

ON SOME GENERIC NAMES FIRST MENTIONED IN THE
"CONCHOLOGICAL ILLUSTRATIONS."

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In reviewing the Fissurellidae of the Pacific coast of North America I found some confusion existing in the synonymy of several well-known species and genera, the clearing up of which may have some interest for students.

The following data will serve toward that end:

Genus LUCAPINA (Gray) Sowerby, 1835.

- Lucapina (elegans)* GRAY, in Sowerby, Conch. Ill., *Fissurella*, p. 4, No. 38, fig. 29, June, 1835; as synonym of *F. cancellata* Sowerby, Conch. Ill., p. 4 (as of Solander MS.).
- Lucapina* PHILIPPI, Test. Utr. Sicil., vol. 2, 1844, p. 90, cites *cancellata* Sowerby, as type and sole species mentioned.
- Lucapina* (Gray) HERRMANNSEN, Index Gen. Mal., vol. 1, p. 627, 1846; cites *Fissurella cancellata* as type.
- Lucapina* GRAY, Syn. Cont. Brit. Mus., ed. 42, p. 147; nude name under Fissurellidae, no species cited; ed. 44, 1840, p. 114 (ed. 44 A., 1840, p. 117), one line of diagnosis, no species cited.
- Lucapina* GRAY, Proc. Zool. Soc., 1847, p. 147, No. 160, cites *Fissurella aperta* Sowerby, and *L. elegans* Gray.
- Lucapina* (Gray) HERRMANNSEN, Index Gen. Mal., Suppl., p. 76, 1852, cites *Fissurella aperta* Sowerby, following Gray in Proc. Zool. Soc., 1847.
- Lucapina* GRAY, in M. E. Gray, Fig. Moll. An., vol. 4, p. 92, 1850, cites *L. cancellata* and *L. crenulata*, nude names, as examples.
- Foraminella* (Guilding MS.) SOWERBY, Conch. Ill., p. 4, No. 38, June, 1835, as *Foraminella sowerbii* Guilding, MS.; St. Vincent, West Indies. This name precedes *Lucapina* in the text, and is cited as a synonym of *Fissurella cancellata* Sowerby, Conch. Ill., p. 4.
- Foraminella* GUILDING, Cat. Conch. Nom., 1845, according to Agassiz in Scudder, Nomencl. Zoologicus, p. 139, 1882.—CATLOW, Conch. Nomencl., p. 102, No. 11, 1845; cites from Sowerby, Conch. Ill., 1835. Not *Foraminella* Leven. Brach. 1902.)
- Lucapina* H. and A. ADAMS, Gen. Rec. Moll., vol. 1, p. 447, 1854; examples figured *L. reticulata* Donovan and *L. crenulata* Sowerby; vol. 2, p. 630, 1858, notes segregation of subgenus *Glyphis* Carpenter, and cites *G. inaequalis* as sole example, also *Capiluna* Gray, as synonym.
- Lucapina* WOODWARD, Manual, p. 150, 1852, *F. elegans* Gray, sole example cited; but it is confused with *F. crenulata* Sowerby, from which the diagnosis is drawn.
- Glyphis* CARPENTER, Mazatlan Cat., p. 220, 1856; first species *Fissurella inaequalis* Sowerby. (Not *Glyphis* Agassiz, 1853.)

- Capiluna* GRAY, Guide Moll. Brit. Mus., p. 166, 1857. *C. cuvieri*, sole example.
- Lucapina* GRAY, Guide Moll. Brit. Mus., p. 166, 1857. *L. cancellata* and *L. crenulata* cited.
- Lucapina* TRYON, Struct. and Syst. Conch., vol. 2, p. 326, 1883, *L. crenulata* cited as example.—FISCHER, Man. de Conchyl., p. 858, 1885, same type; as subgenus of *Fissurellidea* Orbigny, 1839.
- Chlamydoglyphis* PILSBRY, Man., pp. 198, 200, 1890. Type, *Lucapina adspersa* Philippi, 1845=*cancellata* Sowerby, 1835.

The name *Lucapina* (Gray, MS.) was first put in print by Sowerby, in his monograph of *Fissurella* in the Conchological Illustrations. In this work he had the cooperation of Doctor Gray and so states, so that the authenticity of the reference is certain. The citation of the manuscript name of Gray is preceded in the same paragraph by another, *Foraminella* of Guilding, founded on the same type. As the first reviser, Philippi, accepted *Lucapina* and not *Foraminella*, the former will take precedence. In the "Synopsis of the Contents of the British Museum," 1840, Gray gives as a diagnosis of this genus "in *Lucapina* the mantle covers the cancellated shell." It is evident that when Gray proposed the genus he conceived of it as a *Fissurella* in which the mantle covered all or a part of the outside of the shell and the anal foramen was rounded or oval. When Carpenter separated the genus *Glyphis* he included in it those species previously placed by Gray and the brothers Adams in *Lucapina*, which had the rounded foramen, but in which the mantle did not exceed the margin of the aperture as required by Gray's diagnosis. It is obvious that, according to the rules, no species can be selected as type which was not mentioned in the original publication. This restricts our search for a type to *Fissurella elegans* Gray, or its equivalent, *F. cancellata* Sowerby. The latter name being the only species mentioned, becomes the monotype. This view was accepted by Philippi, 1844, Herrmannsen, 1846, and many others. It now remains to discover what is the proper specific name to be retained for this species. There was an earlier *Fissurella cancellata* Gray, of 1825, so the specific name of Sowerby can not be retained. The specific name of *sowerbii* Guilding precedes in the text that proposed by Gray and must be adopted. It now remains to identify the species, which from Sowerby's excellent figure is not difficult. It is the West Indian shell commonly known as *adspersa* Philippi, 1845, *aegis* Reeve, 1850, and probably *lentiginosa* Reeve, 1850. Specimens in the Smithsonian collection, received from the 1839 collections of Dr. L. Pfeiffer in Cuba, through Thomas Bland, were labeled "*fasciata* Pfr." and the writer used that name in several papers; but a search for the place of publication proving fruitless, it seems probable that the name was inedited. Pilsbry noted the resemblance of Sowerby's figure to *adspersa*, but was apparently misled by the fact that Reeve in the Iconica, 1849, figured under the name of *cancellata*, another species which he afterward

called *hondurasensis* and *suffusa*; and the younger Sowerby in the Thesaurus confused together these two and the analogous species (*F. inaequalis* Sowerby?) of the Pacific coast.

The species *aperta* Sowerby (= *hiantula* Lamarek) in the Conchological Illustrations is the type of *Pupillaea* Gray,¹ and could not, therefore, be utilized as a type for *Lucapina* in spite of Gray's associating them in 1847. The same is true of *Fissurella crenulata* Sowerby, which he placed with *cancellata* in 1857. Yet, owing to Carpenter's action in segregating *Glyphis* without determining the matter of priority, it has come about that later authors, including the usually accurate S. P. Woodward, have regarded *Fissurella crenulata* Sowerby, 1825, as the type of *Lucapina*, though it was not mentioned in that connection until years after the first publication of the name. The confusion with the name *cancellata* Gray (not Sowerby), which is the same as *Patella graeca* Pennant and Montagu (not Linnaeus), as *apertura* Montagu (not Born), as *reticulata* Donovan (not of Bolten), and is not *cancellata* Gmelin, is responsible for Donovan's name getting into the synonymy.

This state of affairs leaves the large and beautiful *Fissurella crenulata* of Sowerby, so well known on the Pacific coast, without a valid generic name. For this I propose the name *Macrochasma* in allusion to the large anal foramen.

Another monotypic generic name appears in the Conchological Illustrations, *Macroschisma* Gray, founded on *Patella macroschisma* Solander, from Japan, and another species from Australia. The latter is not named and was regarded by Sowerby as a variety of the Japanese shell.

From the examination of a large number of specimens from the University of Tokio it seems probable that individual variation in this species is great enough to cover several of the species which have been described from Japan.

Machrochisma Swainson² is founded on the *Fissurella macroschisma* of Sowerby's Genera of Shells (fig. 5), which the latter author supposed to be identical with *F. hiantula* Lamarek; Sowerby's shell hardly differs from the typical *Macroschisma*, with which it probably should be united.

Pupillaea Gray also appears for the first time in the Conchological Illustrations, cited from the unpublished notes of Doctor Gray on the Mollusca of Beechey's Voyage. It is founded on *Fissurella aperta* Sowerby, 1825, which, like the earlier name *hiantula* Lamarek, 1822, was based on Born's vignette figure F, on page 414 of the Museum Vindobonense. All the shells of the various species of this group are remarkably similar in shape, color pattern, and sculpture. Until the animals have been carefully compared no final

¹ Conch. Ill. *Fissurella*, p. 2, No. 12, 1834.

² Mal., p. 356, 1840.

decision can be had as to their relations and the number of valid groups. Since Sowerby's shell is stated to have come from South Africa, there can be little doubt that the identification of Krauss is correct. It is in the highest degree improbable that Meuschen in 1782 had any opportunity of knowing the very rare Magellanic species called *megatrema* by Orbigny; but South African shells were then abundant in Europe, owing to the trade with the Indies by way of the Cape of Good Hope.

Doctor Pilsbry in the Manual places *hiantula* (= *megatrema*) under *Fissurellidea*; *aperta* Sowerby, under *Pupillaea*; *scutellum* (Meuschen) Gmelin, under *Megatebennus* subgenus *Amblychilepas*; with reasonable justification, but the bare shells, especially if a little worn, can hardly be told apart.

The last genus of the group referred to is *Cemoria*, cited from Leach's proof sheets, but luckily anticipated by Lowe's *Puncturella*, based on *F. noachina* of Linnaeus.