

THE IDENTITY OF THE SPECIES COMMONLY KNOWN AS  
*HOLOTHURIA MONACARIA* LESSON, 1830. Z.N.(S.) 1793

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Following from an earlier proposal (Clark & Rowe, Z.N.(S.) 1782) dealing with the nomenclature of some holothurians of Jaeger (1833) and Brandt (1835), the problem of the nomenclature of the species commonly known as *Holothuria monacaria* Lesson, 1830, remains outstanding, for which three proposals have been put forward in recent years.

2. Cherbonnier (1951) after studying the remaining type-material of Lesson in the Paris Museum, agreed with Deichmann (1938) that *H. monacaria* in its present sense, i.e. sensu Théel, 1886, is not conspecific with the species represented by Lesson (1830 : 225, pl. 78). Although he could find no holotype of *H. monacaria*, Cherbonnier did discover that four out of the five surviving specimens collected by Lesson at Borabora (the joint type-locality with Tahiti, both being in the Society Islands) agreed with Lesson's description and figure of *monacaria*. However, these specimens are in fact referable to *Actinopyga mauritiana* (Quoy and Gaimard), 1833 and not to *H. monacaria* sensu Théel. Cherbonnier concluded that there is a strong probability that *H. monacaria* Lesson is conspecific with *A. mauritiana* (Quoy and Gaimard). Later in the same revision (1952) he redescribed the extant holotype of *Holothuria hilla* Lesson, 1830 (p. 226, pl. 79), showing that the species described and figured as *monacaria* by Théel following Semper (1868) should rather have been named *hilla*, which name Théel only referred to his list of insufficiently-known species. Accordingly Cherbonnier revived the name *H. hilla*.

3. As he noted, Deichmann (1938) had already pointed out the current misuse of the name *monacaria*. However, she had not been able to decide on the true identity of Lesson's species and concluded that "possibly it is a well-known form and the name *monacaria* may be placed among the synonyms". As she was apparently unaware that Lesson's type-material might still exist but did have access to Selenka's type-specimen of *Stichopus gyriifer* (1867), which she considered to be conspecific with *monacaria* in Théel's sense, Deichmann proposed to adopt the name *gyriifer* in preference to *monacaria* on the grounds of the uncertain identity of the latter. However, Cherbonnier (1951) was not convinced that *gyriifer* is necessarily conspecific with *hilla*.

4. Panning (1951) discovering the existence of the type-material of *Holothuria umbrina* Rüppell and Leuckardt, 1828, in the Senckenberg Museum, gave a detailed description with figures of some spicules. He concluded that *H. umbrina* and *H. monacaria* (at least in Théel's sense, which he assumed was also Lesson's) are conspecific and that although the name *umbrina* antedates *monacaria*, the more familiar latter name should be retained. Panning does not appear to have seen Deichmann's paper of 1938 or Cherbonnier's work concurrent with his own. Since Théel's Challenger report (1886) *H. umbrina* has been left aside as an insufficiently-known species.

5. After a comparison of the spicules figured by Panning for *umbrina* with material in the British Museum collections, notably a Semper slide of *Holothuria difficilis* Semper possibly from type-material, together with the description of *umbrina*, particularly with regard to its numerous ventral pedicels, we are convinced that Panning was mistaken in this. The spicules that he illustrates and the extensive distribution of the ventral pedicels beyond the radii, the restriction of which is so characteristic of *H. monacaria* sensu Théel, suggest strongly that *umbrina* is conspecific with *H. difficilis* instead. Dr. Panning now thinks that he may have been mistaken; his work at the time was complicated by post-war difficulties of access to material for comparison.

6. After raising this problem with Dr. Deichmann, we received the following support for our opinion from her. "Panning refers Ruppell's species from the Red Sea to *Holothuria monacaria* Lesson, 1830. This is of course possible but Ruppell's figure indicates something similar to *difficilis* Semper, while his material, examined by Panning (two types 3.3 and 4.4 cm. long, completely bleached, and a third specimen 13.5 cm. long from Naples) suggests *sanctori* Delle Chiaje, a species which he had not personally examined, in 1934. The spicules of all three specimens are quite similar; he unfortunately does not indicate whether the figures are all from one individual or from all three of them and there are not very great differences between those found in *difficilis* and *sanctori*. The conclusions one may draw are that the Naples specimen is a true *sanctori* and the bleached types represent *difficilis*."

7. The oldest available name for the species which is the subject of this paper therefore appears to be *Holothuria hilla* Lesson, 1830.

We therefore consider that:

- (a) *Holothuria umbrina* Ruppell and Leuckardt, 1828 should be suppressed since it threatens *H. difficilis* Semper, 1868;
- (b) *H. monacaria* Lesson, 1830 should be suppressed since it threatens *Actinopyga mauritiana* (Quoy and Gaimard), 1833;
- (c) *H. monacaria* Théel, 1886, is not conspecific with *monacaria* Lesson, 1830, but with *H. hilla* Lesson by which it should be replaced as the oldest available name.
- (d) *H. gyrifer* (Selenka), 1867, is closely related to, if not conspecific with, *H. hilla*.

8. For the last hundred years the name *Holothuria monacaria* has been in general use by taxonomists of holothurians, including most notably Semper, Lampert, Théel, Sluiter, Fisher, Koehler and Vaney, H. L. Clark, Panning and Heding, as well as Cherbonnier himself in papers earlier than his revision of Lesson's types. Regrettable though it may be to abandon this well-known name for a common Indo-Pacific holothurian, since the three leading specialists of recent years have put forward independent and differing solutions for the naming of the species, it unfortunately seems best to follow the rule of priority to some extent and to adopt the name *Holothuria hilla* Lesson.

9. Accordingly, we request the International Commission on Zoological Nomenclature:

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9. Accordingly, we request the International Commission on Zoological Nomenclature:

- (1) to use its plenary powers to suppress for the Law of Priority but not for the Law of Homonymy the following name:

- (a) *umbrina* Rüppell and Leuckardt, 1828, as published in the binomen *Holothuria umbrina*;
- (b) *monacaria* Lesson, 1830, as published in the binomen *Holothuria monacaria*;
- (2) to place the specific names suppressed under the plenary powers in (1) above on the Official Index of Rejected and Invalid Names in Zoology;
- (3) to place the following specific names on the Official List of Specific Names in Zoology:
- (a) *hilla* Lesson, 1830, as published in the binomen *Holothuria hilla*;
- (b) *mauritiana* Quoy and Gaimard, 1833, as published in the binomen *Holothuria mauritiana*;
- (c) *difficilis* Semper, 1868, as published in the binomen *Holothuria difficilis*.

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