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The genus *Dorylaimoides* Thorne & Swanger, 1936 (Nematoda : Dorylaimida). 2. A compendium and key to the species

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Summary – Several morphological qualitative features (lip region, pharyngeal bulb, female genital system and tail) which are traditionally used in the differentiation of *Dorylaimoides* species are evaluated for a better approach to the taxonomy of the genus. A compendium of these species and a key to their identification are given.

Résumé – ***Le genre* Dorylaimoides *Thorne & Swanger, 1936 (Nematoda : Dorylaimida). 2. Compendium et clé de détermination des espèces*** – Plusieurs caractères morphologiques (région labiale, bulbe pharygien, système génital femelle, queue), traditionnellement utilisés dans la différentiation des espèces de *Dorylaimoides,* sont évalués aux fins d'une meilleure approche de la taxinomie du genre. Un compendium et une clé de détermination des espèces sont fournis.

Key-words : *Dorylaimoides,* key to species, nematodes, taxonomy.

In this second paper on the taxonomy of the genus *Dorylaimoides* Thorne & Swanger, 1936, we consider the identification of the species. For the list of these species and their synonyms, and the references of their original descriptions, we refer to our earlier paper (Peña Santiago & Peralta, 1997).

The high number of species at present included in *Dorylaimoides* has complicated their differentiation and the taxonomy of the group. Leaving aside many quantitative characters (different measurements or indexes), there are several morphological qualitative features, such as these related with lip region, pharyngeal bulb, female genital system and tail, which have been traditionally used in the differentiation of species. These morphological features can be evaluated for a better approach to the taxonomy of the genus.

Lip region shape presents very little intraspecific variability (for instance, among the fourteen different species studied by us in Spain, only some populations of *D. limnophilus* show a slight difference in this feature) but the range of interspecific variation is also limited since most species have the lip region offset by a depression or weak constriction; moreover, the information (description, illustration, etc.) available is often not very precise on this point. So, lip region shape allows us to characterize easily the species in question, but it can rarely be used to separate it from others.

The presence or absence of a constriction between the two parts of the pharynx has been taken into consideration by authors such as Goseco *et al.* (1976) in the taxonomy of the group. Our experience indicates that the use of this feature is rather difficult if not impossible; on the one hand, when this constriction is present normally it is somewhat inconspicuous since the part of the pharynx immediately anterior to the basal bulb is rather slender and its expansion is relatively abrupt, so that the constriction is weak and never comparable with that of other dorylaims such as some leptonchids or belondirids; on the other hand, in some species for which abundant material has been examined (see Loof, 1990 for *D. limnophilus,* and Peralta and Peña Santiago, 1995*a* for *D. ornatus*), there exists a clear intraspecific variability in this feature.

Morphology of the female genital system is obviously very interesting for the taxonomy of the genus; the three basic schemes (didelphic, pseudodidelphic-opisthodelphic and monodelphic-opisthodelphic) present practically no qualitative intraspecific variability, which means that they are excellent diagnostic characteristics. Pseudodidelphic-opisthodelphic species are relatively frequent in the genus (in Spanish nematofauna among fourteen species, four are pseudodidelphic; *cf.* Peralta & Peña Santiago, 1995*b*) and a detailed study of the morphology of the anterior genital branch of some monodelphic-opisthodelphic species shows the existence of a sphincter and a vestigial oviduct and ovary.

Caudal region shape is also very useful for the identification and differenciation of the species since it presents a very large range of possible states; moreover, if we refer to qualitative features, the intraspecific variability is small. In some cases where several populations are known, it is easy to find significative variations mainly

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affecting the extent of ventral curvature of the tail (see, *e.g.,* Goseco *et al.,* 1976 for *D. arcuatus*) or even its general aspect (see Goseco *et al.,* 1976 for *D. micoletzkyi,* or Peralta and Peña Santiago, 1995*a* for *D. ornatus*), making the taxonomy of the species more complex.

Tables 1 to 3 include a compendium of the species hitherto included in the genus; these species have been divided into three groups : didelphic, pseudodidelphic-opisthodelphic and opisthodelphic species, respectively. Here, we present a dichotomous key to the species and groups.

Dichotomous key to the species and groups

DIDELPHIC SPECIES

1 – L > 1.8 mm 2
– L < 1.8 mm 4
2 – L > 2.5 mm; female c < 8 ..... *longicaudatus* *
– L < 2.5 mm; female c > 9 3
3 – a < 50; odontostyle = 8 µm; tail < 170 µm ..... *ariasae*
– a > 50; odontostyle = 5 µm; tail > 180 µm ..... *leptura*
4 – Tail filiform, almost always longer than 70 µm; c' > 4 5
– Tail conical elongate to rounded; almost always shorter than 70 µm; c' < 4 13
5 – Female tail < 100 µm; c > 14; c' < 5 ..... *akon*
– Female tail > 100 µm; c < 14; c' > 5 6
6 – Female tail > 200 µm 7
– Female tail < 200 µm 8
7 – Odontostyle = 11 µm; spicules strongly ventrally curved and 34-36 µm long ..... *malabaricus*
– Odontostyle = 4-7 µm; spicules slightly ventrally curved and 24-29 µm long ..... *filicaudatus*
8 – V = 44-49 ..... *hispanicus*
– Almost always V < 43 9
9 – Female tail > 130 µm 10
– Female tail < 130 µm 11
10 – L < 1.3; V = 35-38; 5-6 supplements; spicules 27-30 µm ..... *elaboratus*
– L > 1.3; V = 39-40; 9-11 supplements; spicules 35-42 µm ..... *lepidus*
11 – Odontostyle robust, spicules clearly ventrally curved ..... *paulbuchneri*
– Odontostyle slender, spicules slightly ventrally curved 12
12 – Vagina practically cylindrical ..... *parvus*
– Vagina conical or pear-shaped ..... *similis*
13 – Tail conical elongate or conical with more or less blunt terminus, sometimes digitate 14
– Tail short rounded or hemispherical, sometimes mammilate 23
14 – Ventral side of the tail regularly ventrally curved ..... *arcuicaudatus*
– Ventral side of the tail straight or dorsally bent at the end 15
15 – Dorsal side of the tail regularly convexe 16
– Dorsal side of the tail first convexe, then concave with digitate appearance 20
16 – Ventral side of the tail with a peculiar festoon-like irregular contour ..... *ornatus*
– Ventral side of the tail smooth and regular 17
17 – L < 0.9; odontostyle 1.1-1.4 times as long as the lip region width ..... *loofi*
– L > 0.9; odontostyle shorter than the lip region width 18
18 – Lip region amalgamated and continuous with the adjacent body ..... *enodis*
– Lip region offset by constriction 19
19 – L ≤ 1.3; V ≤ 50 ..... *buccinator*
– L > 1.3; V = 50-57 ..... *websteri*
20 – Female tail ≤ 45 µm long ..... *elegans*
– Female tail > 45 µm long 21
21 – V = 45-48 ..... *leptus*
– V = 39-44 22
22 – Lip region practically continous, 4-7 irregularly spaced supplements begining at the level of the spicules ..... *micoletzkyi*
– Lip region offset by a slight constriction, 8 regularly spaced supplements anteriorly to the level of the spicules ..... *siddiqii*
23 – Tail with a terminal mammilate projection *chamoliensis*
– Tail terminus without projection 24
24 – V = 60 ..... *thecolaimus*
– V < 50 25
25 – Pharyngeal bulb 48 µm long ..... *parateres*
– Pharyngeal bulb > 50 µm 26
26 – Female tail practically hemispherical ..... *indicus*
– Female tail rounded conoid ..... *teres*

OPISTHODELPHIC SPECIES

1 – Tail filiform (in the female almost always > 100 µm long, c < 10, c' > 5) 2
– Tail elongated conical or conical with more or less blunt terminus 11
– Tail short rounded or hemispherical ..... *thornei*
2 – Anterior genital branch absent or vestigial ... *limnophilus*
– Anterior genital branch present and almost always at least equal to the corresponding body width long 3
3 – V < 28 ..... *conurus*
– V = 28 or more 4
4 – Size relatively large (L ≥ 1.3 in females, males sometimes smaller); 5-9 ventromedian supplements 5
– Size relatively small (practically always L < 1.3 mm), 2-5 supplements 7
5 – Lip region offset by a depression; prevulval sac 88-134 µm long ..... *paraconfusus*
– Lip region offset by a deep constriction; prevulval sac < 85 µm long 6
6 – Odontostyle very broad; pharyngeal bulb 61-81 µm long; V = 28-32; 9 supplements ..... *grandis*
– Odontostyle slender; pharyngeal bulb about 100 µm long; V = 34-36; 5-6 supplements ..... *subhasi*

* For authority and date of the species, see Peña Santiago and Peralta (1997).

7 – Odontostyle > 5 µm long 8
– Odontostyle ≤ 5 µm long 9
8 – Body more obese (a < 35) ..... *constrictoides*
– Body more slender (a > 35) ..... *ilyasi*
9 – Lip region set off ..... *constrictus*
– Lip region rounded and practically continuous 10
10 – Vagina very short, about 6 µm long ..... *longiurus*
– Vagina longer, about 12 µm long ..... *brevidens*
11 – Tail ventrally straight or very slightly ventrally curved, dorsally convex 12
– Tail ventrally straight or dorsally bent at the end, dorsally first convex and then concave 15
– Tail regularly and clearly ventrally curved 19
12 – Body slender (a > 45) ..... *angustus*
– Body relatively stout (a < 45) 13
13 – Tail relatively shorter (c > 35); 12 supplements .. *mitis*
– Tail relatively longer (c < 35); 5 supplements 14
14 – Prevulval sac 1.7-3.5 body widths long; odontostyle clearly shorter than lip region diameter ..... *baeticus*
– Prevulval sac scarcely more than one body width long; odontostyle as long or longer than the lip region diameter ..... *pretoriensis*
15 – Tail relatively shorter (c > 25; c′ = 1.5-2) .. *dactylurus*
– Tail relatively longer (c < 25; c′ > 3) 16
16 – Body length 1 mm or more 17
– Body length 0.9 mm or shorter 18
17 – Odontostyle 8-8.5 µm long; prevulval sac about two body widths long ..... *bulbosus*
– Odontostyle 6-7 µm long; prevulval sac about one body width long ..... *venustus*
18 – Odontostyle 6.5 µm long ..... *reversus*
– Odontostyle 8 µm long ..... *modestus*
19 – Tail relatively shorter (c′ = 1-2) ..... *kalingus*
– Tail well over two anal body widths long 20
20 – Female tail < 65 µm long; male tail relatively short (c′ < 3); spicules 27-36 µm long ..... *elongatus*
– Female tail > 65 µm long; male tail relatively long (c′ > 3); spicules 19-25 µm long 21
21 – Tail more ventrally curved, lip region almost continuous ..... *arcuatus*
– Tail more straight at its posterior half, lip region offset ..... *saueri*

PSEUDODIDELPHIC-OPISTHODELPHIC SPECIES

1 – Tail short rounded to hemispherical (< 40 µm long, c > 40, c′ < 2) 2
– Tail conical elongate to filiform (> 50 µm long, c < 30, c′ > 3) 3
2 – Lip region offset by a constriction; tail hemispherical and with a terminal duct; males absent ..... *chathami*
– Lip region practically continuous and rounded; tail rounded conoid and without terminal duct, males present ..... *rotundicephalus*
3 – Tail regularly ventrally curved, cylindrical in its posterior half ..... *cylindricaudatus*
– Tail conical, tapering gradually and dorsally bent at the end 4
4 – L = 1.67-1.95; odontostyle 6.5-7 µm long ..... *striatus*
– L = 1.26-1.56; odontostyle 5-5.5 µm long ..... *confusus*

Comments on several species

DIDELPHIC SPECIES

– The two females identified as *D. arcuicaudatus* by Jana and Baqri (1981) cannot be conspecific with the original population because of the markedly shorter body (0.68-0.75 *vs* 1.2-1.4 mm) and relatively longer female tail (c= 18-20 *vs* 26-31).

– Two females identified as *D. leptura* by Jana and Baqri (1981) cannot be conspecific with the original population because of the more anterior vulva (V = 35-36 *vs* 40-45).

– Goseco *et al.* (1976) synonymized *D. pakistanensis* Siddiqi, 1963 with *D. micoletzkyi* de Man, 1921 but, in our opinion, they did not justify conclusively this action since some of the differences noted by Siddiqi in his diagnosis can be supported now : longer tail in specimens from Pakistan (84 *vs* 48-80 µm; c = 12.5-16 *vs* 16-29) and shorter spicules (29-30 *vs* 32-38 µm). We cannot exclude the possibility that both species are not the same.

– *D. similis* is very close to *D. parvus* and a revision of the material of both species is necessary to confirm or not their conspicifity. In our opinion, only the morphology of the vagina as illustrated by Goseco *et al.* (1976) can separate them.

– *D. teres, D. parateres* and *D. indicus* constitute a species group whose boundaries are very diffcicult to establish. Only the size of the pharyngeal bulb and the shape of the tail are slightly different but the intraspecific variation of these features has not been sufficiently studied in the three species. Moreover, even the different and previously known populations of *D. teres* could be not conspecific; e.g., the four females described by Andrássy (1959) from Yugoslavia are clearly smaller and more slender. As a consequence, a revision of the material is necessary in order to clarify the diagnosis of these species.

– *D. ornatus* presents a great intraspecific variability in tail shape (from rounded conoid to conical with a slight concavity at the end); however, almost always the tail appears ventrally straight and dorsally convex.

OPISTHODELPHIC SPECIES

– *D. arcuatus* Siddiqi, 1964 is known from very different localities and habitats but a very small number of specimens have been studied in every case. Goseco *et al.* (1976) noted a large variability in length and degree of tail curvature and in the number and location of male ventromedian supplements; however, they considered all the populations to be conspecific and they proposed two new synonyms. In our opinion, such a variability is not usual in the genus and must be analysed in depth when a population with a higher number of specimens is

found. We remain in doubt (see Peralta & Peña Santiago, 1995*c*) about the identity of the Spanish specimens classified under this species.

– Goseco *et al.* (1976) studied several specimens identified as *D. bulbosus* from the Netherlands. We have examined (courtesy of P.A.A. Loof) the three females of this population and we are practically sure that they are not conspecific with those belonging to the original population since there are clear and important differences : *i)* the anterior genital branch presents a sphincter and a vestigial cell mass (so, it is not an opisthodelphic species but a pseudodidelphic-opisthodelphic one) *vs* a simple sac in the Polish population; *ii)* both parts of the pharynx are separated by a constriction *vs* no constriction; *iii)* female tail relatively longer (c′ = 4.8-5.1 *vs* 2.8-3.7).

– Following Loof (1990), we consider *D. riparius* Andrássy, 1962 as a junior synonym of *D. limnophilus* de Man, 1880.

– *D. longiurus* Siddiqi, 1965 is morphologically close to *D. brevidens* Thorne, 1964; however, Goseco *et al.* (1976) did not compare these two species. Only the length of the vagina can separate them but we must take into consideration that a single female is known in both species and, so, we cannot leave out the possibility that both species are the same.

– *D. modestus* Siddiqi, 1965 is practically identical to *D. reversus* Thorne, 1964 although both species have never been compared; only the somewhat shorter odontostyle of the former (6.5 *vs* 8 µm) can distinguish them; however, Thorne described his species with " angular lip region ", different from the " lip region smooth, hemispherical, almost continuous " described by Siddiqi for the Indian population. Goseco *et al.* (1976) redescribed *D. modestus* with " lip region set off by constriction " introducing some confusion on this feature (see Fig. 2 A, B of Siddiqi, 1965, and Fig. 24 A of Goseco *et al.*, 1976) and on the distinction between the two species. In our opinion, it may be one and the same species. On the other hand, the only female identified as *D. modestus* by Baqri and Khera (1979) might not belong to this species since its measurements are different.

– *D. saueri* Baqri & Jairajpuri, 1969 could be included in the species group formed by *D. modestus*, *D. bulbosus* and *D. reversus* because it is morphologically close to them but the tail does not present such a clearly dorsally recurved end.

– *D. subhasi* Jana & Baqri, 1981 is an atypical species of *Dorylaimoides* because of pharyngeal bulb, which occupies 43-45 % of the total pharyngeal length, a remarkable feature into the genus.

Table 1. *Measurements of didelphic species of* Dorylaimoides.

	n	L (mm)	a	c	c′	V	lpw (µm)	odts (µm)**	bulb (µm)	AGB*	female tail (µm)	male tail (µm)	supl.	spic. (µm)	country	reference
akon	4 + 6	1.1-1.6	37-54	14-26	?4-5	38-43	9	3	61	–	70-99	50-74	5-8	34-39	USA	(1)
arcuicaudatus	5 + 2	1.2-1.4	31-38	26-31	2.0-2.5	44-49	?	7-10	?	–	44	45-50	5	37-40	India	(2), (1)
	2	0.7	25-27	18-20	2.4-2.7	48-49	?	7	?	–	34-43	–	–	–	India	(3)
ariasae	5 + 1	1.8-2.3	36-42	13-14	4.1-6.2	38-40	10	8	73-82	–	138-156	127	9	56	Spain	(4)
buccinator	5 + 1	1.0-1.3	37-46	38-45	1.5	47-50	?	?	?	–	23	24	9	25	Australia	(5)
	1	1.3	38	41	?	47	11	7	50	–	31	–	–	–	Australia	(1)
chamoliensis	1 + 1	1.4-1.5	29-32	39-45	1	45	11	10	70-73	–	36	34	6	49	India	(6)
elaboratus	10 + 1	1.0-1.3	32-40	7-9	6.8-7.6	35-38	8	8-10	?	–	150	129	6	30	India	(7)
	1 + 2	1.2	38-45	8-10	8	37	?	6.5	42	–	145	121-140	5-6	27-29	India	(1)
elegans	?	1.4	35	30-32	?	?	?	?	?	–	?	?	?	?	Netherlands	(8)
	?	1.4	39-45	25-47	?	45	?	?	?	–	?	?	6-7	?	USA	(9)
	?	1.2-1.4	38-42	28-31	?	45	?	8	?	–	45	43	4-6	?	USA, Canada	(10)
	5 + 4	1.1-1.3	31-44	23-36	?1.7-2.5	40-42	8	6-8	54	–	38-42	32-50	4-7	30-32	USA	(1)
enodis	1 + 0	1.1	34.4	34.4	1.8	44.5	?	5	47	–	31	–	–	–	USA	(1)
filicaudatus	3 + 3	0.9-1.3	35-46	5.3-6.9	13-15	37-42	?	4-5	50	–	214-253	131-218	4-5	24-29	India	(3)
hispanicus	13 + 2	1.2-1.6	33-51	10-14	5-8	44-49	9-10	4.5-6	50-61	–	101-161	114-120	5-7	34-36	Spain	(3*a*)
indicus	1 + 1	1.3-1.5	40-42	62-64	0.9	45	9	7	64	–	20	24	5	38	India	(1), (11)
	18 + 0	1.4-1.8	37-50	62-91	?	39-47	?	?	?	–	18-26	–	–	–	USA	(1)
lepidus	2 + 2	1.3-1.8	34-42	9.4-11.9	5.5-6.8	39-40	11	8	?	–	134-150	141-145	9-11	35-42	Bangladesh	(12), (1)

Table 1. *(continued).*

	n	L (mm)	a	c	c'	V	lpw (µm)	odts (µm)**	bulb (µm)	AGB*	female tail (µm)	male tail (µm)	supl.	spic. (µm)	country	reference
leptura	6 + 0	1.9-2.0	58-65	9.5-11	9	40-42	?	?	?	–	185	–	–	–	India	(7), (1)
	3 + 1	1.9-2.3	54-62	11-16	9	42-45	9	5	70	–	147-188	141	8	35	Venezuela	(1)
	2 + 0	1.8	45-47	9-10	8-10	35-36	?	5	?	–	180-198	–	–	–	India	(3)
leptus	8 + 3	0.9-1.3	38-47	17-20	2.4-3	45-48	8-9	7-9	40	–	54	43	5	31-34	India	(13)
longicaudatus	? + 0	2.7-3.0	54-57	6.6-7	13.8	37-40	?	?	?	–	?	–	–	–	Japan	(14), (9), (1)
loofi	2 + 1	0.7-0.8	29-31	30-32	1.3-1.5	47-48	7	9-10	?	–	23-25	24	4	28	India	(15)
malabaricus	1 + 2	1.2-1.4	44-53	5-5.7	12.5	38	10	?11	53	–	255	220-245	5-7	34-36	India	(16)
micoletzkyi	?	1.2-1.4	35-40	19-26	?	?	?	?	?	–	?	?	4-7	34-36	Netherlands	(17), (1)
	?	1.3-1.5	36-37	20-23	?	43	?	?	?	–	?	?	5-7	?	USA	(9), (1)
	9 + 5	0.9-1.1	36-46	12.5-16	4.5	40-42	?	?	?	–	84	65	5-6	29-30	Pakistan	(18), (1)
	?	1.4-1.6	37-38	21-22	?2.2	44	?	10	?	–	73	67	4-6	?	USA	(10)
	22 + 5	1.0-1.7	30-44	16-29	2.4-4.5	39-44	8-10	6-8	50-65	–	48-80	45-51	4-7	32-38	USA	(1)
	2 + 1	1.2-1.3	36-39	21-23	?	40-42	?	7-9	?	–	55-61	57	5	36	India	(3)
	1 + 0	1.0	35	22	?	40	?	?	?	–	47	–	–	–	Hungary	(19)
	5 + 2	1.1-1.3	37-45	16-24	2.4-4.2	39-42	8.5-9.5	6.5-7.5	50-56	–	59-75	47-55	6-7	32-36	Spain	(3*a*)
ornatus	51 + 14	0.9-1.5	28-42	31-64	0.9-1.7	36-52	9.5-11	8-9.5	54-72	–	22-37	22-37	4-7	34-42	Spain	(3*a*)
parateres	3 + 0	1.2-1.3	30-37	48-52	1	39-41	8	8	48	–	27	–	–	–	India	(20), (1)
	3 + 2	1.3-1.5	37-44	47-50	1-1.5	43-48	?	?	?	–	27-29	28-30	7	35-36	India	(2)
	2 + 0	1.4-1.6	39-42	58-65	?	44-46	?	?	?	–	25	–	–	–	India	(15)
	3 + 0	1.4-1.6	37-39	58-60	?	44-46	?	9-11	?	–	25-28	–	–	–	India	(3)
parvus	8 + 3	1.0-1.4	37-59	10-13	6.5	35-43	6.5	6.5	50	–	90-108	91-93	3-4	31-32	Brazil	(9), (1)
	12 + 4	1.1-1.3	33-45	9-13	5-6	34-42	?	8.5-10	?	–	?	?	3-5	34-36	Venezuela	(21)
	8 + 7	1.2-1.6	36-45	11-14	5.4-7	32-45	?	5-6	?	–	108-126	94-114	3-5	27-32	India	(3)
paulbuchneri	7 + 1	1.2-1.4	36-50	12-13	5.5-6	40-45	?	?	?	–	102	95-102	6	30	Brasil	(22)
	1 + 0	1.12	38	8.8	7	40	8	7	?	–	127	–	–	–	Paraguay	(23)
	4 + 4	0.9-1.1	38-55	8-11	6-7	40-42	6.5	5	48-51	–	96-112	90-93	4	26	Brazil	(1)
siddiqii	4 + 1	1.1-1.2	35-38	20-28	1.9-2.8	39-40	?	8-9	52	–	53-59	41	8	30	India	(15)
similis	1 + 3	1.2-1.3	37-44	11-13	5.5	34	7.5	6-6.5	54	–	106	96-99	4-6	34	Puerto Rico	(24), (1)
teres	?	1.2-1.8	34-36	52-61	?	40-46	8	6	60	–	21-24	20	5-7	?	USA	(9), (1)
	3 + 0	1.4-1.6	36-42	43-60	?	47	?	?	?	–	?	–	–	–	Switzerland	(25)
	4 + 0	0.9-1.0	25-26	36-41	?	37-43	?	10.5	?	–	?	–	–	–	Yugoslavia	(26)
															Mongolia	(27)
	?	1.2-1.6	36-41	31-43	?	48	?	?	?	–	?	?	5-7	?	USA	(10)
	9 + 1	1.5-1.7	44-47	55-69	?	40-48	?	?	?	–	23-29	26	6	38	Missouri, USA	(1)
	7 + 1	1.1-1.4	33-46	52-58	?	40-48	?	?	?	–	21-26	26	6	36	Arizona, USA	(1)
	21 + 1	1.1-1.4	29-39	40-57	1.0-1.3	43-48	9-10	8-9.5	51-63	–	22-30	28	7	35.5	Spain	(3*a*)
thecolaimus	1 + 0	0.95	?25.5	61	1	60	9.5	8	50	–	16	–	–	–	South Africa	(28), (1)
websteri	8 + 9	1.4-1.7	32-56	34-56	1.5	50-57	11	10.5	?	–	32	35	8-12	31-37	Australia	(5)

* Anterior genital branch (in mm or relative to body width).

** Measurements of ventral side.

(1) Goseco *et al.*, 1976; (2) Baqri & Jairajpuri, 1969; (3) Jana & Baqri, 1981; (3*a*) Peralta & Peña Santiago, 1995*a*; (4) Loof, 1990; (5) Sauer, 1967; (6) Ahmad & Jairajpuri, 1983; (7) Siddiqi, 1965; (8) de Man, 1880; (9) Thorne & Swanger, 1936; (10) Thorne, 1974; (11) Jairajpuri, 1965; (12) Timm, 1964; (13) Husain & Khan, 1968; (14) Imamura, 1931; (15) Baqri & Khera, 1979; (16) Ahmad & Jairajpuri, 1982; (17) de Man, 1921; (18) Siddiqi, 1963; (19) Andrássy, 1991; (20) Siddiqi, 1964; (21) Loof, 1964; (22) Meyl, 1956; (23) Andrássy, 1968; (24) Thorne, 1964; (25) Altherr, 1953; (26) Andrássy, 1959*a*; (27) Andrássy, 1967; (28) Heyns, 1963.

Table 2. *Measurements of opisthodelphic species of* Dorylaimoides.

	n	L	a	c	c'	V	lpw	odts	bulb	AGB	female tail	male tail	supl.	spic.	country	reference
angustus	11 + 11	0.9-1.2	47-62	36-57	1.5	36-43	7.5	4	50	20-50	22	26	5	24.5	Australia	(1), (2)
arcuatus	1	1.1	39	13.2	5.7	32	7	6	?34	56	82	–	–	–	India	(3), (2)
	2 + 2	0.8-1.0	32-45	10-14	3.6-5	31-36	?	7	?	?	74-79	70	2-3	23-25	Bangladesh	(4), (2)
	5 + 0	0.9	33	12	?4.7	36	–	7	?	[1.7]	?	–	–	–	Puerto Rico	(5)
	30 + 14	0.7-1.0	35-51	13-20	3.5-5.5	32-37	6-7	4-5	?	[1-2.5]	?	?	3-5	20-22	India	(6)
	2 + 2	0.7-0.9	43-49	10-13	?	35-38	?	?	?	?	82-84	58	3-4	20-21	Puerto Rico	(2)
	?1 + 1	1.0-1.2	39-44	16	3.4-4.2	36	8.5-9	5.5	45-47	62	72	61	5	29	Spain	(7)
baeticus	9 + 7	0.8-1.0	29-37	28-35	1.4-1.9	39-42	8-9.5	6-7	47-56	50-97	28-33	25-32	5	28-31	Spain	(8)
brevidens	1 + 4	0.8-1.0	35-45	6.4-8.4	?8.4	30-33	?	3.5	45	32	122	112-118	1-3	21-24	Puerto Rico	(5)
bulbosus	11 + 0	1.0-1.3	28-39	14-21	2.8-3.7	31-41	8-9	8-8.5	?	[2]	?	–	–	–	Poland	(9)
	? + 0	1.2-1.5	38-42	17-21	3-4	34-40	?	8-8.5	?	?	?	–	–	–	Italy	(10)
constrictoides	4 + 2	0.9-1.1	27-30	7-10	5.2	35-38	7	6	46	56	96-118	115-118	3	31-33	Puerto Rico	(2)
constrictus	5 + 3	0.8-0.9	38-44	7-11	6-9	30-33	?	4-5	?	[1-2]	112	?	3	19-20	India	(6), (2)
conurus	1 + 0	1.1	39	6.4	11	27	?	?	?	[< 1]	172	–	–	–	Sumatra	(11), (2)
dactylurus	3 + 1	0.9-1.1	28-38	28-31	1.5-2	34-36	9	6.5	51-57	[2]	35	38	5	36	South Africa	(12), (2)
elongatus	9 + 3	0.8-1.0	33-42	13-20	?4	33-44	6.5	5.5	29	[1.5]	56	47	4-5	27-36	India	(13), (2)
grandis	16 + 2	1.3-1.8	37-48	10-21	2.9-6.6	28-32	8-9.5	5.5-6.5	61-81	34-85	113-145	72-93	9	39-41	Spain	(7)
ilyasi	3 + 2	1.0-1.1	41-44	6-7	9-10	33-34	6-7	6-7	?	30-42	145-158	165-175	2-3	29-30	Malaysia	(14)
kalingus	4 + 2	0.85-1.0	37-46	27-32	1-2	36-39	8	7-8	42	27-32	30-33	30-31	4-5	22-24	India	(15)
limnophilus	? + 0	1.3	30-55	10-11	4.5-5	33	?	?	?	?	?	–	–	–	Netherlands	(16), (2), (17)
	1 + 0	1.4	36	11.5	?	?	?	?	?	?	?	–	–	–	Germany	(18)
	3 + 0	1.0-1.2	30-34	9.1-9.5	6	30-33	8.5-9	8-8.5	?	[< 0.5]	?	–	–	–	Belgium	(19), (2)
	3 + 0	1.1-1.2	31-33	9.1-10.1	5.9-6.3	29-32	?	6	?	?	?	–	–	–	Hungary	(20), (2)
	4 + 0	1.2-1.3	37-41	10-12.2	5-6.6	30-31	8	5	58	0	98-116	–	–	–	Switzerland	(2)
	18 + 0	1.1-1.3	33-39	9-12	5.5-6.7	28-32	?	?	?	?	103-123	–	–	–	Switzerland	(21)
	3 + 0	1.1-1.2	32-38	9.6-10.2	5.9-6.2	29-32	?	4	59-66	[< 0.5]	114-122	–	–	–	Netherlands	(21)
	? + 0	1.0	31-32	8.8-9.0	5.5-6.1	28-29	?	?	?	?	112	–	–	–	Hungary	(22)
	39 + 0	1.0-1.4	30-41	8.3-11.2	5.0-8.3	29-34	7.5-8.5	5-6	60-81	0	98-151	–	–	–	Spain	(7)
longiurus	1 + 2	1.0-1.1	39-50	7.4-8.8	8-11	31	6	5	37	24	131	125	3	23	India	(23), (2)
mitis	4 + 1	1.0-1.2	35-40	41-50	1.5	40-42	?	5	53	[< 1]	25	22	12	26	Australia	(1), (2)
modestus	11 + 1	0.7-0.85	31-38	12-13.5	3.7-4.3	31-35	?	6.5	34-44	[1.2-2.2]	56	40	3	22	India	(24), (2)
	?1 + 0	1.0	45	19	?	36	?	?	?	?	?	–	–	–	India	(25)
paraconfusus	6 + 7	1.1-1.5	35-42	12-17	3.6-5.6	29-34	8-9.5	5.5-6.5	60-75	87-134	106-118	80-91	6-9	35-40	Spain	(7)
pretoriensis	4 + 1	0.85-1.05	29-37	26-31	?2	34-38	?	9.5	38	?1.5	34	30	5	30	South Africa	(12), (2)
reversus	5 + 0	0.8	33	13	?4.5	34	?	8	?43	?	62	–	–	–	Puerto Rico	(5), (2)
saueri	4 + 3	0.8-0.9	35-44	9-13	5-6	31-33	?	7	?42	[1-2]	82	84	2-3	19-22	India	(6), (2)
subhasi	3 + 3	1.2-1.4	46-51	12-13	6-7	34-36	?	6-7	105	42-55	106-110	55-63	5-6	26-28	India	(26)
thornei	6 + 6	0.7-0.9	32-40	52-64	< 1	38-41	?	?	?	[2]	13	14	3	23	India	(27)
venustus	3 + 0	1.1-1.2	31-35	18-20	4.2-5	33-34	?12	6-7	?	[1]	63	–	–	–	Yugoslavia	(28)

(1) Sauer, 1967; (2) Goseco *et al.*, 1976; (3) Siddiqi, 1964; (4) Timm, 1964; (5) Thorne, 1964; (6) Baqri & Jairajpuri, 1969; (7) Peralta & Peña Santiago, 1995*c*; (8) Peralta & Peña Santiago, 1991; (9) Szczygiel, 1965; (10) Marinari *et al.*, 1976; (11) Thorne, 1939; (12) Heyns, 1963; (13) Husain & Khan, 1968; (14) Ahmad & Jairajpuri, 1980; (15) Ahmad & Jairajpuri, 1983; (16) de Man, 1880; (17) Thorne & Swanger, 1936; (18) de Man, 1885; (19) Coomans & Geraert, 1962; (20) Andrássy, 1962; (21) Loof, 1990; (22) Andrássy, 1991; (23) Siddiqi, 1965*a*; (24) Siddiqi, 1965*b*; (25) Baqri & Khera, 1979; (26) Jana & Baqri, 1981; (27) Jairajpuri, 1964; (28) Andrássy, 1959.

Table 3. *Measurements of pseudodidelphic-opisthodelphic species of* Dorylaimoides.

	n	L	a	c	c'	V	lpw	odts	bulb	AGB	female tail	male tail	supl.	spic.	country	reference
chathami	23 + 0	1.0-1.4	31-43	54-81	0.6-1.0	39-44	?	?	?	7-15%	16-20	–	–	–	New Zealand	(1)
confusus	4 + 3	1.25-1.6	34-44	14-19	3.3-4.2	32-37	8.5-9	5-5.5	56-64	112-140	78-88	75-78	7-8	33-38	Spain	(2)
cylindricaudatus	5 + 2	1.15-1.4	36-46	13-19	3.5-5	32-37	8.5-9.5	5.5-6	62-72	87-130	75-97	70-82	5-6	31-33	Spain	(3)
rotundicephalus	10 + 5	1.3-1.5	35-44	48-58	0.9-1.2	36-40	9.5	9.5-10	53-73	106-190	23-28	23-25	6-8	39-43	Spain	(2)
striatus	3 + 7	1.65-1.95	40-51	16-24	3-4	31-32	10.5	6.5-7	58-70	156-215	82-103	80-107	7-9	40-45	Spain	(2)

(1) Yeates, 1979; (2) Peralta & Peña Santiago, 1995*b*; (3) Peralta & Peña Santiago, 1991.

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