

## NOTES ON THE BRITISH CHITONS.

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Read November 10th, 1893.

## PLATE III.

THIS group has always afforded much difficulty to the student on account of the external similarity of species which when disarticulated are found to belong to different genera. I have therefore brought together figures of the head, tail, and median valves of all the British species so as to show the diverse characters of the insertion plates. These figures are drawn from actual specimens, except in the case of *Hanleya Hanleyi*, Bean. The classification is, in general, that of Pilsbry,<sup>1</sup> and may appear rather startling to those who are in the habit of using the old genus *Chiton* for every mollusc with eight valves. This old genus, however, like *Turbo* and others, must be split up in the light of our advancing knowledge. How strongly habits cling may be seen from a very recent paper by an English writer, who—speaking of other genera—states: “Such fundamental changes are the despair of naturalists, and if followed would necessitate every collection in the kingdom being periodically pulled to pieces and reorganised.” This gentleman’s view appears to be that conchology was created for the benefit of his collection and not that his collection should be a means of advancing our knowledge of the mollusca.

*Lepidopleurus cancellatus*, Sow., 1839. Pl. III. Fig. 3.

Mr. Pilsbry suggests<sup>2</sup> that it may be identical with *Chiton Islandicus*, Gmelin.<sup>3</sup> I cannot accept this identification; Gmelin’s description is very vague, and does not point more to this species than to any other of the group.

*Lepidopleurus scabridus*, Jeffreys, 1880. Pl. III. Figs. 4 and 7. This recently described species appears to have been overlooked by Pilsbry; it has not, so far as I know, been figured before.

*Lepidopleurus onyx*, Spengler, 1797. Pl. III. Fig. 2. I believe this to be the correct name of the species generally known as *Chiton asellus*, Spengler; it was considered by Jeffreys and others to be *C. cinereus*, L. I prefer, however, to follow Hanley,<sup>4</sup> and use the name of *C. cinereus*, L., for the species commonly called in England *C. marginatus*, Jeffreys, *et auct.* Mörch<sup>5</sup> has pointed out that *C. onyx* was “a worn *asellus*.” What he overlooked, however, was that

<sup>1</sup> Tryon’s “Manual of Conchology,” ser. i. vol. xiv. (1892–93).

<sup>2</sup> *Ibid.* p. 4.

<sup>3</sup> Syst. Nat. vi. p. 3206.

<sup>4</sup> Ipsa Linnæi Conchyliæ, p. 17.

<sup>5</sup> Mal. Blätt, xvii. p. 113.



*C. onyx* was described four pages earlier in the same paper<sup>1</sup> as *C. asellus*. There is, it is true, a description of *C. asellus* in Martini and Chemnitz, vol. viii. (1785), but these authors were not at this date binomial, and therefore the name must stand or fall by Spengler's description, which is subsequent to that of *onyx*. Jeffreys suggested that *C. onyx* was the same as *C. Rissoi*, Payr., but the one was described from Norway while the other is a Mediterranean species. He recorded *C. Rissoi* from the west of Scotland, and this I think must have been an error. I have had specimens sent me under this name from the Channel Islands, but they only proved to be *C. onyx* (= *asellus*).

*Hanleya Hanleyi*, Bean, 1844. Pl. III. Fig. 1. Gray in 1857 altered the name to *Chiton debilis*, on the ground, I presume, of a British Association rule which then existed, but which has now been abandoned.

*Tonicella marmorea*, Fabr., 1780. Pl. III. Fig. 9. Pilsbry, in his synonymy of this species, gives "*punctatus*, Strom. (*fide* Jeffreys), Acta Nidr. iii. p. 433." After much difficulty I found that Acta Nidr. (= Acta Nidrosia) is a misleading abbreviation, apparently invented by Agassiz in his 'Bibliographia Zoologiae' for "Det Tronchiemske Selskabs Skrifter." The reference should also be to p. 434, not p. 433. On turning to the work we find that it is only *punctatus*, Linn., and since that is stated by Hanley to be undeterminable it need not trouble us.

*Tonicella ruber*, Linn., 1767. Pl. III. Fig. 12. I am unable to follow Mr. Pilsbry in placing this species in *Trachydermon*. The striae radiating from the notches in the insertion plates become in this and the last species rows of punctures. This feature appears in all the species of *Tonicella* which I have been able to examine, while I cannot find it in any *Trachydermon*. Prof. Sars created a section, *Boreochiton* (1878), to contain *B. ruber* and *B. marmoreus*. It might be convenient to use this term as a section of *Tonicella* for *T. ruber*, which, though it is nearer to the latter than to *Trachydermon*, shows some of the characters of both.<sup>2</sup>

*Callochiton lavis*, Montagu, 1803. Pl. III. Fig. 8.

*Trachydermon cinereus*, Linn., 1767. Pl. III. Fig. 11. See notes under *Lepidopleurus onyx*.

*Trachydermon albus*, Linn., 1767. Pl. III. Fig. 10.

*Acanthochites fascicularis*, Linn., 1767. Pl. III. Fig. 5.

*Acanthochites discrepans*, Brown, 1845. Pl. III. Fig. 6. Despite Brown's deceptive figure and incorrect locality I think he intended this species as we know it.

<sup>1</sup> Skriv. Nat. Selsk. iv. (see pp. 95, 99).

<sup>2</sup> Since this paper was written and read Pilsbry has published another part of the Manual (vol. xv. pt. 1), and in this he raises *Trachydermon* from a sub-genus to a genus, and *Boreochiton* from a synonym to a section of *Trachydermon*. He also eliminates *marmoreus* from *Boreochiton* and places it in *Tonicella*; placing in *Boreochiton* only *ruber*, *punicus*, and *Steinenii*.





Sykes, E. R. 1894. "NOTES ON THE BRITISH CHITONS." *Proceedings of the Malacological Society of London* 1, 35–37.

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