

Macrostomum magnacurvituba n. sp. (Macrostomida,
Plathelminthes) replaces *Macrostomum curvituba* in
coastal waters of Greenland and Iceland

Peter Ax

Macrostomum curvituba Luther, 1947 is a widespread brackish water plathelminth of the northern hemisphere. Recently we found the species near Kotzebue (Alaska) and at the Faroes (AX & ARMONIES, 1990; AX 1994). However, *M. curvituba* was not found at Greenland and Iceland in brackish water biotops and adjacent limnic areas that I studied. Surprisingly here the place of *M. curvituba* is occupied by populations of another new *Macrostomum* species. This species will be described as *M. magnacurvituba*.

Localities

Greenland: Disko Island

Mouth of the limnic lagoon in front of the Arctic Station Godhavn. Sandy sediment ashore. Effluent freshwater during the investigation. August 1991. (Locus typicus).

Iceland: Hlidarvatn, Reykjanes peninsula.

Lagoon with connection to the marine coast. Clean coarse sand of a beach at the northeast corner. No salinity during the investigation. July, August 1993.

Material: Live observations on several specimens of both localities.

Body length about 1 mm. Uncoloured. Without pigmented eye spots.

As a rule the stylet is curved slightly. Length of the stylet between 140 and 175 μm . Furthermore the proximal part of the tube regularly has longitudinal stripes. Towards the distal end the wall of the stylet swells and thickens. The distal opening is oblique.

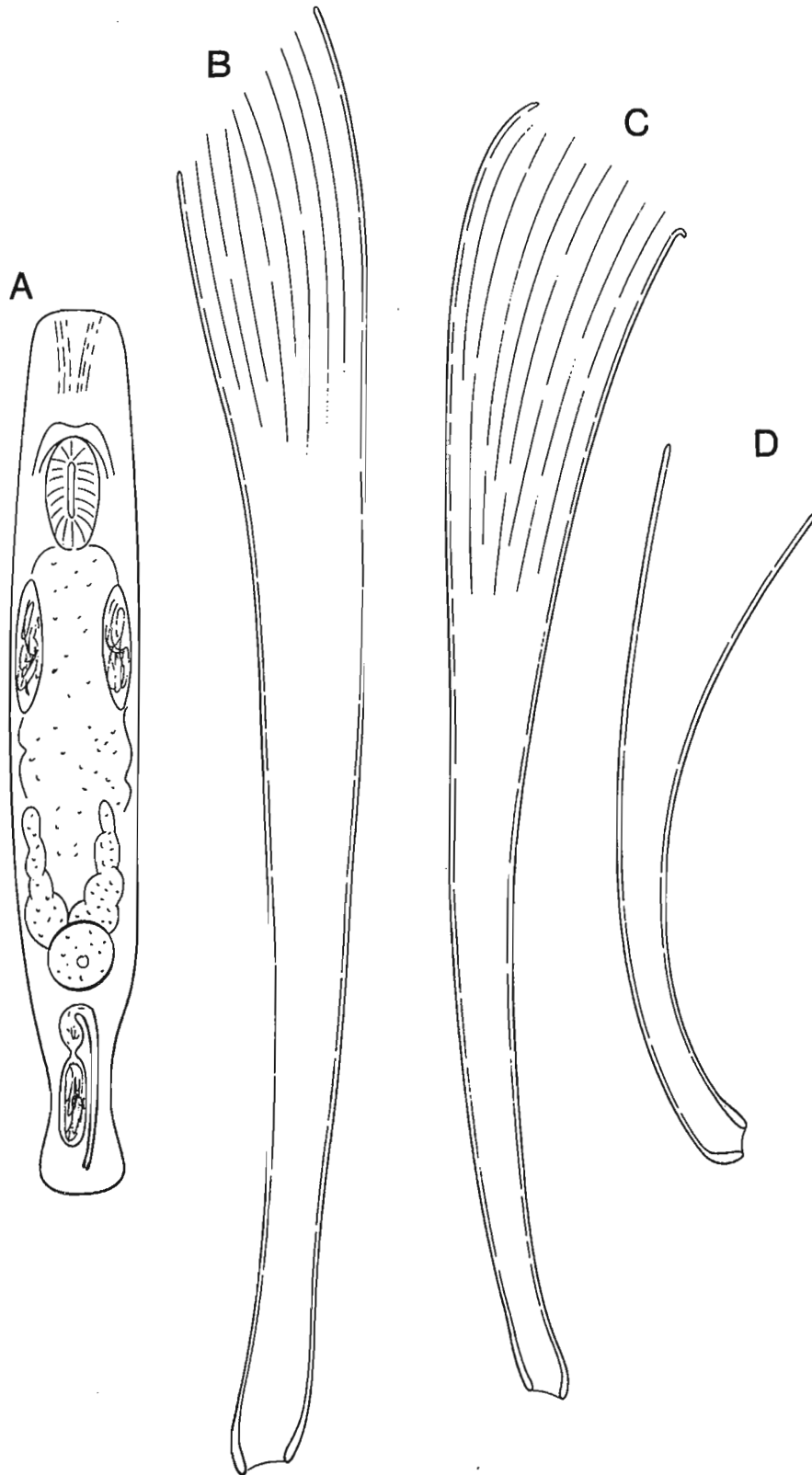


Fig. 1. A-C. *Macrostomum magnacurvituba*. A. Habitus. B. Stylet (Greenland). C. Stylet (Iceland). D. *Macrostomum curvituba*. Stylet (Faroes).

<i>M. magnacurvituba</i>		Stylets of different specimens	
Measurement in μm	Length	Opening	
		prox.	distal
Greenland	150	30	6
	140		
	163		
Iceland	148	22	8
	150		
	156		
	175		

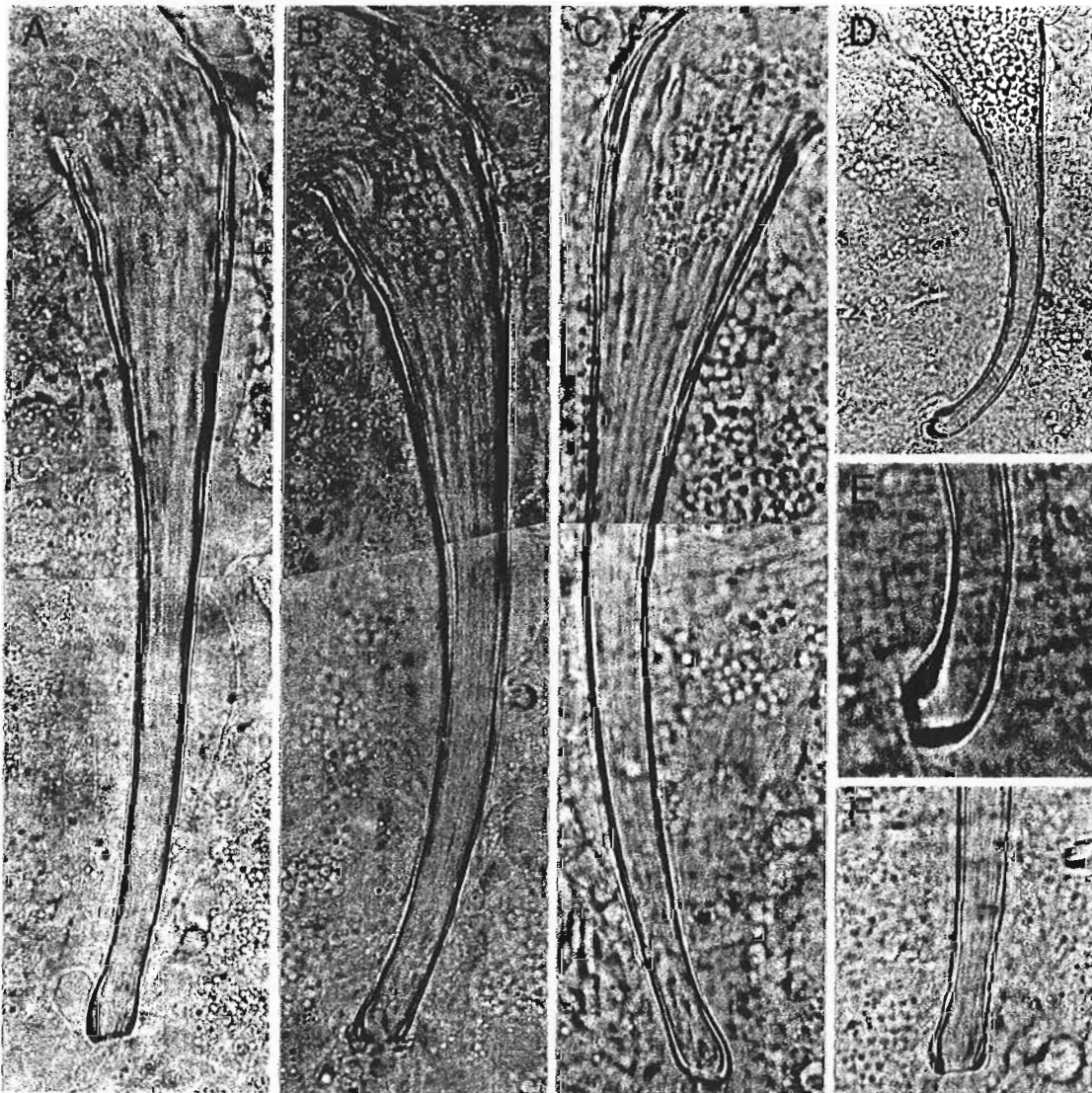


Fig. 2. A-C. *Macrostomum magnacurvituba*. A and B. Stylet (Greenland). C. Stylet (Iceland). D and E. *Macrostomum curvituba*. D. Stylet (Faroes). E. Distal part of the stylet (Faroes). F. *Macrostomum magnacurvituba*. Distal part of the stylet (Iceland).

Comparison

The stylet of *M. curvituba* is considerably shorter. Published data vary between 75 and 98 μm (LUTHER 1947, 1960; AX 1951; AX & ARMONIES 1990). Measurements of four specimens from the Faroes (Hosvik) result in 87, 90, 93 and 102 μm . In addition the stylet of *M. curvituba* is bent stronger and the thickened distal end is building nearly a semicircle on one side.

M. magnacurvituba and *M. curvituba* are very similar species of the taxon *Macrostomum*. I emphasize the lack of pigmented eyes as an apomorphic congruence and also the geographical vicariance in corresponding biotopes at the border between the sea and freshwater. *M. magnacurvituba* and *M. curvituba* might be sister species (adelphotaxa).

References

- AX, P. (1951): Die Turbellarien des Eulitorals der Kieler Bucht. Zool. Jb. (Systematik) 80, 277–378.
- AX, P. (1994): Brackish-water Plathelminthes amidst the northern Atlantic Ocean. Hydrobiologia (in press).
- AX, P. & W. ARMONIES (1990): Brackish water Plathelminthes from Alaska as evidence for the existence of a boreal brackish water community with circumpolar distribution. Microfauna Marina 6, 7–109.
- LUTHER, A. (1947): Untersuchungen an rhabdocoelen Turbellarien VI. Macrostomiden aus Finnland. Acta Zool. Fenn. 49, 1–40.
- LUTHER, A. (1960): Die Turbellarien Ostfennoskandiens I. Acoela, Catenulida, Macrostomida, Lecithoepitheliata, Prolecithophora und Proseriata. Fauna Fennica 1, 1–95.

Prof. Dr. Peter Ax

II. Zoologisches Institut und Museum der Universität Göttingen
Berliner Straße 28, D-37073 Göttingen