

Key features
Cell oval with a dome-shaped anterior, distinct lip around the anterior end; oral cavity encircled by oral flaps and cilia (anterior tuft); equally spaced somatic kineties, extend to 3/4 of the cell length; posterior region unciliated except one caudal cilium; one macronucleus, ovoid to spherical

Length:	15 (10-30) μm
Width:	10 (5-20) μm
No of K:	25 (20-30)
No of OD:	40 (35-45)
Ma diameter:	4 (3-7) μm
Biovolume:	2,500 μm^3

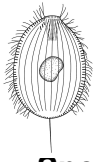
Swims in helices (19 body lengths s^{-1}), occasionally a fast jump of up to 1000 μm occurs, swimming is then resumed after 0.5 to 1 second.

Nanoflagellates, small cryptophytes (4-10 μm)

Temperature: 10-12 °C
Salinity: 15-33 ‰; euryhaline

Jakobsen HH & Hansen PJ 1997; Jakobsen HH & Montagnes DJS 1999; Wulff A 1919

Fig 1 Line drawings: a. Protargol stained cell, showing kineties, oral structures and nucleus; b. Live cell (from Wulff 1919). **Fig 2-4** Lugol's fixed cells, lateral view. **Fig 5** Lugol's fixed and DAPI stained cell, illustrating nuclear shape. **Fig 6** SEM of Lugol's fixed, partially deciliated cell, indicating the tapered Cc. **Fig 7** Lateral view of a cell fixed in osmium vapour. **Fig 8** Protargol-stained cell, lateral view, showing characteristic features (Fig 6-8: pictures courtesy of H.H. Jakobsen).



Balanion comatum Wulff, 1919

Species description

Body **dome-shaped** to cylindrical (broadly ellipsoidal to globular), 15 (10-30) μm long and 10 (7-20) μm wide, posterior widely rounded or bluntly pointed, **anterior truncated (flattened)** a furrow separates the anterior end and the rest of body and gives the impression of a **distinct lip** around the anterior end (Fig 1,2-5,9,10); **one caudal cilium**, 10-15 μm long (Fig 1,3,6-8), in a small depression - may be lost in Lugol's samples.

Oral cavity centric, funnel-shaped; encircled by **oral flaps** and 40 (35-46) ciliated oral dikinetids (OD and OC) which often form an **anterior tuft** (Fig 1-6,8-10), one flap per dikinetid; brosse (= brush) within the circle (Fig 1), short kineties or kinetal segments (can be reduced to few kinetosomes, not seen in Lugol's fixed samples).

25 (20-29) equally spaced **somatic kineties**, with 18 (12-26) monokinetids, cilia 5-8 μm long; extending to **3/4** (50-90%) **of the cell length**, posterior region unciliated (Fig 1,3,6-9).

One macronucleus, ovoid to spherical (3-7 μm large), slightly anterior, acentral (Fig 1,5,8); one adjacent micronucleus (Fig 5).

Similar species

Balanion planctonicum (freshwater or brackish water, smaller, shorter somatic kineties with less kinetosomes); *Urotricha* spp. (oval body shape, no anterior tuft, oral flap less pronounced, no lip)

List of synonyms

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Taxonomical remarks

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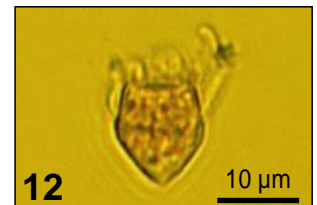
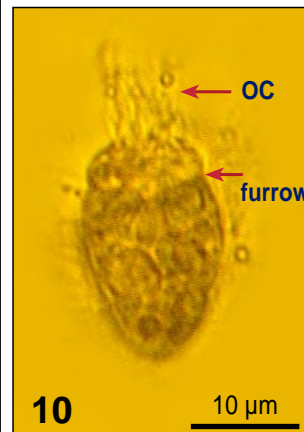
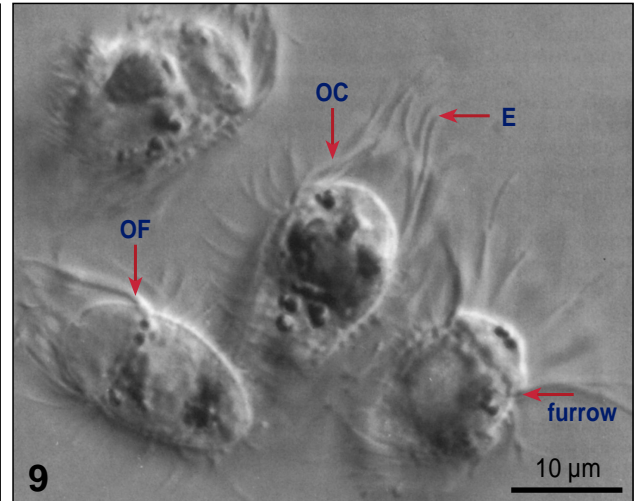


Fig 9 Nomarski differential interference contrast image of several fixed cells, showing the anterior furrow, the oral flap, the oral cilia and the somatic cilia (picture courtesy of H.H. Jakobsen). **Fig 10** Lugol's fixed cell. **Fig 11,12** Lugol's fixed cells, probably different species of *Balanion*.

Notes