Family SCOLOPACIDÆ. Snipe, etc.

95. *Philohela minor* (Gm.) Gr. Probably not very common, an individual flushed by Mr. Deane, being the only specimen noted.

96. *Totanus flavipes* Gm. Noted a single bird of this species April 29th, in a wet meadow near the creek.

97. *Totanus solitarius* Wils. Quite numerous along the creek during our stay, but undoubtedly was on its way north.

98. *Tringoides macularius* (L.) Gr. Common along the creek.

Family ARDEIDÆ. Herons.

99. *Ardea cærulea* L. On the 30th of April I saw a fine adult bird of this species on the banks of the creek and identified it to my complete satisfaction, but owing to an unfortunate accident failed to obtain it.

100. *Ardea virescens* L. Not common; a few specimens only, observed.

XVI.—*Notes on the Sub-generic Character of Helix Jamaicensis, Chemn., and on certain Terrestrial Mollusks from Haiti; with Description of a New Species of Helix from Colorado.*

BY THOMAS BLAND.

Read March 8, 1875.

Helix Jamaicensis, Chemn. (*Thelidomus*).

THIS well known Jamaica species is given by v. Martens (Albers, 2nd. ed., 147) as the type of the subgenus *Liochila*, in which he also places *H. picta*, Born. and *H. sulphurosa*, Morelet, of Cuba.

W. G. Binney and myself have shown (Annals, X, 341, pl. xvi, figs. 1, 2, 1873) that *H. picta* has the same form of jaw and dentition as the Cuban *H. muscarum*, Lea (Amer. Jour. of Conch., VI, 204, pl. 9, figs. 4 and 16), which v.

Martens (l. c., 146) has as the type of *Polymita*. We assigned both *muscarum* and *picta* to *Polymita*, proposing that other species, the dentition of which we had examined, embraced in that subgenus by v. Martens, should form a distinct group under the name of *Hemitrochus*, Swainson.

We expressed the opinion that the curious lingual dentition of *H. picta* might be found in *H. sulphurosa*, but not in *H. Jamaicensis*, adding "the latter, which is the type of *Liochila*, will therefore remain undisturbed in its systematic position, unless indeed, it belongs to *Thelidomus*, in which case the name *Liochila* will be placed in the synonymy of the last named subgenus."

Through the kindness of Mr. V. P. Parkhurst, who lately visited Jamaica, I am enabled to solve the doubt as to the subgeneric position of *H. Jamaicensis*. He brought from that Island, and placed at my disposal, one living and two dead specimens (in alcohol) of the species in question. I am indebted to W. G. Binney for the following description of the jaw and dentition:—

H. Jamaicensis has a jaw high, slightly arcuate, ends attenuated; no median projection to cutting edge; anterior surface with 13 decided ribs, varying in size and irregularly disposed, but denticulating either margin.

Lingual membrane long and narrow; teeth about 41-1-41, of the usual *Helicinæ* type. Centrals with the base of attachment longer than wide, and lower lateral angles greatly developed; side cusps subobsolete, side cutting points absent, median cusp stout, reaching only half way to the lower edge of the base of attachment, beyond which projects slightly the cutting point, whose outer lower sides are somewhat bulging. Laterals same as centrals, but unsymmetrical as usual, and very gradually changing into the marginals. The latter are a simple modification of the laterals, with a very short, blunt, broad, bluntly bifid cutting point.

Comparing the forms of jaw and lingual teeth with those, especially of *H. aspera* (Amer. Jour. of Conch., VI, 204, 1870) and *H. discolor* (Proc. Phila. Acad. Nat. Sci., 51, pl. x, fig. 1, 1874), belonging to *Thelidomus*, there can be no doubt as to the correctness of placing *H. Jamaicensis* in that subgenus.

There is a variety of *H. Jamaicensis*, notice of which I have not seen mentioned. The aperture is remarkably produced laterally, the columellar margin is oblique, having a very broad callus, with denticles across its edge; in one of my specimens there are two, and in another three, denticles. In this respect the species shows an alliance with *H. aspera*.

This variety has moreover, usually, a small tooth on the parietal wall. Férussac's figure (Hist., t. 9 B, fig. 10) shows the form of aperture above mentioned.

The other form of the species, which is generally smaller, has a much less oblique columella, without the broad callus, and the aperture is more oval than lunate.

Helix obliterata, Fér. (*Eurycratera*).

In the description of this species (Fér. Hist., 342, N. 406, pl. 61, figs. 3–4) the habitat quoted is Porto Rico, on the authority of Maugé. In Chemn., ed. 2, and by Pfeiffer (Mon. Hel.), the same habitat is given.

The late Mr. R. J. Shuttleworth (Diag. n. Moll., 45), referring to the species, says, "ex affinitate maxima cum *H. angulata*, Fér. verisimiliter Portoricensis, sed nuperrime non inventa."

Shuttleworth, in his correspondence with me in 1854–5, expressed surprise that Blauner had not found *H. obliterata*, and some doubt as to its specific distinctness from *H. angulata*.

v. Martens (Die Heliceen, ed. 2d, 147) assigns, but I do not know on what authority, *H. angustata* to Haiti and Jamaica, *H. obliterata* to Haiti, and *H. angulata* to Porto Rico and Jamaica, but most certainly neither the first nor the last occurs in Jamaica.

Mr. V. P. Parkhurst lately spent a few days in Haiti, at Port au Prince and its immediate northern vicinity, where he found not only specimens (dead) of *H. bizonalis* (see *ante* p. 81), but one dead specimen of *H. obliterata*, which

he has kindly presented to me. The shell is destitute of epidermis, and white, without any trace of brown bands. Deshayes (in Fér. Hist., l. c.) mentions that the bands are on the epidermis only, on removal of which the shell is white.

The dimensions of my specimen are as follows: Diam. maj., 49; min. 35 mill.; Alt. 20 mill.

The surface of *H. obliterata* is described as covered with coarse granulations, of *H. angulata*, with numerous striæ, but the nuclear whorls of the latter and the striæ are finely granulated; this character, at least of the three upper whorls, is distinctly seen in young specimens.

I am disposed, from Mr. Parkhurst's discovery, to consider that Haiti may be the true habitat of *H. obliterata*, presenting another illustration of the remarkable connection of the land shell fauna of Haiti with that of Porto Rico (see ante p. 81–2). With respect to the doubt of Shuttleworth as to the specific difference of *obliterata* and *angulata*, I would remark that the latter may be fairly treated as a geographical variety of the former, as may *H. Luquillensis* of *H. Audebardi*.

Helicina intusplicata, Pfr.

SYNONYMY.

Helicina intusplicata, Pfr., Zool. Proc., p. 98, 1850.

Helicina intusplicata, Sow., Thes., III, N. 37, figs. 60–61, 1866.

Helicina intusplicata, Reeve, Conch. Icon. N. 25, pl. iv, fig. 25, 1873.

Helicina Smithiana, Pfr., Malak. Blat., p. 90, 1866.

I have no doubt of the identity of *H. Smithiana* and *intusplicata;* of the latter the habitat is not given by the authors who refer to it.

H. Smithiana was discovered by Mr. Smith (brother of my friend Mr. Sanderson Smith) on Mount Platon, about

thirty miles northeast from Aux Cayes, and I sent specimens to Dr. Pfeiffer, who described it in 1866.

Mr. V. P. Parkhurst, during his late visit to Haiti, collected a considerable number of specimens near Port au Prince.

The aperture of *H. intusplicata* is described as "parum obliqua, semiovali-subtriangularis, altior quam lata, ad columellam angulata et plica intus fere ad marginem decurrente munita," of *H. Smithiana* as "obliqua, late semiovalis, juxta columellam plica approximata, parallela canaliculata."

Specimens received from Messrs. Smith and Parkhurst agree with each other, slightly varying in size only, and with the figures of Sowerby and Reeve.

Helicina Cumingiana, Pfr.

SYNONYMY.

Helicina Cumingiana, Pfr., Proc. Zool. Soc., p. 121, 1848.

Helicina Cumingiana, Chemn., ed. II, No. 35, taf. 6, figs. 13–14.

Helicina Cumingiana, Pfr., Mon. Pneu., I, 359, 1852.

Helicina Cumingii, Sow., Thes., III, N. 165, figs. 282–3, 1866.

Helicina Cumingii, Reeve, Conch. Icon., N. 62, pl. viii, 1873.

I am indebted to Mr. Parkhurst for one dead specimen, found near Port au Prince, Haiti.

Pfeiffer was ignorant of the habitat, but by Sowerby and Reeve this species is assigned to St. Domingo under the name of *Cumingii*, the latter erroneously referring to the Zool. Proc. of 1845.

The species is readily identified by its well developed striæ, subangular periphery, etc.

Among other species, also collected by Mr. Parkhurst near Port au Prince and in its vicinity, were *Cyclotus flocco-*

sus, Shuttl., *Cyclostomus Aminensis*, Pfr., *Chondropoma serraticosta*, Wein., *Helicina rugosa*, Pfr., and *Paivana*, Pfr., *Helix pubescens?* Pfr., *crispata* and *indistincta*, Fér., *cepa*, Mull., *Cylindrella gracilicollis*, Fér., and *Macroceramus Klatteanus*, Bland.

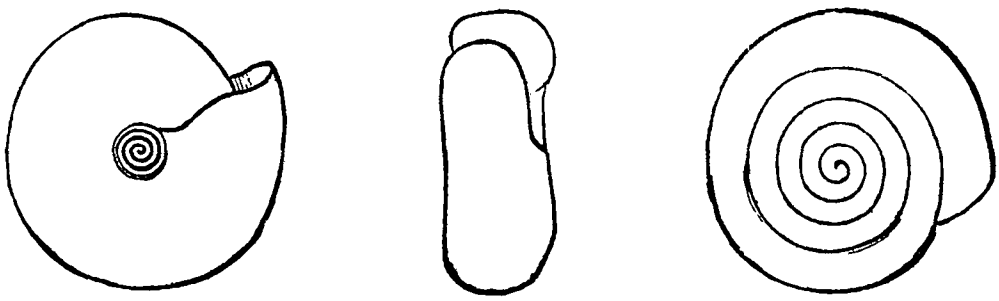
Species not yet determined, among them an *Oleacina*, believed to be new, will be described on another occasion.

Helix Ingersollii, nov. sp. (*Microphysa*).

T. umbilicata, discoidea, tenuis, translucida, sublevis, alba; spira plana, vertice, subimmersa; sutura impressa; anfr. 5½ convexiusculi, lente accrescentes, ultimus non descendens, infra peripheriam convexior; umbilicus fere 1 mill. latus; apertura subverticalis, altior quam lata, lunaris; perist. simplex, acutum, marginibus remotis, columellari brevissime patente, basali subsinuato.

Shell umbilicated, discoidal, thin, translucid, nearly smooth, white; spire flat, summit subimmersed; suture impressed; whorls 5½ rather convex, slowly increasing, the last not descending, more convex below the periphery; breadth of umbilicus nearly 1 mill.; aperture subvertical, higher than broad, lunate; perist. simple, acute, margins remote, columellar margin slightly reflexed, basal margin subsinuate.

Diam. maj. 4; min. 3⅔; alt. 2½ mill.



Station and Habitat. Howardsville, Baker's Park, 9300 ft. above the sea, abundant in wet places on the mountains; not uncommon at Cunningham Gulch, near the former locality, clinging to the almost vertical face of a trachyte cliff, at an elevation of about 11,000 feet; the finest specimens came from this spot; found also on the southern slope of the Saguache Mountains, in the Las Animas and La Plata valleys, in the same stations as affected by *Succinea*.

All the localities mentioned are in the southwestern corner of Colorado (Ingersoll!).

Remarks. This species was discovered by Mr. Ernest Ingersoll, Naturalist of the United States Geological Survey of the Territories, under Professor Hayden. It can scarcely be compared with any known North American species.

The magnified figures herewith given, from drawings made by my friend Mr. A. Ten Eyck Lansing, faithfully represent the shell.

At first sight I was disposed to consider the species a *Zonites*, but examination of the animal by Mr. W. G. Binney proved it to belong to the *Helicinæ;* I am indebted to him for the following particulars:—

Jaw low, wide, slightly arcuate, ends slightly attenuated; whole anterior surface with about 22, broad, flat, slightly separated ribs, whose ends denticulate either margin. This form of jaw is unusual among the *Helicinæ*. It is of same type as in *H. Lansingi* (Ann. Lyc. N. H. of N. Y. XI, 74, fig. 2.)

Lingual membrane long and narrow. Teeth about 16-1-16. Centrals as usual in the *Helicinæ:* the side cusps and cutting points are well developed, the base of attachment longer than wide. Laterals of same type, but unsymmetrical and consequently only bicuspid. The change from laterals to marginals is very gradual, there being no splitting of the inner cutting point. Marginals low, wide, with one inner, long, blunt cutting point, and one outer small blunt cutting point.

Geostilbia Gundlachi, Pfeiffer.

Through the kindness of Dr. H. E. van Rygersma, I have lately received specimens of this species, with the animal (in alcohol), collected by him in the Island of St. Martin. The species was described as *Achatina Gundlachi* by Pfeiffer in 1850.

In 1867, M. Crosse established the genus *Geostilbia* (Jour. de Conch., p. 184), for a species from New Caledonia, and referred *Achatina Gundlachi* to the same genus in 1874 (l. c. p. 88).

Dr. van Rygersma informs me that he had an opportunity of examining the animal and could discover no eyes. He says it has "four tentacles, of which the lower ones are very small, scarcely perceptible, the upper thick, cone elongated, without any black spot, indicating eyes. The animal citron yellow in color; the foot long and narrow."

v. Martens (Die Heliceen, ed. 2) has *A. Gundlachi*, Pfr. in *Acicula*, subgenus of *Cionella;* he mentions that *Acicula* is without eyes, but gives no other particulars of the animal.

Arango (Repertorio, I, 128) assigns the species under consideration to the genus *Coecilianella*, Bourguignat. While for the purposes of the present note, I have adopted *Geostilbia*, I have much doubt as the necessity for its establishment.

Mr. W. G. Binney, to whom I sent the specimens received from St. Martins, has obliged me with the following particulars:

Jaw low, wide, slightly arcuate, ends attenuated; whole surface covered with about 22 crowded, broad, flat ribs, denticulating either margin.

Lingual membrane long and narrow. Teeth 18–1–18, with 4 perfect laterals. Centrals with their base of attachment long, narrow, their reflected portion about one-half the length of the base of attachment, tricuspid; the middle cusp stout, with a short blunt cutting point, side cusps subobsolete, but with small, distinct cutting points. Lateral teeth with their base of attachment subquadrate, much longer, and very much broader than that of the centrals, the reflected portion short, stout, tricuspid, the middle cusp very stout and long, reaching the lower edge of the base of attachment, beyond which projects the short, stout cutting point; side cusps subobsolete, but bearing distinct, though small cutting points. There are four perfect laterals, the fifth tooth being a transition to the marginals, by the base of attachment being lower, wider, not exceeding the reflected portion, with one inner large cusp bearing one outer large cutting point representing the outer cutting point of the first four lateral teeth and one inner, still larger, cutting point, representing the middle cutting point of the first four laterals, and one smaller, outer cusp bearing one small, sharp, bifid, cutting point, representing the outer side cutting point of the first four laterals. The sixth tooth has the largest cutting point bifid. The balance of the teeth are true marginals. They are very low, wide, with two low, wide cusps, bearing each several irregular, blunt cutting points.

The dentition of this species is, as would be anticipated, of the same type as the allied *Cœcilianella acicula* as figured by Lehmann (Lebenden Schnecken Stettins, p. 128, pl. xiii, fig. 43, and Sordelli, l. c., fig. 26). The jaw, however, has no appearance of the "brace" like ribs described in that species by Sordelli (Atti Soc. Ital. Sc. Nat., xiii, 1870, 49, pl: i, fig. 25). The ribs are quite like those figured of *Helix Lansingi* (Ann. Lyc. Nat. Hist. N. Y., XI, p. 75, fig. 2 A) although they are narrower.

For a figure of a similar type of dentition, see that of *Stenogyra hasta*, Pfr., in Proc. Ac. Nat. Sc. Phila., 1875, pl. xx, fig. 3.

G. Gundlachi is widely distributed; it occurs in Cuba, Jamaica, Haiti, St. Thomas, St. Martin and Barbados. A closely allied, if not identical, species, has recently been collected by M. Marie in Guadeloupe.