

A new species of freshwater clam, *Corbicula krishnaea*
from Maharashtra, India
(Mollusca, Bivalvia, Corbiculidae).

By

HARISH CHANDRA RAY,

Zoological Survey of India, Jabakusum House, Calcutta - 12 (India).

With two figures.

Amongst specimens of freshwater bivalves representing mostly the genera *Lamellidens* SIMPSON, *Parreysia* CONRAD and *Indonaia* PRASHAD received for determination from Professor D. V. BAL of the Institute of Science, Bombay, I came across five small but very curious shells of the genus *Corbicula* MEGERLIN VON MÜHLFELD (1811) which were collected from the Krishna River near Sangli, Poona, on 2nd June, 1960. Excepting one very good example of this doubtful clam kept with us for further study, the rest were duly returned along with other specimens in the lot. Now, a critical study of that shell of *Corbicula* reveals that it represents an undescribed species which I take the liberty to christen as *C. krishnaea* for having found in the Krishna River. This decision was taken after carefully consulting the monographs on Indian and other Asiatic Corbiculidae published by PRASHAD (1928-1930) and also the works of PRESTON (1915) in the Fauna of British India, Mollusca, and SINCLAIR (1963-1964) on exotic Asiatic Clam in Tennessee.

Corbicula krishnaea n. sp.

Figs. 1-2.

Diagnosis: Shell quite good, but thin and of small size, triangularly-ovate in outline, longer than high, inaequilateral, slightly inflated and more so on the upper part but somewhat compressed below, periostracum yellowish in colour; anterior side much more produced, narrower and obliquely subrostrate at the end, while posterior side much shortened, broader and regularly rounded at the end; surface sculpture consisting of numerous distinct (though not very high and strong) and regular concentric ribs not becoming indistinct to obsolete on the posterior end and their interspaces rather wide, though not very deep; umbones full, prominent, slightly tumid, subcentral, slightly curved inwards and forwards and lunular area with very indistinguishable concentric ribs and hence appearing almost smooth; ligament somewhat prominent, though not very high, and nymphal area slightly wide and distinctly roughened, while escutcheon bearing distinct ribs; upper margin greatly arched and ventral margin evenly arched, but proceeding nearly half beyond the middle part curves

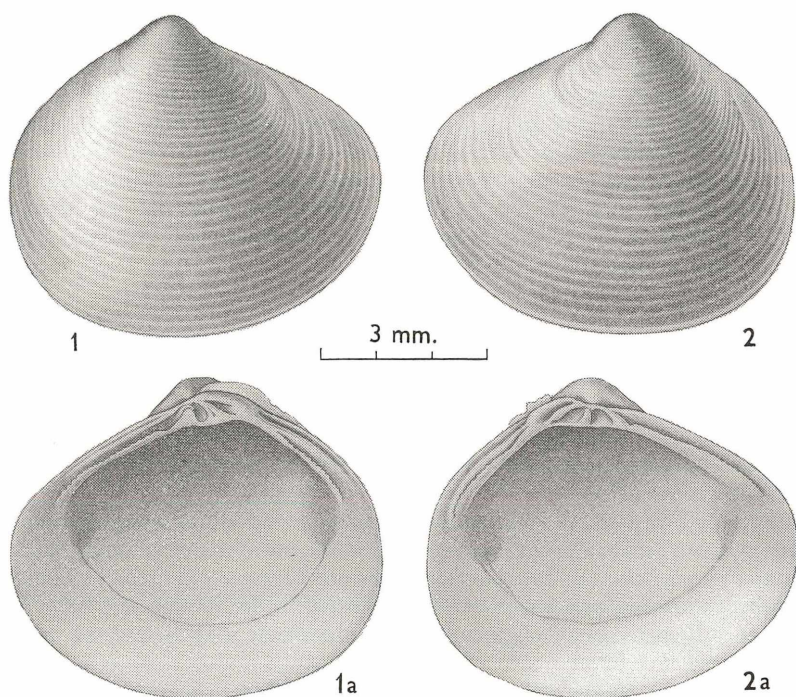
more rapidly anteriorly so as to join the obliquely subrostrate end of that side; hinge well-developed with the anterior laterals slightly more longer and arched than the posterior laterals and umbonal cavity somewhat deep; adductor muscle scars very shallow and not impressive, but impinging on the cardinal teeth; pallial line very feeble and delicate, but entire and slightly wavy and without a sinus, its posterior end appearing distinctly forked only in the left valve and embracing the muscle scar of that side — a very peculiar feature, indeed, rarely met with in any *Corbiculids*; nacre light but very shining yellow with a bluish tinge gradually fading towards the margins.

Measurements (in mm.): L. 6.7, H. 5.9, D. 3.5.

Holotype: Regd. No. M 17807/3. Deposited in the Zoological Survey of India, Calcutta (India).

Type-locality: Krishna River near Sangli, Poona, Maharashtra, India. Coll. Prof. D. V. BAL. Date of Collection. 2nd June, 1960.

Remarks: *Corbicula krishnaea* is an elegant species isolated in appearance and character of its shell. It may be allied to *C. striatella* DESHAYES (1854), the common Indian *Corbiculid*, re-described and nicely figured by PRASHAD (1928) in pl. 3 fig. 9-11, but appearing amply distinct from that as to claim a separate specific rank. Furthermore, its more produced and obliquely subrostrate an-



Figs. 1-2. Outer and inner views of the right and left valves of the holotype of *Corbicula krishnaea* from the Krishna River, Poona, Maharashtra, India.

terior end and shortened and broadly rounded posterior end obviously manifest just the reverse of what is prevailing in case of *Corbicula javanica* (MOUSSON, 1849) from Java figured by PRASHAD (1930) in pl. 14 figs. 1-6 (showing rostrated or truncated posterior end and shortened and somewhat rounded anterior end).

The papers published by SINCLAIR (1963-64) on the life-history, ecology, growth and development, fishery and sanitation, pollution of water and measures of control of an exotic Asiatic Clam *Corbicula* in the Tennessee Water Supplies, Nashville, Tennessee, appear interesting. A reference is also made by RAY (1962) to the usefulness of some Indian freshwater molluscs (including *Corbicula*, *Viviparus* and *Lymnaea*) in the field of Public Health and Sanitation and the possible measures of their control to keep down the population and getting rid of the menace caused by them.

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Autor(en)/Author(s): Ray Harish Chandra

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