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Introduction

Belbolla is a genus of the family Enchelidiidae that belongs to the Enoplida. The genus *Belbolla* was renamed by Andrassy (1973) to replace the previously used name *Bolbella* Cobb, 1920, because *Bolbella* was a homonym to *Bolbella* Giglio-Toss, 1915 (Orthoptera - Mantidae). The common characteristic features of the genus *Belbolla* are the presence or absence of ocelli; a large and narrow buccal cavity divided into two parts; the presence of three teeth, of which one ventro sublateral is the largest tooth; and the presence of a series of bulb-like muscular pharynx swellings (4 to 10) in the posterior section of pharynx (Warwick & Platt, 1998). So far, 20 valid species of this genus have been recorded (Rho et al., 2020; Wang et al., 2022).

Descriptions and discussions

Genus *Belbolla* Andrassy, 1973

Belbolla mangrove sp. nov.

(Figure 1, Figure 2, Table 1)

Belbolla mangrove sp. nov. was characterized mainly by four pharynx bulbs; gubernaculum small and with dorsocaudal apophysis; and preloacal supplements weakly developed. The new species *Belbolla mangrove* sp. nov. had a length of 1454 μm , with slender body, and the anterior and posterior body ends narrowed (Fig. 1).

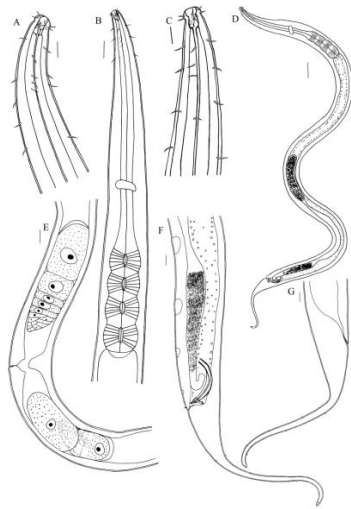


Figure 1 *Belbolla mangrove* sp. nov. Scale bars: 10 μm (A, C, F, G); 20 μm (B, E); 50 μm (D).

Buccal cavity was large but narrow, and was separated into two chambers by cuticular ring. Six short inner labial setae and six outer labial setae were found. Ten cephalic setae in a circle. Amphids foramen was pocket-like, located at the level of mid-buccal chambers. Ocelli were absent. Many cervical setae were scattered over the anterior region of the pharynx, up to 4-5 μm long. The pharynx was 327 μm long and corresponding diameter was 52 μm , muscular and expanded gradually, and posteriorly modified into four pharynx bulbs. The cardia were short and conoid.

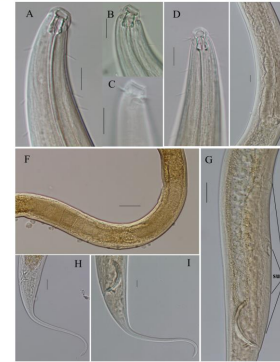


Figure 2 *Belbolla mangrove* sp. nov. Bar scales: 10 μm (A-D); 20 μm (E, H, I, G); 50 μm (F). Table 1 Comparison of major morphological features of genus *Belbolla*.

Taxa	Number of pharynx bulb	Supplements	Spicule length	Amphids foramen	Ocelli	a	b	c
<i>B. esuiplemontata</i> Juario, 1974	7	absent	38.9	pocket-like	Not described	42	3.7	12.3
<i>B. californica</i> (Allgén, 1951) Andrassy, 1973	7-9	2 horseshoe-like	-	Not described	Not described	20.78	3.73	14.9
<i>B. gallinachimora</i> (Ingalls, 1961) Andrassy, 1973	8	2-winged	69	pocket-like	Not described	34.9	4	12.9
<i>B. gracilis</i> Gagarin & Thanh, 2016	7	2 complex structure	50	pocket-like	Not described	31	9	6.7
<i>B. heptabulba</i> (Timm, 1961) Andrassy, 1973	7	2-winged	30-34	Not described	Presence	25-29	3.4-3.7	11.8-14.7
<i>B. huanghaiensis</i> Huang & Zhang, 2005	9	2-winged	137	Not described	Not described	38.5	4.5	14.8
<i>B. insula</i> Fadeeva & Belogurova, 1983	10	2-winged	182	pocket-like	-	19.8	3.5	13.4
<i>B. intarua</i> Belogurov & Belogurova, 1980	9	2	144	-	-	-	-	-
<i>B. longispiculata</i> Nasira, Shahina & Shamim, 2014	8	5 papillae	216	Not described	Not described	32.97	4.7	12.9
<i>B. Simion</i> Guo & Wang, 2022	7	2-winged	36	Not observed	Absent	36.0	3.9	13.9
<i>B. stenoccephalum</i> Huang & Zhang, 2005	8	2-winged	98	Not described	Not described	36.3	3.7	12.3
<i>B. sundanensis</i> (Micoletzky, 1930) Andrassy, 1973	8	2	-	Crescent	Presence	28	4.16	13.6
<i>B. tetsuieri</i> (Luc & De-Coninck, 1959) Andrassy, 1973	8	3 papillae	39	Oval	Not described	36.5	3.7	11.7
<i>B. tenuidens</i> (Cobb, 1920) Andrassy, 1973	8	2-winged	-	-	Not described	-	-	-
<i>B. vietnamica</i> Gagarin & Nguyen Dinh Tu, 2016	4	4 papillae	55	Not described	Presence	22	3.8	7.5
<i>B. warwicki</i> Huang & Zhang, 2005	7	2 long pocket-shaped	37	Not described	Not described	40.8	3.4	12.7
<i>B. wonlimi</i> Rho, Lee, Lee & Min, 2020	9	2-winged	-	Oval	Absence	-	4	11
<i>B. zhang</i> Guo & Warwick, 2001	8	2-winged	56	Not obvious	Not described	34.7	4.6	13.5
<i>B. mangrove</i> sp. nov.	4	4 complex structure	57.9	Pocket-like	Absence	28	4.4	8

Belbolla mangrove sp. nov. and *B. vietnamica* both had four pharynx bulbs. However, the new species discovered in this study differed from *B. vietnamica* in five aspects: (1) the ocelli (absence vs. presence); (2) the shape of proximal spicules ends (blunt and round vs. strongly bent), (3) the shorter gubernaculum dorsocaudal apophysis (6-7 μm vs. 16-19 μm); (4) the preloacal supplements (weakly developed vs. well developed); and (5) the terminal setae (without vs. with three terminal setae).

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