

Dorvilleidae (Annelida, Polychaeta) from Japan I. The Genus *Dorvillea* (*Dorvillea*)

By

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Abstract Four species of the genus *Dorvillea* (*Dorvillea*), family Dorvilleidae, from Japanese waters are examined. Three species, *Dorvillea* (*Dorvillea*) *rubrovittata*, *D. (D.) gardineri*, *D. (D.) similis*, except *D. (D.) matsushimaensis*, are newly recorded from Japan.

Some species of the family Dorvilleidae have been reported by OKUDA & YAMADA (1954), IMAJIMA & HARTMAN (1964) and KITAMORI (1967) from Japanese waters. However, KITAMORI's identification is questionable, based on incomplete descriptions. Of the materials of Dorvilleidae from Japanese water, this paper deals with four species of the genus *Dorvillea* (*Dorvillea*). Three species except *Dorvillea* (*Dorvillea*) *matsushimaensis*, *D. (D.) rubrovittata*, *D. (D.) gardineri*, *D. (D.) similis*, are newly added to the Japanese fauna. Species of other genera of Dorvilleidae will be treated in a second paper. The bulk of the collection is deposited in the National Science Museum, Tokyo.

Genus *Dorvillea* PARFITT, 1866

Type species. — *Staurocephalus rubrovittatus* GRUBE, 1855.

Diagnosis. — Maxillae arranged in 4 rows, each having a prominent basal plate and several free denticles; posterior free denticles usually with large curved teeth flanked by smaller teeth; anterior free denticles usually long with more numerous but smaller teeth. Prostomium with well-developed palps usually having palpostyles; antennae articulated, similar in length to palps. Notopodia present throughout from setiger 2, with acicula and terminal article. Furcate setae absent in adults (subgenus *Dorvillea*) or always present in adults (subgenus *Schistomeringos*), (quoted from WOLF, 1986: 628).

Key to Japanese Species of *Dorvillea* (*Dorvillea*)

1. Notopodium present from setiger 1; prostomium with nuchal papilla.....
..... *Dorvillea* (*Dorvillea*) *gardineri* (CROSSLAND)
- 1'. Notopodium present from setiger 2; prostomium without nuchal papilla2

2. Antennae short, with 3–4 articles *D. (D.) rubrovittata* (GRUBE)
 2'. Antennae long, with 11–15 articles 3
 3. Neuropodial postsetal lobe distally rounded; basal plates of maxillae with 14–15 teeth in superior row, 23–24 teeth in inferior row
 *D. (D.) matsushimaensis* (OKUDA)
 3'. Neuropodial postsetal lobe distally digitated; basal plates of maxillae with 9 teeth in superior row, 7 teeth in inferior row *D. (D.) similis* (CROSSLAND)

***Dorvillea (Dorvillea) rubrovittata* (GRUBE, 1855)**

(Figs. 2 a–r, 3 a–i)

Staurocephalus rubrovittatus GRUBE, 1855, p. 97; EHLERS, 1868, p. 424, pl. 18, figs. 1–16; MCINTOSH, 1910, pp. 353–357, pl. 55, fig. 1, pl. 61, fig. 7, pl. 73, fig. 4, pl. 81, fig. 9; FAUVEL, 1923, pp. 445–446, fig. 177, a–l.

Dorvillea rubrovittata: HARTMAN, 1944, pp. 187–189; PETTIBONE, 1961, p. 182; DAY, 1967, pp. 457–458, fig. 17.21. k–m; HARTMANN-SCHRÖDER, 1971, p. 261; JUMARS, 1974, pp. 112–113.

Material examined. Sabiura, near Kushimoto, Kii Peninsula, intertidal zone (1 specimen), VII–1978. West of Cape Shionomisaki, Kii Peninsula, 33°26.3'N, 135°44.9'E, in 45–70 m (16), VII–1978. Kagoshima Bay, on shells of *Pinctada fucata* (14), VI–1970.

Description. Largest complete specimen 19 mm in length and 1 mm in width excluding parapodia, with 70 setigers. Segments of about equal width, but slightly tapering at posterior end. Ventral side flat, dorsal side convex.

Prostomium almost spherical with 2 pairs of eyes, anterior pair largest. Palps short and stout, ventro-lateral. Antennae dorso-lateral, with 3 to 4 distinct articulations, shorter than palps (Fig. 2 a). Peristomium about 2 times as long as following achaetous segment in dorsum, but anteriorly protruding at lateral side (Fig. 2 b). Each segment circumscribed by one or two ciliary band also running over the parapodia.

Parapodia of setiger 1 lacking dorsal cirri; neuropodia with anteriorly rounded presetal lobe and distally pointed postsetal lobe; ventral cirri tiny (Fig. 2 c, d). Ventral setigerous lobes rounded. Dorsal cirri present from setiger 2, each extending to end of neuropodial lobe, with internal acicula and terminal article (Fig. 2 e, f). Neuropodia with rounded presetal lobes and distally pointed postsetal lobes (Fig. 2 e, f). Subsequent neuropodia with subtriangular presetal lobes, distally pointed postsetal lobes and retractile, ventral setigerous lobe through which compound setae run. Ventral cirrus digitiform (Fig. 2 g–k).

Supra-acicular neurosetae of various lengths, simple setae with serrate flattened blades, with bidentate tips (Fig. 2 l, m), numbering up to 10 per fascicle. Subacicular compound falcigers with long to short bidentate blades having thin guard; shafts of compound falciger distally striated and serrated (Fig. 2 n, o). Notopodial aciculum very slender (Fig. 2 p); neuropodial aciculum stout with pointed tip (Fig. 2 q). Pygidium with 2 pairs of anal cirri; dorsal anal cirri about 3 times as long as ventral anal

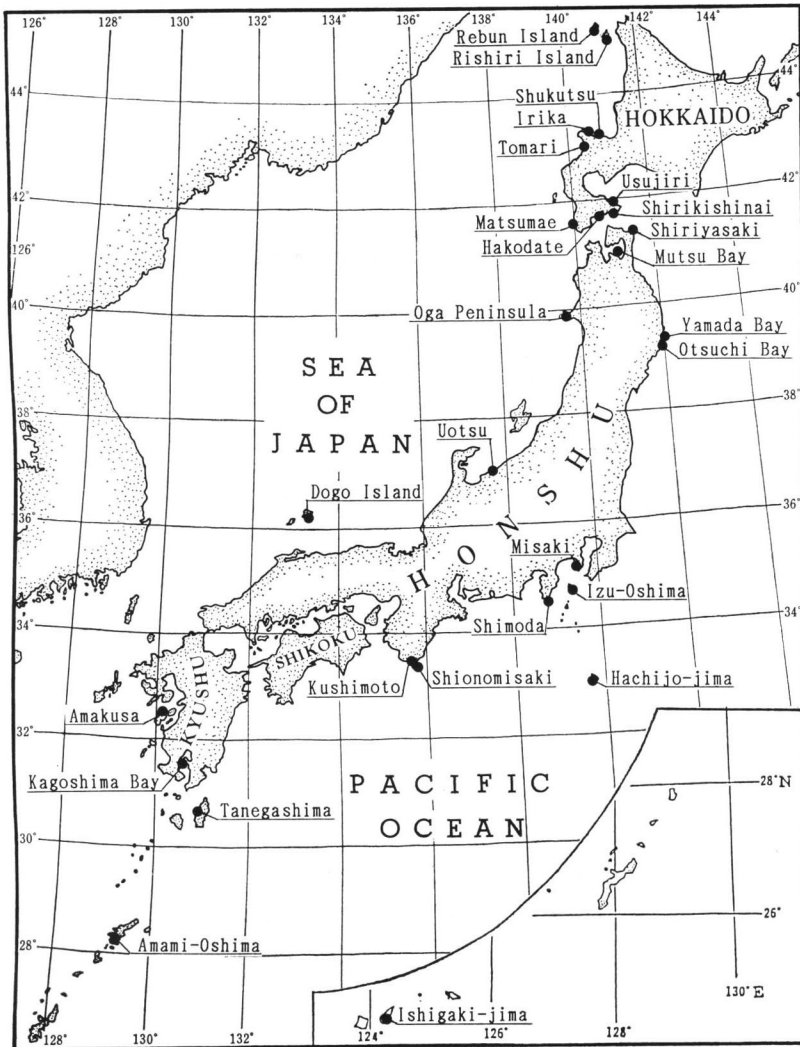
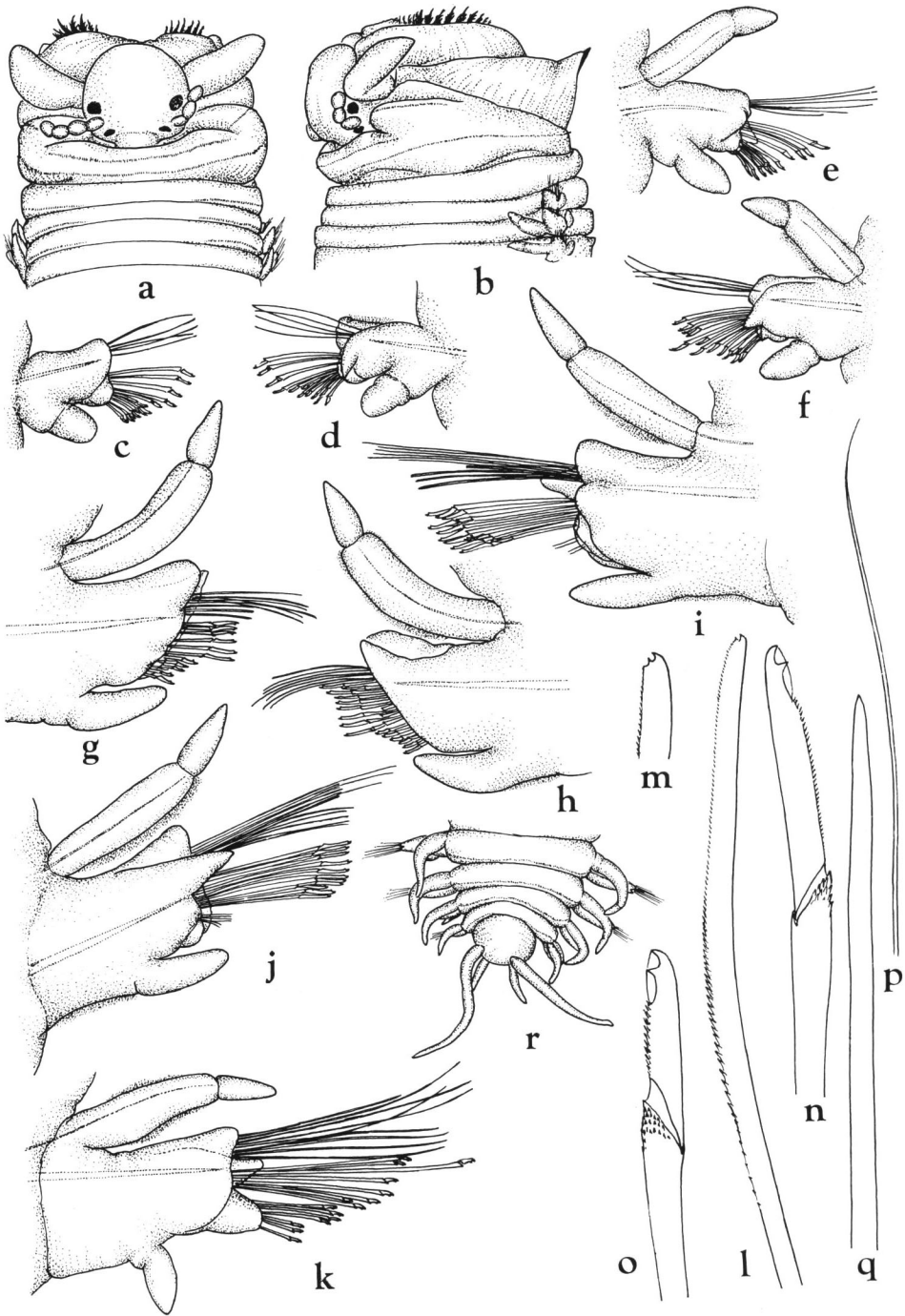


Fig. 1. Map of Japan, showing localities mentioned in the text.

cirri, indistinctly wrinkled (Fig. 2 r).

Maxillary carries fused to spindle-shaped base, serrated with minute teeth of various size along anterior margins (Fig. 3 a-c). Basal plates of superior and inferior maxillary rows apparently connected posteriorly by thin, clear ligament. Maxillae with 20 to 21 free denticles in superior row, 18 to 19 free denticles in inferior row. Basal plates of superior row each with 12 teeth. Posterior free denticles of superior row with large main fang posteriorly directed, 1-2 lateral teeth (Fig. 3 b); median to anterior free denticles with sharply pointed large main fang, 1 lateral and 1-3 medial



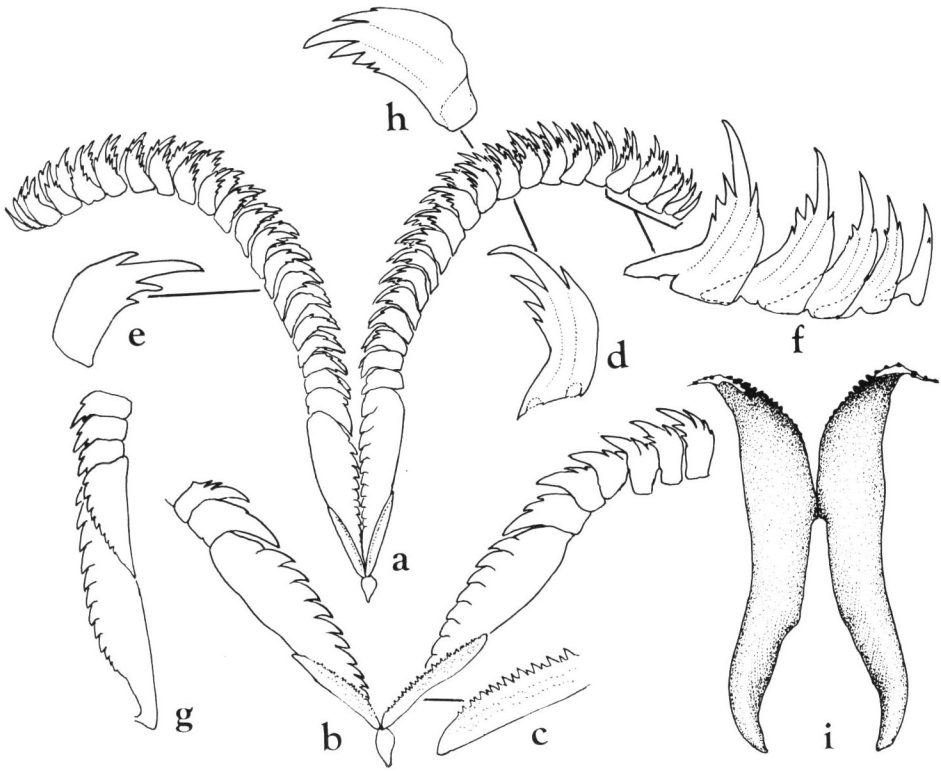


Fig. 3. *Dorvillea (Dorvillea) rubrovittata* (GRUBE). — a, Entire maxillae, dorsal view, $\times 70$; b, posterior portion of maxillae, dorsal view, $\times 100$; c, part of maxillary carry, dorsal view, $\times 263$; d, e, median free denticle of superior row, $\times 200$; f, anterior free denticles of superior row, $\times 200$; g, basal plate of inferior row, ventral view, $\times 100$; h, median free denticle of inferior row, $\times 200$; i, mandibles, dorsal view, $\times 80$.

teeth (Fig. 3 d–f); anteriormost free denticles with sharply pointed, with 1 lateral small tooth (Fig. 3 e), without medial teeth.

Basal plates of inferior row about a half as long as those of superior row, with 8 teeth (Fig. 3 f). Posterior free denticles short, squared, with main fang bearing 2 to 3 small teeth on either side; median denticles with sharply pointed main fang, 2

Fig. 2. *Dorvillea (Dorvillea) rubrovittata* (GRUBE). — a, Anterior end, dorsal view, $\times 40$; b, same, lateral view, $\times 40$; c, left parapodium of setiger 1, anterior view, $\times 70$; d, same, posterior view, $\times 70$; e, left parapodium of setiger 2, anterior view, $\times 70$; f, same, posterior view, $\times 70$; g, left parapodium of setiger 20, anterior view, $\times 70$; h, same, posterior view, $\times 70$; i, left parapodium of setiger 40, anterior view, $\times 70$; j, same, posterior view, $\times 70$; k, left parapodium of setiger 50, anterior view, $\times 70$; l, supra-acicular simple seta, $\times 540$; m, distal tip of supra-acicular simple seta, $\times 900$; n, subacicular superior falciger, $\times 705$; o, subacicular inferior falciger, $\times 705$; p, notopodial aciculum, $\times 182$; q, neuropodial aciculum, $\times 182$; r, pygidium, dorsal view, $\times 44$.

lateral and 4 medial teeth (Fig. 3 h); anterior denticles becoming long and sharply pointed.

Mandibles symmetrical, fused medially, each with 3 to 6 small, free denticles anteriorly and 7 to 10 small teeth on inner margin (Fig. 3 i).

Remarks. The present material agrees well with the original description on the features of the anterior body and parapodia, and also resembles in the maxillae examined by JUMARS (1974, p. 113).

The species is new to the Japanese fauna.

Distribution. Adriatic; Mediterranean; tropical West Africa; Japan.

***Dorvillea (Dorvillea) gardineri* (CROSSLAND, 1924)**

(Figs. 4 a-l, 5 a-m, 6 a-g)

Staurocephalus (Dorvillea) gardineri CROSSLAND, 1924, pp. 93-99, figs. 112-118.

Staurocephalus gardineri: FAUVEL, 1953, p. 280, fig. 143, d-f.

Papilliodorvillea gardineri: PETTIBONE, 1961, pp. 181-182.

Dorvillea gardineri: DAY, 1967, p. 455, fig. 17.21. a-c; JUMARS, 1974, pp. 113-115, fig. 5.

Material examined. Miho, Ishigaki-jima, on reef (1), VII-1973.

Description. Complete specimen with 96 setigers, measuring 37 mm in length and 1.8 mm in width at anterior region excluding parapodia; dorsal side convex.

Prostomium small, rounded, with 2 pairs of conspicuous eyes; anterior eyes slightly smaller than posterior one. Antennae with about 10 indistinct articles. Palps stout, with terminal palpostyles, slightly longer than antennae. Peristomium very large, almost as long as three succeeding segments, separated from prostomium by a deep dorsal incision containing a large nuchal papilla and lateral lobes protruding anteriorly (Fig. 4 a-c).

Dorsal cirri present from setiger 1, each extending to end of neuropodial lobe, with internal aciculum and terminal article (Fig. 4 a, d, e). Dorsal cirri of succeeding setigers stout, with distinct terminal article (Fig. 4 f-l). Neuropodia small at first (Fig. 4 e), increasing to full size by about setiger 10 (Fig. 4 h). Neuropodia with pre- and postsetal lobes; both lobes distally rounded and subequal in size (Fig. 4 h, j), with internal stout acicula. Ventral cirri basal, stubby.

Supra-acicular neurosetae of two kinds of simple setae: 1-5 slender, bidentate, serrate along convex margin (Fig. 5 a-c) and 3-4 thick, bidentate falcate with small, thin guards, serrate along convex margin (Fig. 5 d-f). Subacicular compound falcigers with bidentate blades, with small, thin guards; falcigers of setiger 1 (Fig. 5 g, h) slender than those of median setigers (Fig. 5 i, j); shafts of compound falcigers distally striated and serrated. Notopodial aciculum slender (Fig. 5 k), neuropodial aciculum stout (Fig. 5 l).

Pygidium with 2 pairs of anal cirri. Dorsal anal cirri long, indistinctly articulated. Ventral anal cirri short, digitiform (Fig. 5 m).

Maxillary carriers symmetrical, fused to oval-shaped base, serrate along anterior

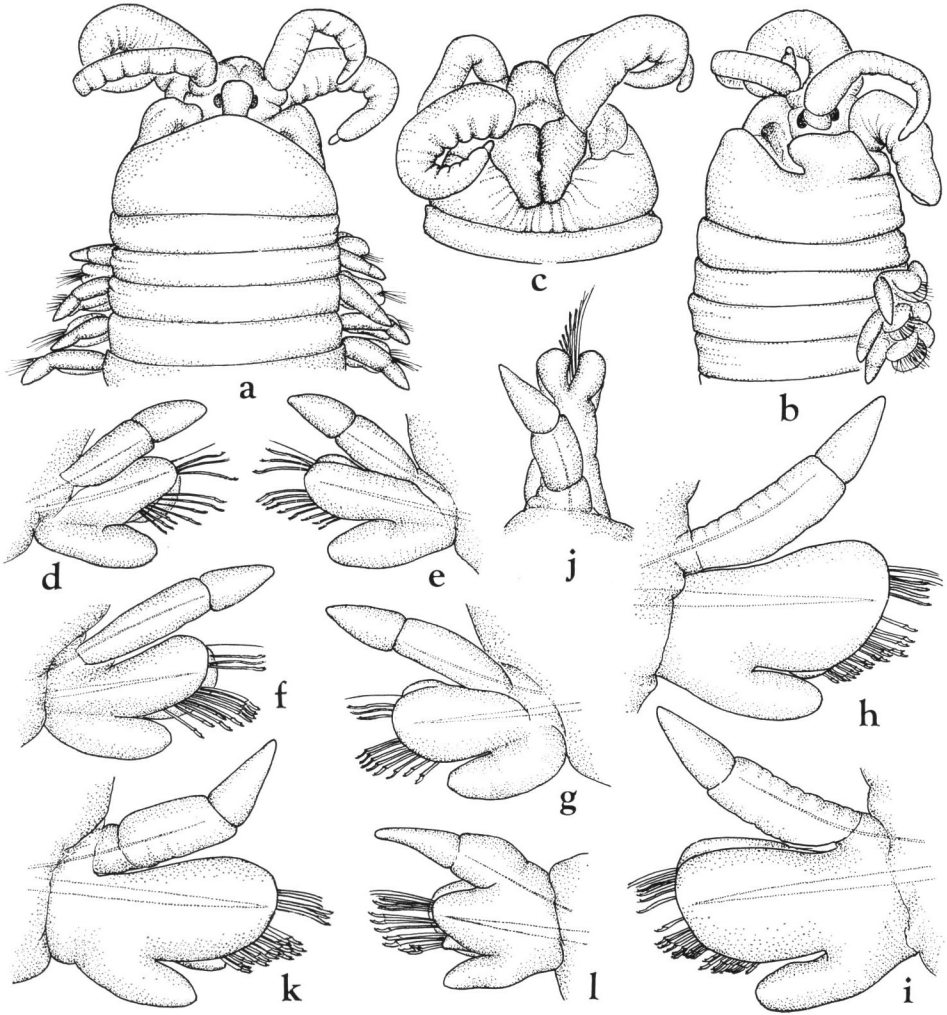


Fig. 4. *Dorvillea (Dorvillea) gardineri* (CROSSLAND). — a, Anterior end, dorsal view, $\times 18$; b, same, lateral view, $\times 18$; c, prostomium and peristomium, ventral view, $\times 18$; d, left parapodium of setiger 1, anterior view, $\times 42$; e, same, posterior view, $\times 42$; f, left parapodium of setiger 2, anterior view, $\times 42$; g, same, posterior view, $\times 42$; h, left parapodium of setiger 10, anterior view, $\times 42$; i, same, posterior view, $\times 42$; j, left parapodium of setiger 37, dorsal view, $\times 37$; k, left parapodium of setiger 45, anterior view, $\times 42$; l, left parapodium of posterior setiger, posterior view, $\times 42$.

margins (Fig. 6 a, b). Maxillae with 30 free denticles in superior row, 44 free denticles in inferior row. Basal plates of superior row each with 20 teeth apparently connected posteriorly by thin, clear ligament (Fig. 6 b). Posterior free denticles of superior row with stout main fang, 3 lateral and 4 medial teeth (Fig. 6 c). Middle free denticles

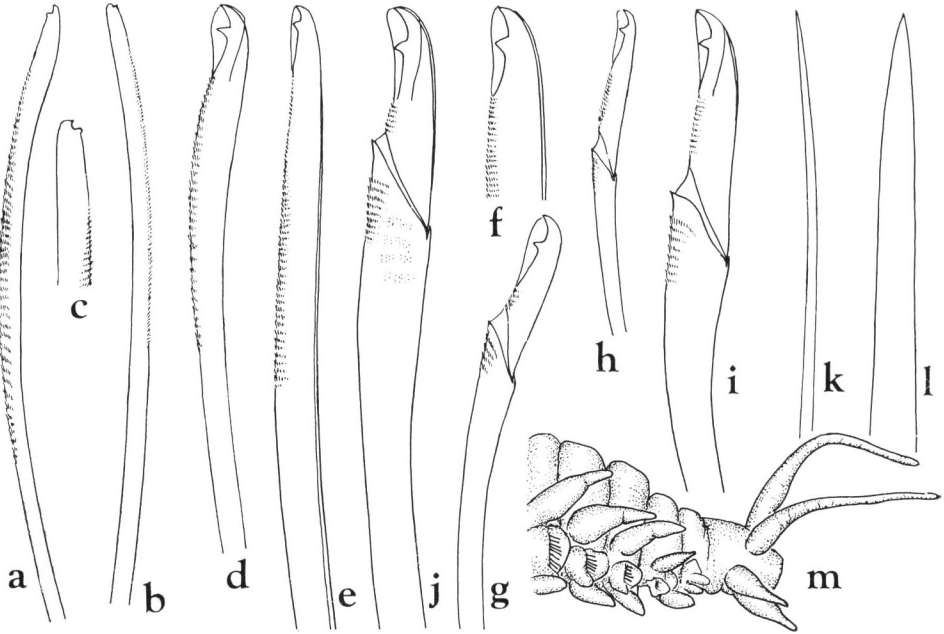


Fig. 5. *Dorvillea (Dorvillea) gardineri* (CROSSLAND). — a, Supra-acicular cultriform seta from setiger 1, $\times 576$; b, supra-acicular cultriform seta from median setiger, $\times 385$; c, distal part of same seta, $\times 640$; d, supra-acicular falcate seta from setiger 1, $\times 576$; e, supra-acicular falcate seta from median setiger, $\times 385$; f, distal part of same seta, $\times 640$; g, subacicular superior falciger from setiger 1, $\times 516$; h, subacicular inferior falciger from setiger 1, $\times 516$; i, subacicular superior falciger from median setiger, $\times 425$; j, subacicular inferior falciger from same setiger, $\times 425$; k, notopodial aciculum, $\times 150$; l, neuropodial aciculum, $\times 150$; m, pygidium, lateral view, $\times 42$.

of superior row with sharply pointed, curved main fang, 3 lateral and 6 medial teeth (Fig. 6 d).

Basal plates of inferior row rudimentary, appearing a row of small denticles (Fig. 6 b). Denticles of inferior row elongate, subrectangular, with large main fang, 5 lateral and 5 medial teeth (Fig. 6 e). Anterior free denticle becoming small, with main fang, 8 lateral and 8 medial teeth (Fig. 6 f).

Mandibles symmetrical, fused medially, each with 1 to 2 small, free denticles anteriorly and 5 to 6 conspicuous teeth on inner margin (Fig. 6 g).

Remarks. *Dorvillea (Dorvillea) gardineri* is characterized in having a nuchal papilla on the prostomium, the dorsal cirri on the first setiger, simple cultriform setae and falcate setae on the supra-acicular of neuropodia.

JUMARS (1974) described on the maxillary apparatus based on the specimens from Bikini Atoll. The forms of the maxillary carriers and the basal plates of inferior row differ somewhat from the examined material.

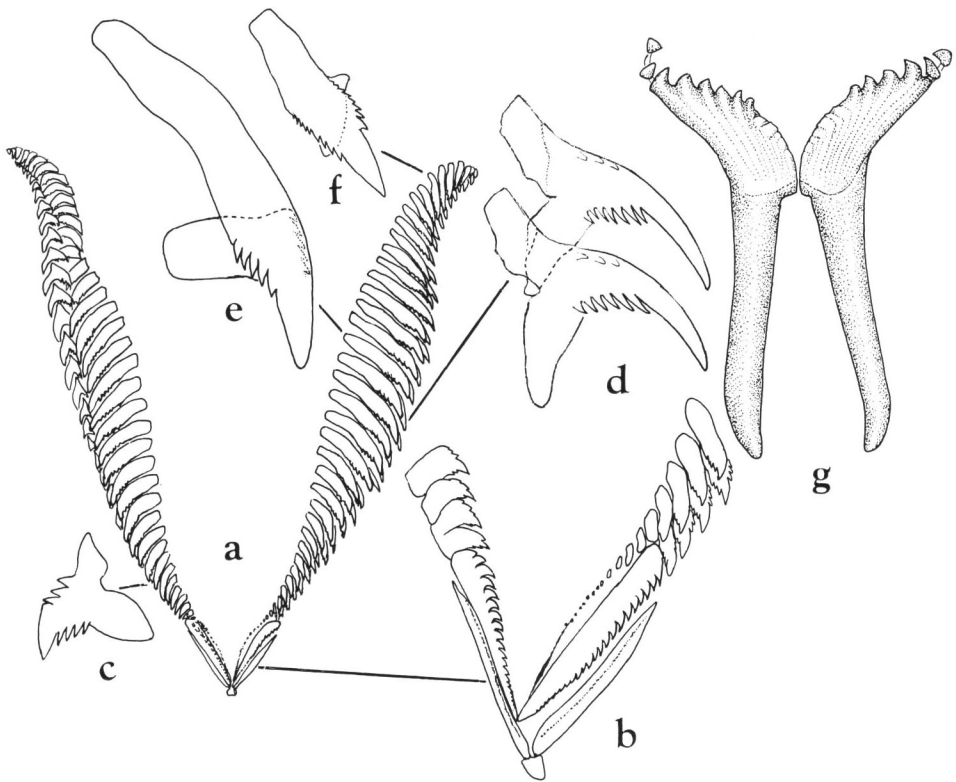


Fig. 6. *Dorvillea (Dorvillea) gardineri* (CROSSLAND). — a, Entire maxillae, dorsal view, $\times 37$; b, posterior portion of maxillae, dorsal view, $\times 103$; c, posterior free denticle of superior row, $\times 147$; d, median free denticles of superior row, $\times 147$; e, median free denticle of inferior row, $\times 147$; f, anterior free denticle of inferior row, $\times 210$; g, mandibles, ventral view, $\times 32$.

The species is new to the Japanese fauna.

Distribution. Tropical East Africa; Indian Ocean; Bikini Atoll; Japan.

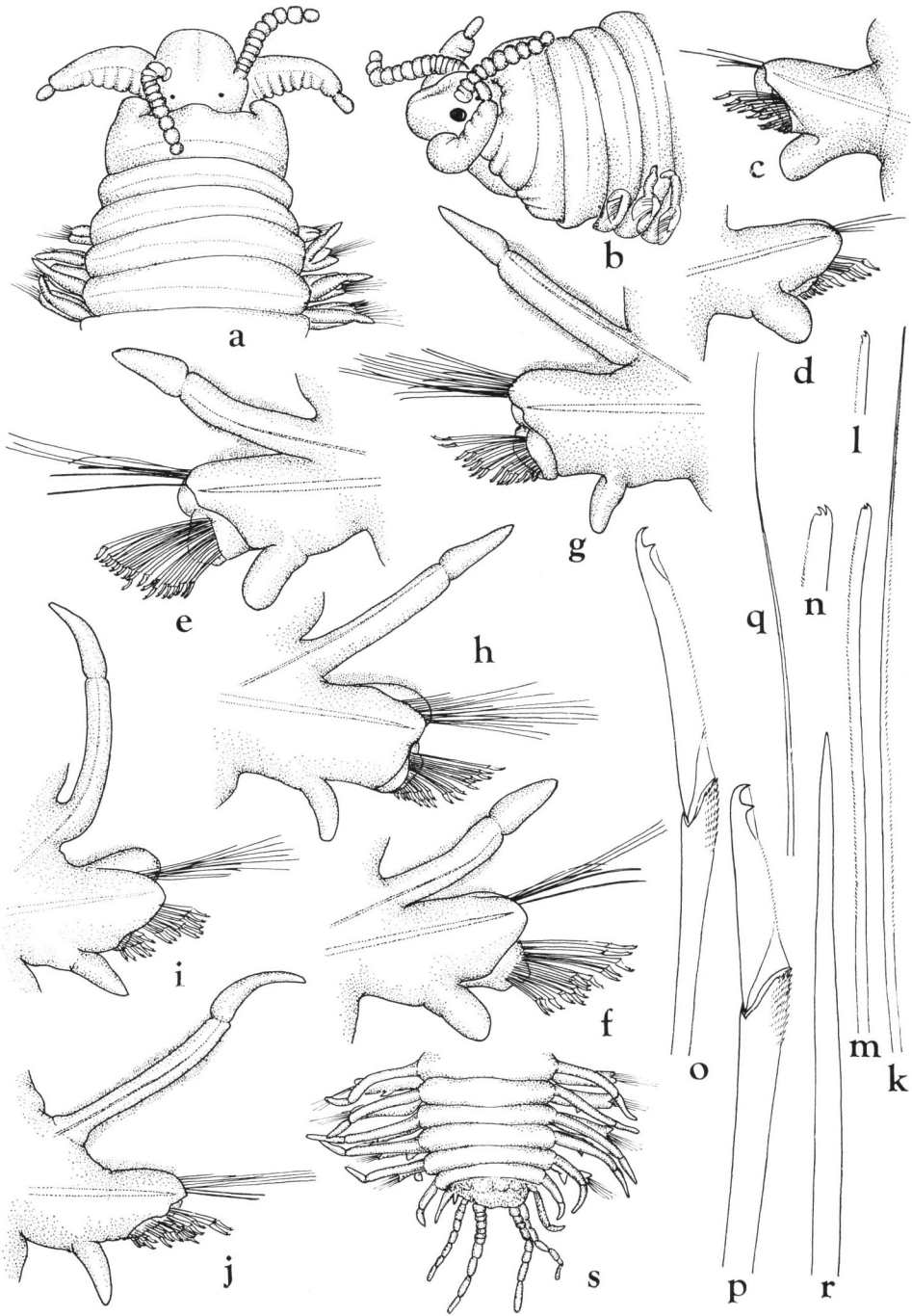
***Dorvillea (Dorvillea) matsushimaensis* (OKUDA, 1950)**

(Figs. 7 a-s, 8 a-g)

Staurocephalus matsushimaensis OKUDA, in OKUDA & YAMADA, 1954, pp. 189-191, textfig. 6.

Dorvillea matsushimaensis: IMAJIMA & HARTMAN, 1964, pp. 269-270.

Material examined. Funadomari, Rebun Island, intertidal zone (7), VIII-1963. Notsuka, Rishiri Island, intertidal zone (6), VIII-1963. Shirikishinai, Hokkaido, intertidal zone, XII-1954 (7), IV-1956 (1), VI-1959 (8), VII-1959 (1), VII-1960 (16), VIII-1960 (4), IX-1960 (1), VII-1961 (8), VI-1963 (2). Off Shirikishinai, in 30 m (7), in 125 m (1), II-1956; in 70 m (2), V-1957; in 125 m (2), VII-1958; in 20 m (1),



in 125 m (13), II-1960; in 30 m (35), III-1961; in 125 m (6), VI-1961; in 30 m (8), VIII-1961. Off Usujiri, Hokkaido, in 80 m (37), VIII-1982; in 12 m (9), XI-1982. Shukutsu, Hokkaido, intertidal zone (9), VIII-1959. Irika, Hokkaido, intertidal zone (7), VIII-1960. Tomari, Hokkaido, intertidal zone (22), VII-1960; Matsumae, Hokkaido, intertidal zone (56), VI-1960. Off Hakodate, in 20 m (15), VI-1960. Off Shiriyasaki, in 130 m (1), II-1956. Mutsu Bay, in 51 m (1), V-1971; in 15 m (1), in 77 m (4), I-1973. Otsuchi Bay, 39°21.7'N, 141°58.3'E-39°21.3'N, 141°58.6'E, in 57-60 m (2); 39°21.8'N, 142°00.1'E-39°21.9'N, 141°59.8'E, in 75-85 m (1); 39°20.8'N, 141°57.8'E-39°20.9'N, 141°57.9'E, in 48-50 m (54); 39°21.7'N, 141°59.8'E-39°21.5'N, 141°59.6'E, in 79-74 m (35), VIII-1979; 39°20.8'N, 141°58.5'E-39°21.0'N, 141°58.6'E, in 55-58 m (1), V-1984. Yamada Bay, in 10 m (3), in 27 m (2), in 40 m (1), in 48 m (5), in 50 m (2), in 53 m (1), VII-1967.

Description. Largest complete specimen with 75 setigers, measuring 27 mm in length and about 1.3 mm in width excluding parapodia.

Prostomium rounded with 2 pairs of eyes, anterior pair largest, at base of antennae. Antennae with 11 to 12 articulations. Palps stout, with palpostyles, about equal in length to antennae. Peristomium as long as following 2 segments (Fig. 7 a, b).

Setiger 1 without notopodia, but with short, thick ventral cirri (Fig. 7 c, d). Dorsal cirri present from setiger 2, each extending to end of neuropodial lobe, with internal acicula and terminal article (Fig. 7 e, f); terminal article of dorsal cirri in median and posterior setigers becoming long and slender (Fig. 7 i, j).

Neuropodia with slightly incised presetal lobes and distally rounded postsetal lobes throughout setigers (Fig. 7 c-j). Ventral setigerous lobes large when everted (Fig. 7 e, f).

Supra-acicular setae of two kinds; simple, slender, serrate, with bidentate tip (Fig. 7 k, l), and simple, flattened cultriform with serrate along convex margin and 2 small, sharp teeth on tip (Fig. 7 m, n); furcate setae absent.

Subacicular compound falcigers with long to short bidentate blades, with serrate along margin and small, thin guards (Fig. 7 o, p). Notopodial aciculum simple, slender (Fig. 7 q). Neuropodial aciculum simple, stout (Fig. 7 r). Pygidium with 2 pairs of anal cirri; dorsal anal cirri slightly longer than ventral ones, each with about 10 articles; distal articles elongate (Fig. 7 s). Anus dorsal.

Maxillary carriers symmetrical, fused to oval-shaped base, serrate along anterior margins (Fig. 8 a). Basal plates of superior and inferior maxillary rows apparently

Fig. 7. *Dorvillea (Dorvillea) matsushimaensis* (OKUDA). — a, Anterior end, dorsal view, $\times 22$; b, same, dorso-lateral view, $\times 22$; c, right parapodium of setiger 1, anterior view, $\times 70$; d, same, posterior view, $\times 70$; e, right parapodium of setiger 2, anterior view, $\times 70$; f, same, posterior view, $\times 70$; g, right parapodium of setiger 10, anterior view, $\times 53$; h, same, posterior view, $\times 53$; i, right parapodium of median setiger, posterior view, $\times 53$; j, left parapodium of posterior setiger, anterior view, $\times 53$; k, supra-acicular simple seta, $\times 278$; l, distal part of same seta, $\times 600$; m, supra-acicular cultriform seta, $\times 398$; n, distal part of same seta, $\times 705$; o, subacicular superior falciger, $\times 600$; p, subacicular inferior falciger, $\times 600$; q, notopodial aciculum, $\times 128$; r, neuropodial aciculum, $\times 128$; s, pygidium, dorsal view, $\times 22$.

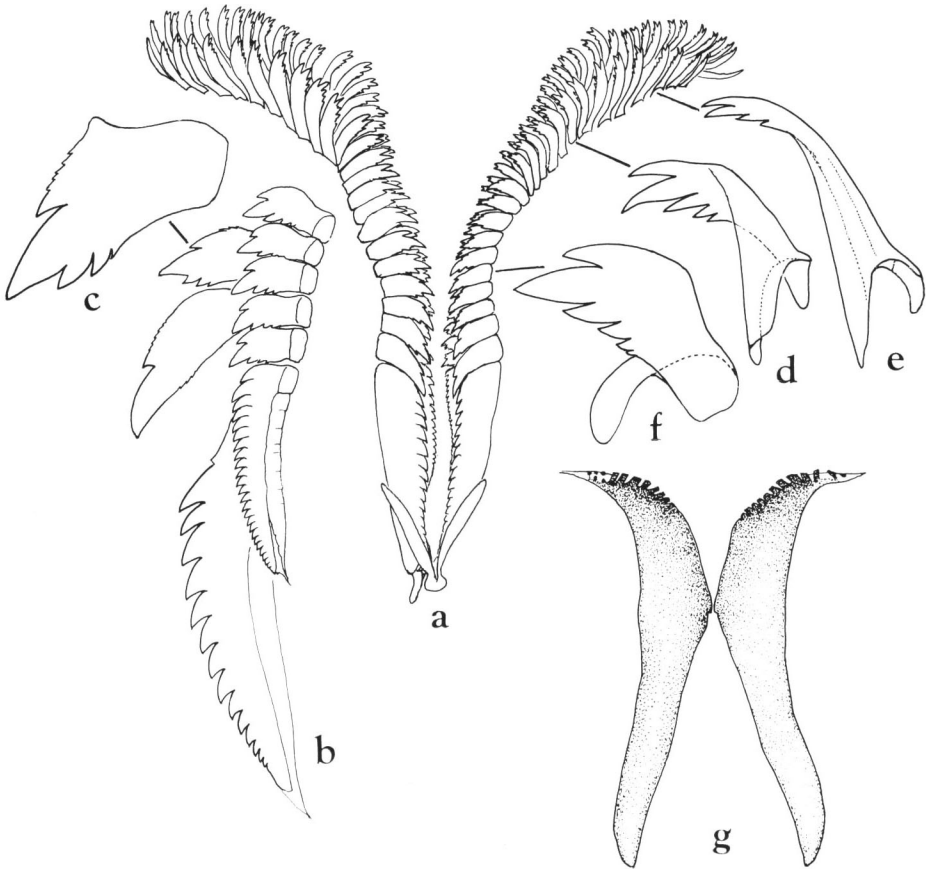


Fig. 8. *Dorvillea (Dorvillea) matsushimaensis* (OKUDA). — a, Entire maxillae, dorsal view, $\times 90$; b, posterior portion of maxillae, ventral view, showing basal plates and some posterior free denticles of superior and inferior rows, $\times 142$; c, posterior free denticle of superior row, $\times 280$; d, middle free denticle of superior row, $\times 220$; e, anterior free denticles of superior row, $\times 220$; f, posterior free denticles of inferior row, $\times 360$; g, mandibles, dorsal view, $\times 55$.

connected posteriorly by thin, clear ligament. Maxillae with 24 free denticles in superior row, 38–40 free denticles in inferior row. Basal plates of superior row each with 14 to 15 teeth (Fig. 8 a). Posteriormost free denticles with large main fang sharply curved and posteriorly directed; with 1 large and 5 minute lateral teeth and 3 medial teeth (Fig. 8 b). Posterior free denticles with large main fang, 1 large and 5 minute lateral teeth and 3 medial teeth (Fig. 8 c). Middle free denticles with sharply pointed main fang, 1 lateral and 3 medial teeth (Fig. 8 d). Anterior free denticles with strongly prolonged main fang, 1 lateral and 2 medial teeth (Fig. 8 e).

Basal plates of inferior row about a half as large as those of superior row, each

with 23 to 24 teeth (Fig. 8 b). Posterior free denticles of inferior row with large main fang, 1 lateral and 4 medial teeth (Fig. 8 f). Anterior free denticles becoming long and sharply pointed.

Mandibles symmetrical, fused medially, each with 3 small, free denticles anteriorly, and 7 to 8 small teeth on inner margin (Fig. 8 g).

Remarks. IMAJIMA & HARTMAN (1964: p. 270) redescribed in that this species has bidentate composite, accompanied by a simple, forked seta in neuropodia. This mention is not true, this species has no any furcate setae.

Distribution. Japan.

Dorvillea (Dorvillea) similis (CROSSLAND, 1924)

(Figs. 9 a-t, 10 a-j)

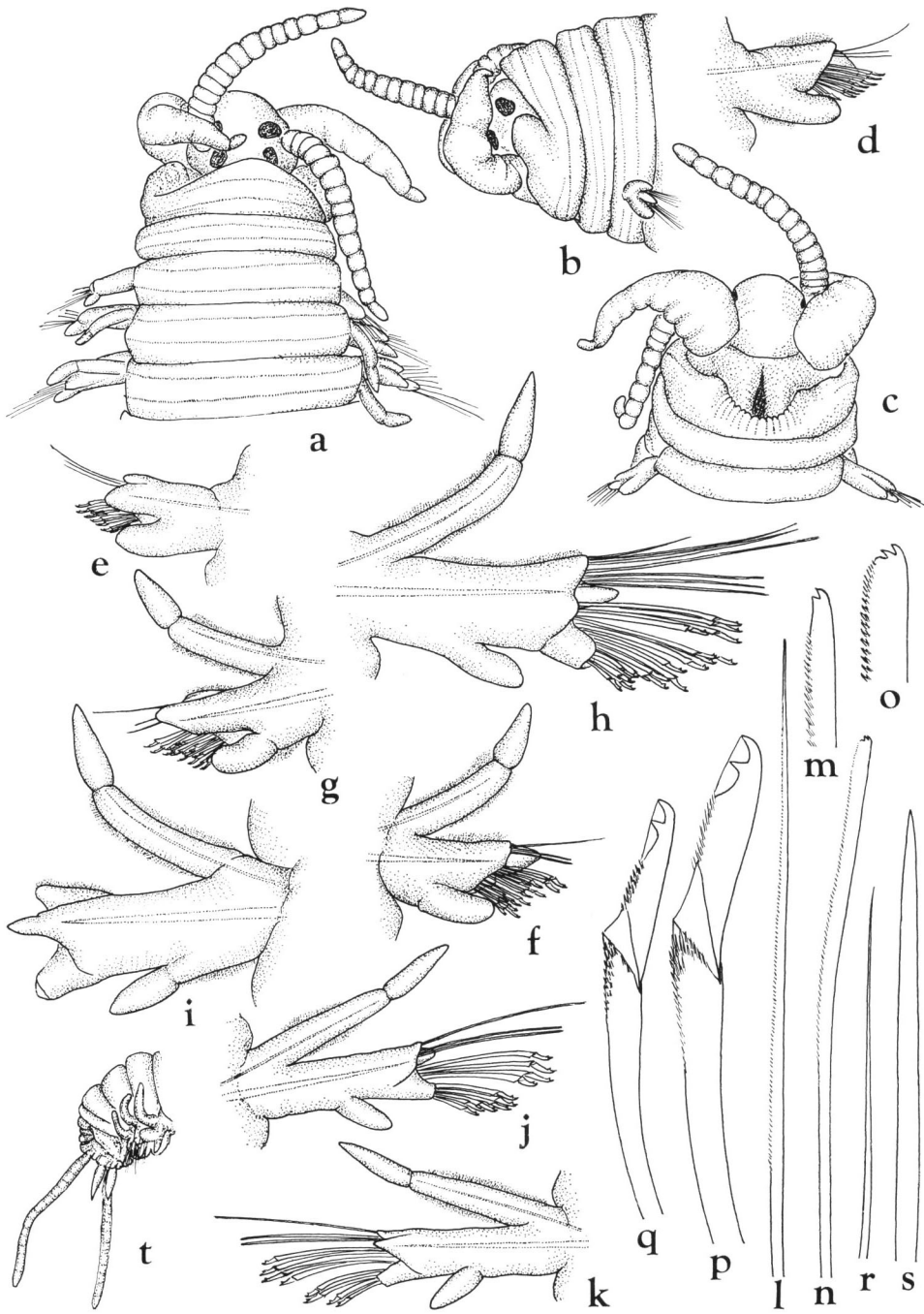
Staurocephalus (Dorvillea) similis CROSSLAND, 1924, pp. 100-106, figs. 119-126.

Dorvillea similis: REISH, 1968, p. 220; KOHN & LLOYD, 1973, p. 381; JUMARS, 1974, p. 112; GLASBY, 1984, pp. 106-107.

Material examined. Otsuchi Bay, 39°21.8'N, 142°00.1'E-39°21.9'N, 141°59.8'E, in 75-85 m (1), VIII-1979; 39°22.3'N, 142°01.1'E-39°22.3'N, 142°00.4'E, in 101-97 m (1), VII-1985. Off Oga Peninsula, 39°48.9'N, 139°56.2'E-39°48.9'N, 139°56.1'E, in 21 m (16), VI-1983. Toga, Oga Peninsula, in 5 m (18), VI-1983. Uotsu, in 1 m (10), V-1976. Misaki, on attachment organisms (1), IV-1964. Nabeta, Shimoda, intertidal zone (1), X-1981. Off Izu-Oshima, 34°43.0'N, 139°20.3'E-34°43.1'N, 139°20.5'E, in 70-90 m (1), VII-1977. Yaene, Hachijo-jima, intertidal zone (1), IV-1968. Off Kushimoto, 33°27.8'N, 135°44.8'E, in 29-32 m (2); 33°26.3'N, 135°44.9'E, in 45-70 m (1); 33°27.2'N, 135°45.4'E, in 19-27 m (1); 33°28.3'N, 135°45.1'E, in 18-20 m (1), VII-1978. Off Kamo, in 20-30 m (2), off Uzushima, in 42 m (5), Dogo Island, VIII-1980. Amakusa, intertidal zone (1), X-1963. Tarumizu, Kagoshima Bay, on shell of *Pinctada fucata* (4), VI-1970. Sumiyoshi, on coral (7), Masuda, on coral (1), Tanegashima, VI-1975. Off Tanegashima, 30°37.8'N, 130°54.2'E, in 45 m (1), 30°47.1'N, 130°54.5'E, in 69 m (8), 30°34.5'N, 130°53.6'E, in 39 m (2), 30°41.4'N, 131°07.5'E, in 56 m (7), 30°35.9'N, 131°06.0'E, in 60 m (4), VI-1975. Koniya, Amami-Oshima, on coral (3), IV-1970, KT-70-2. Miho, Ishigaki-jima, on coral (1), VII-1973. Kabira Bay, Ishigaki-jima, on shell of *Pinctada margaritifera* (5), VI-1973.

Description. Largest complete specimen with 66 setigers, measuring 19 mm in length and 1.2 mm in width at anterior region excluding parapodia. Dorsal side convex, ventral side flat.

Prostomium rounded, with 2 pairs of large eyes. Antennae with 13 to 15 articles. Palps stout, with palpostyles, shorter than antennae. Peristomium with 2 achaetous and apodous segments; first peristomial segment with lateral lobes directed anterodorsally, at both sides of prostomium (Fig. 9 a-c). Each segment circumscribed by 2 ciliary bands.



Setiger 1 without notopodia, with thick ventral cirri (Fig. 9 d, e). Subsequent setigers each with slender dorsal cirri extending to end of neuropodial lobe, with internal acicula and terminal article (Fig. 9 f-k). Neuropodia of setiger 1 with rudimentary subtriangular pre- and postsetal lobes (Fig. 9 d, e). Neuropodia of anterior setigers well developed, with bifid presetal lobe and distally digitated postsetal lobe, with everted ventral setigerous lobes (Fig. 9 h, i). Posterior neuropodia becoming slender, with superiorly pointed pre- and postsetal lobes (Fig. 9 j, k).

Supra-acicular neurosetae of two kinds: simple, slender, serrate, with bidentate tips (Fig. 9 l, m) and simple, cultriform with minute serrate along one margin and 2 sharp teeth on tip (Fig. 9 n, o); furcate setae absent.

Subacicular compound falcigers with long to short bidentate blades, with serrate along margin and thin guards (Fig. 9 p, q). Notopodial aciculum very slender (Fig. 9 r); neuropodial aciculum simple, stout (Fig. 9 s).

Pygidium with 2 pairs of anal cirri. Dorsal anal cirri about 4 times as long as ventral cirri, indistinctly wrinkled. Ventral anal cirri short, digitiform. Anus dorsal (Fig. 9 t).

Maxillary carriers symmetrical, fused to oval-shaped base, serrate along anterior margins (Fig. 10 a, b). Basal plates of superior and inferior maxillary rows apparently connected posteriorly by thin, clear ligament. Maxillae with 26 to 27 free denticles in superior row, 32 to 33 free denticle in inferior row. Basal plates of superior row each with 9 teeth (Fig. 10 b). Posterior free denticles with large main fang, 1 lateral and 5 medial teeth (Fig. 10 c). Middle free denticles with strongly curved main fang, 1 lateral and 3 medial teeth (Fig. 10 d). Anterior free denticles prolonged, distally curved, with 1 lateral and 3 medial teeth (Fig. 10 e).

Basal plates of inferior row each with 7 teeth (Fig. 10 f). Posterior free denticles short, squared, with large main fang, 2 lateral and 3 medial teeth (Fig. 10 f). Middle free denticles with curved main fang, 2 lateral and 3 medial teeth (Fig. 10 g). Anterior free denticles basally strongly prolonged, with main fang, 2 lateral and 4 medial teeth (Fig. 10 h). Anteriormost free denticles strongly prolonged basally, with small lateral teeth (Fig. 10 i).

Mandibles symmetrical, fused medially, each with 4 to 6 small free denticles anteriorly, and about 10 small teeth on inner margin (Fig. 10 j).

Remarks. The present material agrees well with the original description, especial-

Fig. 9. *Dorvillea (Dorvillea) similis* (CROSSLAND). — a-c, Anterior ends, dorsal (a), lateral (b) and ventral (c) views, $\times 42$; d, left parapodium of setiger 1, anterior view, $\times 85$; e, same, posterior view, $\times 85$; f, left parapodium of setiger 2, anterior view, $\times 74$; g, same, posterior view, $\times 74$; h, left parapodium of setiger 20, anterior view, $\times 74$; i, same, setae omitted, posterior view, $\times 74$; j, left parapodium of posterior setiger, anterior view, $\times 74$; k, same, posterior view, $\times 74$; l, supra-acicular simple seta from setiger 1, $\times 425$; m, distal tip of same seta, $\times 1070$; n, supra-acicular cultriform seta from setiger 2, $\times 425$; o, distal tip of same seta, $\times 1070$; p, subacicular superior falciger from setiger 2, $\times 848$; q, subacicular inferior falciger, $\times 848$; r, notopodial aciculum, $\times 194$; s, neuropodial aciculum, $\times 194$; t, pygidium, lateral view, $\times 42$.

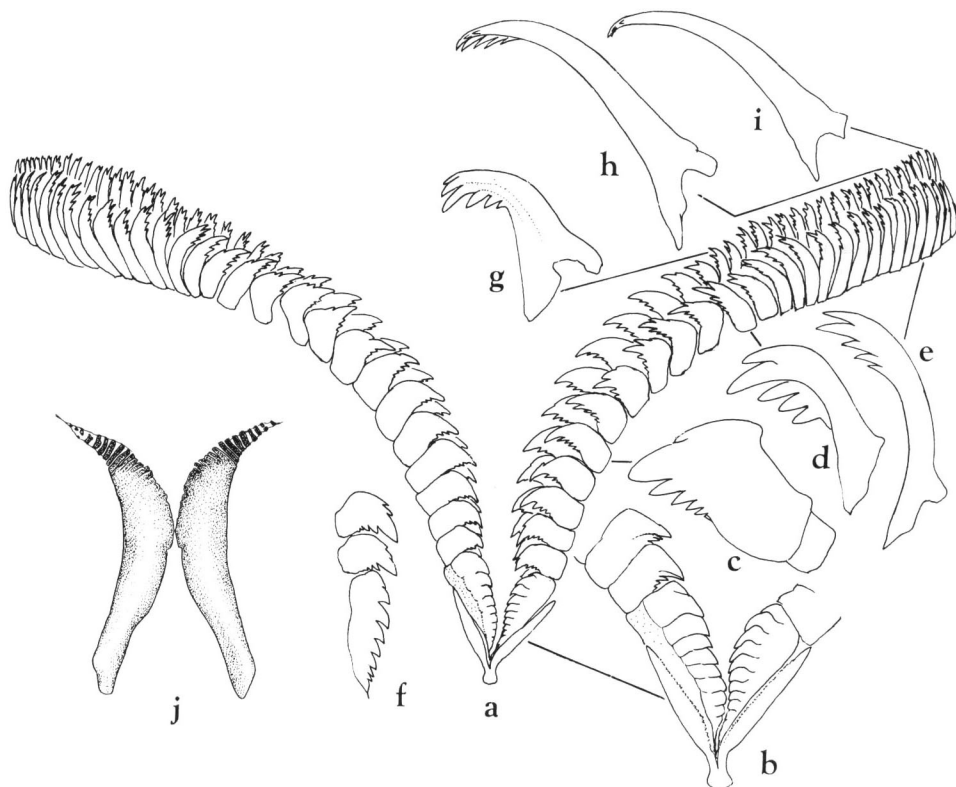


Fig. 10. *Dorvillea (Dorvillea) similis* (CROSSLAND). — a, Entire maxillae, dorsal view, $\times 97$; b, posterior portion of maxillae, dorsal view, $\times 152$; c, posterior free denticle of superior row, $\times 268$; d, middle free denticle of superior row, $\times 268$; e, anterior free denticle of superior row, $\times 152$; f, basal plate and 2 posterior free denticles of inferior row, $\times 152$; g, middle free denticle of inferior row, $\times 268$; h, anterior free denticle of inferior row, $\times 268$; i, anterior-most free denticle of inferior row, $\times 268$; j, mandibles, dorsal view, $\times 64$.

ly in relation to the maxillary apparatus and the setae. The present material resembles *Dorvillea (Dorvillea) cerasina* (EHLERS, 1901) from Chile in some respects. However, *D. (D.) similis* may be clearly distinguished from *D. (D.) cerasina* in that the basal plates in the inferior row of the maxillae have 7 teeth, rather than smooth, without teeth (FAUCHALD, 1970, p. 156).

The species is new to the Japanese fauna.

Distribution. Suez; Marshall Islands; Pulo Boenda, northwest of Sumatra; Japan.

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