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A New Species of *Arabella* (Annelida, Polychaeta, Oenonidae) from Korean Waters

Seong Hun Kang[1], Yu Seok Jeong[1], Hyun Ki Choi[2], Seong Myeong Yoon[1,3,*]

[1]Educational Research Group for Age-associated Disorder Control Technology, Graduate School, Chosun University, Gwangju 61452, Korea
[2]National Institute of Biological Resources, Incheon 22689, Korea
[3]Department of Biology, Chosun University, Gwangju 61452, Korea

ABSTRACT

A new oenonid polychaete, *Arabella turbidiricolor* sp. nov., collected from intertidal zone along the coasts of eastern, western, and southern Korea is described. In Korea, this new species might have been confused with *Arabella iricolor* (Montagu, 1804), the type species of the genus, in having the following characteristics: ventralmost chaeta tapering gradually to guard, MI left robust and right gracile, MII right long, MV both with one tooth and posterior postchaetal lobe shorter than chaetae. However, *A. turbidiricolor* sp. nov. is readily distinguished from the latter by the following features: ventral maxillary carriers longer than or equal to dorsal, MI both distally falcate, and pygidium with two swollen pads. We provide detailed descriptions and illustrations for the new species in the present study. Also, morphological characteristics of known *Arabella* species are compared and discussed with a key to them.

Keywords: *Arabella turbidiricolor* sp. nov., intertidal, *Arabella iricolor*, taxonomy

INTRODUCTION

The genus *Arabella* Grube, 1850, belonging to the family Oenonidae Kinberg, 1865, is characterized by the absence of antennae, presence of eyes, and chaetiger with capillary chaetae only (Colbath, 1989; Steiner and Amaral, 2009; Zanol and Ruta, 2015; Ribeiro et al., 2018; Zanol et al., 2021). The members of the genus are free-living or parasitic during a life cycle and are found in the intertidal zone including sandy or muddy bottoms (Zanol et al., 2021). Currently, 25 species of *Arabella* have been reported worldwide (WoRMS, 2024). Among them, only one species, *Arabella iricolor* (Montagu, 1804), has been recorded from Korea (Rho and Song, 1975; Paik, 1989).

Herein, we report a new oenonid species belonging to the genus *Arabella* collected from intertidal habitats on the coasts of eastern, western, and southern Korea, based on the significant characters on jaw structure, ventralmost chaeta, and pygidium. This paper includes the detailed description and illustrations of the new species with a key to known *Arabella* species.

MATERIALS AND METHODS

Samples were collected from crevices between adherent substrates and the shell of oysters and seagrass bed in the intertidal zones at 20 localities in South Korea (Fig. 1). Specimens were sorted using sieves with a pore size of 0.5 mm, then fixed and preserved in 95% ethyl alcohol. The characteristics of the whole body were observed, with appendages dissected in a petri dish using dissection forceps, surgical knives, or needles under a stereomicroscope (SZH10; Olympus, Japan). Dissected specimens were mounted onto permanent slides using glycerol. Drawings were made under the stereomicroscope and light microscope (eclipse 80i; Nikon, Japan) with the aid of drawing tubes. Specimens for scanning electron microscopy (SEM) were dehydrated by a t-BuOH freeze dryer (VFD-21S; Vacuum Device, Ibaraki, Japan). They were mounted on stubs and coated with gold-palladium. SEM observations were carried out using a scanning electron microscope (SU3500; Hitachi, Tokyo, Japan).

Maxillary plates nomenclature (MI, MII, MIII, MIV, and MV) and formula were followed by the traditional classifi-

*To whom correspondence should be addressed
Tel: 82-62-230-7018, Fax: 82-62-230-7018
E-mail: smyun@chosun.ac.kr

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cation (Colbath, 1989; Steiner and Amaral, 2009).

Type materials (NIBRV) and non-type materials (SHKV) of the present study are retained in the National Institute of Biological Resources (NIBR) and Chosun University (first author's collection), respectively.

SYSTEMATIC ACCOUNTS

Order Eunicida Dales, 1962
Family Oenonidae Kinberg, 1865
Genus *Arabella* Grube, 1850

[1]*_Arabella turbidiricolor_ sp. nov.

Arabella iricolor: Paik, 1989: 442–443, pl. 62, 63, fig. 159.

Type locality. Korea: Gyeongsangbuk-do: Yeongdeok-gun, Namjeong-myeon, 36°17′31.2″N, 129°22′41.0″E, 12 Nov 2022, intertidal mussel colonies, Kang SH and Jeong US.

Material examined. Holotype. complete ind., NIBRIV 0000909859. **Paratypes.** 1 ind. (complete), NIBRIV00009 09860; 1 ind. (incomplete), NIBRIV0000909861; 1 ind. (complete), NIBRIV0000909862.

Non-type materials. 1 ind. (incomplete), Korea: Gangwon-do, Yangyang-gun, Hyeonnam-myeon, 37°54′25.9″N, 128°49′43.5″E, 28 Apr 2021, intertidal mussel colonies, SHKV00001, Choi HK; 6 ind. (1 complete and 5 incomplete ind.), Gyeongsangbuk-do, Yeongdeok-gun, Chuksan-myeon, 36°28′43.8″N, 129°26′1.4″E, 17 Sep 2014, intertidal mussel colonies, SHKV00002, Choi HK; 1 ind. (complete), Ulsan, Ulju-gun, Seosaeng-myeon, 35°22′26.6″N, 129°20′52.2″E, 18 May 2012, intertidal mussel colonies, SHKV00003, Choi HK; 2 ind. (complete), Gyeongsangnam-do, Geoje-si, Nambu-myeon, 34°44′18.9″N, 128°39′23.6″E, 18 May 2014, intertidal mussel colonies, SHKV00004, Choi HK; 8 ind. (7 complete and 1 incomplete), Jeollanam-do: Yeosu-si, Samsan-myeon, 34°03′18.8″N, 127°17′36.4″E, 22 Oct 2022, intertidal mussel colonies, SHKV00005, Kang SH and Jeong US; 2 ind. (incomplete), Wando-gun, Cheongsan-myeon, 34°09′20.1″N, 126°54′01.0″E, 22 Aug 2021, intertidal mussel colonies, SHKV00006, Kang SH and Jeong US; 1 ind. (incomplete), Wando-gun, Wando-eup, 34°17′47.3″N, 126°42′05.2″E, 24 Aug 2021, intertidal mussel colonies, SHKV00007, Kang SH and Jeong US; 1 ind. (incomplete), Wando-gun, Bogil-myeon, 34°08′06.8″N, 126°33′40.2″E, 26 May 2021, intertidal mussel colonies, SHKV00008, Kang SH and Jeong US; 3 ind. (2 complete and 1 incomplete), Jindo-gun, Uisin-myeon, 34°23′27.0″N, 126°16′52.2″E, 29 Apr 2022, intertidal mussel colonies, SHKV00009, Kang SH and Jeong US; 2 ind. (incomplete), Jindo-gun, Imhoe-myeon, 34°21′58.5″N, 126°09′13.1″E, 17 Jun 2022, intertidal mussel colonies, SHKV00010, Kang SH and Jeong US; 3 ind. (complete), Jindo-gun, Imhoe-myeon, 34°22′43.9″N, 126°16′3.3″E, 30 Jul 2022, intertidal mussel colonies, SHKV00011, Kang SH and Jeong US; 5 ind. (complete), Jindo-gun, Jodo-myeon, 34°14′16.1″N, 126°03′37.4″E, 14 Jun 2022, intertidal mussel colonies, SHKV00012, Kang SH and Jeong US; 3 ind. (complete), Jindo-gun, Jodo-myeon, 34°16′53.4″N, 126°04′53.1″E, 15 Jun 2022, intertidal mussel colonies, SHKV00013, Kang SH and Jeong US; 2 ind. (incomplete), Sinan-gun, Docho-myeon, 34°36′39.0″N, 125°49′32.6″E, 31 May 2022, intertidal mussel colonies, SHKV00014, Kang SH and Jeong US; 6 ind. (complete), Sinan-gun, Heuksan-myeon, 34°39′39.2″N, 125°25′23.1″E, 25 Aug 2022, intertidal mussel colonies, SHKV00015, Kang SH and Jeong US; 3 ind. (complete), Chungcheongnam-do: Taean-gun, Iwon-myeon, 36°56′2.1″N, 126°17′31.5″E, 24 Feb 2016, intertidal oyster colonies, SHKV00016, Choi HK; 1 ind. (complete), Incheon: Jung-gu, Muui-dong, 37°22′20.6″N, 126°26′24.6″E, 21 Apr 2023, intertidal oys-

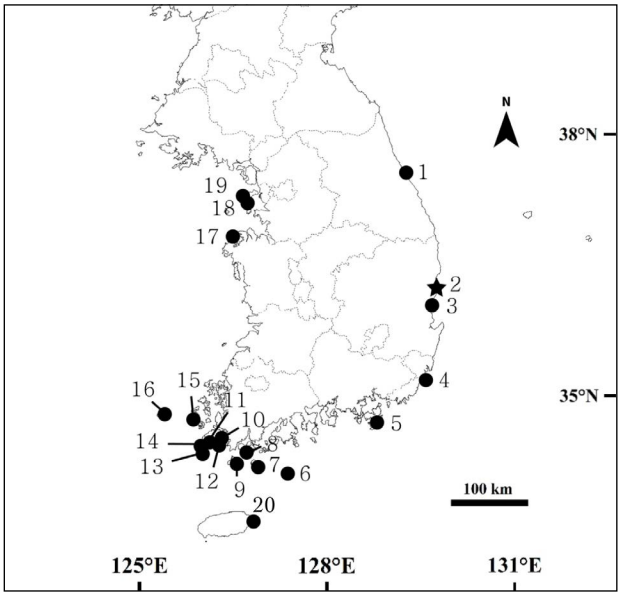

Fig. 1. Localities where specimens were collected (★, type locality; ●, non-type materials collected): 1, Hyeonnam, Yangyang; 2, Namjeong, Yeongdeok; 3, Chuksan, Yeongdeok; 4, Seosaeng, Ulju; 5, Nambu, Geoje; 6, Samsan, Yeosu; 7, Cheongsan, Wando; 8, Wando-eup, Wando; 9, Bogil, Wando; 10, Uisin, Jindo; 11, Imhoe (Namdong), Jindo; 12, Imhoe (Jungnim), Jindo; 13, Gwanmae, Jindo; 14, Jodo, Jindo; 15, Docho, Sinan; 16, Heuksan, Sinan; 17, Iwon, Taean; 18, Muui, Incheon; 19, Eulwang, Incheon; 20, Seongsan, Seogwipo.

Korean name: [1]*나도홍점갯지렁이 (신칭)

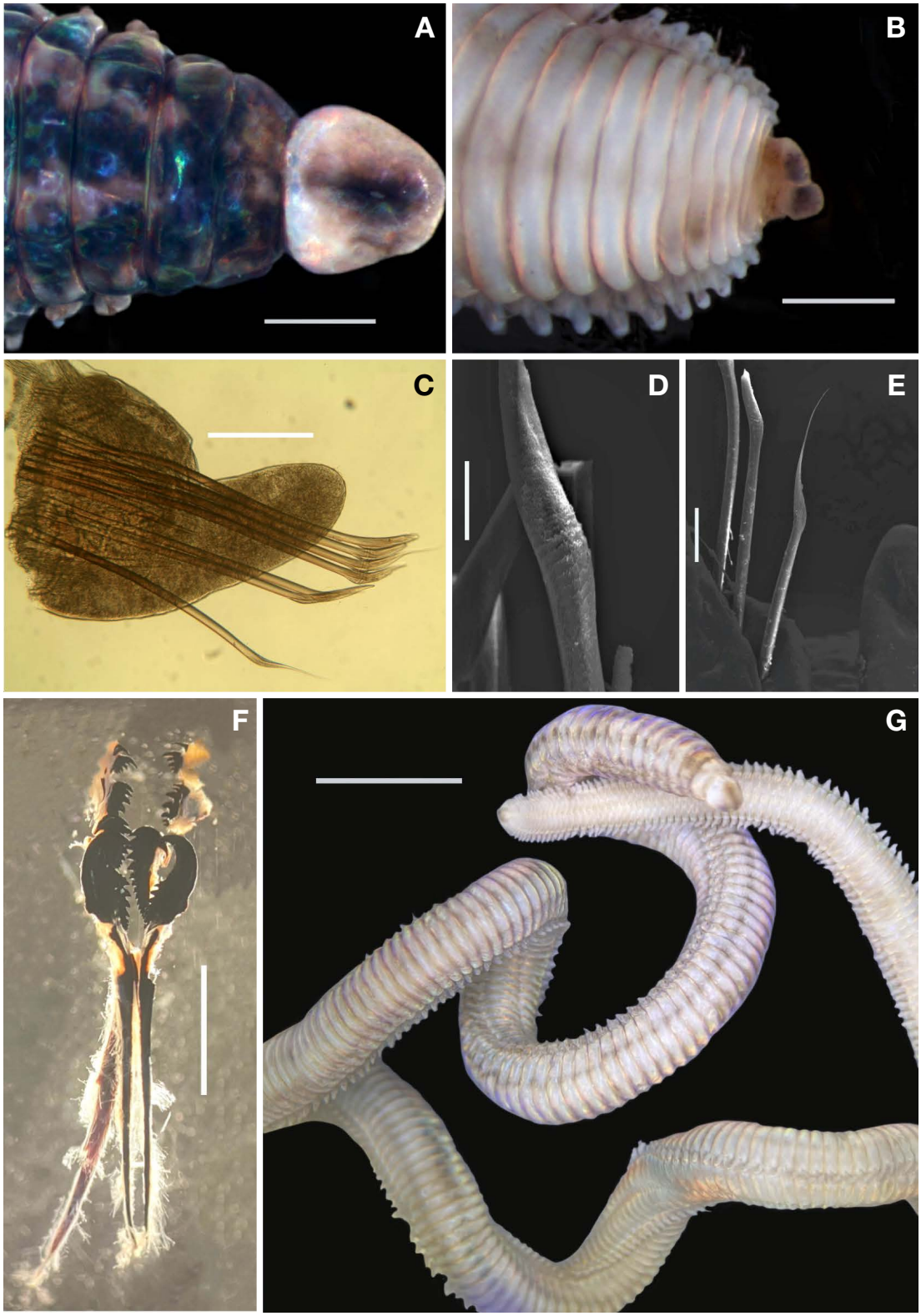

Fig. 2. Photographs of *Arabella turbidiricolor* sp. nov., paratype (NIBRIV0000909861) (A, B, G) and paratype (NIBRIV0000909862) (C, F). A, Anterior region of body (LM); B, Pygidium (LM); C, Parapodium 225 (LM); D, Serrated blade of medioventral chaeta (parapodium 150, SEM); E, Ventralmost chaeta (parapodium 150, SEM); F, Maxillae (LM); G, Whole body (discolored specimen, LM). LM, light microscopy; SEM, scanning electron microscopy. Scale bars: A, B = 1 mm, C = 250 μm, D = 10 μm, E = 50 μm, F = 2 mm, G = 5 mm.

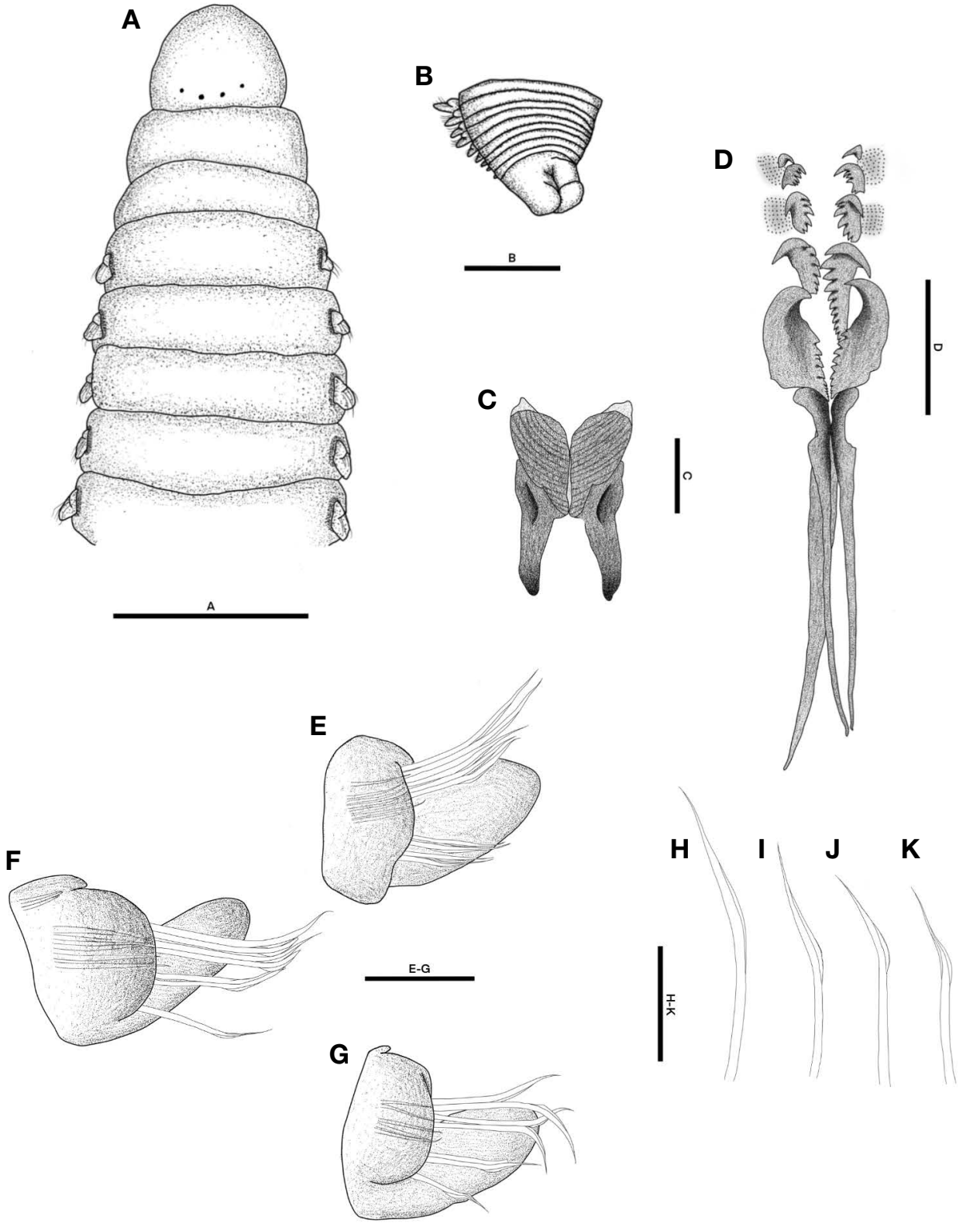

Fig. 3. *Arabella turbidiricolor* sp. nov., paratype (NIBRIV0000909862). A, Anterior region of body; B, Pygidium; C, Mandibles; D, Maxillae; E, Parapodium 11; F, Parapodium 263; G, Parapodium 485; H, Superior chaeta; I, Mediodorsal chaeta; J, Medioventral chaeta; K, Ventralmost chaeta. Scale bar: A = 3 mm, B, C = 1 mm, D = 2 mm, E–G = 500 μm, H–K = 150 μm.

ter colonies, SHKV00017, Kang SH and Jeong US; 2 ind. (1 complete and 1 incomplete), Jung-gu, Eulwang-dong, 37°26′7.5″N, 126°22′48.8″E, 21 Apr 2023, intertidal oyster colonies, SHKV00018, Kang SH and Jeong US; 3 ind. (2 complete and 1 incomplete), Jeju-do, Seogwipo-si, Seongsan-eup, 33°25′23.7″N, 126°55′45.6″E, 14 Jul 2022, intertidal seaweed bottom, SHKV00019, Kang SH and Jeong US.

Diagnosis. Prostomium tapering anteriorly with four eyes on posterior margin of prostomium. Peristomium forming double rings. Maxillary carriers long and slender, and ventral carriers longer than dorsal. MI falcate, asymmetric; left MI robust and right gracile; right MII long; MV both with one tooth. Prechaetal lobe shorter than postchaetal, each rounded and digitiform; posterior postchaetal lobe shorter than chaetae. Most chaetae limbate capillary, finely or coarsely serrated; ventralmost chaeta tapering gradually to guard. Pygidium with two swollen pads.

Description. Holotype, 426.0 mm long, 4.0 mm wide, and with 559 chaetigers. Paratypes, smallest complete specimen, 127.0 mm long, 1.8 mm wide, and with 298 chaetigers; largest complete specimen, 480.0 mm long, 3.7 mm wide, and with 523 chaetigers.

Body slender and long, widest at anterior chaetigers, after that having similar width, and abruptly tapering at posterior chaetigers and pygidium. Body color brown overall, sometimes discolorated during fixation (Fig. 2A, B, G).

Prostomium conical with round tip, inflated; dorsal area with median groove from anterior to posterior margins; ventral area wider, with median groove; sometimes dorsal groove absent. Eyes two pairs, arranged in a line at base of dorsal prostomium, sometimes discolored; median eyes smaller than lateral. Antenna absent. Peristomium double ringed; rings wider than prostomium, longitudinal length equal or shorter than chaetiger 1 (Fig. 3A).

Mandible black colored, connected by short ligaments; cutting plate ligament at distal margin, rounded, and shorter than mandibular carriers (Fig. 3C). Dorsal maxillary carriers paired, but ventral carrier unpaired; ventral maxillary carrier longer than (in large individuals) or equal (in small individuals) to dorsal, widest at anterior region and tapering toward posterior (Figs. 2F, 3D). MI asymmetrical, left gracile and right robust, both distally falcate; MI teeth (1, 11(8)) + (1, 12(10)); MII, right longer than left; MII teeth 8(6) + 14(12); MII and MIII with additional anterior teeth; MIII and MIV with broad chitinous plate; MIII, MIV teeth 6(5) + 7(5), 6(5) + 8(6), respectively; MV teeth 1 + 1 (Fig. 3D).

Parapodia smallest in anteriormost and posteriormost parts; size increased from anterior to median, decreased from median to posterior parts, and similar in size in median part (Fig. 3E–G). Dorsal cirri present, small papillae. Prechaetal lobe always rounded, shorter than postchaetal lobe. Postchaetal lobe conical with round tip, more than twice as long as prechaetal lobe, and shorter than chaetae (Figs. 2C, 3E–G). Neuroaciculae 4 to 7 present; notoaciculae 2 or 3 present, not observed on anterior and posterior parts of body. All chaetae capillary shaped, limbate chaetae 4–8 present; superior chaeta longer than others; superior and mediodorsal chaetae finely or coarsely serrated, mediorventral chaetae coarsely serrated; ventralmost chaeta smooth and tapering gradually to guard (Figs. 2D, E, 3H–K). Ventral pads absent.

Pygidium consisting of 2–3 last chaetigers, with 1 pair of swollen pads as long as pygidium, lacking cirri (Figs. 2B, 3B).

Habitat. Intertidal seaweed bed, mussel and oyster colonies.

Etymology. The composite epithet of the specific name, *turbidiricolor*, is a combination of the Latin word *turbidus*, meaning "confused", and the specific name of *Arabella iricolor* (Montagu, 1804), which means "confused with *iricolor*". This name refers to that the species has been confused with *A. iricolor* in Korea.

Remarks. In *Arabella* species, *A. turbidiricolor* sp. nov. and *A. iricolor* have similar characteristics such as ventralmost chaeta gradually tapering, posterior postchaetal lobe shorter than chaetae, right MII long, MV both with one tooth. In this respect, *Arabella* materials may have long been treated as *A. iricolor* only in Korean fauna (Rho and Song, 1975; Paik, 1989). However, our *Arabella* materials of the present study can be distinguished from the previous reports of *A. iricolor* (Colbath, 1989; Blake, 1995) by the following features: (1) MI both distally falcate (vs. left is falcate and right is bifid in *A. iricolor*); (2) pygidium shape is swollen pads and lacking cirri (vs. not swollen pads, with cirri only in *A. iricolor*); (3) ventral maxillary carrier longer than or equal to dorsal carriers (vs. shorter than dorsal carriers in *A. iricolor*) (Table 1).

Among 25 previously known *Arabella* species, there are eight species with ventralmost chaeta gradually tapering to guard as like as *A. turbidiricolor* sp. nov.: *A. iricolor*, *A. semimaculata* (Moore, 1911), *A. logani* Crossland, 1924, *A. pectinata* Fauchald, 1970, *A. longicirrata* Hartmann-Schröder, 1979, *A. protomutans* Orensanz, 1990, *A. aracaensis* Steiner and Amaral, 2009, and *A. pulvinata* Zanol and Ruta, 2015. Among them, *A. longicirrata* and *A. semimaculata* are differentiated from other species by having a long dorsal cirri (Crossland, 1924; Monro, 1931; Fauchald, 1970; Hartmann-Schröder, 1979; Colbath, 1989; Orensanz, 1990; Blake, 1995; Steiner and Amaral, 2009; Bogantes, 2014; Zanol and Ruta, 2015). *Arabella turbidiricolor* sp. nov. is additionally similar to *A. aracaensis* in having MI both distally falcate. However, the new species can be dis-

Table 1. Comparison of the morphological characteristics of the species currently assigned to *Arabella*

Species	Type locality	Maxillary carriers length of ventral in relation to dorsal	Shape of MI (left, right)	Long MII	No. of MV teeth	Posterior postchaetal lobe length in relation to chaetae	Shape of ventralmost chaeta	Pygidium	Reference
A. turbidiricolor sp. nov.	Korea, Yeongdeok	Equal or longer	Falcate (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two swollen pads	Present study
A. iricolor (Montagu, 1804)	England, south coast of Devonshire	Shorter	Falcate, Bifid (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two cirri	Fauchald (1970), Colbath (1989), Bogantes (2014), Zanol and Ruta (2015)
A. semimaculata (Moore, 1911)	Australia, Great Barrier Reef, Queensland	Equal or longer	Falcate (robust, gracile)	Right	1+1	Longer	Tapering gradually to guard	Two or Four cirri	Moore (1911), Blake (1995)
A. mutans (Chamberlin, 1919)	Chile, Easter Island	2/3 Shorter	Polymorphic (polymorphic)	Polymorphic	1+1	Shorter	Tapering abruptly to guard	Four cirri	Chamberlin (1919), Zanol and Ruta (2015)
A. atlantica Crossland, 1924	Cape Verdean Islands	Unknown	Falcate (robust, gracile)	Right	1+1	Shorter	Tapering abruptly to guard	Unknown	Colbath (1989), Steiner and Amaral (2009)
A. logani Crossland, 1924	Egypt, Gulf of Suez	Shorter	Bifid, falcate (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two swollen pads	Colbath (1989), Steiner and Amaral (2009)
A. pectinata Fauchald, 1970	Mexico, Baja California, Pacific Ocean	1/2 Shorter	Bidfid, falcate (unknown)	Right	1+1	Shorter	Tapering gradually to guard	Unknown	Fauchald (1970)
A. longicirrata Hartmann-Schröder, 1979	Portugal, Atlantic Ocean	Unknown	Falcate (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Four cirri	Hartmann-Schröder (1979)
A. monroi Colbath, 1989	Ecuador, Galapagos Islands	Shorter	Falcate (robust, gracile)	Right	1+1	Shorter	Tapering abruptly to guard	Two swollen pads	Colbath (1989)
A. panamensis Colbath, 1989	Costa Rica, Golfo de Nicoya	Shorter	Falcate (polymorphic)	Polymorphic	1+1	Longer	Tapering abruptly to guard	Two cirri	Colbath (1989)
A. protomutans Orensanz, 1990	Argentina, Golfo San José	Equal or Shorter	Bifid, falcate (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Unknown	Orensanz (1990), Steiner and Amaral (2009)
A. aracaensis Steiner & Amaral, 2009	Brazil, State of São Paulo, Araçá Beach	2/3 Shorter	Falcate (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two cirri	Steiner and Amaral (2009)
A. pulvinata Zanol & Ruta, 2015	Australia, Lizard Island, Mangrove beach	2/3 Shorter	Falcate, bifid (gracile)	Both	1+1	Shorter	Tapering gradually to guard	Four cirri	Zanol and Ruta (2015)
A. robusta Zanol & Ruta, 2015	Australia, Lizard Island, Big Vicki's reef	Ventral carrier not observed	Falcate (robust, gracile)	Right	2+2	Shorter	Tapering abruptly to guard	Two swollen pads	Zanol and Ruta (2015)

tinguished from the latter by the following characteristics: (1) pygidium with swollen pad (vs. without swollen pad and with cirri only in the latter); (2) ventral maxillary carrier longer than or equal to dorsal (vs. shorter than dorsal carriers in the latter) (Steiner and Amaral, 2009) (Table 1).

In other *Arabella* species, *A. turbidiricolor* sp. nov. and *A. monroi* Colbath, 1989 are very similar in having the falcate shape of MI, long right MII, MV teeth formula of 1 + 1, shorter postchaetal lobe length to chaetae, and pygidium with two swollen pads, but the former differs from the latter by having the ventralmost chaeta tapering gradually to guard (vs. tapering abruptly to guard in the latter). In addition, these two species are distinguishable from each other in the maxillary carriers length of ventral in relation to dorsal (equal or longer in the former vs. shorter in the latter) as mentioned (Table 1).

DISCUSSION

Colbath (1989) pointed out that *Arabella* species can be identified based on jaw structure, ventralmost chaeta, and pygidium. In East Asia, however, taxonomic works on *Arabella* species have been conducted without a description of such characteristics distinguishing the species (Imajima and Hartman, 1964; Uchida, 1968; Paik, 1989). Especially, *Arabella iricolor*, had long been known as a cosmopolitan species, was recorded in Japan (Imajima and Hartman, 1964; Uchida, 1968), Korea (Rho and Song, 1975; Paik, 1989), and China (Jianjun and Zongguo, 1993), lacking detailed information of the species. It is presently regarded that the cosmopolitan distribution of *A. iricolor* may be resulted from uncareful identification by many previous reports due to brief original description of the species, without considering of high morphological similarity between *Arabella* species (Montagu, 1804; Colbath, 1989; Zanol and Ruta, 2015).

A lot of studies have reported *A. iricolor* from worldwide regions including England (Montagu, 1804), India (Treadwell, 1921), Japan (Imajima and Hartman, 1964; Uchida, 1968), Mexico (Fauchald, 1970), Kuwait (Mohammad, 1981), Korea (Paik, 1989), Australia (Blake, 1995), and Pakistan (Mustaquim, 2000). However, most of these previous studies have insufficient information of the species and exhibiting some discrepancies each other on morphological characteristic features (Table 2). So, we agree with Colbath's opinion that it may be a species complex (Colbath, 1989; Steiner and Amaral, 2009; Zanol and Ruta, 2015).

In this study, we collected *Arabella* samples from 20 localities in South Korea including Yeongdeok, Namae, Geomundo, Wando, Jindo, Seongsanpo, and Incheon, where *A. iricolor* was previously recorded by Paik (1989). The samples were morphologically analyzed, based on the characters of distally MI , modified ventralmost chaeta, and pygidium. As a result, all the specimens were identified as *A. turbidiricolor* sp. nov. as they have MI both distally falcate, modified ventralmost chaeta tapering gradually to guard, and pygidium of swollen pads. In this respect, *A. turbidiricolor* sp. nov. can be remarkably distinguished from *A. iricolor* (Montagu, 1804) *sensu* Colbath (1989). We guess that *A. iricolor*, originally described from the south coast of Devonshire in England (Montagu, 1804), is unlikely to occur in Korea.

Key to known species of the genus *Arabella* (based on Colbath, 1989; Zanol and Ruta, 2015)

1. Posterior postchaetal lobe longer than chaetae ····· 2
– Posterior postchaetal lobe shorter than chaetae ····· 3
2. With long MII polymorphic ····· *A. panamensis* Colbath, 1989
– With long MII on the right ····· *A. semimaculata* (Moore, 1911)
3. Number of MV teeth two ····· *A. robusta* Zanol and Ruta, 2015
– Number of MV teeth one ····· 4
4. With MI distally polymorphic ····· *A. mutans* (Chamberlin, 1919)
– Without MI distally polymorphic ····· 5
5. With both long MII ··· *A. pulvinata* Zanol and Ruta, 2015
– Without both long MII ····· 6
6. MI both distally falcate ····· 7
– MI distally bifid ····· 11
7. Shape of modified ventralmost chaeta tapering gradually to guard ····· 8
– Shape of modified ventralmost chaeta tapering abruptly to guard ····· 10
8. Pygidium with cirri ····· 9
– Pygidium with swollen pad····· *A. turbidiricolor* sp. nov.
9. Pygidium two cirri ····· *A. aracaensis* Steiner and Amaral, 2009
– Pygidium four cirri ····· *A. longicirrata* Hartmann-Schröder, 1979
10. Occurred in the Pacific (the Galapagos Islands) ····· *A. monroi* Colbath, 1989
– Occurred in the Atlantic ·····*A. atlantica* Crossland, 1924
11. Right MI distally bifid ·····*A. iricolor* (Montagu, 1804)
– Left MI distally bifid ····· 12
12. Ventral maxillary carrier length 1/2 than dorsal ····· *A. pectinata* Fauchald, 1970
– Ventral maxillary carrier length longer than 2/3 dorsal ··· ····· *A. logani* Crossland, 1924 (*A. protomutans* Orensanz, 1990) - two species are possibly the same species (Steiner and Amaral, 2009).

Table 2. Comparison of the morphological characteristics of the species previously reported under the name of *Arabella iricolor*

Species	Locality	Maxillary carriers length of ventral in relation to dorsal	Shape of MxI (left, right)	Long MxII	No. of MxV teeth	Posterior postchaetal lobe length in relation to chaetae	Shape of modified ventralmost chaeta	Pygidium	Reference
A. iricolor (Montagu, 1804)	England, south coast of Devonshire	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Montagu (1804) (original description)
A. iricolor (Montagu, 1804)	America, eastern cost	Unknown	Falcate, bifid (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two cirri	Colbath (1989)
A. iricolor (Montagu, 1804)	Costa rica, Caribbean	Shorter	Bifid, falcate	Unknown	Unknown	Unknown	Unknown	Unknown	Bogantes (2014)
A. iricolor (Montagu, 1804)	Republic of Trinidad and Tobago, Caribbean	Shorter	Falcate (robust, gracile)	Right	1+1	Unknown	Unknown	Four cirri	Treadwell (1921)
A. iricolor (Montagu, 1804)	Brazil, São Luís	Unknown	Falcate	Unknown	Unknown	Shorter	Tapering gradually to guard	Two cirri	Ribeiro et al. (2018)
A. iricolor (Montagu, 1804)	Kuwait, Arabian Gulf	Unknown	Falcate	Unknown	1+1	Unknown	Unknown	Unknown	Mohammad (1981)
A. iricolor (Montagu, 1804)	Pakistan, Clifton beach	Shorter	Unknown	Unknown	Unknown	Unknown	Tapering gradually to guard	Unknown	Mustaquim (2000)
A. iricolor (Montagu, 1804)	Australia, Great Barrier Reef, Queensland	Shorter	Falcate, bifid (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two or four cirri	Blake (1995), Zanol and Ruta, 2015
A. iricolor (Montagu, 1804)	Mexico, western cost	Shorter	Falcate, bifid (robust, gracile)	Right	1+1	Shorter	Tapering gradually to guard	Two cirri	Fauchald (1970)
A. iricolor (Montagu, 1804)	Korea	Unknown	Unknown	Unknown	Unknown	Shorter	Unknown	Unknown	Paik (1989)
A. iricolor (Montagu, 1804)	Japan	Unknown	Falcate	Right	1+1	Shorter	Unknown	Two cirri	Imajima and Hartman (1964), Uchida (1968)

ORCID

Seong Hun Kang: https://orcid.org/0009-0005-0077-2961
U Seok Jeong: https://orcid.org/0009-0002-2135-7896
Hyun Ki Choi: https://orcid.org/0000-0001-5877-6256
Seong Myeong Yoon: https://orcid.org/0000-0002-3246-3021

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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