosus sp. nov.

Length: 1,5 mm. Smaller and more globose than any other species in the group, the elytra almost hemispherical. Dark brown above, head, prothorax, and underside dark red; legs and antennae testaceous, latter rather darker towards apex. Head with short, shallow furrows, between which and eyes there is on each side a rounded depression, labrum small and narrowed in front, eyes a little more prominent than in the allied species, antennae slightly dilated towards apex, submoniliform. Prothorax wide, base slightly bisinuate, with the angles directed a little backwards, sides strongly contracted in front and behind, with almost an

angle at middle, thence gently sinuate to hind angles, which are right; median line faint, basal sulcus deep, hardly interrupted, with two large pores at middle. *Elytra* nearly circular in outline and extremely convex; only striae 1 (which reaches apex) and 8 are actually impressed, but the six inner striae are indicated by series of few but very large pores, placed in rows, irregularly abbreviated both before and behind, and not reaching beyond apical third even on stria 1, the position of stria 7 sometimes indicated by a single pore near base, 8 deep behind and reaching to middle, represented in front by four or five large irregular punctures, apical striole short and nearly straight, nearer margin than suture, the pore rather far forward, a large dorsal pore on interval 3 at about middle. No microsculpture. The metasternal process is strongly bordered by a transverse groove which forms an angle at middle. The denticulation of the tarsal claws is almost imperceptible.

I know of no other species nearly resembling this, except punctus, also a new one, the large pores with which the surface of the elytra is covered being very unusual in the genus.

BORNEO: West Sarawak, Mount Matang (G. E. Bryant) 7 ex.

## Tachys punctus sp. nov.

Length: 1,8 mm. Dark castaneous, a vague narrow oblique band from shoulder to suture, and apical third of elytra a little lighter, joints 1, 2 and 11 of antennae (rest brown) and legs testaceous. Head with moderately deep furrows, diverging a little behind, clypeal suture impressed, eyes not prominent, mentum without pores, antennae moderately long, not dilated at apex. Prothorax convex, two thirds wider than long, base much wider than apex, sides rounded in front, slightly contracted and very faintly sinuate behind, the angles a little obtuse, not very sharp, and without carina; median line fine, basal sulcus fairly deep, indistinctly crenulate, interrupted and with a pore on each side of middle. Elytra very convex, subhemispherical, border smooth, just reaching hind angles of prothorax; fully striate-punctate, the punctures relatively large, 1 reaching apex but barely reaching base, punctate on front half only, 2 to 7 represented chiefly by the punctures, not quite reaching base in front, nor extending

much beyond a half behind, 8 deep on apical third, obsolete in front, striole rather short, curving inwards in front, the pore at about middle; dorsal pore on interval 3, but close to stria 3, at about a half. No microsculpture. The denticulation of the claws in clearly visible.

Darker, smaller, and more convex than *haliploides*. Lighter than *porosus*, less hemispherical, prothorax with sides gently rounded, elytra with stria 7 present.

PHILIPPINE IS.: Luzon, Mount Makiling (D, C, F, Baker) 1 ex.; Pulo Batu (Semper - British Museum).

## Var. variabilis v. nov.

A series of specimens from Calipan in Mindoro (coll. Miss. J. Barrington) is variable in several respects, the colour pitchblack, the length 1, 8 - 2, 1 mm. The elytra are a little wider in relation to the prothorax, but the form is otherwise similar. The chief variability is in the punctures forming the striae, which tend to disappear at the sides, the outer striae often represented by one or two punctures only, and 7 occasionally disappearing altogether. I do not like to describe this form as distinct species,

474

and treat it for the present as a variety.

## Tachys striatulus sp. nov.

Length: 2,0-2,15 mm. Dark testaceous: apex of elytra (sometimes), joints 1 and 2 of antennae (rest fuscous), and legs paler. Head not contracted behind, frontal furrows rather shallow, diverging behind, eyes flat, mentum without pores. Prothorax moderately convex, half as wide again as long, base truncate, much wider than apex, sides rounded, slightly but distinctly contracted behind and very faintly sinuate before base, the angles right, but not sharp, without appreciable carina; basal sulcus rather shallow, vaguely crenulate, with two pores at middle. Elytra convex, oval, border smooth, reaching inwards a little beyond hind angles of prothorax; stria 1 entire, 2 to 5 very faintly impressed and subcrenulate, but quite distinct when viewed from in front, 6 and 7 barely visible, 8 impressed near apex only, striole rather short and slightly curved, on middle of elytron,

the pore half way along it; a single minute dorsal pore at about middle on inner margin of stria 3. No microsculpture. Prosternum not sulcate, metasternal process with a deep arcuate groove behind it, protarsi 3 undilated, claws denticulate.

Narrower than *haliploides* and about the same size and shape as *unistriatus*, though the elytra are more rounded at sides and more contracted at base; easily distinguished from both by the presence of striae 2 to 5, which, though faint, are clearly visible.

TONKIN: Hanoi (Vauloger) 10 ex. A specimen from Luc-nam (L. Blaise) is a little larger and wider than the others, but presents otherwise the same characters. The type is in the Paris Museum.

Tachys amplians Bates Ann. Mag. Nat. Hist. (5), XVII, 1886, 155; Andr. Ann. Mag. Nat. Hist. (9), III, 1919, 472.

Length: 1,8 mm. Castaneous, apex of elytra a shade lighter, joints 1 and 2 of antennae, and legs paler. Head wide, with moderately impressed furrows, diverging a little behind, eyes not prominent, mentum without pores, antennae submoniliform, joint 2 = 3. *Prothorax* convex, two thirds wider than long, sides very little contracted and only slightly sinuate behind, so that base is much wider than apex, hind angles slightly obtuse, but not rounded, without carina; basal sulcus moderately deep, vaguely crenulate, interrupted and with a pore on each side of middle. Elytra very convex, short ovate, rather pointed at apex, border smooth, just reaching hind angles of prothorax; three finely crenulate dorsal striae, 1 entire, 2 and 3 nearly reaching base, but considerably shortened behind, 4 very faint, 5 just traceable, 8 deep on apical half, striole short and curved, on middle of elytron, the pore half way along it: dorsal pore small, on stria 3, at about a half.

A little smaller and relatively wider than *haliploides*, the antennae a little darker, no dark patch on apex of elytra. The head and prothorax hardly differ, but the latter is a triffe more narrowed behind; elytra shorter, with more rounded sides, and three impressed striae instead of one.

CEYLON: Colombo (G. Lewis), on coast level. The unique type is in the British Museum.

## Tachys buxans sp. nov.

Length: 2,5 mm. Rather dark testaceous, elytra a little darker towards apex, especially along margins and suture; joints 1 and 2 of antennae (rest fuscous), and legs pale. Head with moderately deep furrows, diverging a little behind, eyes rather flat, mentum without pores, antennae with rather longer joints than in the allied species. Prothorax convex, half as wide again as long, base much wider than apex, sides rounded in front, gently contracted behind, without trace of sinuation, the angles a little obtuse and not very sharp, with a rudimentary carina; basal sulcus moderately deep, finely crenulate, interrupted and with two pores at middle, the foveae punctiform just inside the carina. Elytra ovate, convex, border smooth, just reaching hind angles of prothorax; sutural stria smooth, entire, though hardly impressed close to base, 8 deep on apical half, striole fairly long, on middle of elytron, curving strongly inwards in front, the pore rather behind middle; dorsal pore small, on stria 3, at about middle. No microsculpture. Claws very clearly denticulate.

Quite as large as *haliploides*, but narrower and more uniformly coloured, the antennae fuscous. Prothorax narrower with a more evident carina in the angles, elytra more than a third longer than wide, sutural stria smooth, the striole longer.

476

MADRAS: Palni Hills, on shores of Kodaikanal Lake, under stones, at 6850 feet (D.<sup>r</sup> S. W. Kemp - Ind. Mus.) 9 ex. The type is in the Indian Museum.

- Tachys bifoveatus W. Macl. Trans. Ent. Soc. N. S. Wales 1871, 117; Sloane Proc. Linn. Soc. N. S. Wales 1921, 199 and 206.
  - ovatus W. Macl. (not Motch.) Trans. Ent. Soc.
     N. S. Wales 1871, 117; Sloane Proc. Linn. Soc.
     N. S. Wales 1896, 369.
  - » perlutus Bates Trans. Ent. Soc. Lond. 1873, 299.
  - » unistriatus Reitt. (not Putz.) Deutsch. Ent. Zeitschr. 1887, 497.
  - » unilineatus Reitt. Wien. Ent. Zeit. 1888, 104; Net. Ent. Blätt. 1914, 174.

Length: 1, 9 - 2, 1 mm. Testaceous, sometimes a little darker towards apex; joints 4 to 11 of antennae and penultimate joint

of palpi fuscous. *Head* with moderately deep furrows, diverging slightly behind, eyes rather flat, mentum without pores, antennae submoniliform. *Prothorax* convex, rather more than half as wide again as long, base wider than apex, sides rounded in front, slightly contracted behind, without sinuation, the angles barely more than right, not very sharp and without appreciable carina; basal sulcus not very deep, hardly crenulate, interrupted and with two pores at middle, the foveae very small and punctiform. Elytra convex, ovate, border smooth, just reaching hind angles of prothorax; sutural stria smooth and practically entire, though not impressed close to base, 2 and 3 sometimes just visible, 8 deep on apical half, striole curved, not very long, on middle of elytron, the pore behind middle; dorsal pore minute, on stria 3, at a shade behind middle (Bates says it is wanting). No microsculpture. Metasternal process with a deep arcuate groove behind it. Claws evidently denticulate.

Very near *unistriatus*, but smaller, with rather narrower elytra, and without the light spot on a darker background at apex of elytra.

I have seen Bates' type, which is in the British Museum, but not those of Macleay or Reitter. Mr. Sloane has sent me Australian examples of the former, and Reitter's species from Eastern Siberia is, according to Prof. Netolitzky, identical with *perlutus*. In the examples from Formosa the elytra are more globose than in those from Japan and Australia.

EASTERN SIBERIA - JAPAN - FORMOSA - QUEENSLAND.

Tachys unistriatus Putz. Ann. Mus. Civ. Gen. VII, 1875, 740.

?» (Elaphropus gracilis) Motch. Etud. Ent. XI, 1862, 36.

- *subfasciatus* Putz. (not Motch.) Ann. Mus. Civ. Gen.
   VII, 1875, 739; Bouch. Ann. Soc. Ent. Fr. 1903, 170.
- » haliploides Bates var. contractulus Bates Ann. Mus. Civ. Gen. XXXII, 1892, 290.

Length: 2, 0-2, 2 mm. Testaceous, apical half of the elytra darker, with a large lighter apical spot, antennae with joints 3 to 11 fuscous. Head with moderately deep furrows, diverging behind, eyes fairly prominent, mentum without pores, antennae submoniliform. Prothorax convex, two thirds wider than long, base much wider than apex, sides rounded in front, not sinuate

behind, angles not very sharp and a little obtuse, without carina; basal sulcus moderately deep, vaguely crenulate, interrupted, and with two pores at middle, a minute punctiform fovea just inside the hind angles. *Elytra* convex, ovate, border smooth, just reaching hind angles of prothorax; sutural stria smooth, moderately impressed, reaching apex but barely reaching base, the other striae obsolete, but traceable here and there, 8 deep on apical half, striole curved, on middle of elytron, the pore behind middle; dorsal pore minute, on stria 3, just behind middle. No microsculpture. Metasternal process with a deep arcuate groove behind it. Claws denticulate.

Smaller than *haliploides*, with fuscous antennae, and a more evident light spot at apex of elytra. Prothorax a little more contracted and less explanate behind, the elytra more than a third longer than wide.

I have seen both Putzeys' types, which are in the Brussels Museum; he put them into different sections of his table, but to me they appear exactly alike. I have compared with them Bates' type, now in the Genoa Civic Museum collection, and find that it agrees well; Bates considered it a variety only of his *haliploides*, but it appears to me sufficiently distinct to constitute a separate species. I know nothing of the specimens determined by Bouchard. Should a typical specimen of Motchulsky's species ever come to light, I think it will almost certainly be found to agree with the others, and in that case his name will stand.

478

INDIA - BURMA - NICOBAR IS. - CAMBODIA - CELEBES.

# Tachys haliploides Bates Ann. Mus. Civ. Gen. XXXII, 1892, 289.

? » latissimus Motch. Bull. Mosc. 1851, IV, 508.

Length: 2,1-2,4 mm. Testaceous red, apex of elytra sometimes darker and with a vague lighter ocellate apical spot on each elytron. (Bates says that joints 3 to 11 of the antennae are occasionally fuscous, but in six typical specimens before me, including the type, and in numerous other examples in my collection the antennae are uniformly pale). *Head* (pl. III, fig. 18) with short single furrows, diverging a little behind, eyes rather flat, mentum without pores, antennae a little dilated at apex, joint 2 = 3. Prothorax convex, two thirds wider than long, hardly

contracted behind, so that base is much wider than apex, sides rounded in front and somewhat explanate behind, the angles right and fairly sharp, with a rudimentary carina; median line very fine, basal sulcus moderately deep, subcrenulate, interrupted, and with two pores at middle, the foveae punctiform. Elytra very convex, ovate, barely a third longer than wide, border smooth, hardly extending inwards beyond hind angles of prothorax; stria 1 finely crenulate, practically entire, though very shallow near base, the other striae obsolete (though as the surface is translucent their course may often be traced by the large underlying punctures), 8 deep on apical half, obsolete in front, striole short and rather deep, curving slightly inwards, the pore on inner (Bates says outer) margin, rather behind middle; a single minute dorsal pore at about middle on the site of stria 3 (pl. III, fig. 11). No microsculpture. Prosternum not sulcate, metasternum with a transverse groove in front, protarsi & without apparent dilatation, claws minutely denticulate.

This species, which I have taken as typical of the eastern forms of the group, is larger than the two palaearctic species, *globulus* Dej. and *caraboides* Motch.; it is coloured much like the latter, but is a little wider, with only one finely crenulate dorsal stria.

I have seen the type of Bates' species, which is in the Genoa Museum, but no typical specimen of Motchulsky's, which he put later on into his genus *Elaphropus*. Should the two species prove to be identical, Motchulsky's name should of course be used. There are in the Prague Museum examples collected in Burma by Helfer and determined by Chaudoir as *latissimus*, but I am not sure that Chaudoir knew Motchulsky's species, so that this point must for the present remain a matter of conjecture.

INDIA - BURMA - CAMBODIA - JAVA - CELEBES - NEW GUINEA -PHILIPPINE IS. Some specimens from the Nilgiri Hills are noted by Mr. H. L. Andrewes as having been taken « in toadstool ».

## Tachys haliploides Bates var. nigrinus v. nov.

Specimens from the Himalayas differ from the typical testaceous form in being black on the upper surface, the head, prothorax, sutural interval and margin of elytra sometimes very dark red; underside piceous red, tibiae and tarsi testaceous, femora a little darker, antennae also testaceous, with the middle joints slightly infuscate. The examples from Sikkim are about 2,0 mm. long, those from Kumaon about 1,75 mm.

Apart from colour they do not seem to differ from the typical form, though the prothorax appears a little wider relatively to the elytra: the basal sulcus is not quite so deep near the hind angles, and the surface along base, especially at sides, has a slightly explanate appearance.

SIKKIM: Gopaldhara (H. Stevens). Assam: Assam Valley (Doherty - Brit. Mus.). KUMAON: West Almora, Upper Gumti Valley, Haldwani - Nandhaur River (H. G. Champion).

Tachys haliploides Bates var. asthenes v. nov.

A series of 9 examples taken by Mr. H. G. Champion at West Almora are of the same size as the var. *nigrinus* from the same locality, but differ altogether in the coloration of the upper surface. The elytra are testaceous, slightly mottled with brown in front, the apex piceous, the head and prothorax dark brown. The sides of both prothorax and elytra are rather more rounded, the hind angles of the former distinctly obtuse, the base without the explanate appearance of *nigrinus*. Three specimens in the Forest Research Inst. collection also belong to this variety: one of these came from Kumaon, Dehra Dun, the second from the Punjab, Simla Hills, Gahan, 7000 feet (both S. N. Chatterjee), the third from Mohan Rau in the Siwalik Hills (D.<sup>r</sup> M. Cameron). The type is in the British Museum.

480

## Tachys haliploides Bates var. diversus v. nov.

Length: 1, 9 mm. An example taken by Mr. H. Stevens in the Eastern Duars differs altogether in colour and to some extent in shape from the typical form. Head brown, prothorax testaceous red, elytra deep brown, with a large shoulder spot reaching suture and a small rounded apical spot on each testaceous yellow, antennae and legs very pale. The prothorax is nearly as wide as in the type, but rather more contracted behind, the elytra distinctly narrower, so that the insect has a more elongate appearance. Tachys nanophyes sp. nov.

Length: 1, 55 - 1, 6 mm. Rather dark testaceous, antennae at base and apex and legs paler. The integument is presumably very thin, for in two of the three specimens the wings (as it appears to me) show through the elytra, which seem therefore a little lighter at sides and apex, leaving a dark stripe with sinuous margins down the middle; the stripe is wide at base, narrows at middle, and widens again behind, without reaching apex. Head wide, the furrows slightly divergent behind, clypeal suture impressed, eyes rather flat, mentum without pores, antennae short, submoniliform. Prothorax convex, two thirds wider than long, base much wider than apex, sides rounded in front, moderately contracted and practically straight behind, the angles slightly obtuse, but not rounded, without carina; basal sulcus rather shallow, smooth, widely interrupted, and with two pores at middle. Elytra convex, ovate, a little more than a third longer than wide, border smooth, just reaching hind angles of prothorax; sutural stria entire, but hardly impressed close to base, vaguely crenulate, 8 deep behind, striole rather short, curved strongly inwards in front, the pore well behind middle; dorsal pore minute, on stria 3, at about a half. No microsculpture. Claws denticulate.

31

This species is almost a counterpart in miniature of *haliploides*, but the elytra are rather differently coloured. Eyes a little flatter, antennal joints shorter, basal sulcus of prothorax shallower, striae 2-7 scarcely traceable.

FORMOSA; Takao (H. Sauter) 2 ex. The type is in the Berlin Zoological Museum. A third example from the same locality is in the Brussels Museum.

## Tachys glis sp. nov.

Length: 2,0 mm. Testaceous red, underside a little darker, palpi, antennae, and legs a little paler. *Head* with rather slight furrows, diverging a little behind, and bounded outwardly by a ridge, eyes moderately prominent, mentum without pores, antennae subfiliform. *Prothorax* convex, cordate, nearly half as wide again as long, base evidently wider than apex, rather strongly contracted behind, sides with reflexed border, well rounded in front, and clearly sinuate before base, the angles reflexed, slightly

Ann. del Mus. Civ. di St. Nat., Vol. LI. (2 Giugno 1925).

acute, and projecting a little backwards, without carina; basal sulcus deep at sides, indistinctly crenulate, widely interrupted, and with two pores at middle. Elytra ovate and very convex, much wider than prothorax and a third longer than wide, border smooth, not quite reaching hind angles of prothorax; stria 1 deep and entire, but very shallow close to base, with traces only of crenulation, 2 and 3 just visible on surface, but all the striae can be traced by the dark underlying pores, 8 deep behind, striole rather short and straight, on middle of elytron, the pore half way along it; dorsal pore large and deep, on inside of stria 3, just before middle of elytron. No microsculpture. Underside with a deep arcuate groove behind metasternal process. Claws very clearly denticulate.

Differing a good deal in form from its allies, though the coloration is very similar. Smaller than haliploides, eyes more prominent, prothorax narrower, with its sides contracted and sinuate behind, the angles acute, elytra more convex, with a deeper sutural stria, and much deeper dorsal pore.

CELEBES: Macassar and Kandari (O. Beccari) 5 ex. Buru (L. J. Toxopeus) 1 ex. in « virgin jungle, decaying leaves ». The type (Kandari) is in the Genoa Civic Museum.

## Tachys saundersi sp. nov.

Length: 1,75-2,0 mm. Piceous black above, dark testaceous beneath, apical third of elytra vaguely red, the colour sometimes extending a little way forward along sides; antennae and legs testaceous. Head wide, with rather shallow furrows, diverging a little behind, eyes not prominent, mentum without pores, antennae submoniliform, dilated at apex. Prothorax convex, quite two thirds wider than long, base much wider than apex, sides rather strongly rounded in front, barely contracted and not sinuate behind, the angles right, not very sharp, and projecting slightly backwards, with a rudimentary carina; basal sulcus deep at sides, smooth, widely interrupted and with two pores at middle. Elytra convex, with strongly rounded sides, a third longer than wide, border smooth, just reaching hind angles of prothorax; sutural stria hardly crenulate, fairly deep, reaching apex, but terminating very abruptly at a little distance from base, 8 deep behind, striole rather short and nearly straight, on middle

of elytron the pore half way along it; dorsal pore small, on stria 3, at about middle. No microsculpture. Metasternal process with a deep arcuate groove behind it. Claws denticulate.

Wider and more convex than haliploides, and differing from its var. nigrinus in having the apical third dark red. Eyes a little less flat, prothorax wider and hardly contracted behind, elytra wider and with more rounded sides, sutural stria deeper and terminating very abruptly in front.

MALAY STATES: Penang (G. E. Bryant) 1 ex.; Singapore (C. J. Saunders - coll. W. J. Saunders) 4 ex.

Two specimens from Pengalengan in Java, 4000 ft. (H. Fruhstorfer), received from Mr. T. G. Sloane, are rather more globular in form and the apex of the elytra is not red, but stria 1 is equally deep and ends as abruptly in front.

Three specimens from Sikkim (Harmand) in the Paris Museum are coloured in the same way, but with only the apical border red. The characters generally, including the form of stria 1, are similar, but both prothorax and elytra are narrower than in the type form.

Tachys opacus sp. nov.

Length: 2, 5 mm. Upper side dark testaceous, dull; head, disk of prothorax, suture, disk, and apex of elytra, and underside more or less suffused with brownish red, base of venter piceous; joints 1 to 4 of antennae and legs flavous, rest of antennae and penultimate joint of palpi fuscous. Head with moderately deep furrows, diverging behind and bounded outwardly by a ridge, a slight groove along side margin of clypeus, eyes not prominent, mentum without pores, antennae slightly dilated at apex. Prothorax convex, quite two thirds wider than long, base much wider than apex, sides rounded, gently contracted behind, without trace of sinuation, the angles slightly obtuse, without carina; basal sulcus not very deep, very indistinctly crenulate, rather narrowly interrupted, and with only a vague pore on each side of middle. Elytra ovate, convex, about a third longer than wide, border smooth, just reaching hind angles of prothorax; stria 1 rather shallow and faintly crenulate, not quite reaching base, 2 just visible, 8 deep behind, striole on middle of elytron, rather strongly curved, the pore well behind middle; dorsal pore distinct,

on stria 3, just before middle. Microsculpture very clear, the elytra with closely placed transverse lines; on the prothorax these vary in direction, but on the disk are longitudinal; on the front and vertex there is a transverse reticulation. Metasternum with groove. Claws denticulate.

Slightly larger, though not longer, than *haliploides*, otherwise coloured and with the surface dull. The two pores at middle of the basal sulcus of the prothorax are very faint, the elytra wider and with more rounded sides, an evident microsculpture present on the upper surface.

BENGAL: Sarda (F. W. Champion) 3 ex.; "Bengal" (J. Nietner - Berlin Zool. Mus.) 1 ex. The type is in the British Museum.

## Var. bicolor v. nov.

In the same locality Mr. Champion also took four examples which differ from the typical form in their much smaller size, viz. 1,75 mm. against 2,5 mm. The elytra are uniformly light testaceous, head and prothorax piceous, with side margins of latter lighter. The shape is slightly narrower, and the sutural stria is less impressed. The microsculpture is identical, producing the same dull appearance. The type is in the British Museum.

484

In the Copenhagen Museum there are five examples from Bengal (Galatea Expedition) which agree with var. *bicolor* in form, but are about 2,0 mm. in length. Two of them agree also in colour, but in the other three the suture, disk, and apex of the elytra are tinged with brown, as in the type form.

## nanus - group.

Colour piceous to black, elytra sometimes with some red at apex, or with white spots, form usually depressed. Mentum without pores, antennae stout and submoniliform, joint 2 generally a little shorter than 3. The carina in the hind angles of the prothorax is more on less rudimentary. Elytra with the border setulose, striae variable in number, 8 entire but shallower at middle than at extremities, striole long and nearly straight, close to margin, with its pore far back near apex, two dorsal pores. Microsculpture present or not. Underside minutely setulose, last ventral segment

Q with the four pores in line. Protarsi  $\mathcal{F}$  with two dilated joints, claws minutely denticulate.

#### KEY TO THE SPECIES

- 1 (10) Elytra with at least 3 or 4 dorsal striae.
- 2 (5) Elytra with hind dorsal pore on or adjacent to stria 3.
- 3 (4) Elytra uniformly coloured, dull, with strong isodiametric microsculpture. Length 3,0 mm. nanus Gyllh.
- (3) Elytra with an apical red spot, shiny, 4 with indistinct transverse microsculpture. Length 2,0 mm.

malayicus sp. nov.

- 5 (2) Elytra with hind dorsal pore placed nearer to margin than stria 3.
- (9) Elytra with hind dorsal pore on interval 6 4 or adjacent to stria 4.
- 7 (8) Elytra uniformly coloured (but exceptionally red at apex), prothorax with distinct reticulate microsculpture. Length 3,0 mm.
- (7) Elytra with apex broadly red, prothorax 8 with only vague traces of microsculpture.

Length 2,3 mm.

monostigma sp. nov.

- 9 (6) Elytra with hind dorsal pore on stria 5, quite close to striole, no microsculpture or puncturation. Length 2-4 mm. wallacei sp. nov.
- 10 (1) Elytra with only one dorsal stria, very lightly impressed on basal half, both dorsal pores distant from suture, approximately on stria 5, surface black and shiny, without clearly visible microsculpture. Length 2,25 mm.
- 11 (12) Elytra uniformly black, median line of prothorax not wider or deeper behind, barely reaching basal sulcus.
- 12 (11) Elytra aeneous black with two white spots on each, median line of prothorax wider and deeper behind, passing through the interrupted basal sulcus.

umbrosus Motch.

coracinus Putz.

acuticollis Putz.

486

- Tachys (Bembidium) nanus Gyllh. Ins. Suec. II, 1810, 30; Bates Trans. Ent. Soc. Lond. 1883, 267; Fauvel Rev. d' Ent. 1889, 97; Gangl. Käf. Mitteleur. I, 1892, 181; Bedel Cat. rais. Col. N. Afr. 1896, 77; Hayw. Trans. Am. Ent. Soc. 1900, 198.
  - » (Carabus) quadristriatus Illig. Käf. Preuss. 1798, 188.
  - » (Elaphrus) minimus Dufts. Faun. Austr. II, 1812, 205.
  - » (Bembidium) inornatus Say Trans. Am. Phil. Soc. II, 1825, 87.
  - » (Tachyta) picipes Kirby Faun. Bor. Amer. IV, 1837, 56, t. 8, f. 6.
  - » laticollis Motch. Käf. Russ. 1850, 8, note 1.
  - » rivularis Motch. Käf. Russ. 1850, 8, note 2.

Length: 3, 0 mm. Piceous black; joints 1 and 2 of antennae, and legs dark red, middle of femora in front piceous. Head with fairly long shallow single furrows, diverging behind, eyes not prominent, no pores on mentum, antennae short and stout, submoniliform, joint 2 shorter than 3. Prothorax quadrate, about a third wider than long, base truncate, wider than apex, sides with narrow reflexed border, minutely setulose, gently rounded in front and barely sinuate behind, the angles slightly obtuse but not rounded, with a rather rudimentary carina; median line short and lightly impressed, basal sulcus shallow, not crenulate, widely interrupted at middle, but without pore. Elytra flat, elongate-ovate, border setulose but not dentate, with a few larger hairs at shoulders, rounded and extending inwards only a little beyond hind angles of prothorax; four shallow, vaguely crenulate striae, 1 entire, the others evanescent behind, 5 to 7 obsolete, but 5 visible close to base, 8 deep at extremities, more or less interrupted on basal third, striole long and nearly straight, very near stria 8, the pore far back near apex; dorsal pores on stria 4 at a fifth and stria 3 at three quarters. Microsculpture conspicuous and isodiametric throughout, in addition to which the surface is sparsely and minutely punctulate. Prosternum faintly sulcate, metasternal process bordered, last ventral segment Q with the four pores in a straight line, under surface sparsely and minutely setulose, protarsi 3 with two distinctly dilated joints, claws minutely dentate.

I have seen no typical examples, but the species has been

known and studied for more than a century, and I give the synonymy as I find it in standard works on palaeartic insects. The distribution is world-wide in the north temperate zone and I have included it here because its habitat extends as far as Japan. This in the only species of *Tachys* dealt with here of which the early stages have been described; for descriptions of the larva and pupa see Perris, Ann. Soc. Ent. Fr. 1862, 175, t. 5, ff. 510-16.

## Tachys malayicus sp. n.

Length: 2, 0 mm. Piceous black, slightly iridescent: antennae, palpi, and legs testaceous, the femora more or less fuscous in middle, a fairly large apical red spot on each elytron. Head with shallow furrows, diverging a little behind, and bounded outwardly by a slight ridge, eyes moderately prominent, mentum without pores, antennae submoniliform, joint 2 hardly shorter than 3. Prothorax slightly convex, half as wide again as long, sides with the border minutely setulose, gently rounded in front, barely contracted or sinuate behind, so that base is much wider than apex, hind angles sharply rectangular, with a minute tooth projecting laterally, the carina well developed, almost parallel with sides, the setiferous pore between it and margin, marginal channel crenulate; median line deep, not reaching extremities, basal sulcus deep, vaguely crenulate, interrupted at middle, the . median line passing through it. *Elytra* ovate, rather flat, border slightly setulose, just reaching hind angles of prothorax; fully striate, the striae lightly impressed and punctate, the outer nearly as distinct as the inner ones, 1 entire, the rest nearly reaching base, but shortened behind, 8 deep behind, nearly interrupted on basal third, but with a continuous row of punctures, striole long, near margin, the pore at its apical third; dorsal pores on stria 4 at about a sixth, and stria 3 at three quarters. Microsculpture vague, the elytra, scutellum, and extremities of prothorax with fine transverse lines, the head transversely reticulate; upper surface in addition minutely punctulate. Underside sparsely setulose, prosternum slightly sulcate, metasternal process rather faintly bordered, the tarsal claws very distinctly denticulate almost to apex.

In appearance much like *monostigma*, another new species.

Much smaller than *nanus*, more shiny, with light antennae and legs, and red apical spot. Prothorax hardly contracted behind, the impression deeper, elytra shorter, ovate, more convex, the striae clearly punctate.

MALAY STATES: Singapore (C. J. Saunders – Coll. W. J. Saunders) 9 ex., taken under bark. Penang (Loria and Fea – Genoa Civic Museum) 1 ex. JAVA (British Museum) 1 ex.

- Tachys umbrosus Motch. Bull. Mosc. 1851, IV, 507; id. Etud. Entom. XI, 1862, 32; Putz. Ann. Mus. Civ. Gen. VII, 1875, 745; Bates Ann. Mag. Nat. Hist. (5) XVII, 1886, 151; id. Ann. Mus. Civ. Gen. XXXII, 1892, 296.
  - » parallelus Motch. Bull. Mosc. 1851, IV, 507.
  - » (Acupalpus) extremus Walk. Ann. Mag. Nat. Hist. (3), II, 1858, 204; Andr. Trans. Ent. Soc. Lond. 1919, 190.
  - » (*Tachyta*) *nietneri* Schaum Berl. Ent. Zeitschr. 1863, 88.

Length: 3,0 mm. Piceous: palpi, antennae, and tarsi more or less dark testaceous, apex of femora and tibiae brown. Head with the furrows short shallow and a little divergent behind, eyes moderately prominent, mentum without pores, antennae short and thick, moniliform, joint 2 shorter than 3 (pl. IV fig. 21). *Prothorax* rather flat, a little more than half as long again as wide, sides with the border minutely setulose, rounded in front, contracted and faintly sinuate behind, so that base is very little wider than apex, hind angles right and sharp with a carina nearly parallel with sides; median line deep, but not reaching extremities, basal sulcus fairly deep, not crenulate, interrupted at middle, the median line just reaching the interruption. Elytra flat, elongate-ovate, border setulose, rounded at shoulder, and extending inwards very little beyond hind angles of prothorax; five lightly impressed finely punctate dorsal striae, decreasing in depth outwards, 1 entire, the others nearly reaching base, but shortened behind, 6 very faint, 7 obsolete, 8 deep but almost interrupted in front, where a few punctures only are present, striole long, nearly parallel with margin, the pore well behind middle; dorsal pores on stria 4, at about a fifth and near the end of the striole (pl. III, fig. 12). Microsculpture conspicuous,

488

more or less isodiametric on head and prothorax, the meshes on the elytra moderately transverse (pl. IV, fig. 25); the surface generally is punctulate. Underside setulose, prosternum slightly sulcate, metasternal process rather finely bordered, protarsi 3 with two dilated joints. Claws denticulate.

Closely allied to *nanus* and about the same size, antennae, palpi, and legs a little lighter. Prothorax wider and with a more distinct carina in the angles, median line and basal sulcus deeper; elytra with the striae deeper and clearly punctate, 6 and even 7 visible, hind dorsal pore on stria 4.

I have examined Schaum's and Walker's types, now in the Deutsch. Ent. Museum and British Museum respectively. I have also seen a typical specimen of *parallelus*, now in the Deutsch. Ent. Museum (coll. von Manderstjerna > coll. von Heyden). In the Putzeys collection at the Brussels Museum there are examples of *umbrosus*, which came presumably from Motchulsky, and may therefore also be regarded as typical; these I have examined and find them to agree with the other types already mentioned.

Some specimens taken under bark at Singapore by Mr. C. J. Saunders are a little smaller and lighter than the typical form, with paler legs and antennae, and in these respects they approach *monostigma*, but the microsculpture, though a little finer, is quite evident on the prothorax, and there is no common red spot on the elytra.

The species is widely distributed in South East Asia.

## Tachys monostigma sp. nov.

Length: 2, 3 mm. Piceous, shiny: palpi, antennae, and legs testaceous, margin of prothorax and of front half of elytra vaguely red, a common large light red spot at apex. Head with wide rather shallow furrows, diverging behind and bounded outwardly by a ridge, eyes moderately prominent, mentum without pores, antennae moniliform, joint 2 = 3. Prothorax rather flat, half as wide again as long, sides with the border minutely setulose, rounded in front, contracted and sinuate behind, base a little wider than apex, the angles right and very sharp, with a slight carina; median line deep, widening and almost bifurcating behind, basal sulcus deep, a little uneven but not crenulate, interrupted but without pore at middle, sides of base rather hollowed out.

Elytra flat, elongate-ovate, border setulose, extending inwards very little beyond hind angles of prothorax; fully striate, the striae moderately impressed and finely punctate, the outer ones more faintly, 1 entire, the rest barely reaching base and shortened behind, 8 deep behind, clearly punctate on the interrupted portion in front, striole long, near margin, the pore at its apical third; dorsal pores on stria 4, at a sixth and near the end of the striole. Surface finely and sparsely punctate. Microsculpture with a reticulation of moderately wide meshes on the elytra, hardly visible on the prothorax, the disk appearing quite smooth, head with faint nearly isodiametric meshes. Setulose beneath, the prosternum slightly sulcate, metasternal process finely bordered, protarsi 3 with two dilated joints, claws denticulate.

Smaller, narrower, and more shiny than umbrosus, similarly coloured, but with the antennae and legs lighter, and a common red spot at apex of elytra. Joint 2 of the antennae as long as 3 the median line on prothorax widening behind, the elytral striae deeper and more clearly punctate, including 7, the microsculpture of the prothorax obsolete.

MALAY STATES: Singapore (C. J. Saunders - coll. W. J. Saunders) 2 ex.

490

## Tachys wallacei sp. nov.

Length: 2,4 mm. Black above and very shiny; palpi, antennae, and legs testaceous, margin of elytra brown by translucence, the apex vaguely red. Head with fairly deep, long, duplicated furrows, diverging behind, a distinct ridge between them, eyes rather prominent, mentum without pores, antennae stout, joint 2 = 3. Prothorax moderately convex, a third wider than long, base a good deal wider than apex, sides with a wide and deep marginal channel from apex to base, strongly rounded in front and sinuate at some little distance from hind angles, which are sharp, a little acute, and project very distinctly at sides, a well marked carina, parallel with side, merging in front into the inner edge of marginal channel; basal sulcus rather deep and wide, bisinuate on each side, not crenulate, subinterrupted at middle, the deep median line just passing through the interruption, basal foveae large and deep. Elytra ovate, moderately convex, and rather pointed at apex, border almost imper-

ceptibly dentate (setae abraded), not angulate at shoulder, and barely reaching beyond hind angles of prothorax; stria 1 deep throughout, 2 to 5 unevenly impressed and vaguely crenulate, fairly clear in front, evanescent behind, 6 traceable, 7 obsolete, 8 deep in front and behind, shallower at middle, striole fairly long and straight, close to and nearly parallel with margin, the pore far back near apex; front dorsal pore on stria 4 not far from base, hind one on stria 5 just inside front end of striole. No visible microsculpture. Prosternum sulcate, metasternal process rather strongly and widely bordered, tarsal claws denticulate.

The species belongs, to the *nanus* group, and in the absence of microsculpture and any distinct puncturation resembles *coracinus*. The wide deep marginal channel and outstanding hind angles of the prothorax, together with the vague uneven striation of the elytra will render it easily separable from the allied species.

New GUINEA (Wallace) 1 ex. Q in the British Museum.

Tachys coracinus Putz. Ann. Mus. Civ. Gen. VII, 1875, 739. » remotiporis Bates Ann. Mus. Civ. Gen. XXXII,

1892, 290.

Length: 2, 25 mm. Black, shiny, upper surface sometimes faintly blue, or aeneous : palpi, antennae, tibiae, and tarsi testaceous. Head with the furrows moderately deep and long, diverging behind, and bounded outwardly by a ridge, eyes rather prominent, mentum without pores, antennae moniliform. Prothorax moderately convex, two thirds wider than long, sides well rounded in front, contracted and slightly sinuate behind, so that base is not much wider than apex, the border microscopically setulose, hind angles right, a little reflexed, without carina; basal sulcus fairly deep, not crenulate, interrupted at middle, the median line, which is moderately deep behind, just reaching the interruption. Elytra ovate, moderately convex, not quite half as long again as wide, border almost imperceptibly dentate and setulose, rounded at shoulder, just reaching hind angles of prothorax, marginal channel wide; stria 1 lightly impressed on apical half, 2 sometimes just traceable, 8 deep at extremities, shallow but not interrupted in front, some very long hairs issuing from the pores along its course, striole long, nearly parallel

with and not far from margin, slightly hooked inwards in front, the pore far back near apex; dorsal pores large and distinct, on or near the site of stria 5, front one at a fifth from base, hind one at a fourth from apex, near the front end of the striole. Microsculpture inappreciable. Beneath the body is finely punctate and setulose, prosternum not sulcate, metasternal process narrowly bordered, claws finely denticulate.

In its comparatively depressed elytra, moniliform antennae, setulose border, position of striole and its pore, and denticulate claws, the species approaches *nanus*, and, in spite of the absence of microsculpture, seems best placed in the *nanus*-group.

Putzey's locality is « Borneo (Sarawak) Doria et Beccari. Mus. Civ. de Gênes», and there are four specimens from his collection in the Brussels Museum, which are so labelled (all Doria), and which stand above the name *coracinus*. I have seen four similarly labelled specimens in the Genoa Civic Museum. These are all evidently typical, though there is nothing to show which example is the type. Of Bates' species I have cotypes in my own collection, taken by Mr. L. Fea in Pegu and Tenasserim.

The species seems to be fairly common in the East, and I have seen examples from most of the large Malay islands,

492

the Malay Peninsula, Burma, Assam, Siam, and Indo-China. Mr. C. J. Saunders took specimens under bark at Singapore.

**Tachys acuticollis** Putz. Ann. Mus. Civ. Gen. VII, 1875, 740. Length: 2,25 mm. Black, with an aeneous tinge: joints 4 to 3 of antennae (rest fuscous), tibiae, tarsi, and apex of femora testaceous, each elytron with two small white transverse spots. Head with deep furrows, diverging strongly behind, clypeal suture deep, eyes rather prominent, mentum without pores, antennae moniliform, joint 2 = 3. Prothorax subconvex, half as wide again as long, sides with narrow reflexed border, minutely setulose, strongly rounded in front, somewhat explanate within the border, thus forming a wide marginal channel, very clearly sinuate at some little distance from base, which is wider than apex, the angles sharp, right, and projecting a little laterally, without carina; basal sulcus deep, smooth, interrupted at middle, the median line deep behind, passing through the sulcus and practically reaching base. Elytra ovate, moderately convex, less

than half as long again as wide, border finely dentate and setulose, extending inwards a little beyond hind angles of prothorax; sutural stria lightly impressed on apical half, no other dorsal striae, 8 deep in front and behind, very lightly impressed at middle, its pores bearing very long hairs, striole long, not very far from margin, curving slightly inwards in front, the pore far back near apex; dorsal pores distinct, front one approximately on interval 5 at a fifth, hind one near stria 5, not far from front end of striole. Microsculpture inappreciable. Underside setulose, prosternum sulcate, metasternal process narrowly bordered, claws denticulate.

Closely allied to *coracinus* but with fuscous antennae and white spots on the elytra. Frontal furrows deeper, base of prothorax evidently wider than apex, median line deeper behind and passing through the basal sulcus, elytra nearly similar, but the front dorsal pore is placed a little nearer suture.

ARU ISLANDS: Wokan (O. Beccari - Genoa Civ. Mus.) 1 ex. type. New GUINEA: Hatam (Beccari) 1 ex. and Ighibirei (Loria) 2 ex., all in the Genoa Civic Museum; Geelvink Bay (Raffray and Maindron - Paris Mus.) 1 ex.

## LIMNASTIS

Motch. Etud. Ent. XI, 1862, 27; de la Brûl. Ann. Soc. Ent.

Fr. 1875, 436; Reitt. Wien. Ent. Zeit. 1884, 124.

The species of this genus are testaceous in colour, elongate, flat, punctulate, and with a short erect pubescence. *Head* small, eyes rather small and minutely setulose; antennae short but stout, and more or less moniliform; buccal fissure very large and the submentum proportionately narrow, mentum small, without pores, emarginate, and with a small tooth; maxillary palpi with penultimate joint dilated, apical joint short and slender; labial palpi very small, penultimate joint dilated, apical joint slender and elongate. *Prothorax* subcordate, base produced strongly backwards at middle, side border minutely setulose, a seta at apical third and another just before hind angle. *Elytra* flat, more or less truncate at apex, the border setulose (the setae longer than is usual in *Tachys*) and denticulate behind shoulder, but not extending inwards beyond it, more or less striate, but stria 8, the scutellary striole, and the apical striole all wanting, two dorsal

pores on or close to stria 3 (except *levatus*), one at apical third, the other not far from apex. Prosternum not sulcate, metasternal process very finely bordered between meso-coxae, last ventral segment  $\mathcal{J}$  with two,  $\mathcal{Q}$  with four setae nearly in line; protibiae with outer margin truncate at apex, but more emarginate than in Tachys, protarsi 3 with joints 1-2 moderately dilated and produced inwards at apex, claws simple.

#### **KEY TO THE SPECIES**

(2) Colour dark testaceous, surface very coarsely 1 punctate, elytral striae punctate, no microsculpture.

indicus Motch.

- (1) Colour light testaceous, surface moderately 2 punctate, elytral striae smooth or vaguely crenulate, a distinct microsculpture.
- 3 (6) Elytral striae impressed, at least near apex, meshes of microsculpture on elytra transverse, length 2,00 mm. or over.
- 4 (5) Upper surface uniformly testaceous, prothorax equally contracted at extremities, striae 4 and 5 indistinctly impressed, puncturation somewhat coarse.

pilosus Bates.

5 (4) Head piceous-black, prothorax with base wider than apex, stria 4 and 5 distinctly impressed, puncturation fine.

atricapillus Bates.

6 (3) Elytral striae nearly obsolete, meshes of microsculpture on elytra isodiametric, length 1,7 mm.

levatus sp. nov.

Limnastis (Lymnaeum) indicus Motch. Bull. Mosc. 1851, IV, 507; id. Etud. Ent. XI, 1862, 27.

Length: 2,2 mm. Testaceous. Head convex, with two small rounded impressions, not extending on to clypeus and hardly reaching backwards beyond front margin of eyes, antennae moniliform, surface with few but large punctures. Prothorax slightly convex, about equally contracted at extremities, widest well before middle, sides strongly rounded in front, then straight to hind angles, which are a little obtuse, the pore forming a slight indentation in front of them; median line relatively deep, front transverse impression with some large punctures marking its course, basal sulcus not very deep, removed some distance from

base at middle, obsolete at sides, surface with few but large punctures. Elytra elongate, the shoulders square, the striae lightly impressed, punctate, hardly reaching base, 1 and 2 deeper behind, reaching apex, where 2 curves strongly outwards, so that interval 2 is very wide, 2 to 4 fairly distinct, 5 rather faint, 6 and 7 indicated by punctures only; intervals with a single row of punctures along middle, much larger than those in the striae, the puncturation not quite regular and less so at sides, the dorsal pore at apical third indistinct. No appreciable microsculpture.

Examples in the British Museum, the Berlin Zoological Museum, Mr. René Oberthür's collection, and my own collection have the appearance of being cotypes. There is a long series of specimens in the Prague Museum labelled «Tenasserim (Helfer)», and I imagine that Motchulsky's specimens come from this source. An example in the British Museum was taken at Victoria Point, Tenasserim, by Mr. E. T. Atkinson, and one in the Indian Museum was taken at light in Calcutta by Mr. F. H. Gravely.

Limnastis pilosus Bates Ann. Mus. Civ. Gen. XXXII, 1892, 296; Sloane Proc. Linn. Soc. N. S. Wales 1921, 208.

))

(Tachys) setiger Sloane Proc. Linn. Soc. N. S. Wales 1903, 582; id. Proc. Linn. Soc. N. S. Wales 1920, 321.

Length: 2,2 mm. Light testaceous. Head with fairly large wide frontal impressions, extending on to clypeus, eyes moderately flat, antennae submoniliform, surface with few but fairly large punctures. Prothorax subquadrate, a fourth wider than long, base with its sides somewhat oblique, wider than apex, sides faintly sinuate before base, the angles sharp and hardly more than right; front transverse impression obsolete, median line and basal sulcus shallow, surface sparsely punctate. Elytra flat, twice as long as wide, the truncature at apex with a rather wide re-entrant angle at suture, usually with some degree of dehiscence; striae lightly impressed and impunctate, or vaguely crenulate, 6 and even 7 being distinguishable, 1 to 3 clearly impressed and turning outwards near apex, 3 a little more so than 2, so that interval 3 is widest there and has on it the apical dorsal pore, very near to stria 3, which curves inwards again at extreme apex

and joins 1; intervals with the punctures fine and numerous, interval 4, at least in front, as also outer intervals with two irregular rows, one on each side, adjoining striae 3 and 4 respectively. (Bates mentions only one dorsal pore, though there are actually two). Microsculpture very clear, reticulate, fine on the elytra, where the meshes are small and moderately transverse, coarser on head and prothorax, where they are isodiametric or only slightly transverse.

Lighter than *indicus*; frontal impressions larger, eyes a little more prominent, prothorax larger, the striae of the elytra more distinctly impressed and impunctate, the puncturation finer and closer, a well marked microsculpture present.

Bates' type is in the Genoa Civic Museum, and I have cotypes in my collection. Mr. Sloane has identified his species with that of Bates.

BENGAL, BURMA, MALAY STATES : Singapore, TONKIN, FORMOSA, PHILIPPINE IS., JAVA, BORNEO, CELEBES, NEW GUINEA, AUSTRALIA.

Limnastis atricapillus Bates Ann. Mus. Civ. Gen. XXXII, 1892, 297.

Length: 2,1 mm. Light testaceous, head piceous-black (clyp-

496

eus and labrum pale), front and hind margins of prothorax tinged with brown. Head with wide and not very deep frontal impressions, eyes moderately prominent, antennae submoniliform, surface with some indistinct puncturation. Prothorax subquadrate, very little contracted behind, base evidently wider than apex, sides very faintly sinuate near base, the angles about right; median line moderately deep, both front transverse impression and basal sulcus rather shallow, surface sparsely punctate. Elytra shorter than in *pilosus*, similarly truncate and with a slight re-entrant angle; striae distinct and vaguely crenulate, 1 to 3 deeper at apex, 4 and 5 quite distinct on disk, 6 and 7 nearly obsolete, interval 3 a little wider than the others at apex, apical dorsal pore placed on it near apex as in pilosus, each with a similar row of rather finer punctures, a little less closely placed. Microsculpture as distinct as in *pilosus*, the meshes on the elytra moderately transverse, on the prothorax also transverse but a little larger, isodiametric on the head, but smaller and more conspicuous.

BURMA : Katha (L. Fea - Genoa Civ. Mus.). BORNEO : Banjermassim (British Mus.). The type, which I have seen, is in the Genoa Civic Museum.

## Limnastis levatus sp. nov. p.

Length: 1,7 mm. Testaceous, shiny: head, apex of elytra and a triangular patch at their base brownish. Head with short shallow wide impressions, eyes very flat, antennae moniliform, vertex clearly punctate. Prothorax a little more than a third as wide again as long, equally contracted at extremities, base with its sides very oblique, sides rounded in front and sinuate a little behind middle, the angles slightly obtuse and reflexed; front transverse impression very faint, median line impressed at middle only, basal sulcus uneven, fairly deep, surface with some coarse scattered punctures, finer on disk. Elytra flat, a half longer than wide, with square shoulders; striae nearly obsolete, but 1 and sometimes 2 towards apex are generally lightly impressed, 3 to 5 just traceable; intervals with a row of minute setiferous pores, more widely placed towards apex, 2 and 3 widening near apex, with the single dorsal pore on 3, not far from apex. Microsculpture isodiametric throughout, but not very distinct.

Easily distinguished from other Eastern species by its small size, obsolete striae, uniformly isodiametric microsculpture, and single dorsal pore.

BENGAL: Calcutta, «at light» and one example «from base of leaf of tall palm tree» (F. H. Gravely - Ind. Mus.). The type is in the Indian Museum.

ORIGINAL DESCRIPTIONS OF MOTCHULSKY'S SPECIES WHICH IT HAS BEEN FOUND IMPOSSIBLE TO IDENTIFY

Tachys dorsalis Motch. Bull. Mosc. 1851, IV, 508.

« Forme d'un *Trechus minutus*, mais plus petit et plus lisse. Testacée, partie postérieure de la tête et une large tache indéterminée le long de la suture, depuis l'écusson qui est jaunenoirâtre. Sur les élytres il n'y a que deux stries de points imprimées distincts de chaque côté de la suture. Ind. or. »

Ann. del Mus. Civ. di St. Nat., Vol. LI. (2 Giugno 1925).

32

Tachys cinctipennis Motch. Bull. Mosc. 1861, I, 99.

« Elongata, nitidissima, rufo-testacea, fronte, oculis elytrorumque medio nigris; thorace subtransverso, postice paullo angustato, angulis posticis rectis, explanatis; elytris thorace modice latioribus, subovatis, apice arcuatim-attenuatis, ad suturam utrinque tristriatis, striis obsoletis postice exstinguentibus. Long.  $1^{1}/_{3}$  l. — lat.  $1/_{3}$  l. Colombo. »

Limnastis pullulus Motch. Etud. Ent. XI, 1862, 31.

« Elongatus, parallelus, depressus, nitidus, punctulatus, testaceus, capite infuscato, oculis nigris; thorace cordato, subconvexo; elytris thorace latioribus et 2 1/2 longioribus, subtiliter punctatostriatis, striis dorso interruptis, postice profundiore impressis, interstitiis vix distincto punctulatis. Long. 1/2 l. — lat. 1/5 l.

Moitié plus petit que le L. *indicus*, avec les élytres proportionellement plus courtes, plus larges et plus faiblement ponctuées. Des Indes orientales ».

**Tachys** (*Polyderis*) **tenellus** Motch. Etud. Ent. XI, 1862, 35. « Elongata, subdepressa, nitida, rufo-testacea, ore, palpis, antennis pedibusque pallidis, oculis nigris, subprominulis; capite infuscato, ante oculos biimpresso, antennis incrassatis; thorace capite latiore, transverso, cordato, postice truncato, impresso, basi subsinuato, linea media tenua, angulis posticis obtusis, subelevatis; elytris thorace paulo latioribus et triplo longioribus, ellipticis, glaberrimis, stria suturali distincta. Long. 1/2 l. — lat. 1/6 l.

498

De la taille de la *P. brevicornis*, mais un peu plus courte et de couleur testacée. Du continent indien.»

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## INDEX

All names printed in italics are synonyms. Where more than one reference is given, the page on which the description occurs is indicated by thickened numerals.

Barytachys subgenus. 328. Elaphropus subgenus. 328. Limnastis genus. 328. 493.

- atricapillus Bates. 494. 496. >
- indicus Motch. 494. >>
- levatus Andr. 494. 497. >
- pilosus Bates. 494. 495. \*
- pullulus Motch. 498. >>

setiger Sloane. 495. \* Pericompsus subgenus. 328. Polyderis subgenus. 328. Porotachys subgenus. 328. Tachylopha subgenus. 328. Tachymenis subgenus. 328.

#### Tachys bioculatus Putz. 448.

- biplagiatus Jord. 401. 418. >>
- bistriatus Dufts. 393. >>
- bisulcatus Nic. 339. >>
- . blandus Andr. 408. 459. X
- borealis Andr. 461. 462. >>
- borneensis Andr. 401. 418. \*
- bombycinus Andr. 382. 385. \*
- brachys Andr. 375. 377. >>
- brevicornis Chaud. 376. »
- brunneus Andr. 375. 379. >>
- buxans Andr. 471. 476. >>
- callispilotus Bates. 395. 399. \*

Tachys genus. 331.

- acaroides Motch. 337. 469. >> acuticollis Putz. 485, 492. \* aeneus Putz. 401. 417. >> albicornis Schaum. 463. >> ambiguus Andr. 382. >> amplians Bates. 471. 475. \* anceps Putz. 436. >> aratus Andr. 400. 408. >> arcuatus Putz. 404. 438. » aspilotus Andr. 406. 449. >> asthenes Andr. 472. 480. n atomarius Bates. 377. >> atriceps W. Macl. 351. >> babaulti Andr. 407. 452. 3 barringtoni Andr. 402. 423. \* bathyglyptus Andr. 343. 367. >> belli Andr. 400. 411. \* bembidiiformis Jord. 402. 422. \* bicolor Andr. 472. 484. »
- bifoveatus W. Macl. 471. 476. >>

cameroni Andr. 342. 359. cardoni Andr. 343. 364. \* castaneus Andr. 395. 396. >> celebensis Andr. 403. 429. \* ceylanicus Nietn. 404. 436. \* chalceus Andr. 401. 415. \* championi Andr. 407. 453. >> charactus Andr. 407. 451. \* charis Andr. 407. 454. > cinctipennis Motch. 498. >> cinctus Putz. 342. 357. » compactus Andr. 406. 449. >> comptus Andr. 337. 461. 37 constrictus Andr. 406. 449. > contractulus Bates. 477. >> coracinus Putz. 485. 491. >> cruciger Putz. 368. 369. \* curtus Andr. 388. 393. >> decolor Andr. 375. 378. > decoratus Andr. 402. 424. >> delicatus Andr. 342. 358. 8 deliciolus Bates. 440. 8

achys	dentatus Andr. 341. 343.
*	diversus Andr. 472. 480.
*	doddi Sloane. 370.
»	dohertyi Jord. 346.
»	dorsalis Motch. 497.
»	dulcis Andr. 395.
*	ebeninus Nietn. 448.
»	elegans Andr. 463. 465.
»	emarginatus Nietn. 466.
*	ephippiatus Putz. 347.
»	ephippiatus Say. 348.
»	erotyloides Andr. 402. 419.
*	eueides Bates. 408. 460
»	euglyptus Bates. 414.
»	euryodes Bates. 343. 360.
*	evanidus Andr. 387. 391.
*	exaratus Bates. 337. 387. 388
	392.
»	expansicollis Bates. 337. 381
	382. <b>383.</b>
»	extremus Walk. 488.
»	feanus Bates. 414.
»	finitimus Walk. 407. 455.
*	flaviculus Motch. 436.
	floring Andry 100 100

500

T

Tachys incertus Andr. 342. 352.

- infans Bates. 436. \*
- inornatus Say. 486. >>
- interpunctatus Putz. 404. 432. \*
- javanicus Andr. 408. 458. \*
- klugi Nietn. 401. 414. N
- laetificus Bates. 408. 457. >>
- languidus Andr. 369. 374. \*
- laotinus Andr. 403. 432. \*
- laticollis Motch. 486. >>
- latissimus Motch. 478. 3
- latus Peyr. 408. >>
- lissonotus Andr. 342. 356. >>
- longulus Andr. 368. 371. >>
- loriae Andr. 387. 389. »
- luteus Andr. 387. 390. >>
- » · luxus Andr. 338. 339.
- malabaricus Andr. 405. 443. >>
- malayicus Andr. 485. 487. >>
- mediocris Andr. 405. 442. >>
- micraulax Andr. 395. 397. >>
- microscopicus Bates. 375. 379. \*
- minimus Dufts. 486. >>
- minabilie Rates 163

»	florus Andr. 402. 426.
»	fulvicollis Dej. 349.
*	fumigatus Motch. 337. 466.
»	fuscicauda Bates. 404. 438.
*	fusculus Schaum. 402. 425.
*	fusiformis Andr. 402. 420.
»	geminatus Schaum 466.
»	gestroi Andr. 382. 384.
*	glis Andr. 472. 481.
*	gongylus Andr. 406. 450.
»	gracilis Motch. 477.
*	gradatus Bates. 404. 434.
» -	haemorrhoidalis Bates. 459.
»	haemorrhoidalis Dej. 426.
*	haliploides Bates. 337. 470.
	471. <b>478.</b>
*	helmsi Sloane. 422.
*	homostictus Bates. 406. 449.
*	imperfectus Andr. 401. 413.
*	impictus Andr. 369. 373.
» **	impressipennis Motch. 341. 346.

impressus Motch. 342. 353. \*

"	<i>Multuotus</i> Duos. 100.
»	mirandus Dupuis. 463.
»	monostigma Andr. 485. 489.
*	mus Andr. 375. 380.
»	nalandae Andr. 405. 441.
»	nannodes Andr. 406. 447.
»	nanophyes Andr. 472. 480.
»	nanus Gyllh. 337. 484. 485. 486.
»	nietneri Bates. 454.
*	nietneri Schaum. 488.
»	nigrinus Andr. 472. 479.
»	nilgiricus Andr. 403. 406. 446.
»	nitens Andr. 401. 412.
*	notaphoides Bates. 337. 394.
	395. <b>398.</b>
*	obliteratus Andr. 463. 465.
*	obsolescens Bates. 343. 360.
*	ocellatus Bates. 400. 410.
*	ochrias Andr. 374. 376.
»	opacus Andr. 472. 483.
>	opalescens Andr. 342. 352.
»	orientalis Nietn. 416.

ornatus Apetz 401. 416. \*

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77

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2

chys	ornatus Nietn. 424.	Tac
»	ornatus Putz. 454.	
»	orphninus Andr. 341. 345.	
»	ovatus W. Macl. 476.	
»	ovatus Motch. 337. 463.	No.
*	pallescens Bates. 342. 355.	
*	pallidicornis Andr. 405. 443.	
*	pallidus Dupuis. 466.	
»	papuae Andr. 402. 421.	
»	parallelus Motch. 488.	
*	perlutus Bates. 476.	
»_	peryphinus Bates. 404. 435.	
»	photinus Bates. 362.	
>	picipes Kirby. 486.	
*	pictipennis Putz. 372.	
*	pictus Andr. 405. 439.	
»	plagiatus Putz. 368. 369. 370.	
*	pluripunctus Andr. 461. 462.	
»	poecilopterus Bates. 405. 440.	
*	politus Motch. 337. 399. 406.	
	448:	1
*	polyporus Andr. 404. 437.	
»	porosus Andr. 470. 472.	
*	prolixus Bates 343. 364.	
»	psilus Andr. 403. 429.	
*	pulcher Andr. 403. 428.	
*	punctus Andr. 471. 473.	
*	putzeysi Dupuis. 466.	
*	quadrillum Schaum. 336. 368.	
	369. <b>372.</b>	
*	quadristriatus Illig. 486.	
*	queenslandicus Sloane 369.	
>	recurvicollis Andr. 336. 337.	
	338.	
*	reflexicollis Bates. 338.	
»	remotiporis Bates. 491.	
*	reticulatus Andr. 387. 388.	
»	rhombophorus Andr. 387. 390.	
>	rivularis Motch. 486.	
*	rubescens Andr. 407. 455.	
»	saundersi Andr. 472. 482.	
*	scydmaenoides Bates (1873)	
	459.	
»	scydmaenoides Bates (1886)	
	454.	Ta
*	scydmaenoides Nietn. 466.	Ta
»	sericans Bates. 341. 348.	

Ta

hys sericans Motch. 343. 362. serratus Andr. 341. 344. sexmaculatus Andr. 369. 371. singularis Andr. 388. 393. sinuaticollis Sloane. 346. socius Schaum. 466. spilotus Bates. 372. spurcus Andr. 403. 427. stevensi Andr. 406. 445. striatifrons Andr. 407. 456. striatulus Andr. 471. 474. subfasciatus Putz. 477. subvittatus Bates. 366. sulcatopunctatus Putz. 414. sulcatus Motch. 408. sulculatus Putz. 414. sundaicus Andr. 343. 362. suturalis Motch. 403. 430. tagax Andr. 405. 444. tenellus Motch. 498. tetraspilus Solsky. 404. 433. tostus Andr. 408. 459.

transumbratus Bates. 342. 350. >>

trechiformis Jord. 351. \*

triangularis Nietn. 336. 340.

## 501

angu	14119 1	Meon	
350.			
the state of the	18 M 19 1	o contrates	
loris	Andr.	403.	431.
	( - 1		~

tri

tropicus Bates. 352. tropicus Nietn. 343. 366. truncatus Nietn. 336. 374. 375. umbrosus Motch. 485. 488. unilineatus Reitt. 476. unisculptus Andr. 403. 446. unistriatus Putz. 471. 477. unistriatus Reitt. 476. unitarius Bates. 402. 425. variabilis Andr. 471. 474.

- vigens Andr. 400. 410.
- vilis Andr. 342. 354.
- virgatus Andr. 400. 410.
- vixmaculatus Andr. 407. 452. >>
- vixstriatus Bates. 341. 349. >>
- wallacei Andr. 485. 490. >>
- zonatus Andr. 341. 347. >>

achyta subgenus. 328. achyura subgenus. 328.

## EXPLANATION OF PLATE III.

1. Tachys dentatus Andr. (border of elytra exaggerated).

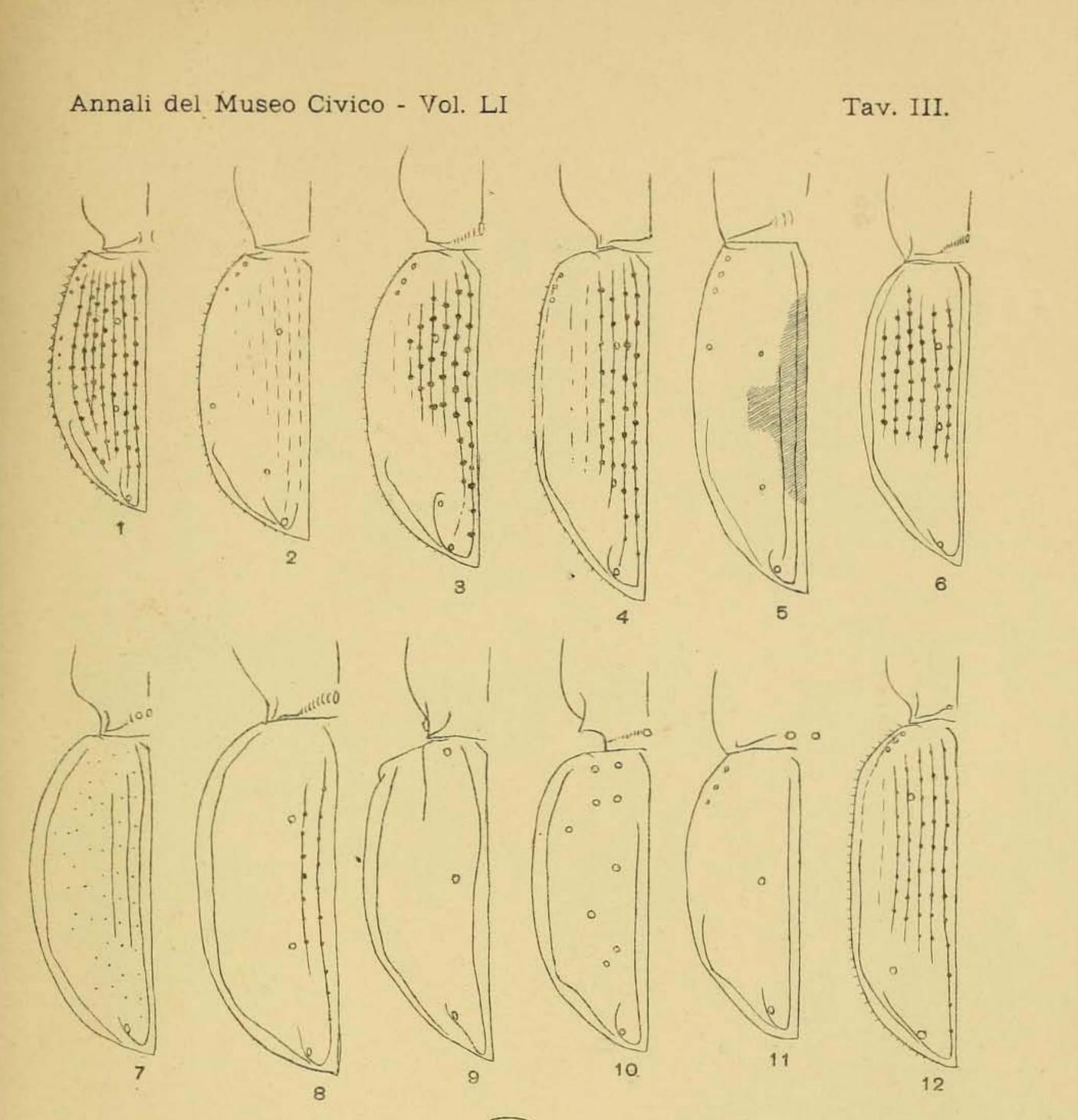
2.	*	impressipennis	Motch. (upper	surface of elytra and	prothorax).
		a second s			

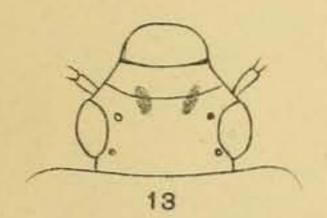
3.	*	triangularis Nietn.	d.°
4.	»	exaratus Bates	d.°
5.	*	gestroi Andr.	d.º
6.	*	klugi Nietn.	d.º
7.	»	interpunctatus Putz.	d.º
8.	»	politus Motch.	d.º
9.	*	ovatus Motch.	d.º
10.	*	comptus Andr.	d.°
11.	»	haliploides Bates	d.°
12.	*	umbrosus Motch.	d.°
13.	»	impressipennis Motch.	(upper surface of head).
14.	»	triangularis Nietn.	d.°
15.	*	mus Andr.	d.°
16.	*	poecilopterus Bates	d.º
17.	»	fumigatus Motch.	d.º
18.	»	haliploides Bates	d.º
		the second se	

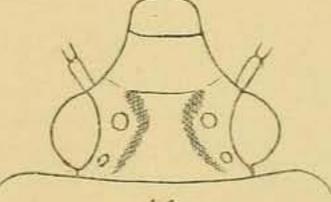
## EXPLANATION OF PLATE IV.

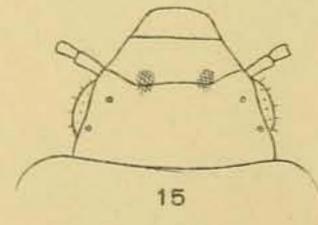
19.	Tachy	s triangularis Nietn. (antenna).
20.	*	truncatus Nietn. d.º
21.	»	umbrosus Motch. d.º
22.	»	triangularis Nietn. (mentum).
23.	*	politus Motch. d.º
24.	*	ornatus Apetz. (Head - microsculpture of isodiametric meshes).
25.	*	umbrosus Motch. (Elytra - microsculpture of moderately trans-
	1.413	verse meshes).
26.	*	tropicus Nietn. (Head - microsculpture of strongly transverse
	1	meshes).
27.	*	euryodes Bates (Prothorax – microsculpture of fine transverse lines).
28.	*	truncatus Nietn. (Prosternal process).
29.	*	politus Motch. d.º
30.	»	triangularis Nietn. (Metasternal process).
31.	. »	truncatus Nietn. d.º
32.	*	politus Motch. d.º
33.	»	fumigatus Motch. d.º
34.	*	triangularis Nietn. 8 (pores on apical ventral segment).
35.	*	, »      »     ♀           d.∘
36.	*	politus Motch. 7 d.º
37.	»	» » Q d.º
38.	*	triangularis Nietn. 8 (protarsus).
39.	*	vilis Andr. 7 d.º
40.	»	politus Motch. d.º
41.	*	erotyloides Andr. (clavicular fold).

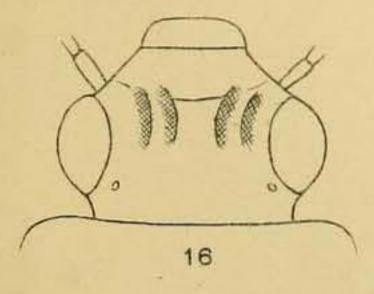
## 502



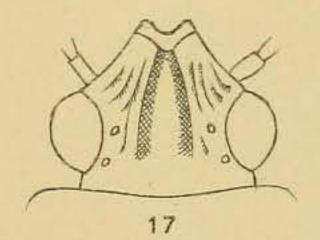


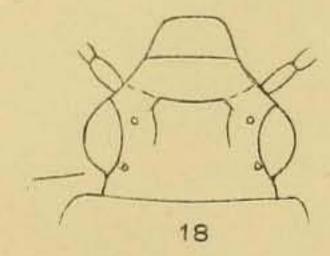


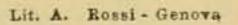




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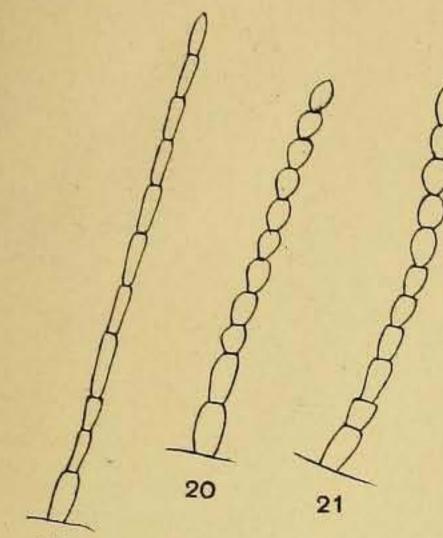


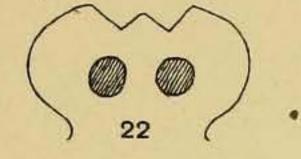


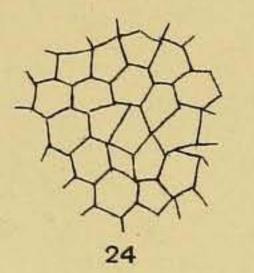
Auct. del.

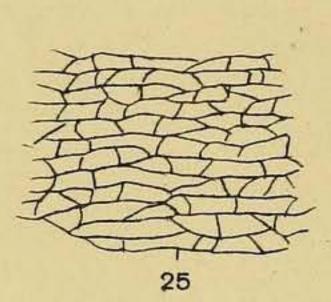
Annali del Museo Civico - Vol. LI

Tav. IV.



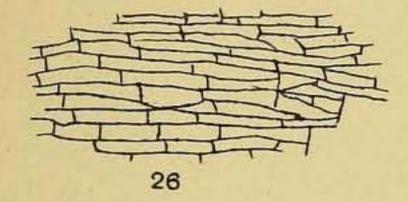


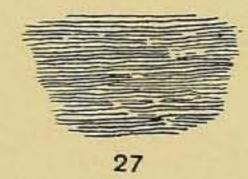


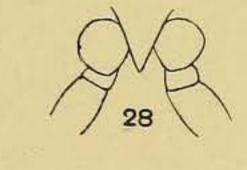


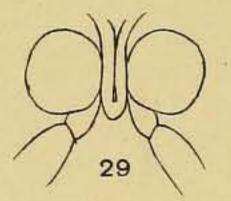
23

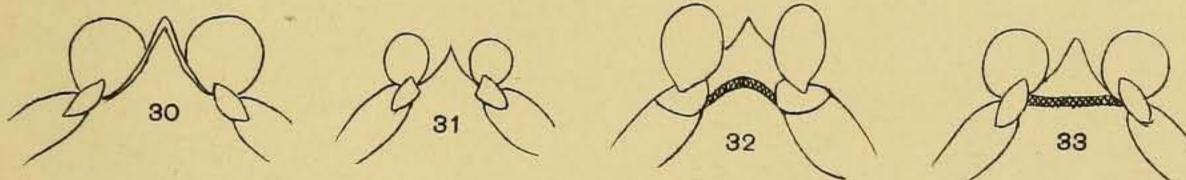


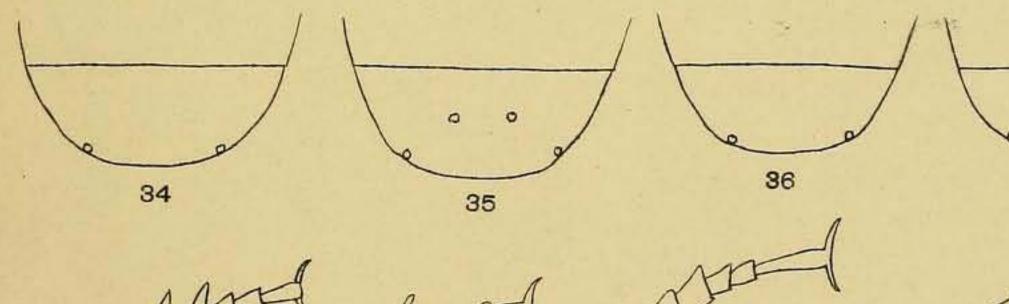


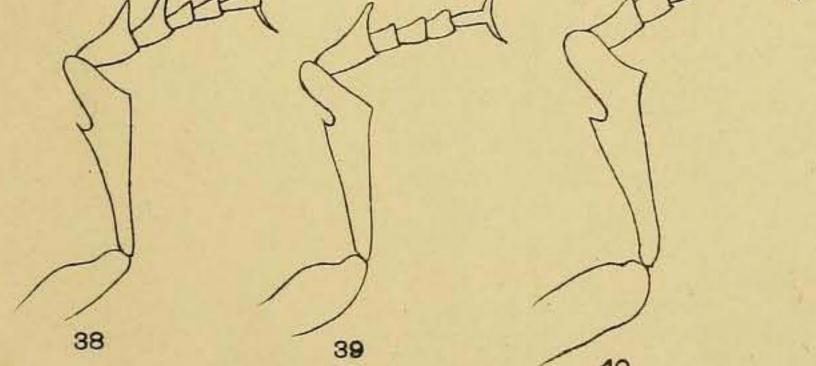












40

Lit. A. Rossi - Genova

41

0

37

Anct. del.