

## ***Colpoda steinii* (Maupas, 1883)**

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

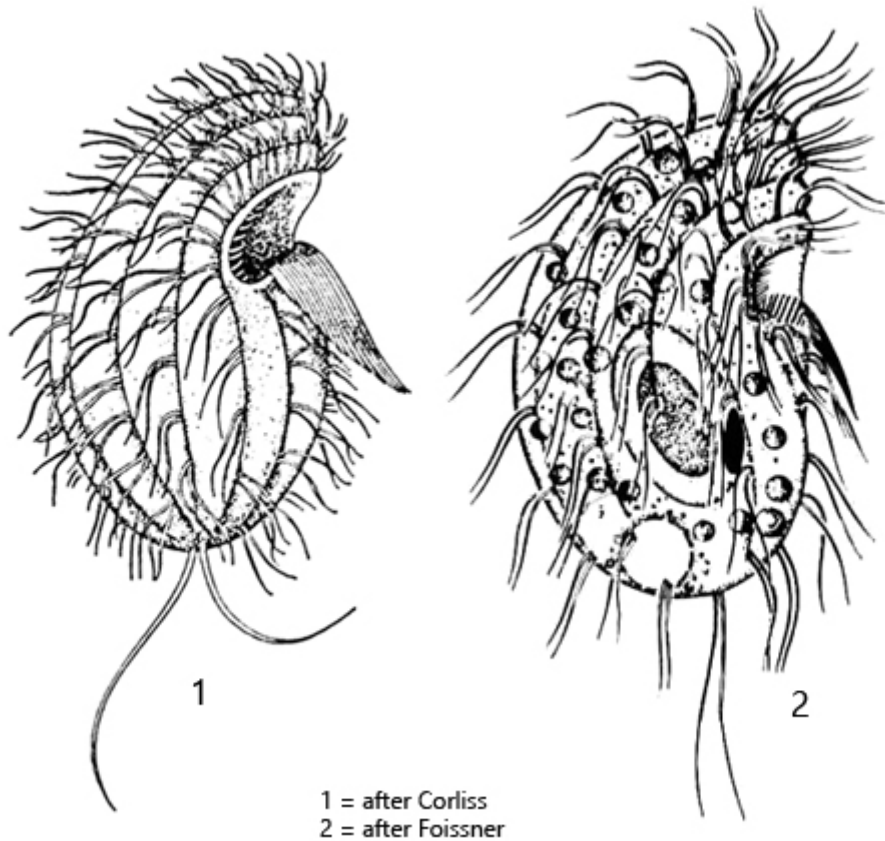
**Synonym:** *Colpoda steini*

**Sampling location:** Moss

**Phylogenetic tree:** [Colpoda steinii](#)

### **Diagnosis:**

- body reniform, dorsal side convex, ventral side almost straight
- length 10-60  $\mu\text{m}$ , usually 20-40  $\mu\text{m}$
- semicircular indented at the mouth opening
- apical keel with 5-7 ribs
- macronucleus ellipsoid with one, central nucleolus
- mouth opening with a right and left field of polykineties
- cilia of the left polykinetid are long, forming a "beard"
- 10-13 ciliary rows of paired cilia
- contractile vacuole terminal
- two caudal cilia (hard to see)

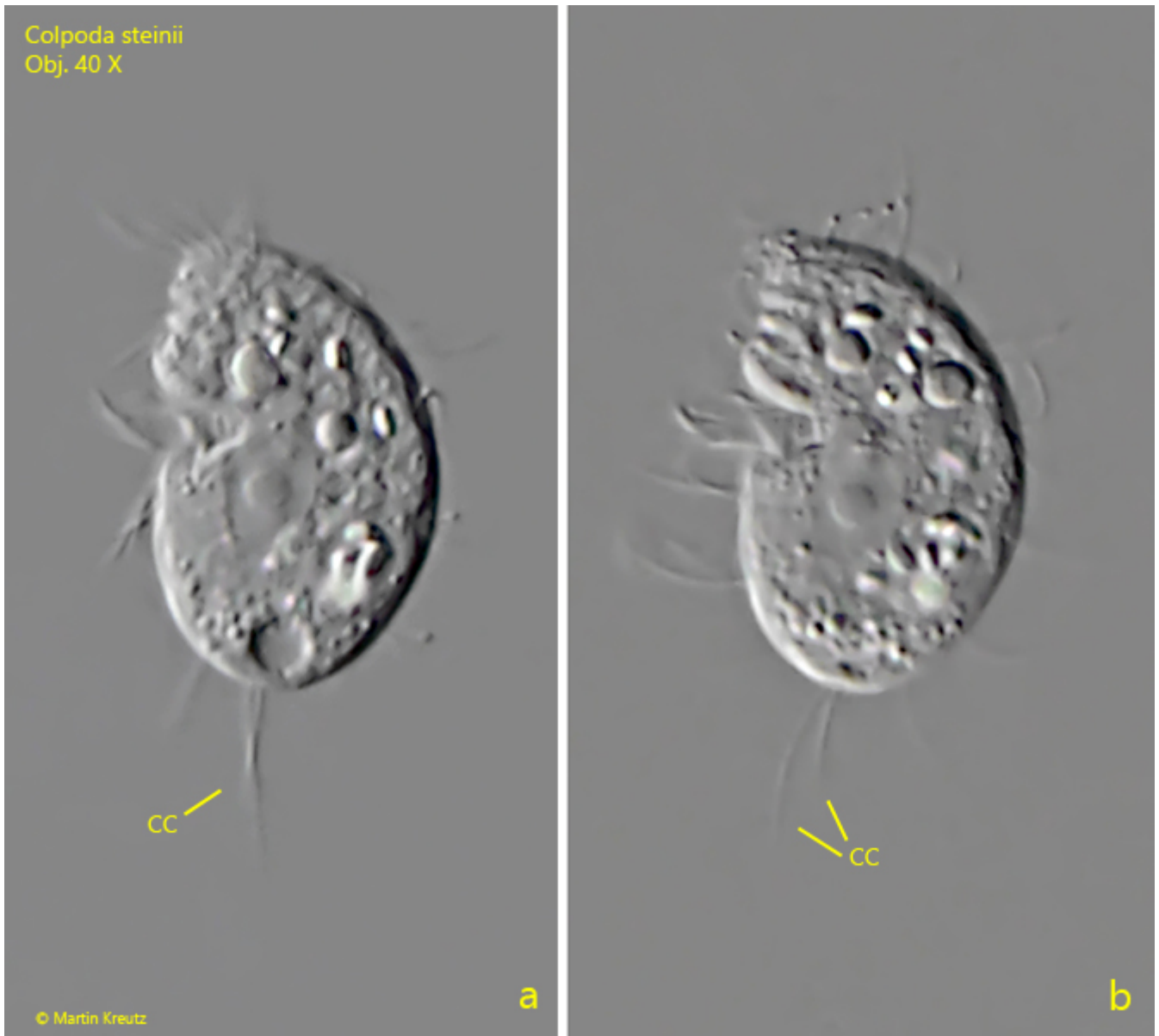


*Colpoda steinii*

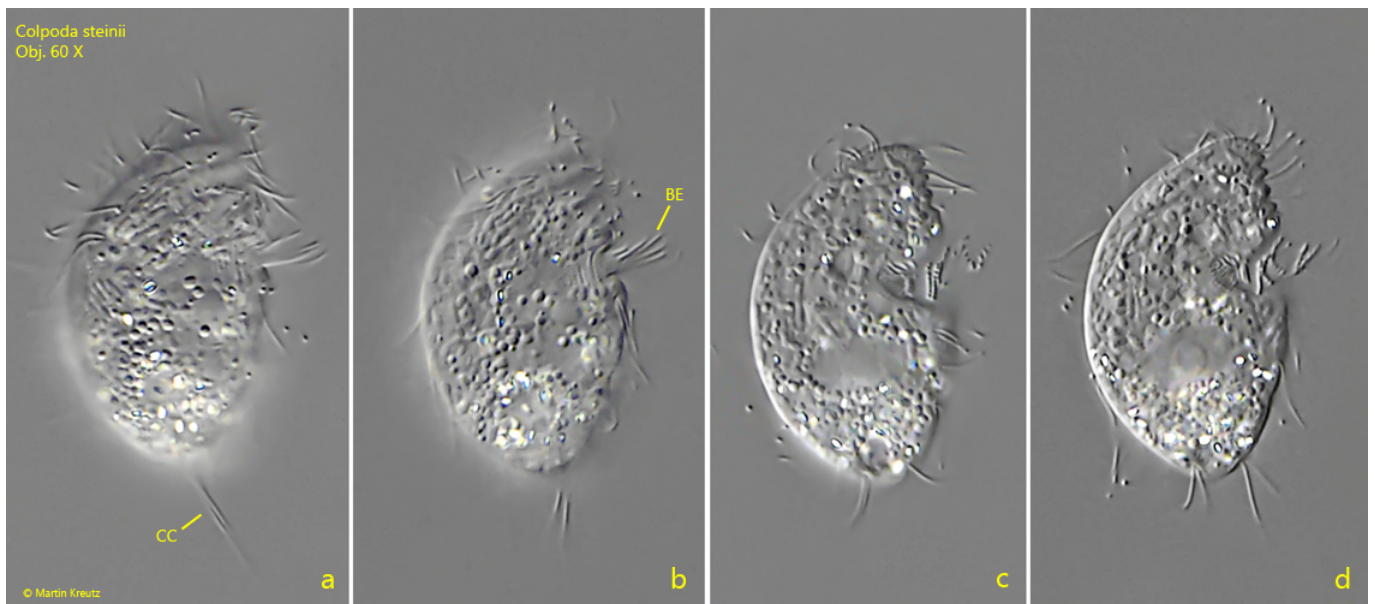
I find *Colpoda steinii* in almost all moss samples that I pour rainwater over in Petri dishes. After a few days, populations of varying sizes occur. However, *Colpoda steinii* can also be found in hay infusions, soil samples and even in plankton.

*Colpoda steinii* can easily be confused with other *Colpoda* species, such as *Colpoda ecaudata* or *Colpoda aspera*. *Colpoda ecaudata*, however, has several nucleoli in the macronucleus and not just a central one. *Colpoda aspera* is smaller and has a pointed apikal end. Both species also have no caudal cilia, like *Colpoda steinii*.

The two caudal cilia of *Colpoda steinii* are hard to see at high magnifications because they are constantly moving and are rarely in focus. It is therefore advisable to examine specimens at first at lower magnifications. The characteristic “beard”, which originates in the middle of the ventral side, is also striking. These are the long cilia of the left oral cilia. This dense field of cilia (polykinetid) is difficult to recognize under the light microscope. However, it is possible to distinguish between the left and right cilia of the mouth opening when focusing through.



**Fig. 1 a-b:** *Colpoda steinii*. L = 28  $\mu$ m. A freely swimming specimen from left. Note the two caudal cilia (CC). Obj. 40 X.



**Fig. 2 a-d:** *Colpoda steinii*. L = 33  $\mu$ m. A second freely swimming specimen from right. Note the “beard” (BE) of long cilia left oral polykinetid. CC = caudal cilia. Obj. 60 X.



**Fig. 3 a-c:** *Colpoda steinii*. L = 39  $\mu$ m. A slightly squashed specimen from right. Note the right oral polykinetid (ROP) and the left oral polykinetid (LOP). In the center of the macronucleus (Ma) a spherical nucleolus is visible. AK = apical keel with ribs, CV = contractile vacuole, PC = paired cilia. Obj. 100 X.



**Fig. 4:** *Colpoda steinii*. L = 34  $\mu$ m. A slightly squashed specimen from left. LOP = left oral polykinetid, Nu = nucleolus (in center of macronucleus). Obj. 100 X.