Hoplistocerus eximius.

H. glaber, capite prothoraceque nitide viridi-aureis; elytris læte viridibus, haud nitidis, sutura violacea; abdomine femoribusque, anticis exceptis, nitide luteis. Long. 4 lin.

Hab. Bahia.

Smooth and glossy, except the elytra; head and prothorax rich greenish gold, the latter and the vertex transversely striate; antennæ and legs, except the posterior and intermediate femora, glossy violet-black; scutellum transverse, green; elytra pure dark green, uniformly punctured, the suture violet; sterna golden green; abdomen and femora, except the anterior, glossy reddish yellow.

In coloration very distinct, according to descriptions, from *H. gloriosus*, Bates, and *H. refulgens*, Blanch.

Hydraschema virgatum.

H. elongatum, sublineare, fuscum, pube albida, in vittis condensata, vestitum; antennarum articulo quarto cæteris longiore, primo excepto, sequentibus gradatim brevioribus. Long. $6\frac{1}{2}$ lin.

Hab. Brazil.

Sublinear, elongate, dark brown, covered with a whitish pile, which is condensed on the centre and sides of the prothorax into very determinate stripes; on the elytra, along the suture the pile forms an evident stripe, spreading out towards the apex, and sending off a branch which passes obliquely to the shoulders, each elytron tapering away to a sharp point; hind legs scarcely extending to the last abdominal segment; antennæ nearly black.

Hydraschema fabulosum, as M. Thomson has described it, differs, *inter alia*, in having all the joints of the antennæ, the second excepted, of equal length, and in having certain yellow spots, &c.

XLI.—*Notes on some British Land and Freshwater Shells.*

By J. Gwyn Jeffreys, LL.D., F.R.S.

My attention has of late been almost exclusively directed to marine conchology; but a correspondence which I have now had with Dr. Baudon of Mouy and Dr. Westerlund of Ronneby induces me to offer a few observations on two or three species of British land and freshwater shells.

Dr. Baudon has most kindly sent me specimens of most o'

the French species and varieties of *Succinea* which he so admirably described and figured in the 'Journal de Conchyliologie' for last year. It is a most laborious and exhaustive monograph. This experienced author is a true man of science; and I feel sure that he will not object to the critical remarks which I venture to make from a point of view different from his. I am aware and glad that he does not follow the example of certain of his countrymen in fabricating what they call "new" species out of every trivial variety and local form. No individual specimen can be precisely like another; and considerable allowance ought to be made for a difference of conditions. The result of my investigations during a period of at least half a century has been rather to reduce than increase the number of species represented by abundant or widely distributed forms. Now this is remarkably the case with some land and freshwater Mollusca, including *Succinea* and *Lymnæa*, which are so prolific and inhabit watery places with easy and various means of migration or transport.

Having carefully examined Dr. Baudon's specimens of reputed species of French *Succineæ*, and compared them with specimens in my own collection of British shells, I would assign those species as follows :—

S. parvula, L. Pascal, = *S. elegans*, Risso; var. *ochracea*, Betta.

S. Baudoni, H. Drouët, = *S. putris*, Linné; dwarf form.

S. acrambleia, J. Mabille, = *S. putris*; var. *solidula*, Jeffreys.

S. Pfeifferi, Rossmässler, = *S. elegans*; var.

S. arenaria, Bouchard, = *S. oblonga*, Draparnaud; var.

S. humilis, H. Drouët, = *S. oblonga*; var. (ex exemplis mihi ab auctore missis).

S. Crosseana (*Crossiana*), Baudon, = *S. oblonga*; var.

S. breviuscula, Baudon, = *S. oblonga*; var.

With respect, however, to *S. virescens* of Morelet, which Baudon has apparently described under Morelet's name of *S. debilis*, I believe it is distinct from any of the three species which I have acknowledged as British, viz. *putris*, *elegans*, and *oblonga*. It should therefore be added to our native fauna. This is my variety *vitrea* of *S. putris*, 'British Conchology,' vol. i. p. 152. I lately found a specimen at St. Alban's, with *S. putris*; but unfortunately I had no time to examine the animal, further than by noticing that it seemed to be of a darker hue than that of *S. putris* or *S. elegans*. Mr. Henry Groves has obligingly sent me a specimen of the shell, which he had collected at Mitcham in Surrey. The other localities which I have recorded are Carmarthenshire and Grassmere

(*J. G. J.*), and Cork (*Humphreys*). The shell is extremely thin and finely striated lengthwise; the spire is very small, the last whorl disproportionately large, and the mouth more open and expanded than in any other European species. I regard it as the *S. virescens* of Morelet (Moll. Port. p. 53, pl. v. f. 3, 1845), and not as his *S. debilis* (Pfeiffer, Mon. Helic. Viv. p. 811, 1859), which Baudon names it. The last-named author says (Journ. Conch. 3e sér. t. xvii. p. 181) as to *S. debilis*, Morelet, "Synonymie: 1845. Morelet, Moll. de Portugal, n. 63, p. 52, pl. v. f. 2." But in Morelet's work, now before me, no such species as *debilis* is described, figured, or mentioned. In Pfeiffer's monograph *S. debilis*, Morelet, is fully described, and numbered "63," from Cuming's collection, with the habitat "Algeria." There consequently appears to have been a slight mistake in Baudon's reference to Morelet. I have now examined the types of *S. debilis*, Morelet (two specimens), in the British Museum; and I believe that so-called species is one of the numerous varieties of *S. elegans* (or *Pfeifferi*), viz. *brevispirata*, Baudon, and not the same species as *S. virescens*, Morelet, nor my variety *vitrea* of *S. putris*. Baudon's description of the animal of his *S. debilis* differs from Morelet's description of the animal of *S. virescens* chiefly in colour, the former being "gris jaunâtre," and the latter "brun roussâtre"; although I do not attach much importance to that character. Not merely does the intensity of colour vary in many specimens of the same species of land shell, but also the arrangement of the colours. This is very noticeable in *Helix rufescens*, out of which a dozen species might be made if colour were a specific character; and a similar difference is observable in the shell. *S. putris*, *S. elegans*, and *S. oblonga* may readily be known by their "animals" or soft parts, as well as by their shells. It is quite impossible thus to distinguish *S. elegans* from *S. Pfeifferi*, or the *S. gracilis* of Alder, all of which are connected by intermediate gradations.

Helix hispida, L.
Helix concinna, Jeffr.

As one of the distinctive characters of these two species is the shape of the umbilicus in the shell, I cannot help remarking that Dr. Westerlund, in his excellent work, 'Fauna Europæa Molluscorum Extramarinorum Prodromus,' fasc. i. p. 49 (1876), describes *H. hispida* as "sat late umbilicata," var. *nana*, Jeffr., as "umbilico latiore," var. *depilata*, C. Pfeiffer, as "apertius umbilicata," and var. *concinna*, Jeffr., as "late umbilicata." I have, on the contrary, described *H.*

hispida as having the umbilicus "small and narrow, but deep;" as to my variety *nana*, I said nothing about the umbilicus, which is the same as in the typical form; C. Pfeiffer describes the umbilicus in his *H. depilata* as "eng und tief;" and I described the umbilicus in my *H. concinna* as "rather broad, open, and deep." I add no further comment.

Helix virgata, Da Costa (1778).

Westerlund calls this species *H. variabilis*, Draparnaud (1801), and cites as a synonym *H. virgata*, Montagu (1803). But Da Costa's work was twenty-three years older than that of Draparnaud. See Brit. Conch. i. pp. 210, 213.

Vertigo Moulinsiana, Dupuy.

After I had published this species as British (Brit. Conch. i. p. 255) Westerlund described an allied species as *V. modesta*, and since as *V.* (*Pupa*) *Lilljeborgi*; and he considered my species to be the same as his, and not Dupuy's species. We have now exchanged specimens; and I am satisfied that he is right. My Irish species must therefore take his name of *Lilljeborgi*. But the species which I noticed in the Supplement to my work (v. p. 160), and in the 'Annals' for May 1877, p. 432, as *V. Moulinsiana* (in consequence of Mr. Groves's communication), is certainly Dupuy's species, and is another addition to our list. A second British locality for this species in a living state has been likewise discovered by Mr. Groves, in the neighbourhood of Hitchin; and he has most courteously shown me the spot and assisted me in collecting specimens. I subjoin a description of the animal.

Body smooth, shining: *colour*, above dark grey, with darker streaks arranged lengthwise; below of a much paler hue, and interspersed with numerous, irregular, microscopic black specks: *mantle* thickish, greyish-white, protruded like a short collar: *snout* hood-shaped, closely wrinkled across, in front gently rounded, or very slightly indented on each side so as to make that part trilobular: *mouth* small, triangular, placed underneath the snout in the middle: *tentacles* club-shaped, folding inwards, diverging at a right angle, having a faint tint of purple; there is not the least trace of a lower pair of tentacles: *eyes* roundish-oval, seated on the bulbs or points of the tentacles towards the front: *foot* thick, greyish-white, three or four times as long as broad, squarish or nearly truncated in front, and gradually narrowing behind to a blunt point; it is nearly the length of the shell; its texture appears

to be parenchymatous; sole very flexible, especially at the edges: *pulmonary orifice* small.

On grasses in wet places, high up the stalk.

The shell of *V. Moulinsiana* is rather more swollen or barrel-shaped than that of *V. Lilljeborgi*; and the labial rib is much stouter; it agrees exactly with French and Danish specimens which I received from Dr. Baudon and the late Dr. Mörch as *V. Moulinsiana*, and with Swedish and Carinthian specimens sent me by Herr Poulsen and Dr. Westerlund as the *Pupa lævigata* of Kokeil. For other synonyms see 'Annals' above cited; and for other localities see Brit. Conch. i. p. 256, and v. p. 160.

Vertigo tumida, Westerlund (*Pupa*).

I am also indebted to Dr. Westerlund for this species, of which I find a specimen in my collection named *V. pusilla*, var. I am not sure that it is more than a dwarf variety or form of *V. pusilla*. The two specimens sent by Dr. Westerlund differ from each other in the number of teeth, one specimen having five and the other seven teeth. He describes *V. tumida* as "6-dentata," and *V. pusilla* as "6–8-dentata."

Vertigo angustior, Jeffr.

Miss Amy Warren has kindly sent me some living specimens, which she found among moss and *Jungermannia* at Ballina, Co. Mayo. I am thus enabled to confirm the description of the animal given in Brit. Conch. i. pp. 265, 266. The eyes are oval; and there is no rudiment of a lower pair of tentacles. The same lady had previously found this exquisite little shell at Bundoran, Co. Donegal.

Clausilia rugosa, Draparnaud.

So many continental conchologists have given me the credit of naming this common and widely spread species *C. nigricans*, that I should be glad to say a few words in explanation. In my "Synopsis of the Testaceous Pulmonobranchous Mollusca of Great Britain," which was read at a meeting of the Linnean Society of London in 1828, and published in their Transactions, I described (p. 351) *C. nigricans*, quoting *C. rugosa* of Draparnaud, *Helix perversa* of Müller, *Turbo perversus* of Pennant and Donovan, *T. bidens* of Montagu, and *T. nigricans* of Pulteney (2nd edition) and of Maton and Rackett. I then assumed that, because the *Helix perversa* of Müller and the *Turbo perversus* of Pennant and Donovan

were the same as Linné's species (*T. perversus*), and belonged also to the genus *Clausilia*, and because the *T. bidens* of Montagu was not the Linnean species of the same name, Pulteney's name of *nigricans* should be adopted as being older than that of Draparnaud. But at that time I had no opportunity of consulting the original edition of Pulteney, which appeared in 1799; and I concluded that the second edition (1813) recapitulated the specific names given in the original edition. I subsequently found out my mistake. The present species is the *Turbo perversus* of Pulteney, 1799; and that name is prior to *rugosa*. *T. perversus*, Linné, is the type of the genus *Balia*. The specific name *nigricans* was first published by Maton and Rackett in 1804; Draparnaud's name *rugosa* dates from 1801. See Brit. Conch. i. pp. 278 and 280.

Valvata piscinalis, Müller.

Mr. Groves has generously presented me with a reversed or sinistrorsal specimen from Sunbury. This kind of monstrosity occurs in probably every species of turbinated or spiral univalves, as well as in some bivalves.

XLII.—"*On the* Willemoesia *Group of Crustacea.*"

By the Rev. A. M. Norman.

Mr. Spence Bate has a paper on a very interesting series of new Crustacea, from the 'Challenger' expedition, in this month's 'Annals.' I do not see my way at present, however, to acquiescing in his conclusions, and therefore venture to ask him to give us some further information.

1. Are his genera *Pentacheles* and *Willemoesia* any thing more than the *other sex* of *Polycheles*? Has not my friend *mistaken sexual for generic characters*? Has he male and female of any *Polycheles* or any *Pentacheles*? and if so, will he let us know how these sexes are distinguished? Judging from his descriptions, I should say that *Polycheles Helleri* and *Pentacheles euthrix* are the two sexes of the same species. Can he prove that they are not?

Two Crustacea dredged by the 'Porcupine' expedition of 1870 off the Spanish coast are before me. I consider them male and female of *Polycheles typhlops*, Heller; but the one is, according to Bate, a member of another genus (*Pentacheles*) differing from *Polycheles* in having the last pereipods chelate, a deeper notch on each side of the front of the carapace, and