



|                  |   |
|------------------|---|
| Title            | Hydroids from the Japanese Inland Sea, mostly from Matsuyama and its vicinity (With 4 Text-figures) |
| Author(s)        | YAMADA, Mayumi  |
| Citation         | 北海道大學理學部紀要, 14(1), 51-63  |
| Issue Date       | 1958-12   |
| Doc URL          | <a href="http://hdl.handle.net/2115/27286">http://hdl.handle.net/2115/27286</a>                     |
| Type             | bulletin (article)  |
| File Information | 14(1)_P51-63.pdf  |



[Instructions for use](#)

# Hydroids from the Japanese Inland Sea, mostly from Matsuyama and its vicinity<sup>1)</sup>

By

Mayumi Yamada

(Zoological Institute, Hokkaido University, and  
Akkeshi Marine Biological Station)

(With 4 Text-figures)

Very little is known about the hydroid fauna in the Japanese Inland Sea, the Sea between Honshu and Shikoku, and only two species have been reported from this area, namely *Corymorpha tomoensis* Ikeda from Tomo and *Ostreohydra japonica* Yamada from Onomichi. This paper is a report on the hydroids collected in the Sea during these some years. The material constituting this report was collected chiefly near Matsuyama, the western part of Shikoku, but some specimens from a little far from there are also included. Some specimens were collected by Dr. T. Ito and Mr. K. Inoue of the Ehime University and by Mr. S. Yagi of the Matsuyama High School, while some ones were collected by myself at my short stay in Matsuyama at the spring of 1956. The hydroids examined belong to 21 species, including 3 athecate and 18 thecate ones. Although most of these hydroids are ones which have been recorded from the middle Japanese waters, a new form, *Corymorpha iyoensis* n. sp. is described here and also two others, *Dynamena crisioides* Lamouroux and *Sertularella diaphana* (Allman), are newly recorded for the hydroid fauna of the Japanese waters, as is shown in the following list.

- |  |  |
|--|--|
| 1. <i>Coryne pusilla</i> Gaertner            | 12. <i>Sertularella miurensis</i> Stechow                          |
| 2. <i>Halocordyle disticha</i> (Goldfuss)    | 13. <i>Sertularella diaphana</i> (Allman)                          |
| 3. <i>Corymorpha iyoensis</i> n. sp.         | 14. <i>Amphisbetia furcata</i> (Trask)                             |
| 4. <i>Campanularia groenlandica</i> Levinsen | 15. <i>Pycnotheca mirabilis</i> (Allman)                           |
| 5. <i>Orthopyxis caliculata</i> (Hincks)     | 16. <i>Antennella secundaria</i> (Gmelin)                          |
| 6. <i>Clytia delicatula</i> (Thörnely)       | 17. <i>Plumularia setacea</i> (Linné)                              |
| 7. <i>Clytia edwardsi</i> (Nutting)          | 18. <i>Plumularia filicaulis</i> var. <i>japonica</i><br>Jäderholm |
| 8. <i>Obelia geniculata</i> (Linné)          | 19. <i>Gymnangium hians</i> (Busk)                                 |
| 9. <i>Gonothyrea bicuspudata</i> (Clarke)    | 20. <i>Macrorhynchia phoenicea</i> (Busk)                          |
| 10. <i>Hebella parasitica</i> (Ciamician)    | 21. <i>Aglaophenia whiteregei</i> Bale                             |
| 11. <i>Dynamena crisioides</i> Lamouroux     |  |

I wish to express my sincere thanks to the above gentlemen who kindly placed the material at my disposal and also to Prof. Toshio Ouye for the privilege of staying in Matsuyama, and I am especially indebted to Prof. Tohru Uchida for his kind guidance.

1) Contributions from the Akkeshi Marine Biological Station, No. 98.

*Jour. Fac. Sci. Hokkaido Univ. Ser. VI, Zool., 14, 1958.*

***Coryne pusilla* Gaertner**

*Coryne pusilla*: Inaba, 1890, figs. 1-4; Stechow, 1907, p. 199: ———, 1909, p. 33; ———, 1923a, p. 2, no. 1; Stechow & Uchida, 1931, p. 545, pl. 15, fig. 1; Yamada, 1950, p. 2.

Localities. Matsuyama (March 1956). Shironohana, near Matsuyama (July 21, 1952).

A number of colonies were collected in shallow water. The colonies attain 2 cm in height, delicate in general appearance, much branched. The perisarc of the hydrocauli is rather well developed, reddish brown in colour, usually with transverse rings but not so distinct in some portions. Undeveloped gonophores are present between the tentacles on lower half of the hydranth.

The species has been reported in the Japanese waters, from Akkeshi, Mutsu Bay, and Sagami Bay. It is one of the commonest hydroids in Japan.

***Halocordyle disticha* (Goldfuss)**

*Pennaria* sp.: Inaba, 1890, figs. 89-91.

*Pennaria cavolinii*: Stechow, 1913, p. 50, figs. 5-6; Jäderholm, 1919, p. 3.

*Halocordyle disticha*: Stechow, 1923a, p. 2, no. 11.

Locality. Onomichi.

The collection contains a small piece of a colony of this species. The structure of the branchlets and the hydranths shows the distinct features of this species.

The species has been reported from Sagami Bay, but seems to be commonly found in the middle part of the Japanese waters. It is widely distributed in the tropical and subtropical parts of the Pacific Ocean and in the Mediterranean.

***Corymorpha iyoensis* n. sp.**

(Fig. 1)

Locality. Matsuyama (Dec. 18, 1952).

The polyp is solitary, growing on a tetraxonian sponge, attaining 0.8 cm in height. The hydrocauli show a rather stumpy appearance probably owing to the contraction, tubular but somewhat tapering gradually towards the base of the hydranth, without distinct chitinous perisarc through the length. The basal part of the hydrocaulus sends out some processes to sides or is divided into some irregular root-like processes. The hydranths are present at the terminal ends of the polyps, distinctly separated from the hydrocaulus. There are two sets of filiform tentacles, the proximal and the distal ones. The proximal tentacles, 14-20 in number, are long and slender, arranged in a single cirlet. The distal tentacles are short, 16-24 in number in a single cirlet as proximal ones. The gonophores are 14-20 in number in a hydranth, borne on very short peduncles attached to the body of the hydranth between the proximal and the distal tentacles, arranged in a single cirlet. Some gonophores in different stages of development are present in a cluster on a peduncle. The medusoids fully developed are provided with a

ring canal and four radial canals, but without tentacles. These medusoids measure about 0.75 mm long and 0.60 mm in breadth.

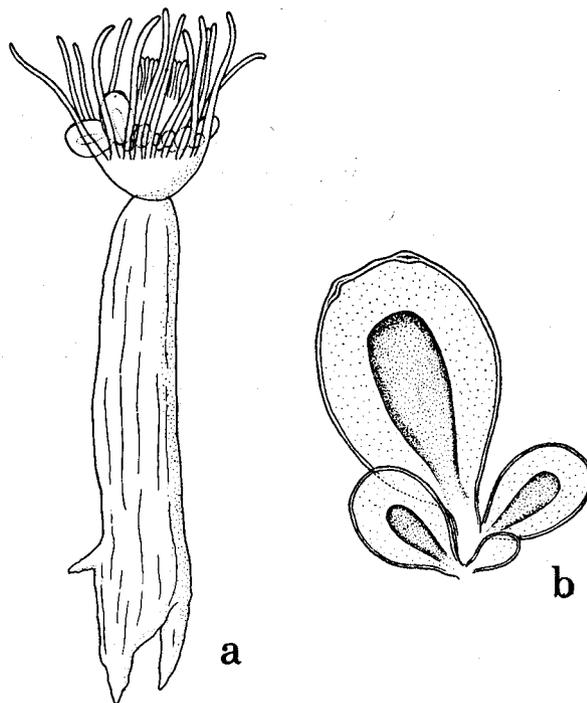


Fig. 1. *Corymorpha iyoensis* n. sp. a. A polyp,  $\times 15$ .  
b. Medusoids in different stages of development,  $\times 50$ .

The specimens collected grow rather in crowds on the surface of a tetraxonian sponge. The hydranths and the most part of the hydrocauli stand from the surface, while the basal part of the hydrocauli are entering the body of sponge to support themselves. The filamentous papillae usually found in the members of this genus are not observed in this species. In some respects the species resembles *Corymorpha palma* which has been reported from Californian coast, but differs from the latter in the supporting processes. Two species of *Corymorpha* have been known in the Japanese waters, namely *C. carnea* (Clarke) and *C. tomoensis* Ikeda. As described above, the locality of *C. tomoensis*, Tomo, is not so apart from the locality of the material of the present species. The new species, however, distinctly differs from that species in the number of distal tentacles, the form of the lower part of hydrocaulus, and the form of the medusoids. The new species is also distinguishable from *C. carnea* in which the polyp is very large and the distal

and proximal tentacles are numerous in number.

It is regrettable that only the preserved material has been available to me and so the developmental process of medusoids remains unknown.

### ***Campanularia groenlandica* Levinsen**

*Campanularia groenlandica*: Stechow, 1913, p. 76, figs. 37-41; ——— 1923a, p. 6, no. 54; Leloup, 1938, p. 14.

Locality. Off Gogoshima, near Matsuyama (July 3, 1953).

A small colony was found covering the surface of a sunken ship at the depth of about 60 m. The pedicels grow from the stolon, attaining 3 mm in height, wavy but not showing distinct annulations. A globular annulation is present below the hydrotheca. The hydrotheca is rather variable in shape, with 10-12 rather deep teeth; the hydrothecal wall is somewhat ribbed longitudinally corresponding to the teeth. No gonosomes were found.

The species has been reported from Sagami Bay but the gonosomes have not yet been known in Japan. The species is the circumpolar one in its distribution, and has been collected from Greenland, Norway, the Arctic Ocean, the northern parts of the Atlantic and the Pacific Ocean.

### ***Orthopyxis caliculata* (Hincks)**

*Campanularia* sp.: Inaba, 1892, figs. 4-5.

*Campanularia integra*: Stechow, 1913, p. 73, figs. 30-36.

*Orthopyxis caliculata*: Stechow, 1923a, p. 7, no. 60.

Localities. Matsuyama (Nov. 17, 1952). Shironohana, near Matsuyama (Aug. 1950).

The species is represented by some small colonies which are grown over algae. The pedicels are unbranched and straight, not so slender, arising from a creeping stolon, attaining 5 mm in height. The pedicels are wavy, with or without annulations, with rather thick chitinous wall. A distinct globular annulation is present just below the hydrotheca. The hydrothecae are much variable in their size and shape, with strongly thickened hydrothecal wall. The gonosomes are attached to the stolon by a short unannulated stalk. The gonothecae are large, irregularly obovate, flattened; the distal end truncated. The species is rather commonly found in the middle Japanese water. The species is widely distributed in the world.

### ***Clytia delicatula* (Thornely)**

*Clytia* sp.: Inaba, 1890, figs. 34-35.

*Clytia delicatula*: Stechow, 1913, p. 65, figs. 20-21; Jäderholm, 1902, p. 3; Stechow and Uchida, 1931, p. 550, fig. 3; Hiro, 1933, p. 173, fig. 5.

*Laomedea delicatula*: Leloup, 1938, p. 12.

Locality. Gogoshima, near Matsuyama (July 3, 1953).

The species is represented by some colonies which are attached on algae. The specimen closely agrees both in trophosome and gonosome with the description of above cited authors.

The species has been collected from Mutsu Bay, Sagami Bay, off Shirahama, and it seems to be very common in shallow waters along Honshu.

***Clytia edwardsi* (Nutting)**

*Clytia edwardsi*: Stechow, 1913, p. 69, fig. 25; ———, 1923a, p. 7, No. 64.

Locality. Off Gogoshima, near Matsuyama (July 3, 1953).

A number of colonies were collected. The colony attains about 12 mm in height, usually branched irregularly. The stem and branches are rather slender, straight, annulated at both ends. The hydrothecae are campanulate, with 10–14 teeth. The gonosomes grow from the stolon, the axils of the branches, or directly from the stem or branches. The gonothecae are elongated oval, corrugated transversely, with a short pedicel with some annulations.

The species has been reported by Stechow from Sagami Bay and here is the second record from Japan. The species has been known also from the eastern and western coasts of North America.

***Obelia geniculata* (Linné)**

*Obelia* sp.: Inaba, 1890, figs. 20–21.

*Obelia geniculata*: Inaba, 1890, figs. 17–19, Stechow, 1913, p. 69, figs. 26–27; ———, 1923a, p. 7, no. 67; Hiro. 1939, p. 174, fig. 6.

Localities. Matsuyama (June 10, 1952; March 1956). Shironohana, near Matsuyama (July 21, 1952).

A large number of specimens were collected. The colony grows on algae, attaining about 15 mm in height. The stem is definitely geniculate, bearing alternate pedicels of the hydrothecae on characteristic shoulder-like processes of internodes. The pedicels are annulated throughout with 2–4 rings. Many gonophores were found. The gonothecae are oval or slightly obovate, with a terminal collar.

This species is very widely distributed in the world and is commonly found also in the middle coast of Honshu.

***Gonothyrea bicuspidata* (Clarke)**

*Gonothyrea longicyatha*: Stechow, 1913, p. 71, fig. 28; Jäderholm, 1919, p. 12, pl. 3, fig. 2.

*Gonothyrea bicuspidata*: Stechow, 1923a, p. 7, no. 71.

Locality. Off Gogoshima, near Matsuyama (July 3, 1953).

The collection contains some colonies which were found covering the surface of a sunken ship at the depth of about 60 m. The colony attains 4 cm in height. The stem is slightly fascicled especially in larger colonies and irregularly branched.

The hydrothecae are present on rather long pedicels which are annulated throughout, deeply campanulate, with 12–14 marginal teeth, each of which provided with 2 sharp points. The gonosomes grow from the axils of hydrothecal pedicels, elongated oval, gradually tapering downwards, with annulated pedicels.

The species has been reported from 135–400 m depth of Sagami Bay. The gonosomes, however, are first recorded here for Japan. This species has a rather wide range of its distribution, known from the Mediterranean, Brazil, the north-eastern Atlantic, east and west coasts of North America, Japan, and Indonesia.

### *Hebella parasitica* (Ciamician)

*Lafoea* sp. ? : Inaba, 1890, fig. 71 & 86.

*Hebella parasitica* : Stechow, 1913, p. 103, figs. 75–78; ———, 1923a, p. 9, no. 81; Leloup, 1938, p. 8, fig. 5.

Localities. Gogoshima, near Matsuyama (Aug. 4, 1952). Shironohana, near Matsuyama (July 21, 1952).

The species is represented by some colonies which are grown over the hydroid *Aglaophenia whiteregei*. The hydrotheca is tubular, without conspicuous corrugations on the wall. The pedicel is short and annulated obliquely generally 2–3 times. No gonothecae were found.

The species was reported from Japan by Inaba under the name of "*Lafoea* sp.?" and later Stechow described it from some localities in Sagami Bay. This species has been reported from the Mediterranean and from the Japanese coasts.

### *Dynamena crisioides* Lamouroux

(Fig. 2)

*Sertularia tubuliformis* : Jäderholm, 1919, p. 15.

*Dynamena tubuliformis* : Stechow, 1923a, p. 12, no. 121; Yamada, 1955, p. 354, pl. 23, figs. 1–2.

*Thuiaria tubuliformis* : Hargitt, 1924, p. 493, pl. 4, fig. 16; ———, 1927, p. 508, pl. 1, figs. 4–5.

*Dynamena crisioides* : Billard, 1925, p. 181, figs. 36–37, pl. 7, fig. 21.

Locality. Shironohana (July 21, 1952).

Several colonies were collected. The colonies attain about 2.5 cm in height. The stem is rather straight, giving off several alternate branches at an angle of 40°–50° with the stem. The stem and branches are divided into irregular internodes, each of which bearing 2–4 pairs of hydrothecae. The hydrothecae are placed closely on stem and branches, usually in nearly opposite pairs, tubular, deeply immersed into the stem or branches. The distal part of the adcauline wall of hydrotheca is usually free in one-third or one-fourth of its length, but in some cases the hydrothecae are fully immersed in the stem or branches. On the hydrothecal margin there are 2 lateral, blunt teeth. The gonosome is borne on just below the hydrotheca. The gonangia are oval, with a large and long collar and a rather

large terminal aperture, with a short stalk; the wall without annulations or spines.

Some authors, Billard, Fraser, etc., had an opinion that the most of the specimens which had been identified with *Dynamena* (or *Thuiaria*) *tubuliformis* Marktanner should be named as *Dynamena crisioides* Lamouroux, chiefly owing to the priority. I had some doubts on this problem and described *D. tubuliformis* from the Tokara Islands (1955). But now, I described here *D. crisioides*, taking the opinion of the above authors. This species is widely distributed in the tropical and subtropical regions of the Pacific. It has been known from Misaki, Seto, the Tokara Islands, and also from the Phillipine Islands and from Amoy, South China.

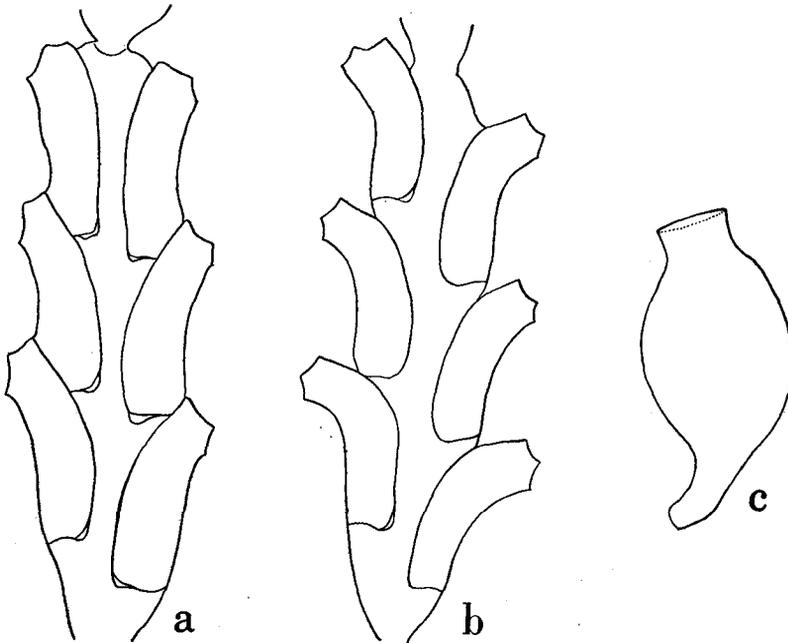


Fig. 2. *Dynamena crisioides* Lamouroux. a, A part of branch, with hydrothecae fully immersed,  $\times 50$ . b, A part of branch, with hydrothecae not so fully immersed,  $\times 50$ . c, A gonangium,  $\times 50$ .

### *Sertularella miurensis* Stechow

*Sertularella* sp.: Inaba, 1890, figs. 22-25; ———, 1892.

*Sertularella indivisa*: Stechow, 1913, p. 134, fig. 106-107.

*Sertularella miurensis*: Stechow, 1921, p. 258; ———, 1923, p. 175, fig. T; ———, 1923a, p. 13, no. 134; Yamada, 1950, p. 11; ———, 1957, p. 158.

Locality. Gogoshima, near Matsuyama (July 1950, July 24, 1952).

A large number of specimens on algae were collected. The trophosome of

the specimens closely agrees with the descriptions of previous authors. The gonosomes found are provided with 2 or 3 blunt oral projections.

The species is one of the commonest hydroids in Japan and is distributed throughout Honshu and Hckkaido. The species has also reported from the Vladivostok region.

***Sertularella diaphana* (Allman)**

(Fig. 3)

*Thuiaria* sp.: Inaba, 1890, no. 17, figs. 46-48.

*Sertularella tridentata*: Stechow, 1913, p. 137, figs. 111-113.

*Sertularella lata*?: Stechow, 1923a, p. 14, no. 139.

*Thuiaria quadrilateralis*: Hargitt, 1924, p. 493, pl. 5, fig. 17.

*Sertularella diaphana*: Billard, 1925, p. 157, fig. 22. pl. 7, figs. 12-13.

Localities. Matsuyama (Oct. 23, 1953). Gogoshima, near Matsuyama (Aug. 4, 1952).

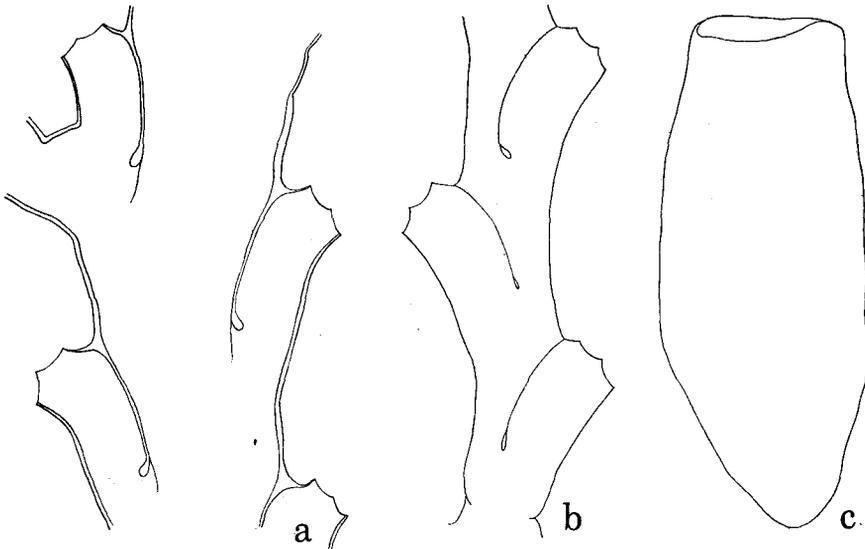


Fig. 3. *Sertularella diaphana* (Allman). a, A part of stem,  $\times 50$ .  
b, A part of branch,  $\times 50$ . c, A gonangium,  $\times 50$ .

The collection contains some rather large colonies which attain 5 cm in height. The stem is not fascicled, flexuose, divided into irregular internodes. The branches are arranged alternately on the stem laying on a same plane. The hydrothecae, alternately placed on stem and branches, are wholly immersed, tubular, not so long; the abcauline wall smooth and the margin provided with 4 low teeth and a four-flapped operculum. The gonosome grows from just below the hydrotheca. The

gonangia are rather large, elongate, tubular, with the distal end sharply truncated.

It seems to me that the hydroids which Inaba (1890), Stechow (1913, 1923a) and Hargitt (1924) have treated under some different names as shown in the above synonymic list should be revised to the present species. The species is rather widely distributed in the tropical and subtropical parts of the Atlantic and Pacific.

#### ***Amphisbetia furcata* (Trask)**

*Sertularia* sp.: Inaba, 1892a, fig. 6-10.

*Sertularia furcata*: Stechow, 1913, p. 148, figs. 126-128.

*Amphisbetia furcata*: Stechow, 1923a, p. 15, no. 155.

Localities. Matsuyama (March 1950). Gogoshima, near Matsuyama (July 24, 1952).

A small number of colonies attached on algae were collected. The colonies are small, attaining 7 mm in height. The stem is unbranched and bears about 8-12 pairs of hydrothecae. No gonosomes were found.

The species was reported by Inaba from Kishu, central Japan as *Sertularia* sp. and later Stechow identified it with this species. It seems to me that it is rather commonly distributed in central Japan. The species has been known also from the west coasts of North and Central America.

#### ***Pycnotheca mirabilis* (Allman)**

*Plumularia producta*: Inaba, 1890, figs. 69-70; ———, 1892, figs. 1-2.

*Diplocheilus allmani*: Stechow, 1907, p. 199; ———, 1909, p. 88.

*Diplocheilus mirabilis*: Stechow, 1913, p. 88, figs. 55-56.

*Plumularia (Diplocheilus) mirabilis*: Jäderholm, 1919, p. 23.

*Pycnotheca mirabilis*: Stechow, 1923, p. 17, no. 183.

Locality. Matsuyama (March 1950).

Several colonies of this species were found on piles below the tide marks. The present specimens agree with Stechow's and Jäderholm's descriptions both in trophosome and in gonosome.

The species has been reported from Sagami Bay by Inaba and from Kyushu and the Bonin Islands by Jäderholm. The species has been known also from Australia.

#### ***Antennella secundaria* (Gmelin)**

*Plumularia* sp.: Inaba, 1890, fig. 63-64; ———, 1892.

*Antennella secundaria*: Stechow, 1907 p. 199; ———, 1909 p. 84; ———, 1913, p. 89;

Jäderholm, 1919, p. 20; Stechow 1923a, p. 17, no. 184; Leloup, 1938, p. 18, fig. 13.

Locality. Matsuyama.

The collection contains small, up to 6 mm high colonies which were found adhering algae. The hydrocladia are undivided and grown directly from the stolon.

On each hydrocladium there are 2-3 basal internodes without hydrothecae and in the other part the athecate and the thecate internodes are alternately present. The hydrothecae are bowl-shaped, about as deep as broad, with straight margin. A pair of supracalycine nematophores and a mesial nematophore are present on each thecate internode. No gonothecae were found.

The species is one of the common hydroids in the central and southern Japanese coasts. It is most commonly found also from the Mediterranean and the Atlantic coast of the Europe. It occurs also around the Africa, the Indian Ocean Indonesia, and the western and the central Pacific.

### *Plumularia setacea* (Linné)

*Plumularia setacea*: Inaba, 1890, figs. 8-10; Stechow, 1909, p. 79; ———, 1913, p. 89; Jäderholm, 1919, p. 20; Stechow, 1923a, p. 17, no. 188; Yamada, 1955, p. 356, pl. 24, figs. 1-2.

Locality. Matsuyama.

Some small colonies were collected. The colonies are delicate, attaining about 2 cm in height. The stem is unbranched, divided into regular internodes, each of which bearing a hydrocladium. The hydrocladium is alternate, composed of shorter thecate and longer non-thecate internodes, which are alternately placed. The hydrothecae are small, with an entire margin, rather distant. Two supracalycine and a mesial nematophores are present in each hydrocladial thecate internode. The gonosomes were not found.

The species which has almost cosmopolitan distribution has been reported from Sagami Bay, the Goto Islands, and the Tokara Islands.

### *Plumularia filicaulis* var. *japonica* Jäderholm

(Fig. 4)

*Plumularia filicaulis* var. *japonica*: Jäderholm, 1919, p. 21, pl. 5, figs. 2-3; Stechow, 1923, p. 18, no. 190.

Localities. Shironohana, near Matsuyama (July 21, 1952); Matsuyama (March 1956).

A rather large number of specimens were collected. The colony is growing on algae, attaining 3 cm in height. The stem is simple, divided into internodes, from each of which a hydrocladium is given off on the front of the stem. There are one mesial and two supracalycine nematophores in each internode of the stem. Besides these stems bearing hydrocladia we can find also many hydrocladia growing directly from the hydrorhiza. The hydrocladium is divided into rather short internodes, each of which has a hydrotheca and a mesial and two supracalycine nematophores. A remarkable feature is that the strong thickness of the chitinous wall of the hydrocladium is seen at the portions above and especially below each hydrotheca. The hydrothecae are not so deep, cup-shaped; the adcauline wall

not smooth, with a constriction.

Two kinds of gonangia are found. The gonangia of one kind grow from the hydrocladial processes of the stem or from the basal internodes of hydrocladia on the stem. These are irregularly oblong, tapering below, slightly truncate distally. The gonangia of the another kind spring from the hydrorhiza, and are closely adhering to the supporting substratum. These are irregularly ovate; the upper side is convex and with transverse undulations.

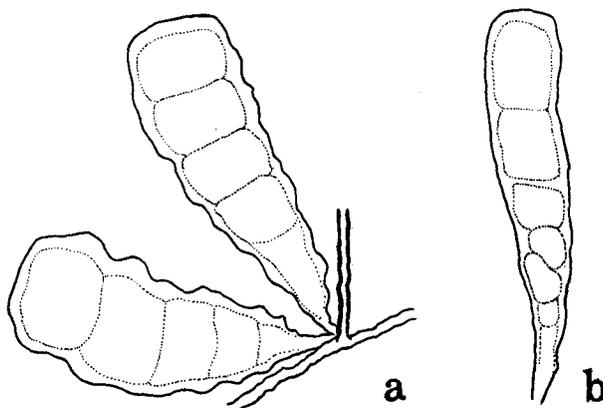


Fig. 4. *Plumularia filicaulis* var. *japonica* Jäderholm.  
a, Gonangia adhering to substratum,  $\times 25$ . b, A gonangium growing from hydrocladium,  $\times 25$ .

The present specimens agree with Jöderholm's description and figures on hydrocladia, which were based on the materials from Kyushu, Japan. The gonangia, however, are first described here for Japan. This species was originally described by Kirchenpauer (1876) from Chile, and later Bale (1884) found it again from Australia.

#### *Gymnangium hians* (Busk)

*Halicornaria* sp.: Inaba, 1890, figs. 71-73.

*Halicornaria hians*: Stechow, 1907, p. 200; ———, 1909, p. 101, pl. 1, fig. 11, pl. 6, figs. 16-17; ———, 1913, p. 94, fig. 16.

*Gymnangium hians*: Stechow, 1923a, p. 19, no. 204.

Locality. Matsuyama (March 1950; June 10, 1952).

Some fragments of colonies were collected.

The stem of the colony examined attains 4 cm in height, alternately giving off the hydrocladia. The hydrocladia are divided into regular internodes each of which has a hydrotheca and 2 supracalcine and a mesial nematophores. The

hydrothecae are flask-shaped, with rather large aperture, with an internal septum which grows out from the abcauline hydrothecal wall, with 2 teeth on each side. The mesial nematophore is rather long, exceeding beyond the mouth. The gonosomes are borne on the front of the stem, given off from the base of the hydrocladia, somewhat ovate in shape.

The species has been reported from Misaki by Inaba and Stechow. It seems that the species is not so rare in Japanese waters.

### *Macrorhynchia phoenicea* (Busk)

*Aglaophenia phoenicea*: Inaba, 1892, no. 43; —, 1892.

*Lytocarpus phoeniceus*: Marktanner, 1890, p. 276, pl. 6, fig. 8; Stechow, 1907, p. 200; —, 1909, p. 97; —, 1913, p. 95, figs. 62-64; Jäderholm, 1919, p. 25; Leloup, 1938, p. 21.

*Macrorhynchia phoenicea*: Stechow, 1923a, p. 19, no. 209.

Locality. Matsuyama (Nov. 17, 1952; March 1956).

Several rather small colonies of this species were found. The colony shows dark brown in colour, attaining 10 cm in height. The specimens obtained in November 1952 bear gonosomes. The mesial nematophore of the hydrothecae is rather large, projecting forwards and downwards. I did not find the hydrothecae in the present material, which shows the short and strong curved mesial nematophores.

The species has been known from Sagami Bay, Shima, and Kyushu. Marktanner (1890) reported it from Japan but the locality was not exactly given. The species is also distributed to Australia.

### *Aglaophenia whiteregei* Bale

*Aglaophenia* sp.: Inaba, no. 28, fig. 78-81.

*Aglaophenia laxa*: Stechow, 1907, p. 199; —, 1909, p. 93, fig. 7, pl. 6, figs. 10-11.

*Aglaophenia whiteregei*: Stechow, 1913, p. 99, figs. 68-70; Jäderholm, 1919, p. 24, pl. 6, fig. 1; Stechow, 1923a, p. 20, no. 216; Stechow & Uchida, 1931, p. 568, pl. 15, fig. 7.

Localities. Gogoshima, near Matsuyama (Aug. 4-6, 1952). Shironohana, near Matsuyama (July 21, 1952).

The collection contains rather small, up to 5 cm high fragments of colonies, which are provided with gonosomes.

This is one of the commonest hydroids in Japan and hitherto reported from Mutsu Bay, Sagami Bay, and the Bonin Islands. Besides Japan it is distributed to Australia.

### Literature

- Billard, A. 1925. Hydroides de l'Expédition du Siboga. II. Synthecidae et Sertularidae. Siboga-Exped. VIIb: 117-232, pl. 7-9.

- Hargitt, C.W. 1924. Hydroids of the Philippine Islands. Philip. Jour. Sci. 24 : 467-507, pls. 1-6.
- 1927. Some hydroids of South China. Bull. Mus. Comp. Zool. Harvard Coll. 67 : 491-520, pls. 1-2.
- Hiro, F. 1939. Notes on the animals found on *Macrocheira kaempferi* de Haan. III. Hydroids. Annot. Zool. Japon. 18 : 167-176.
- Ikeda, I. 1910. On a new species of *Corymorpha* from Japan (*C. tomoensis*). Ibid. 7 : 153-164, pl. 5.
- Inaba, M. 1890-1892. Hydroida obtained in Misaki, Miura, Soshu. Zool. Mag. no. 17-42.
- 1892a. Hydroida of west coast of Kishu. Ibid. no. 45.
- 1892b. Hydroida obtained in Shima. Ibid. no. 47.
- 1892c. Additions to the hydroids of Misaki. Ibid. no. 49.
- Jäderholm, E. 1902. Neue oder wenig bekannte Ostasiatische Hydroiden. Bihang Svenska Vet. Akad. Handlingar 28 (12) : 1-11.
- 1919. Zur Kenntnis der Hydroidenfauna Japans. Arkiv f. Zool. 12(9) : 1-34, pl. 1-6.
- Leloup, E. 1938. Quelques hydroportes de la baie de Sagami, Japon. Bull. Mus. roy. Hist. nat. Belg. 28 : 1-22, pl. 1.
- Marktanner, G. 1890. Die Hydroiden des K.K. Naturhistorischen Hofmuseums. Ann. K.K. Naturh. Hofmus. Wien 5 : 195-286, pls. 3-7.
- Stechow, E. 1907. Neue japanische Athecata und Plumularidae aus der Sammlung Dr. Doflein. Zool. Anz. 32 : 192-200.
- 1909. Hydroidpolyphen der japanischen Ostküste. I. Teil. Athecata und Plumularidae. Abh. Math. Phys. Klasse K. Bayer Akad. Wiss., I. Suppl.-Bd. 6 Abh. 111 pp., 7 pls.
- 1913. Hydroidpolyphen der japanischen Ostküste. II. Teil. Ibid. III. Suppl.-Bd. 2 Abh., 162 pp.
- 1923. Zur Kenntnis der Hydroidenfauna des Mittelmeeres, Amerikas und anderer Gebiete. II. Teil. Zool. Jahrb. (Syst.) 47 : 29-270.
- 1923a. Die Hydroidenfauna der japanischen Region. J. Coll. Sci. Imp. Univ. Tokyo 44, art 8, 23 pp.
- Stechow, E. & T. Uchida 1931. Report of the Biological Survey of Mutsu Bay. 21. Hydroiden von Mutsu-Bai, Nord-Japan. Sci. Reports Tôhoku Imp. Univ., 4. Ser., 6 : 545-571, pl. 15.
- Yamada, M. 1950. The fauna of Akkeshi Bay. XVII. Hydroids. J. Fac. Sci. Hokkaido Univ. Ser. VI, Zool. 10 : 1-20, pl. 1.
- 1950a. An epizoic athecate hydroid attached to the oyster body. Annot. Zool. Japon. 23 : 117-118.
- 1955. Invertebrate fauna of the intertidal zone of the Tokara Islands. XI. Hydroida. Publ. Seto. Mar. Biol. Lab. 4 : 353-358, pls. 23-24.
- 1957. Marine hydroids from the Vladivostok region. J. Fac. Sci. Hokkaido Univ., Ser. VI, Zool. 13 : 156-160.
-