Records of some marine invertebrates (nemerteans, asellotes and phyllodocids) from the coast around Otsuchi Bay

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Ten species of nemerteans belonging to seven families, seven species of asellote isopods (Crustacea), and 15 species of phyllodocid polychaetes (Annelida) were confirmed on the coast around Otsuchi Bay, Pacific coast of northern Honshu in Japan during the faunal survey in 1997–2000. Of these, three asellote species, Munna stephensi Gurjanova, 1933, M. tenuipes Kussakin, 1962 and Uromunna serricauda Müller, 1992 are reported from Japanese waters for the first time.

Key words: faunal list, Nemertea, Asellota, Phyllodocidae, Otsuchi Bay, northern Honshu, Japan

INTRODUCTION

Otsuchi Bay is situated at Pacific coast of Iwate Prefecture, Tohoku region. The waters of this area are known to be influenced by both warm and cold ocean currents, i.e., Kuroshio, Tsugaru and the Kuril Current, and is holding quite rich marine fauna and flora.

The fauna of Otsuchi Bay and its surroundings has been studied by several authors for various invertebrate taxa, including Cnidaria, Platyhelminthes, Annelida, Mollusca, Arthropoda, Echinodermata, and Urochordata (Horikoshi et al. 1979, Horikoshi and Tsuchida 1981, Gamō et al. 1980, Nunomura 1987). Molluscan fauna is particularly well studied, now comprising more than 250 species (e.g., Tsuchida et al. 2000). However, many other taxa of marine benthic invertebrates have been left uninvestigated. Under such circumstances, we have been participating in the faunal survey of three invertebrate groups, i.e. nemerteans, asellotes and phyllodocids, since 1997.

This is an interim report of the survey, including the specimens of limited group, obtained during 1997–2000 and identified at species or at genus level. However, we believe the importance of the publication of our results to complement the public knowledge on the fauna of Otsuchi Bay step by step.

MATERIALS AND METHODS

Samplings were carried out at intertidal and subtidal zones that cover 14.6 m–98.9 m in depth. Intertidal seaweeds, stones and sand were collected manually at rocky shore and sandy beach environments. Subtidal bottom sediments were obtained by using a dredge or a Smith-McIntyre grab. Information of each sampling station is shown in Table 1.

LIST

Phylum Nemertea
Class Anopla
Order Archinemertea
Family Cephalothr Richieidae
Procephalothrix sp.


Order Palaeonemertea
Family Tubulanidae
Tubulanus punctatus (Takakura, 1898)
Carinella punctata Takakura, 1898: 117–118, fig. 3.
Tubulanus punctatus: Yamaoka 1940: 208–212, pl. 1, figs 1–2, textfigs 1–2.

Order Heteronemertea
Family Cerebratulidae
Cerebratulus marginatus Renier, 1804

Class Enopla
Order Hoplonemertea
Suborder Monostilifera
Family Cratenemertidae
Nipponemertes punctatus (Coe, 1905)
Amphiporus punctatus Coe, 1905: 253–259, pl. 21, figs 129–140, pl. 24, fig. 149.
Nipponemertes punctatus: Friedrich 1968: 34.
Material examined: 1 specimen, Akahama, Otsuchi Bay, intertidal on rocky shores, 10 May 1997; 3 specimens, Akahama, intertidal on rocky shores, 27 September 2000.

Family Otothyphonemertidae
Otothyphonemertes martynovi Chernuishev, 1993
Otothyphonemertes martynovi Chernuishev, 1993: 5–7, figs A–C.
Material examined: 13 specimens, Hakozaki, Otsuchi Bay, intertidal, coarse sand, 8 May 1997; 14 specimens, Hakozaki, intertidal, coarse sand, 24 September 1997; 52 specimens, Hakozaki, intertidal, coarse sand, 25
Table 1. Station locations and sediment types. SM indicates Smith-McIntyre grab.

<table>
<thead>
<tr>
<th>Station</th>
<th>Longitude</th>
<th>Latitude</th>
<th>Depth (m)</th>
<th>Sediment type</th>
<th>Gear</th>
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<tr>
<td>st. 1</td>
<td>39°21.008N</td>
<td>141°58.511E</td>
<td>58.7</td>
<td>sand, shell</td>
<td>dredge</td>
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<tr>
<td>st. 2</td>
<td>39°20.576N</td>
<td>141°58.361E</td>
<td>46.9</td>
<td>coarse sand</td>
<td>dredge</td>
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<tr>
<td>st. 3</td>
<td>39°20.720N</td>
<td>141°57.722E</td>
<td>49.0</td>
<td>sand, mud</td>
<td>dredge</td>
</tr>
<tr>
<td>st. 4</td>
<td>39°20.99N</td>
<td>141°58.48E</td>
<td>58.0</td>
<td>sand, shell</td>
<td>SM</td>
</tr>
<tr>
<td>st. 5</td>
<td>39°20.46N</td>
<td>141°58.34E</td>
<td>40.0</td>
<td>coarse sand</td>
<td>SM</td>
</tr>
<tr>
<td>st. 14</td>
<td>39°20.727N</td>
<td>141°56.239E</td>
<td>14.6</td>
<td>gravel</td>
<td>dredge</td>
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<td>st. 17</td>
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<td>141°58.41E</td>
<td>40.0</td>
<td>sand, shell</td>
<td>SM</td>
</tr>
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<td>st. 20</td>
<td>39°20.970N</td>
<td>141°58.452E</td>
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<td>sand, mud</td>
<td>SM</td>
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<td>st. 21</td>
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<td>141°57.963E</td>
<td>46.5</td>
<td>sand</td>
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<td>39°20.548N</td>
<td>141°57.481E</td>
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<td>SM</td>
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<td>st. 27</td>
<td>39°23.172N</td>
<td>141°58.753E</td>
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<td>sand, mud</td>
<td>SM</td>
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<td>st. 29</td>
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<td>141°57.908E</td>
<td>48.0</td>
<td>sand</td>
<td>SM</td>
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<td>st. 30</td>
<td>39°20.549N</td>
<td>141°58.325E</td>
<td>45.0</td>
<td>sand, mud</td>
<td>SM</td>
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<td>st. 31</td>
<td>39°20.758N</td>
<td>141°58.404E</td>
<td>53.0</td>
<td>mud</td>
<td>SM</td>
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<td>st. 32</td>
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<td>mud</td>
<td>SM</td>
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<td>st. 34</td>
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<td>142°00.740E</td>
<td>89.0</td>
<td>sand</td>
<td>SM</td>
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<td>st. 35</td>
<td>39°23.140N</td>
<td>141°58.816E</td>
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<td>mud</td>
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<td>st. 42</td>
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<td>142°00.834E</td>
<td>98.9</td>
<td>sand</td>
<td>SM</td>
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<td>141°59.685E</td>
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<td>sand</td>
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<td>st. 45</td>
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<td>141°59.971E</td>
<td>64.0</td>
<td>sand, mud, shell</td>
<td>SM</td>
</tr>
<tr>
<td>st. 46</td>
<td>39°23.428N</td>
<td>141°59.081E</td>
<td>70.3</td>
<td>sand, shell</td>
<td>SM</td>
</tr>
</tbody>
</table>


**Ootyphonemertes nikolaii** Chernuishev, 1998

**Ootyphonemertes nikolaii** Chernuishev, 1998: 268, figs 1–5.


**Ootyphonemertes** sp.


**Family** Tetrastemmatidae

**Tetrastemma nigrifrons** Coe, 1904

**Tetrastemma nigrifrons** Coe, 1904: 159–164, pl. 16, figs 6–7, pl. 20, fig. 16, pl. 21, figs 15–23.

**Prostomia nigrifrons**: Yamaoka 1940: 249–251, pl. 16, fig. 14, pl. 17, figs 9–12, textfigs 26–29.

Material examined: 7 specimens, Akahama, Ootsuchi Bay, mooring float, 8 May 1997.

**Tetrastemma coronatum** (Quatrefages, 1846)

**Polia coronata** Quatrefages, 1846: 213.

**Tetrastemma coronatum**: Hubrecht 1879: 228.

**Prostoma coronatum**: Bürger 1904: 61–62.

Material examined: 1 specimen, Akahama, Ootsuchi Bay, intertidal, coarse sand, 8 May 1997.

**Family** Proisorhchimidae

**Oerstedias dorsalis** (Abildgaard, 1806)

**Planaria dorsalis** Abildgaard, 1806: 25, pl. 142, figs 1–3.

**Oerstedias dorsalis**: Bürger 1895: 592–594, pl. 3, figs 27, 29, 30, 34–36.


Remarks: The nereid fauna of Otsuchi Bay is virtually unknown, and only one species, *Amphiporus* sp., has been reported prior to our investigation (Kajihara and Ura 1976). Recently one of the authors, Kajihara (1998) reported an interstitial species of the family Ootyphonemertidae from Otsuchi Bay for the first record of this family from Japanese coast. Ten nemertean species yielded during our survey are herein listed. *Amphiporus* sp. is excluded from this list, as we could not examine any voucher or newly collected specimens of this species.

**Phylum** Arthropoda

**Class** Crustacea

**Order** Isopoda

**Suborder** Asellota

**Family** Jaeropsidae

**Jaeropsis lobata** Richardson, 1899

**Jaeropsis lobata** Richardson, 1899: 859–860, figs 31–33.


**Family** Janiridae

**Janireopsis longiantennata** Thielemann, 1910

**Janireopsis longiantennata** Thielemann, 1910: 70–72, figs 76–81.


Material examined: 5 females, 1 male, Akahama, Otsuchi Bay, intertidal, on seaweeds, 25 May 1998; 1 fe-
male st. 29, 10 August 1998; 1 female, st. 27, 26 May 1998.

*Ianiropsis serricaudis* Gurjanova, 1936

*Ianiropsis serricaudis* Gurjanova, 1936: 251–252, fig. 1.


Material examined: 9 females, 7 males, Akahama, Otuchi Bay, mooring float, on seaweeds, 26 May 1998; 18 females, 10 males, Akahama, mooring float, on seaweeds, 25 September 2000.

Family Munnidae

*Munna stephenseni* Gurjanova, 1933

*Munna stephenseni* Gurjanova, 1933: 88, 91, fig. 15.


*Munna kroyerii*: Fée 1926: 22.

Material examined: 1 female, st. 30, 10 August 1998.

*Munna tenuipes* Kussakin, 1962


*Uromunna serricauda* Müller, 1992


Family Paramunnidae

*Paramunna rhipis* Shimomura and Mawatari, 1999


Remarks: From the coast around Otuchi Bay, asellote isopods have been so far reported by three authors: *Munna (?)* sp. by Garné et al. (1980); *Munna (?)* sp. and *Ianiropsis* sp. (= *Ianiropsis* sp.) by Nunomura (1987); *Paramunna rhipis* by Shimomura and Mawatari (1999). We here report two *Ianiropsis* and two *Munna* species from Otuchi Bay. Because of the absence of taxonomical information in the former two records, identities between our and previous records are remained uncertain.

Phylum Annelida

Class Polychaeta

Order Phyllodocida

Family Phyllodocidae

*Eteone longa* (Fabricius, 1780)


*Eteone longa*: Orsted 1843: 33.


*Eulalia bilineata* (Johnston, 1839)

*Phyllodoco bilineata* Johnston, 1839: 227–228, pl. 6, figs 7–10.


*Eulalia viridis* (Linnaeus, 1767)

*Nereis viridis* Linnaeus, 1767: 1086.


*Eumida* sp.


*Hesionura* sp.


*Nereiphyllea castanea* (Marenzeller, 1879)

*Carobia castanea* Marenzeller, 1879: 127–128, pl.3, fig. 2.


*Nereiphyllea hera* Kato and Mawatari, 1999


Material examined: 7 specimens, Akahama, Otuchi Bay, intertidal, among seaweed foldfasts, 11 May 1997; 48 specimens, Akahama, intertidal, among mussel bed, 9 May 1997; 12 specimens, Akahama, intertidal, among mussel bed, 10 May 1997; 9 specimens, Akahama, intertidal, among dead barnacles, 10 May 1997.

*Notophyllum japonicum* Marenzeller, 1879


Material examined: 2 specimens, st. 3, 7 May 1997.

*Notophyllum* sp.


*Paranaitis caeca* (Moore, 1903)

*Eumida caeca* Moore, 1903: 426–428, pl. 23, fig. 1.

*Eumida caeca*: Izuka 1912: 203, pl. 21, fig. 5.


**Paranaitis uschakovii** Eibye-Jacobsen, 1991

**Paranaitis uschakovii** Eibye-Jacobsen, 1991: 129


Junior homonym to **Paranaitis caeca** (Moore, 1903)


**Paranaitis** sp.


**Phyllodoce elongata** (Imajima, 1967)

**Anaitides elongata** Imajima, 1967: 414–416, fig. 5a–f.

**Phyllodoce elongata**: Pleijel 1991: 258.


**Phyllodoce maculata** (Linnaeus, 1767)

**Nereis maculata** Linnaeus, 1767: 1086.

**Phyllodoce maculata**: Malmgren 1867: 144, pl. 4, fig. 16.

**Anaitides maculata**: Bergström 1914: 145–147, textfig. 45.

Material examined: 1 specimen, Akahama, Otsuchi Bay, intertidal, among dead barnacles, 10 May 1997; 5 specimens, st. 14, 12 May 1997.

**Petrocirus macroceros** (Grube, 1860)

**Phyllodoce (Eutalia) macroceros** Grube, 1860: 82–83, pl. 3, fig. 4.


**Sige macroceros** var. orientalis Imajima and Hartman, 1964: 70, pl. 14, figs c–f.

**Petrocirus macroceros**: Uschakov 1972: 160–161, pl. 11, figs 6–9.

Material examined: 1 specimen, Akahama, Otsuchi Bay, intertidal, coarse sand, 9 May 1997; 1 specimen, Akahama, intertidal, among dead barnacles, 10 May 1997.

Remarks: Although more than 120 species of polychaetes were listed by Imajima in Horikoshi et al. (1979) from Otsuchi and Miyako Bay, only three species of the family Phyllodocidae, **Anaitides maculata** (=**Phyllodoce macu- lata**), **Eteone longa**, and **Eutalia bilineata**, were included in Imajima’s list. Fifteen phyllodocid species, including previously reported three species, were obtained during our investigation.

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大槌湾周辺海域の海産無脊椎動物：ヒモムシ類，ミズムシ類，およびサシバゴカイ類

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1997年から2000年に大槌湾周辺海域で実施した海産無脊椎動物相調査で得られたヒモムシ類，等脚目ミズムシ類，サシバゴカイ類のリストを作製した。ヒモムシ類は7科10種，サシバゴカイ類は9属15種を記録した。等脚目ミズムシ類は4科5属7種を得たが，このうち Muuna stephensi Gurjanova, 1933, M. tenipes Kussakin, 1962, Uromunna serricauda Müller, 1992は日本沿岸からの初記録である。

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