A Revised List of the Species of Opisthobranchia from the Northern Part of Japan, with Some Additional Descriptions

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(With 6 Text-figures)

The following is a revised list of the Opisthobranchia of the northern part of Japan, based mainly upon the three previous papers by the author (Baba 1935a, '35b, '40). Subsequent informations offered by courtesy of some of my friends (Messrs. R. Chiba, F. Iwata, M. Yamada and M. Imajima; Drs. T. Imai and the late S. Okuda), presented by the surveying ship "Sōyōmaru", or obtained by myself in summer of 1956, have also been included in the list.

1. Aglaia ezoensis Baba, n. sp. Ezo-kisewata (n. n.)
2. Aplysia parvula Mörch Kuroheri-amefurashi Loc.: Asamushi; Otaru; Shirikishinai.
3. Aplysia sibogae Bergh Amakusa-amefurashi Loc.: Asamushi; Akkeshi Bay.
4. Aplysia kurodai (Baba) Amefurashi Loc.: Asamushi.
5. Stiliger (Ercolania) akkeshiensis Baba Ezo-tamamiru-umiushi (n. n.) Loc.: Daikokujima (Akkeshi Bay).
6. Pleurobranchaea novaezelandiae Cheeseman Umifukuro Loc.: Hirota (Miyagi Pref.); Asamushi.
8. Triopha carpen teri (Stearns) Hansa kai-umiushi (n. n.)
10. Lamellodoris (Lamellidoris) fusca (O.F. Müller) Rameri-umiushi (n. n.)
11. Acanthodoris pilosa (Abildgaard) Toge-umiushi (n. n.)
12. Acanthodoris uchidai Baba Uchida-umiushi (n. n.) Loc.: Daikokujima (Akkeshi Bay).
16. Trapania japonica (Baba) Tsugaru-umiushi (n. n.) Loc.: Off Okidate (Mutsu Bay).
17. Okadaia elegans Baba Okada-umiushi Loc.: Asamushi; Akkeshi and Daikokujima (Akkeshi Bay).
18. Glossodoris pallescens (Bergh) Shiro-umiushi Loc.: Mutsu Bay.


22. **Rostanga arbutus** (Angas) * Iso-umiushi *Loc.: Mutsu Bay; Osyoro; Shirikishinai; Muroran.

23. **Aldisa sanguinea** (Cooper) *Chishio-umiushi Loc.: Asamushi; Shirikishinai.

24. **Diaulula sandiegensis** (Cooper) *Ezo-kasuri-umiushi (n. n.)

25. **Homoiodoris japonica** Bergh *Yamatou-umiushi Loc.: Asamushi; Shirikishinai.

26. **Dendrodoris (Dendrodoris) nigra** (Stimpson) *Kuroshitanashiumushi Loc.A: samushi.

27. **Armina (Armina) comma** (Bergh) *Hime-tatejima-umiushi (n. n.) Loc.: Asamushi.


29. **Duvaucelia (Duvaucelia) exsulans** (Bergh) *Hokuyō-umiushi (n. n.) Loc.: Off Esan, 170 fms; Off Kuji, 150 fms; Off Todozaki; Off Ojika Peninsula. *Dist.: N. Pac. (Calif.; Vancouver I.; Sakhalin); Japan Sea (Off Niigata).

30. **Duvaucelia (Duvaucelia) undulata** O'Donoghue, var. *muroranica* Baba *Shiro-hokuyō-umiushi (n. n.) Loc.: Muroran.


32. **Dirona akkeshiensis** Baba, n. n. *Akebono-umiushi (n. n.) Loc.: Akkeshi and Daikokujima (Akkeshi Bay).

33. **Coryphella athadona** Bergh *Kozakura-minoumiushi (n. n.) Loc.: Asamushi; Shirikishinai; Akkeshi and Daikokujima (Akkeshi Bay).

34. **Cratena bicolor** (Bergh) *Futairo-minoumiushi Loc.: Asamushi.

35. **Cuthona osyoro** Baba *Osyoro-minoumiushi (n. n.) Loc.: Osyoro.

36. **Cuthona sp.** *Loc.: Off Inokama (Mutsu Bay); Akkeshi.

37. **Hervia ceylonica** Farran *Seiron-minoumiushi Loc.: Mousrajima (Mutsu Bay); Shirikishinai.

38. **Hervia emurai** Baba *Emura-minoumiushi Loc.: Asamushi; Muroran. *Dist.: Japan Sea (Niigata; Sado I.).

39. **Facelinella quadrilineata** (Baba) *Yotsusuji-minoumiushi Loc.: Onagawa; Urata (Mutsu Bay).

40. **Cerberilla asamusiensis** Baba *Kasumi-minoumiushi (n. n.) Loc.: Asamushi.

41. **Aeolidia papillosa** (Linné) *Oh-minoumiushi Loc.: Akkeshi and Daikokujima (Akkeshi Bay); Muroran; Shirikishinai; Osyoro; Asamushi. *Dist.: N. Atl.; N. Pac. (Calif.; Vancouver I.; Shumagin Is.; Sakhalin).

The asterisks indicate the species occurring mainly in the warm water regions of Japan.

The influence of the cold current (Oyashio) carries the northern forms of Opisthobranchia to the east coast of Hokkaidō, or further to the north east coast of Tōhoku, Honsyū. Such are: **Lamellidoris fusca** (Hokkaidō; Tōhoku); **Acanthodoris pilosa** (Hokkaidō); **Aeolidia papillosa** (Hokkaidō; Asamushi); **Dendronotus frondosus** (Tōhoku); in the deep, **Duvaucelia exsulans** (Hokkaidō; Tōhoku). It is to be noted that the species **Triopha carpenteri** and **Diaulula sandiegensis** and the genus **Dirona**, all of these are originally known from the Pacific North America, have also been obtained from the cold current regions of our territory. **Coryphella athadona** appears to be one of the cold water forms, but it is endemic. In Mutsu Bay the southern fauna of Opisthobranchia is prevailing, and it is continued northwardly on the west and south coasts of Hokkaidō.
Aglia ezoensis Baba, n. sp. (Fig. 3)

Very small, about 15 mm long, the form as usual and elongate-oval, the posterior lobes of the mantle-shield subequal in size. General ground-colour ashy yellow, but it is almost everywhere (excepting the foremost region of the head and the free posterior margin of the two shields) covered with small, irregular, blackish brown speckles. The sole as above. Without radula.

Loc. : Akkeshi (June 1951, 1 sp., coll. by Mr. F. Iwata).

Possibly this is a new species of the genus Aglaia, having a unique coloration of the body.

Fig. 1. Triopha carpenteri (Shirikishinai, May 5, 1954). Length 45 mm.

Fig. 2. A. Triopha carpenteri (the same specimen as before). A half-row of radula (×50). a, b, rachidian plates. c, inner laterals. d, outer laterals.
B. Lamellidoris fusca (Onagawa, May 27, 1936). A transverse row of radula (×100). a, rachidian plate. b, inner lateral. c, outer lateral.
Triopha carpenteri (Stearns) (Fig. 1; Fig. 2 A)

Triopha-carpenteri MacFarland 1905, pp. 48-49.—Monterey Bay; MacFarland 1906, pp. 135-137, pl. 27, figs. 16-17, pl. 19, figs. 51-55, pl. 21, figs. 108, 113.—Monterey Bay to Point Lobes.

Referable to the above species in body-form, in radula and especially in colouring. Length of animal up to 50 mm. Velar papillae about 20-25, much divided. Similarly branching papillae scattered everywhere on back and sides, those between and behind rhinophores tending to form a median series. Dorso-lateral processes long claviform, mostly terminating in a rounded knob which is very similar to the apical light-organ of Plocamopherus tilesii. They are normally paired in specimen A, and 5 on either side. In specimen B these are 5 on the left and 6 on the right. Gills 5, tripinnate; oral tentacles lobiform. According to the coloured sketch taken by the collector, the whole animal is yellow, and somewhat darker above. The various papillae on back and sides, the frontal and the dorso-lateral appendages, the rhinophores and the tip of the gills vividly tinged with orange. Labial plates as usual formed of minute rods. The radula formulae in specimen A, 25×10-11·5-6·4-5·6-10-11; in specimen B, 28×10-12·7-8·4-7-8·10-12. Rachidian plates 4 (the inner quadrangular, the outer triangular). Inner laterals hamate, the outer laterals scale-like.

Loc.: Shirikishinai near Hakodate (May 1954, 2 sps., coll. by Mr. M. Imajima). Also from Hirota, Miyagi Pref. (date ?, 1 sp., coll. by Mr. R. Chiba).

Lamellidoris (Lamellidoris) fusca (O. F. Müller) (Fig. 2 B; Fig. 4)

Lamellidoris bilamellata var. pacifica Bergh 1880, pp. 211-216, pl. 5, fig. 10, pl. 11, figs. 3-9.—Bering; Bergh 1894, pp. 192-193.—Unalashka.

Lamellidoris bilamellata O’Donoghue 1921, pp. 174-176.—Vancouver I.

Animal small, about 10-25 mm in length, the back everywhere covered with rounded tubercles of varying sizes. Gills 23-25, simply pinnate, set in a circle. With a semicircular oral veil. Back ashy yellow in ground-colour with scattered chocolate brown flecks: in general these latter are arranged in three longitudinal bands down the centre of the back; the rhinophores and the gills chocolate, the underside of body uniformly ashy yellow. Rarely there occurs a whitish colour variety in which the chocolate markings are wanting altogether on back. No labial armatures. Radula formula 25-28×1·1·1·1·1·1. With a small rachidian plate. The inner lateral large, hamate; the outer lateral smaller, scale-like, with an apical claw-like hook.

Loc.: Akkeshi Bay in shallow water, attached on dead shells or on pebbles (Aug. 1956, several sps., coll. by Mr. F. Iwata and the author). Also from Shirikishinai (June 1954, 1 sp., coll. by Mr. M. Imajima) and from Onagawa (May 1936, 3 sps., coll. by Dr. T. Imai). Dist.: N. Atl.; N. Pac.


Revised List of Opisthobranchia from Northern Japan

Acanthodoris pilosa (Abildgaard) (Fig. 5)

In this species the dorsal papillae are long conical and the gills (9, bipinnate) are non-retractile. General body-colour in life ashy white with chocolate brown shades on back. Rhinophores and gills also chocolate. The mantle below and the sole sparsely spotted with chocolate. A whitish colour variety is present.


Diaulula sandiegensis (Cooper) (Fig. 6)

Diaulula sandiegensis MacFarland 1905, pp. 41-42.—Monterey Bay; MacFarland 1906, pp. 122-123, pl. 23, fig. 5, pl. 18, figs. 22-24.—Monterey Bay; O'Donoghue 1921, pp. 159-161.—Vancouver I.

The animal previously referred to Peltodoris mauritiana has been re-identified with the above species. The newly captured specimen is about 40 mm in length. Body soft, the back very finely villous; the gills 6, tri- or quadripinnate; the oral tentacles digitiform. General ground-colour ashy yellow, the back with scattered chocolate-brown, typically ring-shaped markings. These are varying in sizes, and the largest tend to be arranged in a longitudinal series on either side of the median line. Underside without markings. Rhinophores yellow, gills whitish.

Loc.: Akkeshi, on shore (Aug. 1956, 1 sp., coll. by the author). Occurring also in Muroran, Shirikishinai, Asamushi and in Onagawa.

Dirona akkeshiensis Baba, n. n.

The name D. albolineata of Baba 1935b has been altered as above. The animal from Akkeshi is uniformly pinkish, and has no edging white lines which characterize D. albolineata MacFarland. In general colouring the animal in question is somewhat akin to D. picta MacFarland, but it is separable from the latter by virtue of having no tubercles on the dorsal papillae. The animal grows up to 60 mm in length.

Fig. 3. Aglaia ezoensis (Akkeshi, June 9, 1951). Mr. Iwata del. Length 15 mm.
Fig. 4. Lamellidoris fusca (Akkeshi, Aug. 3, 1956). Dorsal and ventral views. Length 25 mm.
Fig. 5. Acanthodoris pilosa (Akkeshi, Aug. 8, 1956). Dorsal and ventral views. Length 12 mm.
Fig. 6. Diaulula sandiegensis (Akkeshi, Aug. 6, 1956). Length 40 mm.
References


