

Protoperidinium abei (Paulsen) Balech 1974, Revista del Museo Argentino de Ciencias Naturales <<Bernardino Rivadavia>> Hidrobiologia 4(1): 54.

Basionym: ***Peridinium abei*** Paulsen 1931, Trab. Inst. Español Ocean. 4: 53.

nom. nov. pro *Peridinium biconicum* Abé 1927, Science Reports of the Tohoku Imperial University Fourth Series, Biology II (4): 416; fig. 34.

non ***Peridinium biconicum*** Dangeard 1927, Bull. Inst. Océan. Monaco 491: 11-12, figs 7a-c.

31) *Peridinium biconicum*, n. sp.

A medium-sized, somewhat elongated, rhombic species with a hyaline antapical fin and a descending girdle.

The body is biconical antero-posteriorly with straight or slightly concave sides. The epitheca is conical with a slit-like apical pore at its pointed apex. The pore has long ventral and dorsal slits, resulting in an elongated aperture with a somewhat wider part, the apical pore, near its dorsal end. The lateral walls of the pore project in short finger-like processes at the anterior ends of the intercalary bands between the apical plates 2-3, and 3-4. In some specimens a flat, hyalious, membrane-like structure is seen along the whole length of the aperture, but it probably is a process of the inner plasm through the pore. The plate formula is 4', 2 γ , 7^a and 5^A, 2^I. The apical ι is a long, narrow plate of which the surface is slightly concave, and the dorsal rhombic 3 is smaller than the lateral ones. The ventral precingulars a and g are the largest and the dorsal pentagonal d is the smallest in the series. The large hexagonal intercalaries γ and ϵ are in the middle of the dorsal surface bilaterally, in saddle fashion. The intercalary bands are broad and well developed, with transverse striations.

The girdle is median, slightly descending, and is displaced distally 1.5 girdle width. The furrow is deeply impressed with side lists and numerous transverse parallel ribs and grooves on its wall. The ventral area is narrow but is deeply impressed, without posterior widening and with low lateral fins. The ventral area extends to the post-margin, diminishing in depth, with a deep subterminal, asymmetrical excavation on the ventral left side, so that at the hindermost part of the body, the left half of the ventral part is impressed, making the remaining part somewhat obliquely semi-circular in cross section, while the post-margin forms a small shovel-like fin. In some specimens a spine-like thickening is seen medially. The ventral side of the hypotheca is strongly convex, and along its median line is the deeply excavated ventral area. The surface is smooth without any markings.

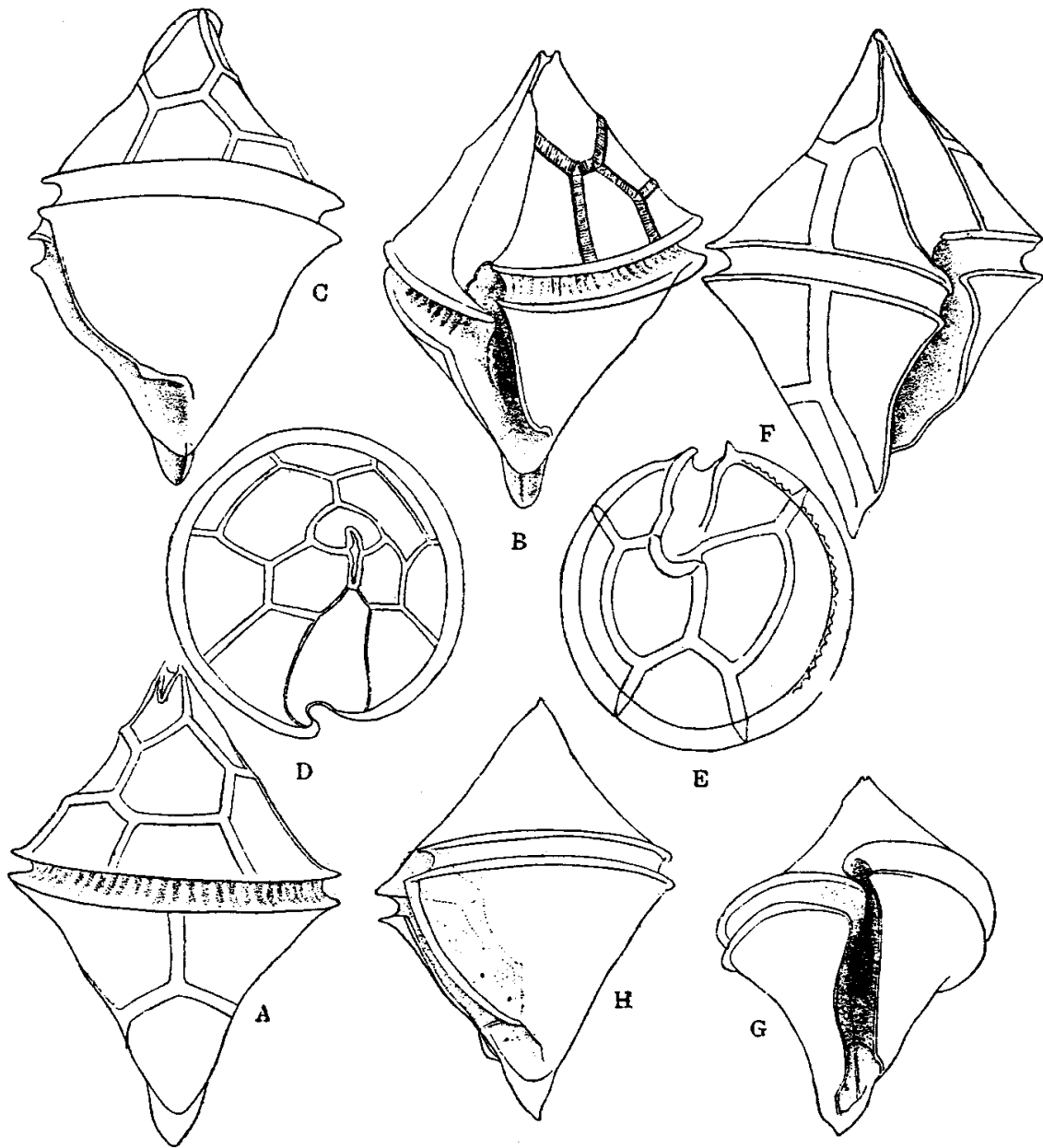


Fig. 34. *Peridinium biconicum*, n. sp.

A, Dorso-lateral view. B, Ventral view. C, Left side view. D and E, Arrangement of the plates on the epitheca and the hypotheca. F, Right ventral view of another specimen. G, Antapical ventral view of the hypotheca, showing the ventral area of a smaller specimen. H. Left side view of G specimen showing the depression of the ventral area, the flagellar pore, and the side fins of the furrow. ($\times 600$).

Murrayella punctata (CLEVE), *Heterocapsa triquetra* STEIN, and *Ceratium biconicum* MURR. and WHITT. are closely resembling species. *Murrayella punctata* differs from this species in having distinct surface markings, a rounded anterior end, short, oblique, ventral area and no

antapical fin. This also differs from *Heterocapsa triquetra* in size and in having a more pointed apical end, a narrower girdle, a less developed antapical horn, no ventral epithecal furrow, and a straight but long posterior-ventral furrow. From *Ceratium biconicum* it differs profoundly in its broader body, pointed anterior end and faintly listed, deep, ventral furrow.

Dimensions: Length, 70μ ; transdiameter, 47μ ; dorso-ventral dimension, 44μ .

Loc. Off Futagojima, Aug. 20, 1926.

References:

- Abé T. (1927) Report of the biological survey of Mutsu Bay. 3. Notes on the protozoan fauna of Mutsu Bay. I. Peridiniales. - Science Reports of the Tohoku Imperial University, Biology, Sendai, Japan Sér. 4, Biol. 2: 383-438.
- Balech E. (1974) El genero <<*Protoperidinium*>> Bergh, 1881 (<<*Peridinium*>> Ehrenberg 1831, partim). - Revta Arg. Cienc. Nat. <<B. Rivadavia>> Hidrobiol. 4(1): 1-79.