

a slight *primæ facie* resemblance, in general contour, to the more parallel-sided *Hadri* (such as the *H. alpinus* and *Paivæ*),—a circumstance which has suggested its trivial name.

XVIII.—*Description and Figures of a new Genus and Species of*  
Gallerucidæ. By J. O. WESTWOOD, Esq.

Genus CHALCENUS.

*Corpus* oblongo-ovale, subconvexum, læve, nitidum; *capite* brevi, lato, supra transverso; *facie* verticali, magna; *prothorace* transverso, capite haud majore; *elytris* subovalibus. *Caput* transversum, breve, supra parum convexum; *oculis* rotundatis, angulos anticos laterales occupantibus, vertice in medio in tuberculum rotundatum (in cujus parte antica insident antennæ basi approximatae) paullo elevatum. *Facies* magna, quadrata, verticalis, infra truncata; *clypeo* parvo, distincto, antice angustato; *labro* parvo, antice rotundato, margine setoso. *Mandibulae* laevæ, breves, extus rotundatae, antice convexae; *maxillae* parvae, lobo apicali tenui curvato, apice acuto; *palpi maxillares* parvi, tenues, articulo 1<sup>mo</sup> brevissimo, 2<sup>do</sup> et 3<sup>do</sup> longioribus ad apicem sensim incrassatis, 4<sup>to</sup> minuto acuminato. *Mentum* parvum, breviter subcordatum, lateribus rotundatis. *Labium* ejusdem formæ et paullo majus. *Palpi labiales* parvi, articulo basali minuto, 2<sup>do</sup> majore sensim incrassato, 3<sup>to</sup> parvo acuminato. *Antennæ* fere corporis longitudine, in medio paullo crassiores, apicem versus attenuatae, articulo 1<sup>mo</sup> capite longiore, tenui, apice clavato, 2<sup>do</sup> minuto, 3<sup>to</sup> longitudine dimidium articuli 1<sup>mi</sup> excedente, reliquis setosis et sensim longitudine decreascentibus, intermediis crassioribus, apicalibus attenuatis, ultimo appendicula minuta conica terminato. *Prothorax* brevis, transversus, capite paullo angustior, lateribus et margine postico margine tenui elevato instructis. *Scutellum* triangulare. *Elytra* ovata, convexa, lævia, tenue marginata. *Prosternum* simplex. *Pedes* mediocres, femoribus satis robustis; *tibiis* paullo incurvis; *tarsis* dilatatis, subtetrameris; *unguibus* basi appendiculatis.

*Obs.* The description and drawing of the parts of the mouth are not so complete as I could have wished, not having considered myself at liberty to dissect the specimens lent to me by the authorities of the Leyden Museum.

*Chalcenus latifrons.* (Pl. XII. fig. 1.)

C. luteus; antennis in medio, facie, mandibulis, tibiis tarsisque piceis; elytris læte purpureis; corpore supra lævi; elytrorum lateribus serie marginali punctorum impressis.

Long. corp. lin. 8½.

*Hab.* Batang Singalang. In Mus. Lugdunensi.

Facies in medio parum concava, utrinque lineis duabus impressis

obliquis notata, intermediis ad basin antennarum supra extensis. Clypeus et labrum lutea. Mandibulæ nigræ, nitidæ. Caput infra, cum partibus inferioribus oris, luteum. Antennæ articulo basali luteo, apice cum articulis 2 et 3 piceis, articulis 4-8 nigris, reliquis luteis. Pars tota supra capitis, prothorax, scutellum et portio infera corporis cum femoribus lutea, fulvo tincta.

*Note.*—Mr. Westwood, being prevented by want of leisure from studying the affinities of *Chalcenus*, has requested me to do so, and assign the insect to its proper family in the great group of Phytophagous insects. This (although feeling far less adequate to the task than the author himself) I have endeavoured to do, placing the genus amongst the *Gallerucidæ*, as I consider that the structure of the mouth and tarsi, together with the approximation of the antennæ at their base, point out that family as its true position. In the form of the body it approaches somewhat to the *Gallerucidæ anisopodæ*, the broad, flattened, and perpendicular head in particular bearing a striking likeness to the same part in *Loxoprosopus*, a genus of *Halticidæ*; but, on the other hand, the slender hinder thighs, not fitted for leaping, and the extremely narrow and weak prosternum place it without doubt in the Isopodous section of the family. I think it ought to stand not far from *Cælomera*, Erichs. In my own cabinet I possess a second species of the genus, collected by Mr. Wallace, which differs in many respects from Mr. Westwood's; of this I have ventured to give a description in the present note.—  
JOSEPH S. BALY.

*Chalcenus suturalis.* (Pl. XII. fig. 2.)

*C. ovalis*, convexus, fusco-fulvus, nitidus, oculis antennisque nigris, harum apice, tibiis tarsisque piceis; thorace transverso; elytris ovatis, reflexo-marginatis, lævibus, postice obsolete punctulatis, utroque infra basin lineis quatuor punctorum impressorum instructo, nigro, vitta lata suturali vix infra basin emarginata, postice angustata obscure fulva.

Long.  $3\frac{1}{2}$  lin.

*Hab.* Amboyna.

Head scarcely narrower than the thorax, face flattened, broad and subquadrate, lower portion transversely concave, either side with an impressed line, which commencing near the base of the jaw runs obliquely upwards to join its fellow between the insertion of the antennæ, at its apex is a short ridge which extends upwards as far as the upper edge of the eyes, above this again but continued in the same line is a short groove; antennæ similar to those of *L. latifrons*, with the exception of the four last joints, which are much shorter: thorax twice as broad as long, sides narrowly margined, produced and rounded in front, narrowed and sinuate near the base, all the

angles distinct, the posterior slightly produced, surface smooth, impunctate; elytra ovate, slightly broader than the thorax, their outer border reflexed and impressed with a single row of distinct punctures, basal portion of each elytron impressed with four longitudinal rows of deeply impressed punctures, the outer one commencing at the base within the humeral callus and extending somewhat obliquely for about one-third the length of the elytron, the three others running parallel to the first but much shorter, commencing only below the basilar space, the inner two less distinct.

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XIX.—*Contributions to an Insect Fauna of the Amazon Valley.*—  
LEPIDOPTERA—PAPILIONIDÆ. By H. W. BATES.

In the two principal works on the Diurnal or Rhopaloceros Lepidoptera, viz. the 'Spécies Général' of Dr. Boisduval, and the 'Genera of Diurnal Lepidoptera' of Doubleday and Hewitson, the family Papilionidæ is made to consist of a limited number of genera, of which the restricted genus *Papilio* is considered the type. In the present treatise I propose to extend it so as to embrace also the family Pieridæ of the same authors, reducing the two groups to the rank of subfamilies. The Papilionidæ differ from the Pieridæ only in having the abdominal border of the hind wings excavated, and in the tarsal claws being simple instead of bifid—characters which, when the whole division Rhopalocera is carefully studied, I think will be found to be of subordinate rank. Both families agree in possessing six perfect legs in both sexes, in the pupa being secured by the tail and a silken girdle across the middle in an upright position, and in the wing-cells (at least of the hind wing) being always closed by perfect tubular nervules. The importance of these characters in distinguishing family groups becomes evident only when the whole division is studied; it will then appear also, I think, that the Papilionidæ have been erroneously placed at the head of the Rhopalocera, a position accorded to them by nearly all Lepidopterists. On this subject a few remarks will not be out of place as preliminary to a review of the Amazonian species. It may be of minor importance in what order a number of natural families are successively treated in a descriptive work; but it is necessary that clear and correct ideas, as far as possible, should be acquired of their true relations to each other.

All the Heterocerous Lepidoptera or Moths have six perfect legs in both sexes. This is the universal rule also in the orders allied to Lepidoptera, viz. Trichoptera and Hymenoptera; it cannot be with-

