

***Nolandia nolandii***

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

**Most likely ID:** n.a.

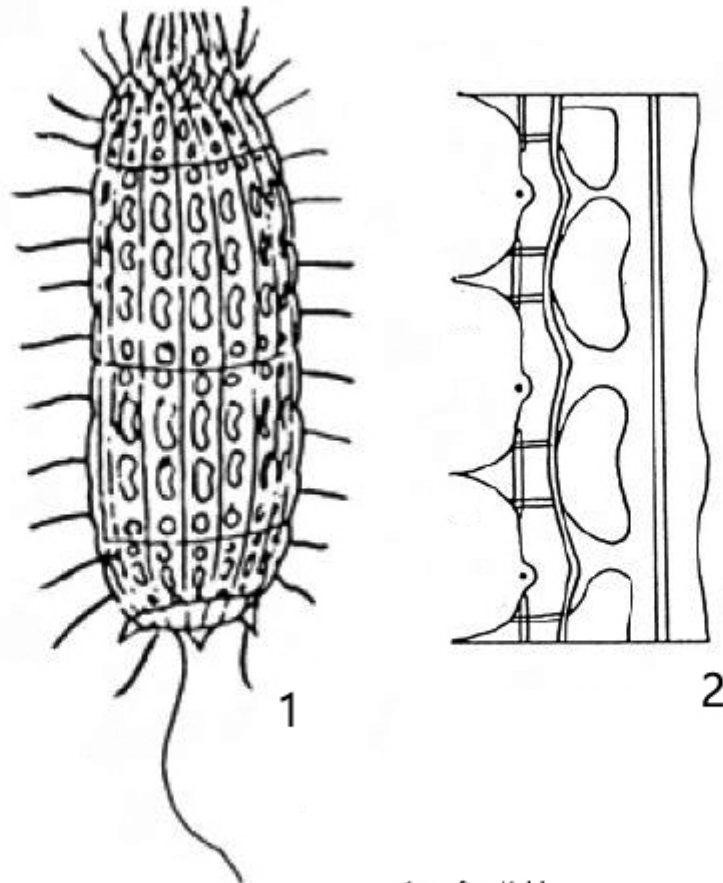
**Synonym:** *Coleps nolandii*

**Sampling location:** [Simmelried](#)

**Phylogenetic tree:** [Nolandia nolandii](#)

**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

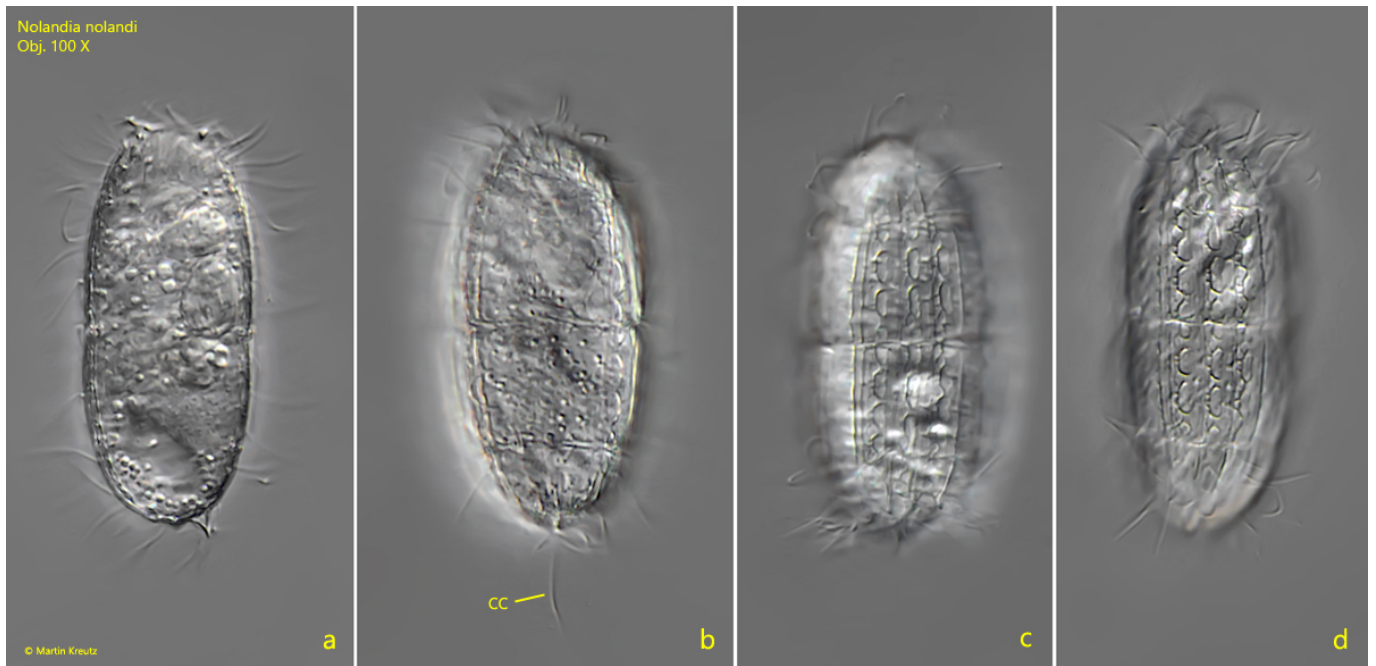


1 = after Kahl  
2 = after Wilbert & Schmall

### *Nolandia nolandii*

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

At low magnifications *Nolandia nolandii* 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 nolandii* 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”.

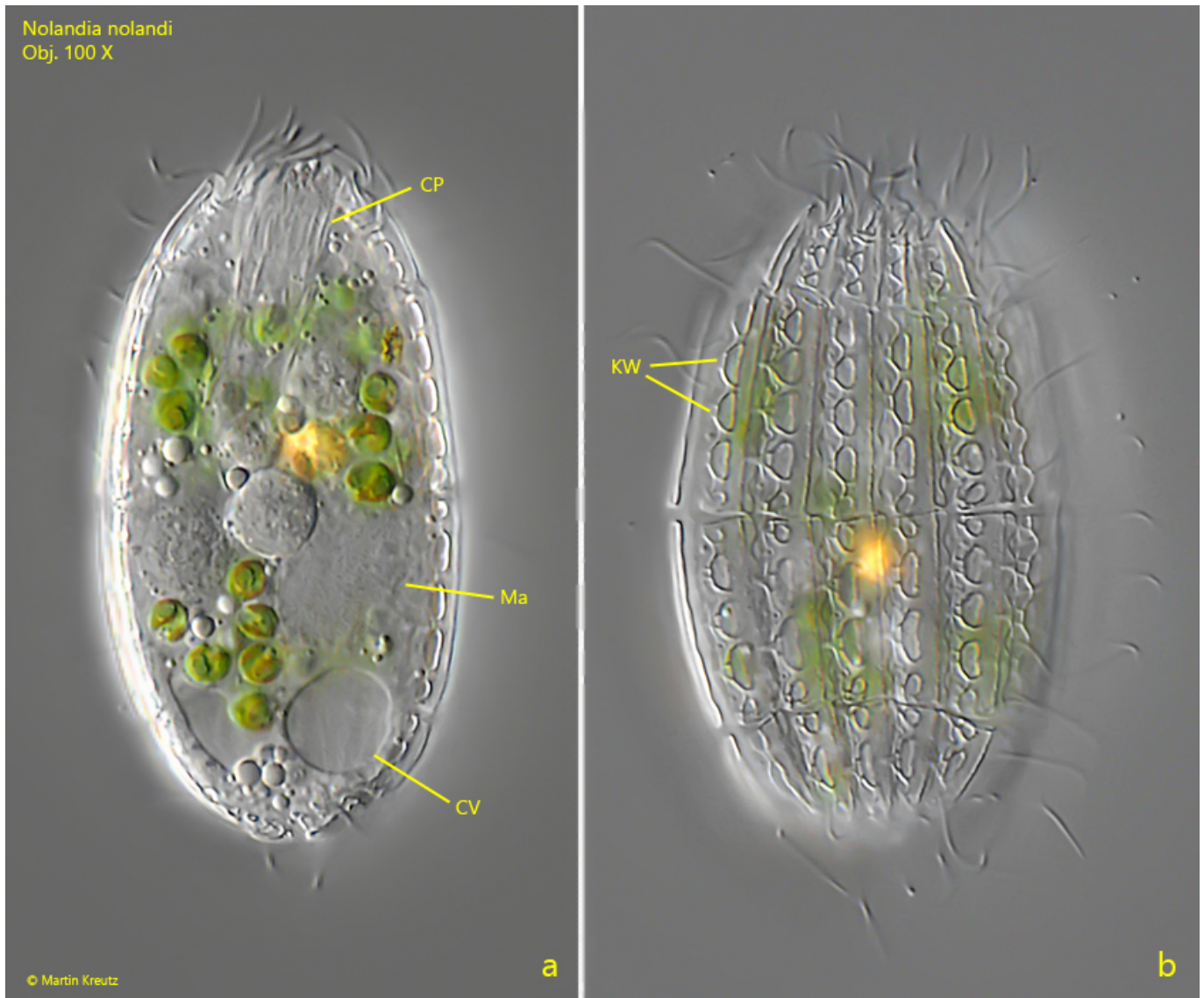


**Fig. 1 a-d:** *Nolandia nolandii*. L = 50  $\mu$ m. Different focal planes of a freely swimming specimen. CC = caudal cilium. Obj. 100 X.



**Fig. 2 a-b:** *Nolandia nolandii*. 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 nolandii*. 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.