

*Dichromadora loisae* sp.n. (Figure 3A–G)

*Type material*

Four males and five females in slide nos. RI534 and 10386–10388

*Etymology*

Name given after Miss Loise Kamau of the Kenyan Embassy in Belgium

*Type locality*

Males from sts. 108 (3 including holotype) and 127 (1), females from sts. 108 (allotype) and 127 (4)

*Measurements*

$\sigma_1$	—	48	84	<i>M</i>	517	589
	9	16	17	20	14	

a: 29.5; b: 7.0; c: 8.2; c': 5.1; spic: 28

$\varphi_1$	—	48	84	271	460	546
	10	16	17	21	12	

a: 26.0; b: 6.5; c: 6.3; c': 7.2; V%: 50

Other  $\sigma\sigma$  L: 5.13–561; a: 29.2–36.6; b: 6.5–7.2; c: 7.2–8.0; c': 5.0–5.5; spic: 27

Other  $\varphi\varphi$  L: 508–614; a: 27.0–30.6; b: 6.0–7.3; c:

*Description*

*Males*: The body is cylindrical with a rather blunt anterior end with a raised collar that surrounds the labial rugae and a conical cylindrical tail (Figure 3B). The cuticle is punctated from just posterior of the amphids until the tail end leaving a small (4–5  $\mu\text{m}$ ) non-punctated end part. At the pharyngeal region the punctations are larger and more conspicuous than on the rest of the body. There are two longitudinal rows of larger dots on the lateral sides.

Inner and outer labial sensilla are inconspicuous and the four cephalic ones are 3  $\mu\text{m}$  long and located at the base of the collar (Figure 3C). The somatic setae are in four longitudinal rows, 3–4  $\mu\text{m}$  in length. At the pharyngeal region there are two pairs of conspicuous somatic setae; a dorsal pair located at 12–15  $\mu\text{m}$  and 14–19  $\mu\text{m}$  from the anterior end and a ventral pair located at 16–20  $\mu\text{m}$  and 17–24  $\mu\text{m}$  from the anterior end.

The stoma has a large dorsal tooth and two smaller sub-ventral ones (Figure 3E). The pharynx is 78–86  $\mu\text{m}$  long, cylindrical with a posterior well-developed double bulb that is 12–15  $\mu\text{m}$  at the widest part. The nerve ring surrounds the pharynx at 54–57% of the length of the pharynx from the anterior end. The ventral gland is small, (located at 12  $\mu\text{m}$  from the end of the pharynx) (Figure 3A). The opening of the gland was not seen.

The reproductive system is long with the vas deferens being half as long. Spicules are 1.9–2.1 abd long, curved and without a capitulum and appears to have a velum. The gubernaculum is simple 12–14  $\mu\text{m}$  long. There are seven (or eight) cup-shaped pre-cloacal supplements located close to each other from 12–14  $\mu\text{m}$  until 44–54  $\mu\text{m}$  from the cloaca opening (Figure 3F).

*Females*: They are similar to males except for the tail that is relatively longer than in males (see c-ratio and c' values) (Figure 3E and 3F). The reproductive system is amphidelphic with reflexed ovaries; anterior to the right and posterior to the left of the intestine (Figure 3D).

*Differential diagnosis*

*Dichromadora loisae* sp.n. is characterised by a blunt anterior end with a collar that surrounds the labial rugae, a stoma with a large dorsal tooth, a well-developed double pharyngeal bulb and seven pre-cloacal supplements.

A double pharyngeal bulb and an anterior collar surrounding the rugae are typical characters for the genus

*Ptycholaimellus* (Jensen & Nehring, 1992). However, *Ptycholaimellus* has a groove at the base of the collar and lacks typical chromadorid precloacal supplements. In this new species, the amphids can be seen at the level of the cephalic setae which maybe an indication that there maybe no groove. And although the opening of the ventral gland and the size of the same were not clearly indicated as generic characters for *Ptycholaimellus* (Jensen & Nehring, 1992), most species of *Ptycholaimellus* have the ampulla at the anterior end and the ventral gland is large, which is not the case in this species. Furthermore, this species has typical Chromadorid supplements. Therefore, we place this species in the genus *Dichromadora* because of having a large dorsal hollow tooth, two longitudinal rows of dots and precloacal supplements and because it lacks a large buccal bulb. Besides, *D. gracilis* Kreis, 1929, although not illustrated is described as having a double bulb and *Dichromadora* sp. Vitiello, 1970, is illustrated as having one (double bulb), although not well-developed.

Other *Dichromadora* species that possess seven pre-cloacal supplements are *D. cephalata* (Steiner, 1916), Gerlach, 1951 and *D. cucullata* Lorenzen, 1973. However, *D. loiseae* sp.n. can be distinguished from these species in having a double bulb and a collar.

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

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

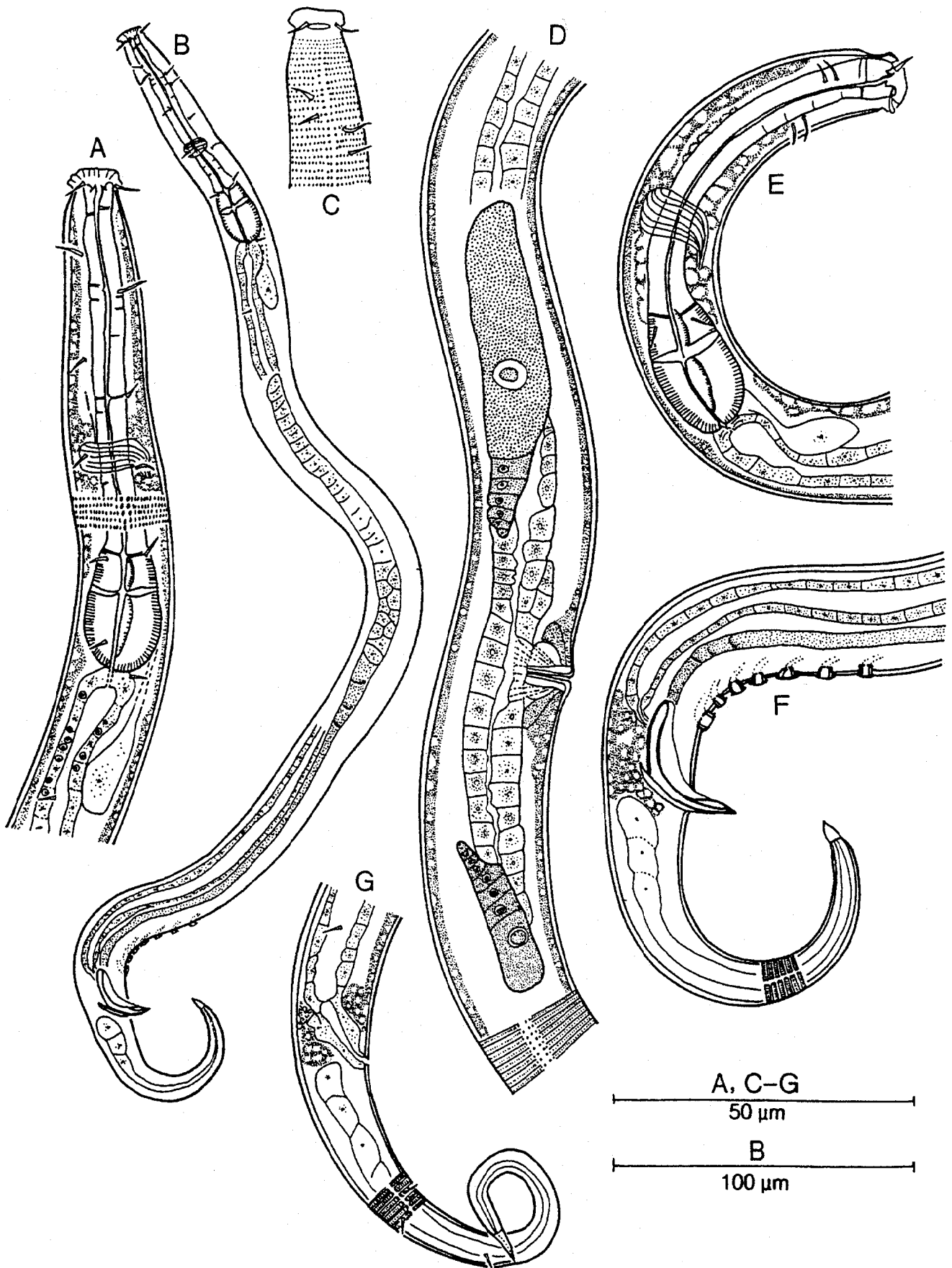


Figure 3. *Dichromadora loiseae* sp.n. A: ♂<sub>1</sub> pharyngeal region; B: ♂<sub>1</sub> total body; C: ♂<sub>1</sub> head; D: ♀<sub>1</sub> reproductive system; E: ♀<sub>1</sub> pharyngeal region; F: ♂<sub>1</sub> tail; G: ♀<sub>1</sub> tail.

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;

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

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