

XI.—*New Species of Chrysomelidæ, Halticinæ (Coleopt.), collected by Charles Darwin during the voyage of the 'Beagle,' 1832–1836.* By G. E. BRYANT, F.R.E.S., Imperial Institute of Entomology.

IN the course of re-arranging and incorporating accessions to the collection of Chrysomelidæ in the British Museum, now contained in about 700 drawers and represented by over 7,000 types out of approximately 24,000 described species, I have come across in the accessions many minute species collected by C. Darwin during the voyage of the 'Beagle,' 1832–1836. These came to the British Museum through G. R. Waterhouse, and by purchase at the sale of the Entomological Society of London's collection in 1858. In August, 1841, Darwin presented some of the insects to the Entomological Society and some to the Zoological Society of London. The more valuable portions of both these collections eventually reached the British Museum (see the 'Centenary History of the Entomological Society of London,' 1933, pp. 88–89). From G. R. Waterhouse, the Museum received 2,500 specimens, Registered No. 1885–119 and 1887–42. Ent. Soc. Sale Reg. No. 1858–60.

G. C. Champion, in his paper in the *Entom. Mo. Mag.*, 1918, p. 43, says in error that these came from C. O. Waterhouse. Judging from the number of minute specimens which Darwin collected, he evidently made good use of the sweeping net. During his few days at the Cape, he succeeded in obtaining two very interesting species, one of which has more recently been taken by W. Bevin (1906), and has remained undescribed. The majority in this paper were collected in South America, the Australian species having been previously dealt with by G. R. Waterhouse, and more recently by A. M. Lea.

I append a list of some of the papers dealing with some of Darwin's Coleoptera. The types of the new species are in the British Museum.

List of papers dealing with Coleoptera collected by Charles Darwin on the voyage of the 'Beagle,' 1832-1836.

- BABINGTON (C. C.).—"Description of the species of Dytiscidæ collected by C. Darwin in S. America and Australia during the voyage of H.M.S. 'Beagle'." *Trans. Ent. Soc. Lond.* iii. 1841, pp. 1-13.
- CHAMPION (G. C.).—"Notes on various species of the American genus *Astylus*, etc." *Ann. & Mag. Nat. Hist.* 9, vol. ii. 1918, pp. 337-367.
- CHAMPION (G. C.).—"Notes on various S. American Coleoptera collected by Charles Darwin during the voyage of the 'Beagle,' with descriptions of new genera and species." *Ent. Mo. Mag.* 3rd series, vol. iv. 1918, pp. 43-55.
- CHAMPION (G. C.).—"The Coleoptera of the Falkland Is." *Ann. & Mag. Nat. Hist.* vol. i. 1918, pp. 167-186.
- CHAMPION (G. C.).—"Studies in Phalacridæ.—II. Asiatic and Tropical American forms." *Ann. & Mag. Nat. Hist.* 9, vol. xvi. 1925, pp. 601-621.
- HOPE (F. W.).—"Descriptions of some species of Carabidæ collected by Charles Darwin, Esq., in his late voyage." *Trans. Ent. Soc. Lond.* ii. 1838, pp. 128-131.
- LEA (A. M.).—"On some Australian Coleoptera collected by Charles Darwin during the voyage of the 'Beagle'." *Trans. Ent. Soc. Lond.* 1926, pp. 279-288.
- WATERHOUSE (C. O.).—"On some new genera and species of Heteromorous Coleoptera (Helopidæ) from Tierra del Fuego." *Trans. Ent. Soc. Lond.* 1875, pt. iv. pp. 331-337.
- WATERHOUSE (C. O.).—"Galapagos, 1835, C. Darwin." *Proc. Zool. Soc. Lond.* 1877, p. 80.
- WATERHOUSE (F.).—"Falkland Islands." *Journ. Linn. Soc. Zool.* xiv. p. 531 (1878).
- WATERHOUSE (G. R.).—"Descriptions of some new species of exotic insects." *Trans. Ent. Soc. Lond.* ii. 1838, pp. 188-196.
- WATERHOUSE (G. R.).—"Galapagos and Charles Is." *Ann. & Mag. Nat. Hist.* vol. xxi. 1848, p. 39.

WATERHOUSE (G. R.).—"Descriptions of some of the insects brought to this country by Charles Darwin." Trans. Ent. Soc. Lond. ii. 1838, p. 131.

Species of Halticinæ collected by Charles Darwin in South America:—

Oxygona rufa Clk.—Rio, 2 specimens.

Lactica fromenti Duv.—Rio, 3 specimens.

Systema plagiata Clk.—Rio, 1 specimen.

Systema testaceovittata Clk.—Maldonado, Uruguay, 1 specimen. Rio,

Systema annulicornis Philipp.—Chile, 1 specimen.

Systema punctatissima Jac.—Uruguay, 1 specimen.

Procalus mutans Blanch.—Valparaiso, Chile, 1 specimen.

Disonycha bicarinata Boh.—Maldonado, Uruguay, 6 specimens.

Haltica janthina Blanch.—Chiloe Is., 1 specimen.

Haltica flavipes Philipp.—Chiloe Is., 4 specimens.

Diphaulaca ? volkameriæ F.—Rio, 1 specimen.

Haltica pallens Blanch.—Gay. Hist. Nat. Chil. v. p. 558. Chiloe Is., C. Darwin, 4 specimens. (Nos. 2369, 2370, 2371). Should be placed in genus *Crepidodera*.

Haltica picea Waterh.—Trans. Ent. Soc. Lond. 1838, p. 133, W. Australia. Placed by Gemminger in *Phyllotreta*; should go into genus *Epitrix*.

HALTICINÆ.

Epitrix darwini, sp. n.

Oblong-ovate, flavous, except the prothorax, which is metallic with a purplish tinge, and an irregular transverse fuscous band a little behind the middle of the elytra, the side margins of the elytra narrowly fuscous, prothorax strongly punctured, the elytra punctate-striate, pubescent.

Length 2 mm.

Head flavous, impunctate. Antennæ flavous, extending a little beyond the base of the prothorax, the first segment the longest and slightly club-shaped, about twice as long as the second, the second slightly more dilated than the

third, and about equal in length, the third to the eleventh all about equal, the apical segment acuminate. Prothorax metallic, with a purplish tinge, transverse, the sides slightly contracted in front, the anterior angles obtuse, a deep transverse impression in front of the basal margin, strongly and regularly punctured. Scutellum very small, subquadrate, impunctate. Elytra slightly broader at the base than the prothorax, rounded at the apex, flavous, a transverse irregular fuscous band behind the middle, the central portion of the band on each elytron expanding upwards, the side margins narrowly fuscous, strongly punctate-striate, pubescent. Legs entirely flavous. Underside with the ventral segments of the abdomen flavous, the first segment the longest, the second to the fourth short and about equal to each other, clothed with short golden pubescence.

URUGUAY: Maldonado (*C. Darwin*, No. 1310, 1885-119, 1 specimen).—Presented to the British Museum by G. R. Waterhouse; ARGENTINE: Villa Ana, 16. x.-7. xi. 1933 (*R. J. Hayward*), 4 specimens.

Allied to *E. tincticollis* Wse., n. n. for *E. æneicollis* Jac., from the Argentine, but differs in colour and pattern of the elytra.

Epitrix uruguayica, sp. n.

Ovate, convex, dark chestnut-brown with a metallic tinge, the colour varies to fuscous, antennæ and legs fulvous, the head impunctate, prothorax somewhat closely punctured, elytra punctate-striate.

Length 1.5 mm.

Head smooth, impunctate, the antennæ fulvous, extending slightly beyond the base of the elytra, the two basal segments more dilated, and the first nearly twice as long as the second, the five terminal segments slightly thickened. Prothorax deep chestnut-brown with metallic tinge, transverse, the sides parallel, with the anterior angles very obliquely truncate, somewhat strongly punctured, the basal transverse groove deeply impressed and sinuate in the middle. Scutellum impunctate, the apex rounded. Elytra deep chestnut-brown with metallic tinge, broader than the base of the prothorax, convex, the sides rounded behind the middle to the apex, trans-

versely depressed behind the shoulders, punctate-striate, the interspaces smooth, clothed with scattered golden pubescence. Legs and underside fulvous, impunctate, the first ventral segment of the abdomen longer than the following three segments together.

URUGUAY: Maldonado (*C. Darwin*), 7 specimens.

Allied to *E. nucea* Baly, from Brazil, but differs in having a depression at the base of the elytra, the prothorax more strongly punctured, and the elytra more parallel-sided and not so acutely rounded at the apex.

Crepidodera bahiensis, sp. n.

Ovate, entirely brownish yellow, head and prothorax impunctate, elytra punctate-striate.

Length 1.5 mm.

Head brownish-yellow, broad, impunctate, the eyes rather large, a well-defined longitudinal carina between the insertion of the antennæ, from the base of which an oblique impression extends on either side to the base of the eye. Antennæ brownish yellow, extending a short way beyond the base of the prothorax, the two basal segments more dilated, the first twice as long as the second, the second to the tenth all about equal, the eleventh slightly longer and acuminate. Prothorax brownish yellow, very transverse, impunctate, the sides almost straight, with the anterior angles strongly obtuse, a large and deep impression along the posterior margin, limited on either side by a small longitudinal depression. Scutellum small, triangular, impunctate. Elytra brownish yellow, slightly broader at the base than the prothorax, widest a little before the middle, narrowing very slightly towards the apex, and thence rounded, punctate-striate, the punctures large and round and close. Legs brownish yellow, all the tarsi with the first segment long and about equal to the second and third together. Underside brownish yellow.

BRAZIL: Bahia (*C. Darwin*, 1885-119), from G. R. Waterhouse.

Somewhat allied to *C. flavescens* Baly, from Brazil, but broader and not so tapering towards the apex, colour darker.

Crepidodera chilænsis, sp. n.

Elongate ovate, bronze, with the exception of the antennæ and legs which are flavous, the posterior femora fuscous, head nitid, almost impunctate, prothorax somewhat strongly punctured, and the elytra punctate-striate.

Length 1.75 mm.

Head bronze, nitid, a few small punctures near the inner margin of the eyes, feebly longitudinally carinate between the insertion of the antennæ. The antennæ flavous, extending almost to the middle of the elytra, the basal segment the longest, nearly twice as long as the second, the second to the eleventh all about equal. Prothorax bronze, somewhat strongly and closely punctured, transverse, the sides almost straight, feebly margined, the anterior angles strongly obtuse, a transverse impression along the basal margin not extending to the sides. Scutellum bronze, impunctate, the apex rounded. Elytra bronze, slightly broader than the base of the prothorax, the sides almost parallel and rounded at the apex, punctate-striate, the punctures on the striæ near the suture finer. Legs flavous, with the posterior femora fuscous. Underside dark metallic bronze.

CHILE: Chiloe Is. (*C. Darwin*, Nos. 2523 & 2368), Reg. No. 1885-119.

Allied to *C. ænescens* Boh., from Brazil, but colour and puncturation different, and not depressed near the base of the elytra.

Longitarsus chilænsis, sp. n.

Oblong, dark brown, head and prothorax slightly more reddish brown, the antennæ and legs fulvous, the head impunctate, the prothorax very finely punctured, the elytra strongly punctured.

Length 1.5 mm.

Head reddish brown, impunctate, the interantennal carina distinct. Antennæ fulvous, extending to the middle of the elytra, the first segment the longest, the remainder all about equal to each other. Prothorax reddish brown, slightly transverse, very finely punctured, the sides straight, all the angles oblique. Elytra dark brown, strongly punctured, the punctures not forming

striae, the sides feebly rounded, widest about the middle, gradually tapering and rounded at the apex. Legs fulvous, the posterior tibiæ with a spine at the apex, and the first segment of the tarsus half as long as the tibiæ. Underside slightly paler brown, the first ventral segment of the abdomen the longest, the second to the fourth short and about equal to each other.

CHILE : Chiloe Is. (*C. Darwin*), 3 specimens ; (*Fry Coll.*), 3 specimens ; (*Baly Coll.*), 1 specimen.

Allied to *L. amazonus* Baly, but the colour different, the elytra very much more strongly punctured, and the sides more rounded.

Up to the present, very few species of *Longitarsus* have been described from S. America, but there are a great number of very obscure species still undescribed in the British Museum.

Longitarsus darwini, sp. n.

Oblong, chestnut-brown, elytra with a slight metallic tinge, antennæ and legs fulvous, the posterior femora slightly darker, prothorax very finely punctured, the elytra with punctures confused and a little stronger.

Length 2 mm.

Head chestnut-brown, impunctate. Antennæ extending to the middle of the elytra, fulvous, the first segment slightly club-shaped and twice as long as the second, the remainder all about equal, the apical segment acuminate. Prothorax chestnut-brown, slightly transverse, very feebly punctured, the sides almost straight, with the anterior angles oblique. Scutellum very small, impunctate. Elytra chestnut-brown, with metallic tinge very finely and confusedly punctured, widest about the middle, then gradually rounded to the apex. Legs fulvous, with the posterior femora darker, the posterior tibiæ with a strong spine at the apex, the outer margin of the tibiæ finely toothed, the first segment of the posterior tarsi half as long as the tibiæ. Underside fulvous.

URUGUAY : Maldonado (*C. Darwin*), 2 specimens.

Allied to *L. chilensis* Bry., but larger, the puncturation very much finer, and the sides of the elytra less rounded.

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Aphthona bevinsi, sp. n.

Broadly ovate, convex, entirely flavous, nitid, with the six apical segments of the antennæ darker, head and prothorax impunctate, the elytra very finely punctured.

Length 2 mm.

Head impunctate, flavous, nitid, frontal elevations indistinct. Antennæ long and slender, extending almost to the apex of the elytra, flavous, with the six terminal segments slightly darker, the first segment long, slightly club-shaped, and equal to the following two together, the third slightly longer than the second, and the remaining segments each about equal to the third. Prothorax flavous, nitid, impunctate, transverse convex, the sides rounded, and the anterior angles oblique. Scutellum flavous, nitid, impunctate, triangular. Elytra flavous, nitid, very finely punctured, very broad, broader than the base of the prothorax, the sides rounded, broadest about the middle, and then gradually rounded to the apex. Legs flavous, the posterior tarsi with the metatarsus as long as the following segments together. Underside flavous.

S. AFRICA : Cape of Good Hope (*C. Darwin*, No. 3691), Reg. No. 1885-119, 1 specimen ; Table Mt. (*W. Bevins*), Reg. No. 1906-167, 5 specimens.

This and the following species I think best to place provisionally in the genus *Aphthona*, as the hind tarsus is not as in *Longitarsus*. It is somewhat allied to *Longitarsus apicipes* Jac., which is not a true *Longitarsus*. The African species of *Longitarsus* and *Aphthona* need a complete revision.

Aphthona capensis, sp. n.

Oblong, castaneous, head impunctate, prothorax very coarsely but not closely punctured, elytra strongly punctate-striate.

Length 2.5 mm.

Head castaneous, impunctate, two oblique impressions on the vertex meeting at the base of the antennæ in the form of a V. Antennæ castaneous, extending to the middle of the elytra, the first segment longer and more club-shaped than the second, the second and third about equal to each other, the fourth and fifth equal to each other, but each longer than the third, the sixth to the

apical all about equal, each a little shorter than the fifth, the apical segment acuminate. Prothorax castaneous, transverse, the sides rounded and slightly contracted in front, the punctures large, irregular, and not close together. Scutellum castaneous, impunctate, triangular. Elytra castaneous, three times as long as the prothorax, strongly punctate-striate, very little broader at the base than the prothorax, the sides nearly straight, slightly wider behind the middle, then tapering to the apex, Legs castaneous, the posterior tarsi with the first segment equal to the second and third together.

S. AFRICA : Cape of Good Hope (*C. Darwin*), 2 specimens.

I place this provisionally in the genus *Apthona*. It is a very distinct species, on account of its very coarse puncturation and its elongate tapering shape.

Syphrea bahiensis, sp. n.

Broadly ovate, very convex, head and prothorax rufous, the antennæ black, with the four basal segments rufous, the elytra blue-black, very finely punctured.

Length 3.5 mm.

Head fulvous, nitid, impunctate, longitudinally carinate between the base of the antennæ. Antennæ black, with the four basal segments fulvous, extending slightly beyond the base of the elytra, the first segment the longest, about equal to the two following, the four terminal segments slightly thickened and pubescent. Prothorax rufous, nearly twice as broad as long, the sides nearly straight, converging to the apex, the posterior angles acute, the anterior angles moderately produced; very convex, impunctate, a strong transverse sinuate groove across the base of the prothorax. Elytra dull blue-black, slightly broader than the base of the prothorax, very convex, parallel-sided, and rounded at the apex, very finely punctured. Legs black, posterior femora strongly incrassate. Underside with the prosternum rufous, the remainder deep blue-black.

BRAZIL : Rio de Janeiro and Bahia (*C. Darwin*), 2 specimens; (*Bowring Coll.*), 4 specimens.

Allied to *S. angustata* Jac., from Mexico, but much smaller, colour of elytra much darker and less metallic.