

Dichromadora longicaudata sp.n. (Figure 1A–F)

Type material

Five males and four females on slide nos. RI 518–RI531 and 10371–10377

Etymology

Name given because of the species long tail for the genus

Type locality

Males from sts. 105 (1♂), 120 (♂₁), 131 (1♂), 532 (2♂)

Females from sts. 105 (1♀), 120 (♀₁), 132 (1♀), 550 (1♀)

Measurements

$$\sigma_1 \frac{- \quad 45 \quad 64 \quad M \quad 383}{5 \quad 8 \quad 11 \quad 14 \quad 8} \quad 548$$

a: 39.1; b: 8.6; c: 3.3; c': 18.3; spic: 19

$$\text{♀}_1 \frac{- \quad 41 \quad 66 \quad 208 \quad 377}{5 \quad 11 \quad 12 \quad 13 \quad 8} \quad 538$$

a: 41.4; b: 8.2; c: 3.6; c': 18.9; V: 39%

Other ♂♂ L: 486–510; a: 35.4–42.5; b: 7.0–8.6; c: 3.0–3.3; c': 16.1–20.1; spic: 19–24

Other ♀♀ L: 425–590; a: 30.4–44.8; b: 6.7–8.2; c: 2.5–4.0; c': 13.4–18.9; V: 39–43

Description

Males: The body is cylindrical and very thin with an elongate almost filiform tail. Head may be set off by a fine constriction (Figure 1A). The cuticle is annulated and punctated with fine dots on the rest of the body except the lateral sides, which have two longitudinal rows of thick dots starting from the anterior end; the width between the two rows of lateral dots

being 2–3 μm. Somatic setae are 5 μm long and in four longitudinal rows.

Four fine cephalic setae, 2–3 μm long; amphids were not seen. Stoma is small and has one hollow dorsal tooth. The pharynx is cylindrical, 63–71 μm long, with a pyriform terminal bulb that is 7–9 μm in diameter at the widest part. The nerve ring surrounds the pharynx at 62–67% of the pharyngeal length from the anterior end (Figure 1C).

The reproductive system is monorchic, with outstretched testis located to the right of the intestine. The spicules are thin and arcuate, 2.3–2.6 x abd long. The gubernaculum is fine, 7 μm long, located parallel to the posterior part of the spicules and serrated on the posterior end (Figure 1E).

Tail is thin and long (107–212 μm) and has a fine long spinneret (10–16 μm long) (Figure 1E).

Females: Females are similar to males (Figure 1B, 1D). The reproductive system is amphidelphic, with reflexed ovaries, anterior branch located to the right of the intestine, posterior branch located to the left. The vulva is simple and vagina is surrounded by prominent sphincter muscles (Figure 1F).

Differential diagnosis

Dichromadora longicaudata sp.n. is characterised by a slender body with an elongate tail; cuticle with two longitudinal rows of conspicuous dots; 5 μm long cephalic and somatic setae; arcuate spicules and a gubernaculum with blunt posterior end; and a very long spinneret.

D. longicaudata can be distinguished from all other described *Dichromadora* species except *D. amphidiscoides* by its body size and shape (small slender body with a long tail). *Dichromadora longicaudata* closely resembles *D. amphidiscoides* Kito, 1981 in the general body shape, but a-ratio is higher in the new species (a = 30.4–44.8 in *D. longicaudata*) compared to *D. amphidiscoides* (a = 23.8–30.6) and the relative tail length is different between the two species (c'-ratio = 13.4–20.1 in *D. longicaudata* compared to c'-ratio = 7.3–7.9 in *D. amphidiscoides*). Furthermore, *Dichromadora amphidiscoides* has circular or loop-shaped amphids and *D. longicaudata* has a long spinneret (10–16 μm long)

Table 2. *Dichromadora* species described below, distinguishing characters

	Body shape	Pharyngeal bulb	Supplements
<i>D. longicaudata</i> sp.n.	slender, long M = 13–14 μm	set off, pyriform	absent
<i>D. gathuai</i> sp. n.	cylindrical, M = 25–28 μm	set off, pyriform	absent
<i>D. loisae</i> sp. n.	cylindrical, M = 20–21 μm	double	7
<i>D. cucullata</i>	cylindrical, M = 20–26 μm	pyriform	7
<i>D. quadripapillata</i> sp.n.	cylindrical, M = 21–23 μ	pyriform	4

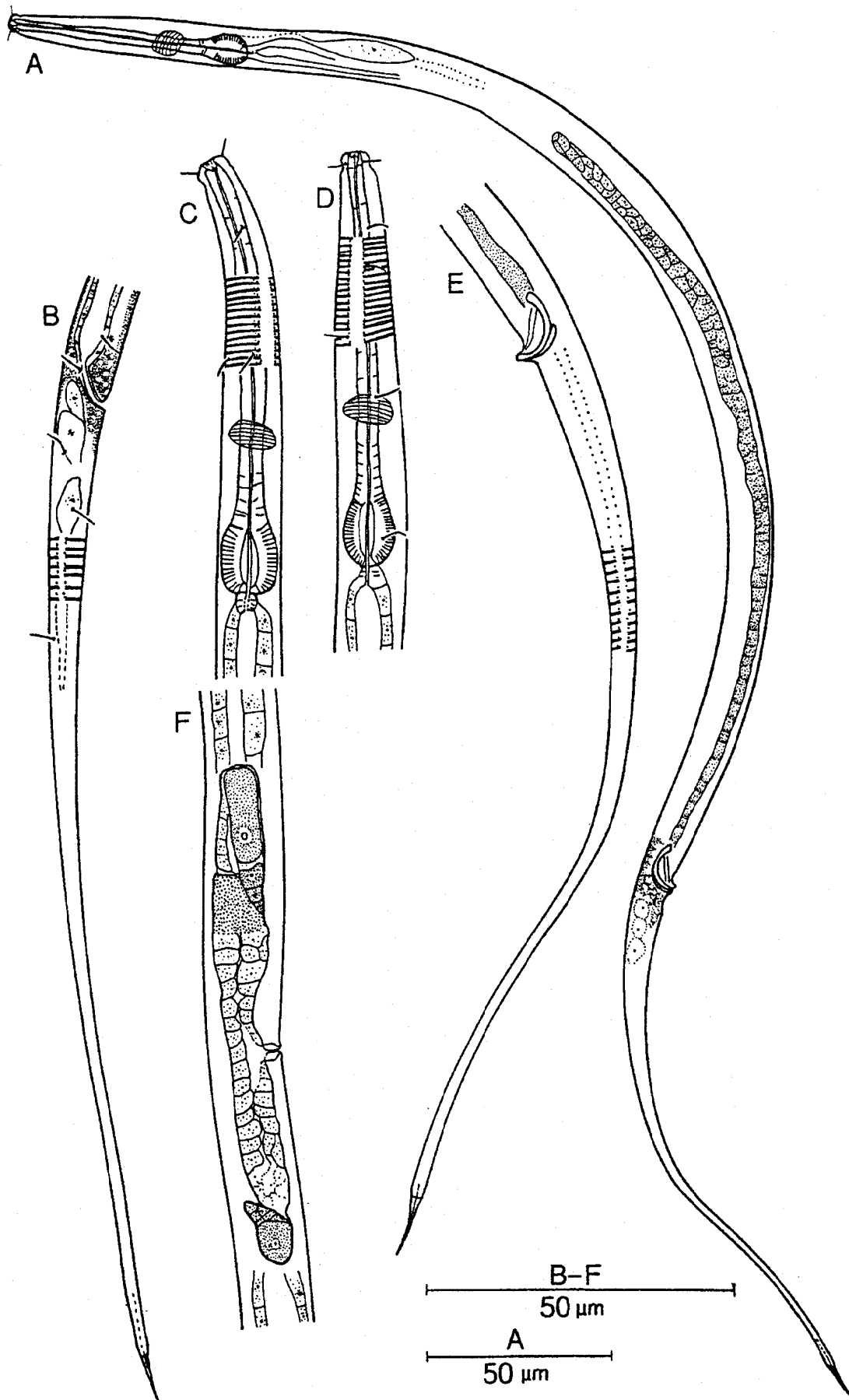


Figure 1. *Dichromadora longicaudata* sp.n. A: ♂₁ total body; B: ♀₁ tail; C: ♂₁ pharyngeal region; D: ♂₂ pharyngeal region; E: ♂₂ tail; F: ♀₁ reproductive system.

The abbreviations used in the text are: a: body length divided by maximum body diameter, b: body length divided by pharyngeal length, c: body length divided by tail length, c': tail length divided by anal body diameter, abd: anal body diameter, cbd: corresponding body diameter, hd: head diameter at the level of the cephalic setae, L: body length, M: maximum body diameter, spic: spicule length, V%: position of vulva as a percentage of body length from anterior, v: vulva distance from the anterior Formula: distance from the anterior to;

$$\frac{\text{head} \quad \text{end of the pharynx} \quad \text{M (vulva)} \quad \text{anus}}{\text{cbd}} \quad \text{total length}$$

All measurements (not ratios) are in micrometers and all curved structures are measured along the arc.

Table 1a. Location and depth of the sampling stations for cruise A1

Date	Station	Latitude S	Longitude E	Depth (m)
20/06/92	103	04E.25'.83	39E.33'.58	62
22/06/92	105	04E.24'.06	39E.45'.99	511
23/06/92	106	04E.20'.35	40E.21'.70	1000
23/06/92	107	04E.21'.83	41E.13'.16	2053
25/06/92	108	03E.10'.06	40E.10'.32	18
25/06/92	111	03E.09'.78	40E.14'.41	53
27/06/92	114	03E.10'.27	40E.17'.02	213
28/06/92	117	03E.08'.21	40E.41'.80	500
29/06/92	118	03E.08'.46	41E.01'.77	1112
29/06/92	119	03E.10'.67	41E.14'.20	2007
30/06/92	120	02E.42'.20	40E.31'.18	21
30/06/92	12	02E.43'.07	40E.33'.89	52
02/07/92	127	02E.03'.61	41E.17'.80	24
02/07/92	128	02E.03'.16	41E.18'.48	55
03/07/92	132	01E.56'.03	41E.31'.54	1000
03/07/92	133	02E.01'.49	41E.46'.96	2015
04/07/92	131	02E.00'.27	41E.26'.62	500
06/07/92	136	02E.40'.05	41E.10'.17	992

Table 1b. Location and depth of the sampling stations for cruise A2

Date	Station	Latitude	Longitude	Depth
30/11/92	503	04E.19'.28	39E.35'.56	47
03/12/92	505	04E.25'.33	39E.45'.21	520
04/12/92	506	04E.19'.45	40E.21'.80	1020
02/12/92	507	04E.21'.31	41E.13'.64	2088
28/11/92	511	03E.09'.59	40E.13'.94	57
25/11/92	514	03E.10'.27	40E.17'.34	207
25/11/92	517	03E.09'.43	40E.41'.25	508
26/11/92	518	03E.07'.98	40E.59'.96	963
27/11/92	519	03E.09'.28	41E.16'.53	2179
23/11/92	528	02E.04'.76	41E.17'.40	39
20/11/92	531	02E.00'.48	41E.37'.56	516
22/11/92	532	01E.56'.02	41E.37'.56	904
21/11/92	533	02E.00'.86	41E.47'.71	2027
07/12/92	550	04E.11'.96	39E.37'.94	51
07/12/92	552	04E.07'.71	39E.54'.67	500