Nolandia nolandi

(Kahl, 1930) Small & Lynn, 1985

Most likely ID: n.a.

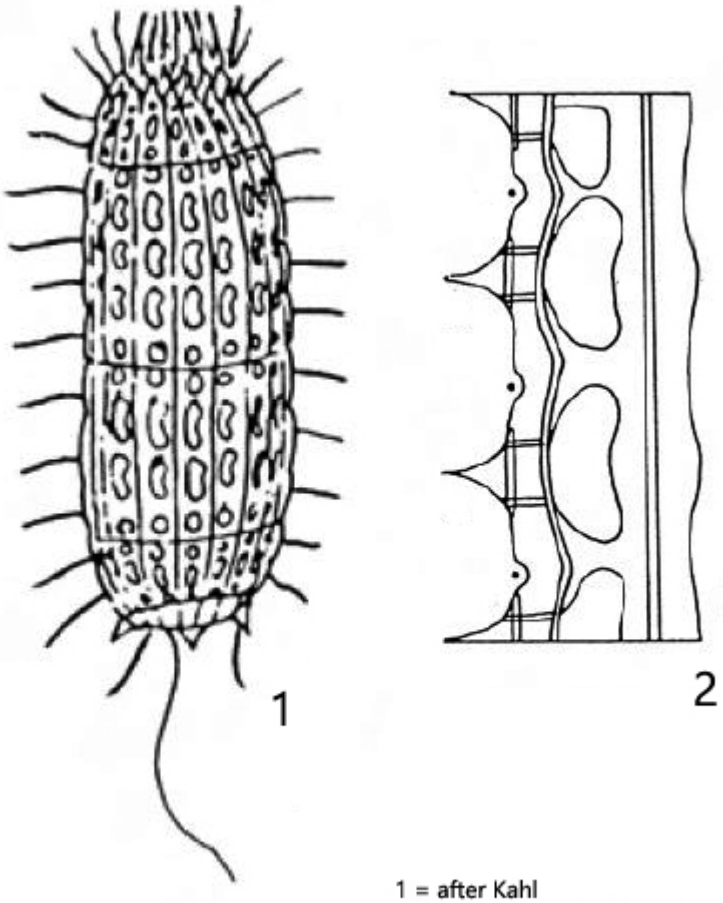
Synonym: *Coleps nolandi*

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



1 = after Kahl
2 = after Wilbert & Schmall

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“.

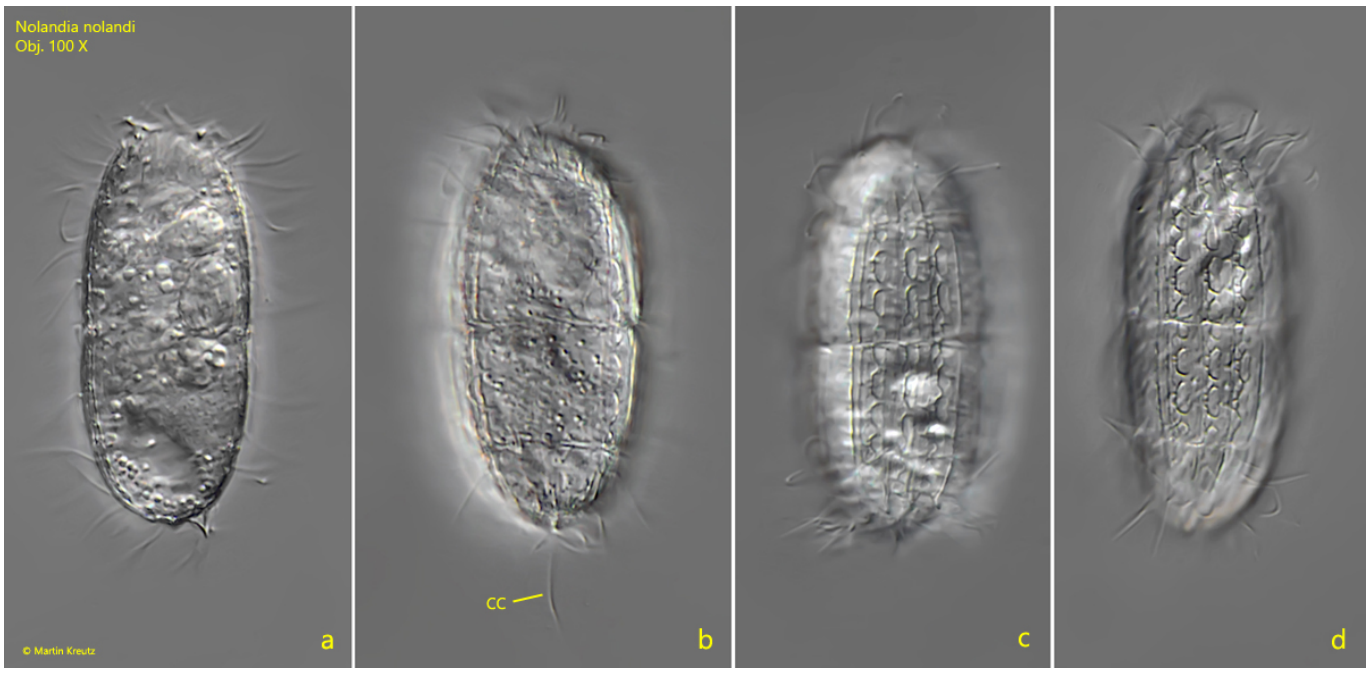


Fig. 1 a-d: *Nolandia nolandi*. L = 50 µm. Different focal planes of a freely swimming specimen. CC = caudal cilium. Obj. 100 X.

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

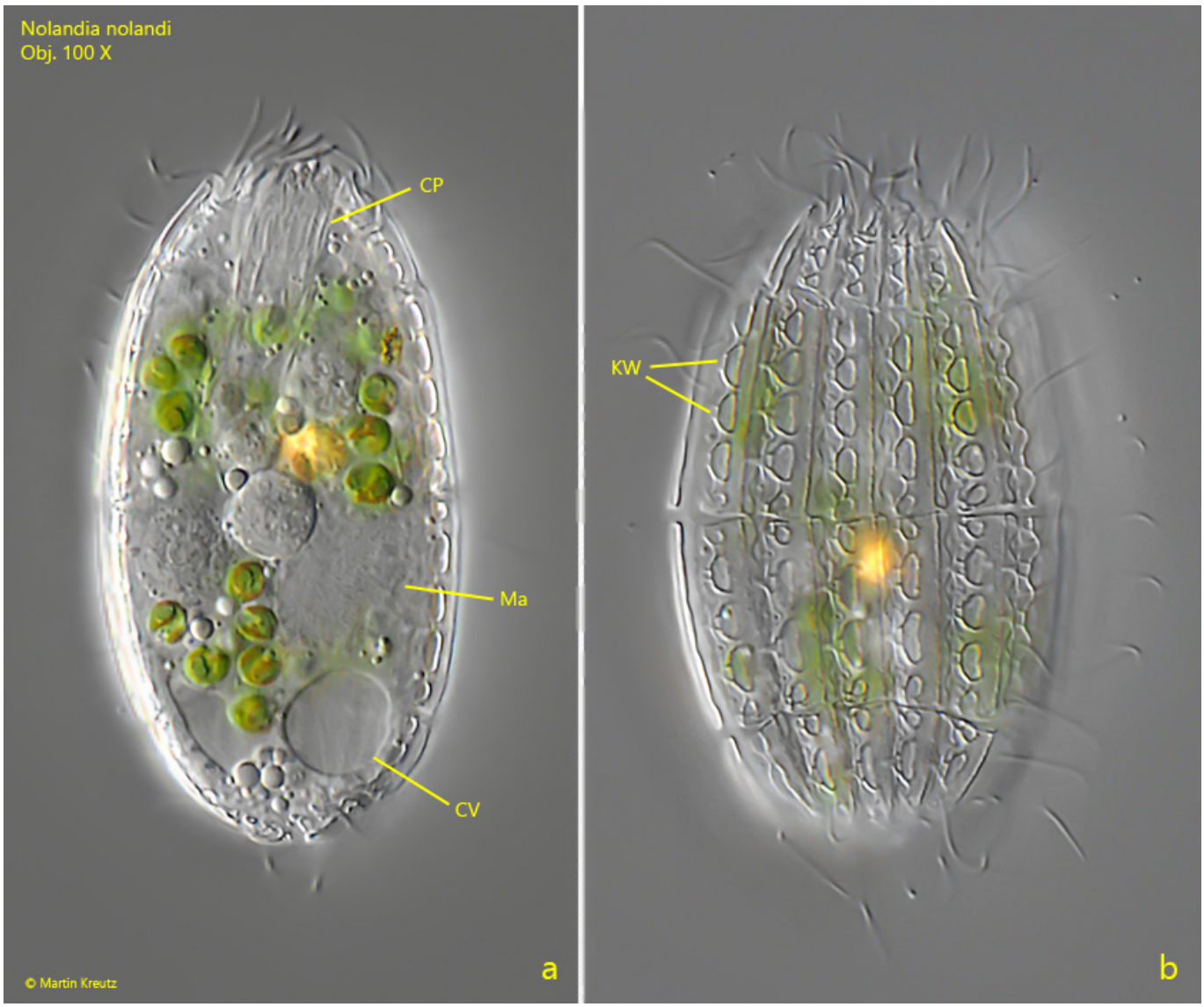


Fig. 3 a-b: *Nolandia nolandi*. L = 54 µm. Two focal planes of a second squashed specimen. Note the kidney-shaped „windows“ (KW). CV = contractile vacuole, CP = cytopharynx, Ma = macronucleus. Obj. 100 X.