mination, that the whole of them (with the possible exception of *Iolæma frontalis*) are known in Europe, and have nearly all been previously described.

The new edition of the 'Mammals and Birds of the United States Exploring Expedition under Commodore Wilkes,' by Mr. Cassin, has just been received in this country. We hope hereafter to be able to give a full notice of this important work.

XI.—Extracts from Correspondence, Notices, &c. (Plate III.)

WE are happy to be able to state that letters have been received from Mr. Wallace, dated Ternate, September 2nd, announcing his safe return from New Guinea about a fortnight before that time. Mr. Wallace gives by no means a favourable account of Havre-Dorey as a collecting-place, and says that he has never made a voyage "so disagreeable, expensive, and unsatisfactory as that now completed." He suffered greatly from illness and from bad and insufficient food, and was only just sufficiently recovered to work at cleansing and packing his collections. His servants suffered as much as himself, two or three of them were always sick, and one of his hunters died of dysentery. Not only was he unable to procure any of the rarer Paradise-birds himself at this spot, but he could not even purchase a single skin of them. "It is certain," says Mr. Wallace, "that all but the two common yellow species" (Paradisea apoda and P. papuana) "are very rare, even in the places where the natives get them, for you may see hundreds of the common species to perhaps one of the rarer sorts. I sent two of my servants with seven natives a voyage of 100 miles to the most celebrated place for birds-Amberbabei—mentioned by Lesson, and after twenty days they brought me back nothing but two of P. papuana and one of P. regia." He goes on to say, "My only hope now lies in Waigiou, where I shall probably go next year, and try for P. rubra and P. superba. Even of P. papuana I have not many, as my boys had to shoot them all themselves. I got nothing from the natives at Dorey. You will ask why I did not try somewhere else, when I found Dorey so bad. The simple

answer is, that in the whole mainland of New Guinea there is no other place where my life would be safe a week. It is a horribly wild country. You have no idea of the difficulties in the way of a single person doing anything in it. There are a few good birds at Dorey, but full half of the species are the same as at the Aru Islands, and there is much less variety. My best things are some new and rare Lories *." In a letter written from Ternate in March last, before starting for Havre-Dorey, Mr. Wallace remarks, speaking of the Eastern tropics generally, "This part of the world is very poor in species compared with South America. In Java, so rich, so varied, and so well explored, there are barely 300 species according to Müller, a number which any one spot in tropical America would probably furnish if well explored." In the same letter, with reference to the distribution of the Parrots, he says, "The Psittacida are very interesting. It is, however, almost impossible to get all the species of each locality, some being always scarce and difficult to shoot. The greatest confusion exists as to their distribution, owing to their being carried from island to island by the native traders. This I hope in a great measure to set to rights. Almost every island of any extent has some peculiar species, but there are others which extend over a considerable range of the Archipelago. The representative species in the different islands are often very closely allied. In Gilolo I have found the true Geoffroius cyaneicollis, which is quite distinct from G. personatus of Amboyna, and also from the Aru species, which, if different, as I think, from the Amboyna one, is new†. In my second Macassar collection I have sent a Trichoglossus t, which I think new—the most western of the genus. At Manado, in the north of Celebes, I shall find many of the rare birds which do not occur at Ma-I have a pair of the superb Pitta maxima of Forsten,

^{*} Among these is what Mr. Wallace thinks is a new species of *Charmosyna*.

[†] This will stand as *Geoffroiius aruensis*, having been described by Mr. G. R. Gray from Mr. Wallace's specimens as *Psittacus aruensis* (Proc. Zool. Soc. 1858, p. 183).

[‡] The *Trichoglossus* from Macassar is *T. ornatus*. There are examples of this species in the Levden Museum from Celebes collected by Forsten, and from Bouton collected by Müller.

Mr. Wallace's second Macassar collection has from Gilolo." been received since he wrote thus. In it and his first collection he has transmitted many interesting species, Buceros cassidix, B. exaratus, Basileornis corythaix, Streptocitta albicollis, Phanicophaus callirhynchus, Spilornis rufipectus*—all types peculiar to Celebes; and among the Psittacida, Tanygnathus mülleri, Bp., a fine species of Prioniturus, and Trichoglossus ornatus. In the last collection we were surprised to recognize in a strongly-built Corvine bird, Prince Bonaparte's Gazzola typica (Compt. Rend. vol. xxxvii. p. 828, et Notes Orn. p. 6). Prince Bonaparte gives New Caledonia as the locality of this bird, which is very singular, as the Streptocitta of Celebes is also attributed, in Labillardière's 'Voyage,' to New Caledonia. But the fact is, that Labillardière visited Celebes as well as New Caledonia, and the specimens from each country must have been mixed up together. The true position of the Gazzola is certainly near Corvus dauricus, however Prince Bonaparte may deride its being labeled "Corvus dauricus de la Nouvelle Calédonie," and we are not at all sure that it is generically separable therefrom. Another interesting bird in Mr. Wallace's last Macassar collection is a curiously-marked Thrush of the section Geocichla, allied to G. interpres + of Java and Sumatra, but having the whole back as well as the head chestnut-red. For this bird, of which two examples only were sent, we propose the name Geocichla erythronotat. From Lombok Mr. Wallace has transmitted the true Geocichla interpres.

Mr. Fraser, who is now collecting in the Andes of Ecuador, dates his last letters from Pallatanga, on the Pacific slope of the western range of the Cordillera, south-westwards of Riobamba, in the *tierra caliente*. His first collection from this spot, which has just arrived, contains about 110 species, among which are

^{*} Gould, Proc. Zool. Soc. 1857, p. 222.

[†] Temminck, Pl. Col. 458.

[‡] Geocichla erythronota, Sclater.

G. suprà castanea: alis, caudâ, lateribus capitis et corpore subtùs ad medium pectus intensè nigris; maculâ utrinque inter oculum et rictum, alterâ in regione auriculari, tectricum alarium apicibus et primariorum ad basin marginibus externis, rectricis extimæ maculâ terminali et secundæ maculâ minore, albis: abdomine crissoque albis, ventre nigro tanquam squamato: rostro plumbeo, apice flavâ, pedibus flavis: long. tota 8·0, alæ 4·5, caudæ 3·0.



CEPHALOPTERUS PENDULICER

M&N. Hanhart, Impt.

nothing of the details of the houses between you and the western sky, nor could you recognize any one a few paces distant.

(To be continued.)

Extracts from a Letter of Mr. A. R. WALLACE to Mr. S. STEVENS.

Ternate, September 2, 1858.—When I arrived here from New Guinea, about a fortnight ago, I found your two letters of January and March, noting the safe arrival of the Aru collections and the advantageous disposal of the birds: they gave me the greatest pleasure and satisfaction, and the interest the collections appear to have excited was a great encouragement to me; and I assure you I stood in need of some encouragement, for never have I made a voyage so disagreeable, expensive and unsatisfactory as the one now completed. suffered greatly from illness and bad or insufficient food, and am only now just sufficiently recovered to work hard at cleaning and packing my collections: my servants suffered as much as myself; two or three were always sick, and one of my hunters died of dysentery. My collections will greatly disappoint you and my other friends,—more than they do myself,—because you will be expecting something superior to Aru, whereas they are very inferior in fine things. First and foremost, all my hopes of getting the rare paradise birds have vanished, for not only could I get none myself, but could not even purchase a single native skin! and that in Dorey, where Lesson purchased abundance of almost all the species: he must have been there at a lucky time, when there was an accumulated stock, and I at a most unpropitious It is certain, however, that all but the two common yellow species are very rare, even in the places where the natives get them, for you may see hundreds of the common species to perhaps one of either of the rarer sorts. There are some eight or ten places where most of the birds are got, and from each I doubt if there is more on the average than one specimen per annum of any other than the Paradisea papuana; so that a person might be several years in the country, and yet not get half the species even from the natives: yet they are all common in Europe! I sent two of my servants with seven natives a voyage of one hundred miles to the most celebrated place for birds (Amberbaki, mentioned by Lesson), and after twenty days they brought me back nothing but two specimens of P. papuana and one of P. regia:

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XVII.

they went two days' journey into the interior without reaching the place where the birds are actually obtained; this was reported to be much further, over two more ranges of mountains. The skins pass from village to village till they reach the coast, where the Dorey men buy them and sell to any trading vessels. Not one of the birds Lesson bought at Dorey was killed there; they came from a circuit of two hundred or three hundred miles. My only hope lies now in Waigiou, where I shall probably go next year, and try for P. rubra and P. superba. Even of P. papuana I have not got many, as my boys had to shoot them all themselves; I got nothing from the natives at Dorey. You will ask why I did not try somewhere else when I found Dorey so bad: the simple answer is, that on the whole mainland of New Guinea there is no other place where my life would be safe a week: it is a horribly wild country; you have no idea of the difficulties in the way of a single person doing anything in it. There are a few good birds at Dorey, but full half the species are the same as at Aru, and there is much less variety! My best things are some new and rare lories.

In insects, again, you will be astonished at the mingled poverty and riches: butterflies are very scarce; scarcely any Lycenidæ or Pieridæ, and most of the larger things the same as at Aru. Of the Ornithoptera I could not get a single male at Dorey, and only two or three females; I got two from Amberbaki and two from the south coast of New Guinea, from the Dutch exploring ship. Of Coleoptera I have taken twice as many species as at Aru; in fact, I have never got so many species in the same time; yet there is hardly anything fine: no Lomopteræ,-in fact, not one duplicate Cetonia of any kind, and only two solitary specimens of common small species! No Lucani! perhaps nowhere in the world are Lamellicornes so scarce, -only fourteen out of 1040 Coleoptera, and most of them small and unique specimens. Of Longicornes there are full as many as at Aru; many the same, but a good number of new and interesting species. Curculionidæ very rich; some remarkable things, and the beautiful Eupholus Scheenherri and E. Cuvieri; the former rather abundant. There is a very pretty lot of Cicindelidæ; two Cicindelas and three Therates will probably be new to the English collections; they are C. funerata, Bois., a very pretty species, with a peculiar aspect; C. d'Urvillei; also a small new species, near C. funerata, very scarce. Therates basalis, Dej., a very pretty species, I have sent a good many of; T. festiva, Dup. (I think), a pretty brilliant little species, not common, and another of the same size, and, I think, quite new, rufous

and black marked, also scarce; T. labiata and Tricondyla aptera are the same as sent from Aru. I have never before found so many species of Therates in one place: they form quite a feature in the Entomology of Dorey. Carabidæ were very scarce: I picked up, however, some pretty things, especially two most brilliant Catascopi, but both unique. For a long time I took no Staphylinidæ: at last I found a station for them, and by working it assiduously I got between eighty or ninety species: some are the handsomest of the group I have yet taken, and there are many curious and interesting forms. Talk about Brachelytra being rare in the tropics! of their place being supplied by ants, &c., &c.! why, they are absolutely far more abundant in the tropics than anywhere else, and I believe also more abundant in proportion to the other families. I see in the 'Zoologist' two local lists of Coleoptera (Dublin and Alverstoke), in which the numbers of Staphylini are 103 and 106 species respectively; these are the results of many years collecting by several persons, and in a country where all the haunts and habits of the tribe are known; here, in two localities (Macassar and Dorey), I have taken at each nearly the same number of species, in three months' collecting, on a chance discovery of one or two stations for them, and while fully occupied with extensive collections of all orders of insects, in a country where every other one is new. The fair inference is, that in either of these localities Staphylini are really ten times as numerous as in England; and there is reason to believe that any place in the tropics will give the same results, since in the little rocky island of Hong-Kong Mr. Bowring has found nearly 100 species; yet Dr. Horsfield, who is said to have collected assiduously in Java, did not get a solitary species. My next richest and most interesting group is that of the Cleridæ, of which I have about fifty species, perhaps more, for they are very puzzling: I have never got so many in one locality, nor should I now had I not carefully set them out and studied their specific characters, and thus separated many which would otherwise certainly have escaped notice. small and obscure group, the Bostrichidæ and allied Scolytidæ, I obtained no fewer than thirty-eight species, whilst the Lampyridæ and allied groups were in endless and most puzzling variety. I have also got an exceedingly rich and interesting series of Galerucidæ and Chrysomelidæ. The Elaters are small and little interesting. The Buprestidæ also are very inferior, and of the only fine species (Chrysodema Lotinii) I could only obtain a single pair. With so many minute Coleoptera I could not give much attention to the other orders; there are, however, some singular Orthoptera, and among the Diptera a most extraordinary new genus, the males of which are horned; I have three species, in two of which the horns are dilated and coloured, in the other long, slender and branched; I think this will prove one of the most interesting things in my collection. One would have thought Dorey would have been just the place for land shells, but none were to be found, and the natives hardly seemed aware of the existence of such things; I have not half-a-dozen specimens in all. Although Dorey is a miserable locality,—the low ground is all mud and swamp, the hill very steep and rugged, and there are only one or two small overgrown paths for a short distance, my excursions were almost entirely confined to an area of about a square mile,—yet the riches in species of Coleoptera, and a considerable number of fine remarkable forms of which I could obtain only unique examples, sufficiently show what a glorious country New Guinea would prove if we could visit the interior, or even collect at some good localities near the Coast.

You ask me if I go out to collect at night; certainly not, and I am pretty sure nothing could be got by it: many insects certainly fly at night, but that is the reason why they are best caught in the day in their haunts, or else by being attracted to a light in the house. Besides a man who works, with hardly half an hour's intermission, from 6 A.M. till 6 P.M., four or five of the hottest hours being spent entirely out of doors, is very glad to spend his evenings with a book (if he has one) and a cup of coffee, and be in bed soon after 8 o'clock. Night work may be very well for amateurs, but not for the man who works twelve hours every day at his collection.

I am perfectly astonished at not yet meeting with a single Paussus; Several are known from the Archipelago, and have been taken in houses and at light, yet my four years look-out has not produced one. How very scarce they must be! You and Dr. Gray seem to imagine that I neglect the mammals, or I should send more specimens, but you do not know how difficult it is to get them: at Dorey I could not get a single specimen, though the curious tree-kangaroos are found there, but very rare: the only animal ever seen by us was the wild pig. The Dutch surveying steamer bought two kangaroos at Dorey whilst I was there: it lay there a month waiting for coal, and during that time I could get nothing, everything being taken to the steamer. from Dorey a number of females and young males of Paradisea papuana; these females have been hitherto erroneously ascribed to P. apcda, of which I am now convinced my specimen from Aru is an adult female; it is totally brown: the females of P. papuana are smaller than the young males, and have the under parts of a less pure white: the bird figured by Levaillant as the female of P. papuana is a male of the second year which has acquired the green throat in front, but not the long feathers of the tail or flanks: to all the female specimens I have attached tickets,—all not ticketed are males.

Whilst the Dutch steamer was at Dorey a native prow came from the Island of Jobie, and bought two specimens of Atrapia nigra, which were sold to a German gentlemen, who is an ornithologist, before I knew any thing of them: I believe that island is their only locality, and the natives are there very bad, treacherous and savage. That is also the country of the rare species of crown pigeon (Goura Victoriæ); a living specimen of this was also purchased on board the steamer. I have great thoughts, notwithstanding my horror of boat work at sea (for a burnt child dreads the fire) and my vow never to buy a boat again, of getting up a small craft and thoroughly exploring the coasts and islands of the Northern Moluccas, and to Waigiou, &c.; it is the only way of visiting many most interesting places,—the Eastern coast of the four peninsulars of Gilolo, the Island of Guebe, half-way between Gilolo and Waigiou, a most interesting spot, as Gilolo and Waigiou possess quite distinct Faunas.

A. R. WALLACE.

Extract from a letter of M. Mouhot to Mr. S. Stevens.

Bankok, October 13, 1858.—I have had great difficulty in procuring the few specimens I now send you, as I arrived here just at the end of the rainy season, when the country was completely inundated; besides this, my first and charming collection of beautiful insects was devoured by ants, which swarm here in an extraordinary manner; in the space of one night they destroyed about sixty Lepidoptera, with about one hundred Neuroptera, Hemiptera, &c.; in the morning nothing remained of them but shapeless atoms. In vain I employed the most efficacious means to get rid of them, and such as had hitherto always succeeded; oil Bombay or the Siam wood-oil alone was effectual. During sixteen days that my boxes were oiled the ants kept away from them, and it is no longer necessary to have recourse to suspended planks or to place the feet of the table in basins of water. I consider this an important discovery,—the more so, as none of the inhabitants of Bankok, who have their magazines frequently ravaged by these destructive insects, could inform me of a remedy.

Siam is a terrible country to explore; there are no other means of communication than by water or on elephants; I have therefore purchased a boat and engaged rowers, who have consented to follow me.

The country is certainly most interesting and beautiful, and if I am spared to return to Europe I hardly know how I shall like our cold, dull and rainy seasons, our pale sun and our stunted vegetation: I shall live in the memory of all that is most beautiful in Nature. How pleasant it is to awaken to see the brilliant sun, to hear the thousand sounds, the humming of insects and the noise of other beings: no repose here. Always and everywhere an extraordinary vitality.

I am more than surprised here at seeing little children of two and three years of age towing barks of large size on the deep, rapid river; they swim like fish, and are exceedingly intelligent and precocious; for a small piece of cigar or tobacco they will run after butterflies and render me a thousand little services; whilst my great idle domestics, on the contrary, sleep a great part of their time with a cigar behind each ear and a third in the mouth. My little companions are ready to help me everywhere.

I have found here a kind of spider which produces silk; she allows herself to be milked or drawn, one may say, for you have only to take a card and wind the silk, which comes from her abundantly: it is very strong and very elastic.

How happy people may be in this country! Nature is so lavish of her bounties; excellent vegetables are found upon the trees, and roots of the bamboo and others; in the woods exquisite fruits, and the rivers overflow with fish.

November 4, 1858.—To day I have caught about twenty butterflies, killed two owls, a cuckoo (quite black) and the most beautiful dove I have ever seen, with green wings and a yellow head,—a very great beauty.

Notice of the Various Species of Bovine Animals. By the Editor of the 'Indian Field.'

(Continued from p. 6367.)

THE second group of taurines is exemplified by the domestic cattle of Europe or ordinary humpless cattle. Their horns, as in the bisontines and also the humped taurines, are cylindrical; * whereas in all

^{*} There is a considerable tendency to a flattened form in the horns even of many humped cattle.