Lepidodermella squamata (Dujardin, 1841)

Most likely ID: n.a.

Synonym: Chaetonotus squamatus

Sampling location: Simmelried

Phylogenetic tree: Lepidodermella squamata

Diagnosis:

- length 110 220 μm , width 28 52 μm
- body shoe-shaped, mostly slender
- head five-lobed
- four lateral ciliate tufts
- hypostomium formed of two cusps
- two pairs of dorsal setolae, posterior one on special scales, sometimes double-keeled.
- toes completely scaled, 18-27 μm long
- adhesive tubes half of toe-length
- dorsally 7-9 longitudinal rows of spineless scales, maximal size 7 10 X 4 10 μm
- proximal margin of scales strongly convex and overlapping
- head and trunk scales elongately oval
- neck scales transversely oval and very short (4-5 x 8-9 $\mu m)$
- at posterior end 2 large terminal scales and numerous small scales
- pharynx cylindrical, terminally only slightly swollen, 28-56 µm long



Lepidodermella squamata

Lepidodermella squamata is supposed to be one of the most common gastrotrichs. However, I only found one specimen in August 2022 in rotting plant masses from Simmelried. The species is easily recognized by the dorsal scales, which are arranged like shigles on a roof and overlap strongly. They do not possess a keel or a spine. In addition, the toes are also covered with scales. On the ventral side, the scales in the anterior third are arranged in broad bands, which is also very characteristic. On the dorsal surface of the pharynx I could recognize a structure reminiscent of a tuning fork, which is not described yet for *Lepidodermella squamata*. However, it has been observed in other gastrotrichs (e.g. *Chaetonotus hoanicus*, Müller, 2022).



Fig. 1 a-d: Lepidodermella squamata. L = 185 μ m. Dorsal view of a freely swimming specimen. Obj. 40 X.



Fig. 2: Lepidodermella squamata. $L = 185 \mu m$. Dorsal view of squashed specimen. Obj. 100 X.



Fig. 3: Lepidodermella squamata. L = 185 μ m. The dorsal scales at the posterior end in detail. Obj. 100 X.



Fig. 4: Lepidodermella squamata. $L = 185 \mu m$. The ventral scales focussed from the dorsal side. TS = ventral terminal scales. Obj. 100 X.



Fig. 5: *Lepidodermella squamata*. $L = 185 \mu m$. Peculiar tubes reminiscent of atuning fork with unknown function are visible on the dorsal surface of the pharynx visible (arrows). Obj. 100 X.