

Dichromadora quadripapillata sp.n. (Figure 5A–G)

Type material

One male and five females on slide nos. RI535–RI536 and 10389–10391

Type locality

All specimens are from st. 511

Measurements

$$\sigma_1 \frac{\begin{array}{cccc} - & N & 84 & M & 632 \\ 9 & - & - & 23 & 19 \end{array}}{727}$$

a: 31.6; b: 8.7; c: 7.7; c': 5.0; spic: 26

$$\text{♀}_1 \frac{\begin{array}{cccc} - & 60 & 100 & 307 & 584 \\ 8 & 19 & 21 & 24 & 14 \end{array}}{699}$$

a: 29.1; b: 7.0; c: 6.1; c': 8.2; V: 44%

Other ♀♀ L: 661–717; a: 25.4–27.6; b: 7.2–8.7; c: 5.8–7.7; c': 6.6–7.6; V: 43–46%

Description

Males: The body is cylindrical, blunt anteriorly and tapering at the tail end. The cuticle is homogeneous with transverse rows of punctations. At the pharyngeal region, the dots are more conspicuous than on the rest of the body. At the lateral sides, there are four longitudinal rows of thick dots that extend from the anterior to the tail end. Somatic setae are sparse and short.

Amphids were not seen. The inner labial setae are inconspicuous, outer labial sensilla are papilliform and the cephalic ones are 4 μm long (Figure 5A). The stoma is small and has a dorsal hollow tooth and two small sub-ventral ones. The pharynx is cylindrical, 80–100 μm long, with a well set off terminal bulb which is 62–67% cbd in diameter. The nerve ring surrounds the pharynx at 60–64% of its length from the anterior (Figure 5B, female). Ventral gland is large 23–26 μm long, located at 28–32 μm (mid-point) from the cardia but the gland opening was not seen.

The reproductive system is monorchic with out-stretched testis located to the right of the intestine. The spicules are 1.4 \times abd long and curved. The gubernaculum is 18 μm long and parallel to the spicules.

There are four (1+3) cup-shaped pre-cloacal supplements located at 23 μm , 41 μm , 51 μm and 61 μm in front of the cloacal (Figure 5G). The tail is conico-cylindrical, with a clear spinneret (Figure 5G).

Females: They are similar to males in most aspects. The reproductive system is amphidelphic, with out-stretched ovaries, anterior branch to the right of the intestine, posterior one to the left of it (Figure 5B). In one female, there was an egg (21 \times 41 μm in size) in either side of the uterus, indicating that ovulation takes place simultaneously from both ovaries (Figure 5D) in this species.

Tail is cylindrical, with an elongate narrow posterior end. It is relatively longer than in the male.

Differential diagnosis

Dichromadora quadripapillata sp.n. is characterised by four longitudinal rows of dots, short somatic setae with two conspicuous pairs at the anterior pharyngeal region, cephalic sensilla are 40% of the hd and four (1+3) pre-cloacal supplements in males.

Dichromadora quadripapillata sp.n. differs from other described *Dichromadora* species in the number (four) and arrangement (1+3) of the pre-cloacal supplements.

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

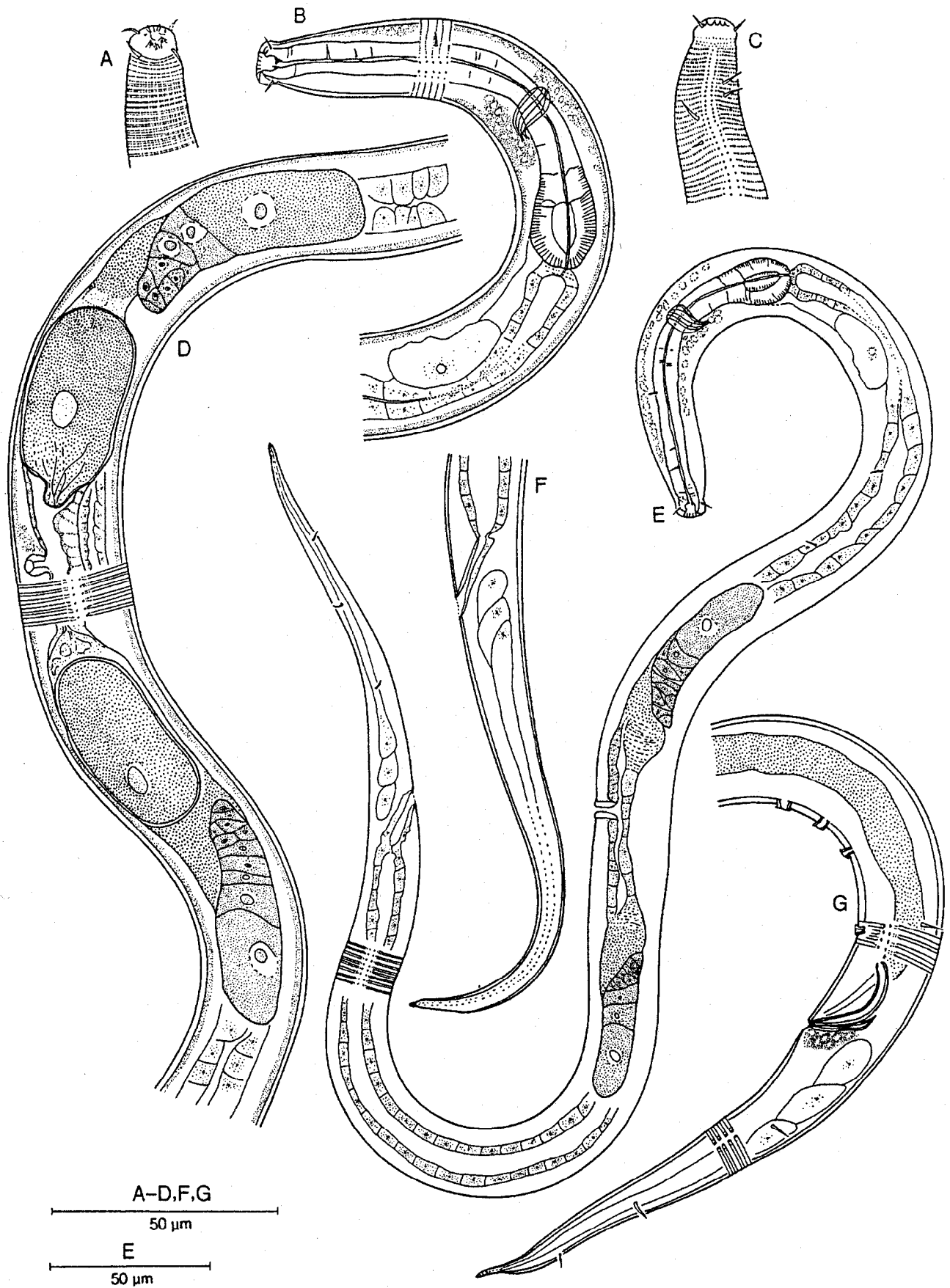


Figure 5. *Dichromadora quadripapillata* sp.n. A: ♂₁ head (superficial); B: ♀₁ pharyngeal region; C: ♀₁ head (section); D: ♀₁ reproductive system; E: ♀₁ total body; F: ♀₁ tail; G: ♂₁ tail.

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