## Nolandia nolandi

## (Kahl, 1930) Small & Lynn, 1985

Most likely ID: n.a.

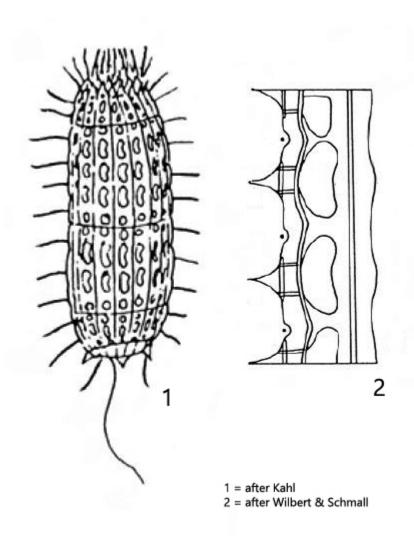
**Synonym:** Coleps nolandi

**Sampling location:** Simmelried

Phylogenetic tree: Nolandia nolandi

## Diagnosis:

- length 40-65 μm
- cell cylindrical, rarely barrel-shaped
- apical mouth opening with basket of pharyngeal trichites
- posteriorly mostly 3 strong spines
- armour composed of 6 rings, each with 12-14 plates
- plates with a variable number of half and whole "windows"
- "windows" kidney-shaped
- macronucleus spherical in mid-body with one adjacent micronucleus
- contractile vacuole sub-terminal
- one caudal cilium
- no symbiotic algae



## Nolandia nolandi

Nolandia nolandi was first described by Kahl as Coleps nolandi. Based on morphological characteristics and genetic studies, the species was transferred to the genus *Nolandia* by Small & Lynn in 1985.

At low magnifications *Nolandia nolandi* is difficult to distinguish from *Coleps hirtus var*. *minor*, because both species have a similar size and body shape. Only at high magnification can the shape of the "windows" in the armour be seen, which is essential for identification. In Nolandia nolandi the windows are narrow and kidney shaped. In my population I could detect 2 whole "windows" and 2 half "windows" per half cell. However, the number of half and whole "windows" per half cell varies and is therefore not a definite identification characteristic. The decisive factor is the shape of the "windows".



Fig. 1 a-d: Nolandia nolandi. L = 50  $\mu m$ . Different focal planes of a freely swimming specimen. CC = caudal cilium. Obj. 100 X.

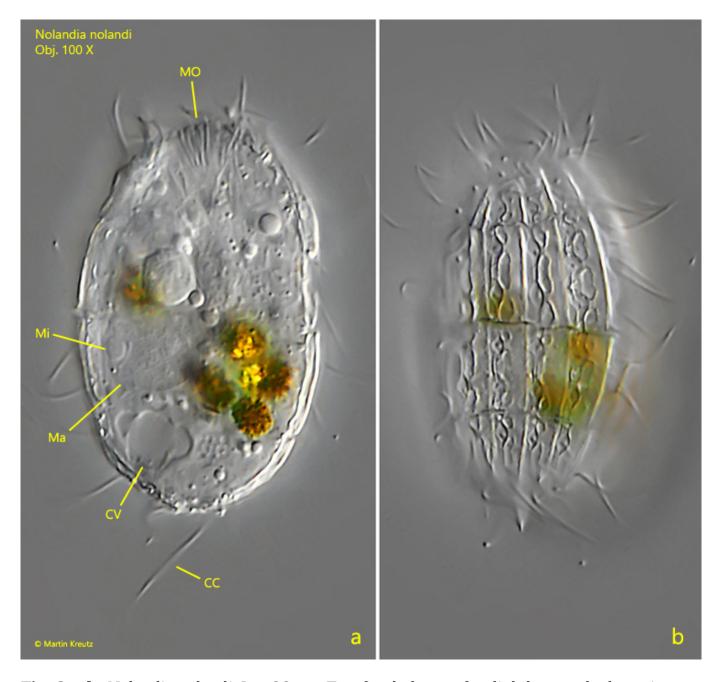


Fig. 2 a-b: Nolandia nolandi.  $L = 36 \mu m$ . Two focal planes of a slightly squashed specimen. CC = caudal cilium, CV = contractile vacuole, Ma = macronucleus, Mi = micronucleus, MO = mouth opening. Obj. 100 X.

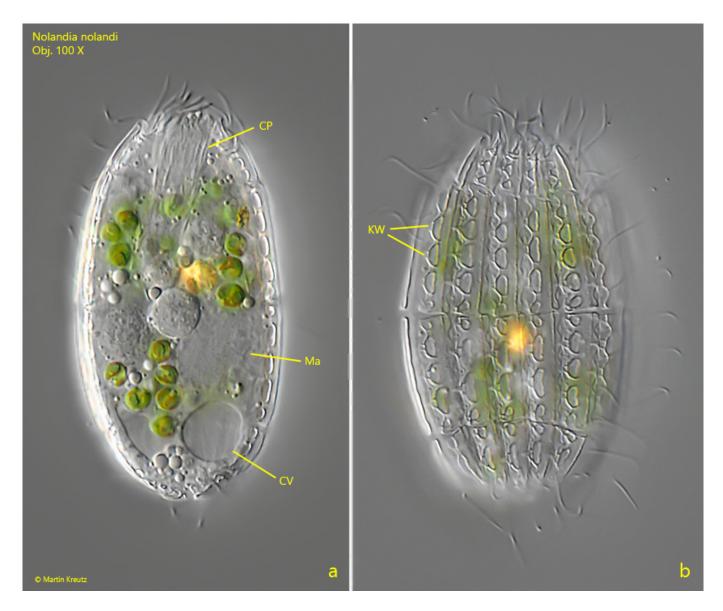


Fig. 3 a-b: Nolandia nolandi.  $L=54~\mu m$ . Two focal planes of a second squashed specimen. Note the kidney-shaped "windows" (KW). CV = contractile vacuole, CP = cytopharynx, Ma = macronucleus. Obj. 100 X.