

**THE GENUS *CRIBRARULA* IN THE PACIFIC OCEAN
(SUMMARY OF SUPPLEMENT 2 TO TRITON 21)**

E.L. Heiman*)

Abstract: The taxonomic identity of several taxa of the genus *Cribrarula* in the Pacific Ocean is studied in Supplement 1 to Triton 21 using the conchological approach and methods accepted in the project "Intraspecific variation in living cowries." Specific level of *Cribrarula cribraria*, *Cribrarula catholicorum*, and *Cribrarula cumingii* is confirmed; the two latter are monotypic species. Two subspecies of *C. cribraria* are confirmed: *C. cribraria orientalis* and *C. cribraria melwardi*. *C. cribraria* inhabits a vast area of the Pacific Ocean from Indonesia and Japan in the West to Polynesia in the East. Colonies or populations of *cribraria* in that area form an intermediate zone connecting the subspecies. *C. garsiai* seems to be a form of *C. cumingii*; this needs confirmation.

Keywords: Mollusca, Gastropoda, Cypraeidae, *Cribrarula cribraria*, *cumingii*, *catholicorum*, intraspecific variation.

Shell characters of several taxa of the genus *Cribrarula* inhabiting the Pacific Ocean are studied in Supplement 1 to Triton 21. They include *Cribrarula cribraria* (Linnaeus, 1758), *Cribrarula cumingii* (Sowerby, 1832), *Cribrarula catholicorum* (Schilder & Schilder, 1938) and several related groups of populations the taxonomic identity of which needs clarification. The specific level of the three taxa mentioned above is confirmed; two of them: *C. catholicorum* and *C. cumingii* are monotypic species. This conclusion is based on publications in the malacological literature and comparative study of shell characters in Supplement 1.

The subspecific level of *C. cribraria orientalis* Schilder & Schilder, 1940 and *C. cribraria melwardi* (Iredale, 1930) is confirmed. The subspecific level of several other taxa of *C. cribraria* described in the past is not yet finely confirmed by a conchological study—*C. cribraria gaspardi* (Biraghi & Nicolay, 1993).

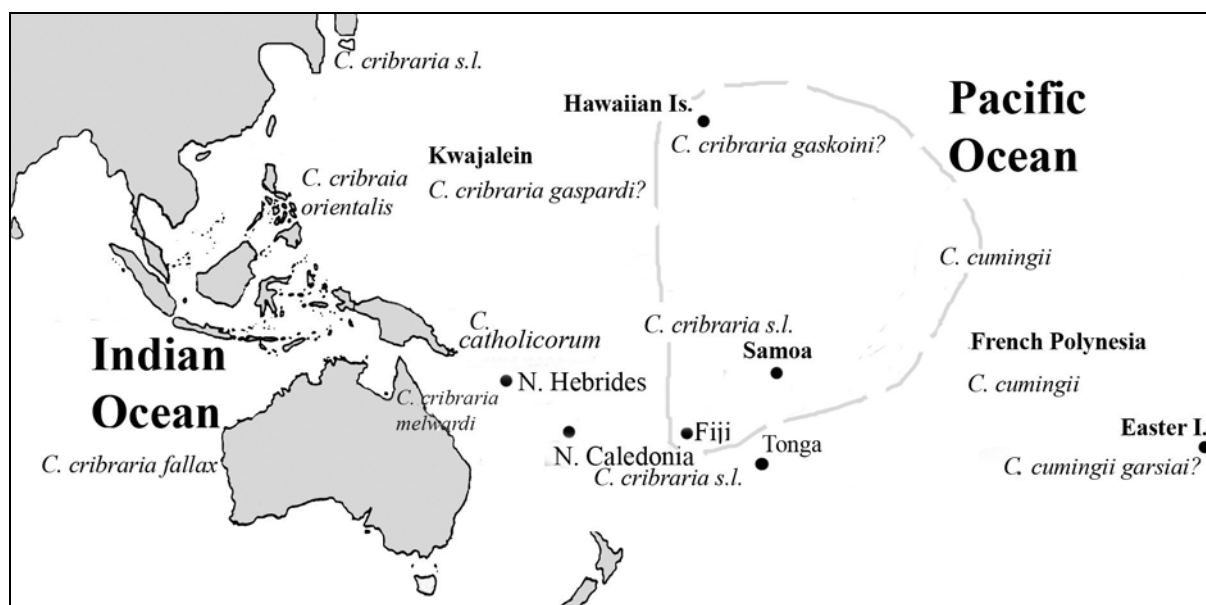
Certain colonies and populations of *C. cribraria* in the Pacific Ocean form an intermediate zone with mixed shell characters, which connects the two subspecies; they are treated as *C. cribraria* in a broad sense—*C. cribraria* s.l.

There are several forms in populations of *C. cumingii* in the Pacific Ocean, which confused students of cowries for a long time. Large shells of *cumingii* were described as a subspecies 'cleopatra' and unusually wide shells were described as 'lefaiti.' These names were used to designate subspecies of *cumingii* but the scientific evidence confirming their subspecific level is absent.

There is an interesting form of *C. cribraria* in shells of which the dark spots on the sides and base are larger than usual, and the dorsal line is sometimes narrow or deformed. These shell characters confused cowry students in the past and are the main reason why *C. fischeri astaryi* and *C. taitae* were described. This form is known in the Hawaiian Islands, Samoa, Fiji and other areas (an interrupted line in Fig. 1) and deserves further study. *C. cribraria gaskoini* (Reeve, 1846) is perhaps a subspecies or a form of *C. cribraria* but the final conclusion yet to be formed.

Shells of *C. garsiai* Lorenz & Raines, 2001 described as a species from Easter Island seems to be a form of *C. cumingii*; the final conclusion is currently difficult to draw due to scarcity of enough conchological material.

The distribution of the taxa of the genus *Cribrarula* in the Pacific Ocean can be seen in Fig. 1.



1. Genus *Cribrarula* in the Pacific Ocean (the sign ? indicates a taxon, which needs further study and confirmation)

*) heimel@netvision.net.il