

***Chlorogonium elegans* (Playfair, 1918)**

Most likely ID: n.a.

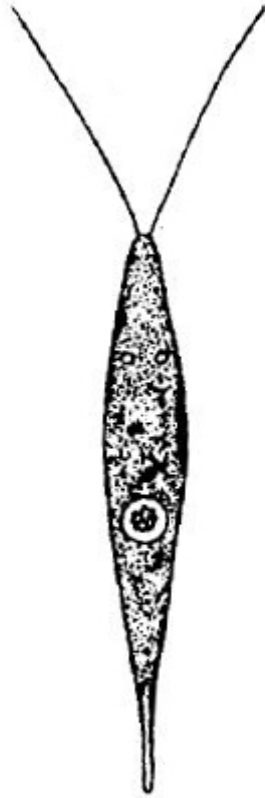
Synonym: n.a.

Sampling location: Mindelsee

Phylogenetic tree: [*Chlorogonium elegans*](#)

Diagnosis:

- length 36-55 µm, width 6-10 µm
- body spindle-shaped
- 2 flagella with half body length
- eyespot anterior
- anteriorly 2-3 contractile vacuoles
- one chloroplast, can reach the posterior end
- no pyrenoid
- nucleus central



after Playfair

Chlorogonium elegans

In March 2020 I found a mass development of *Chlorogonium elegans* in a shallow pool of water at Mindelsee. The cells were very sensitive and shed off the flagella at the slightest coverslip pressure. Therefore I could only photograph freely swimming specimens. The assignment of the *Chlorogonium* species is not easy, since many of the species described in the literature have turned out to be invalid. In the present case the absence of a pyrenoid was an important feature and the chloroplast not being spirally coiled. This eliminates many, potentially eligible species. The cells in my population had a body length of 38–44 μm and the flagella were slightly half the length of the spindle-shaped cell. Finally, this combination of features leads to the species *Chlorogonium elegans*.



Fig. 1 a-b: *Chlorogonium elegans*. L = 42 μ m. A freely swimming specimen in two focal planes. Note the absence of a pyrenoid. ES = eyespot, F = flagella, Nu = nucleus. Obj. 100 X.

In the samples with *Chlorogonium elegans* there were very many specimens which were in the process of conjugation. Conjugation can be easily distinguished from asexual cell division, because the latter occurs by transverse division.



Fig. 2: *Chlorogonium elegans*. A fused pair of cells during conjugation. Obj. 100 X.