

# A specimen of marine isopod crustacean of the genus Idotea collected from Otsuchi Bay, northern Japan

journal or	Bulletin of the Toyama Science Museum
publication title	
number	18
page range	1-4
year	1995-03-25
URL	http://repo.tsm.toyama.toyama.jp/?action=repos
	itory_uri&item_id=661

# A Specimen of Marine Isopod Crustacean of the genus *Idotea* Collected from Otsuchi Bay, Northern Japan\*

Noboru NUNOMURA Toyama Science Museum

大槌湾産のヘラムシの一種

布村 昇 富山市科学文化センター

岩手県大槌湾長崎沖の水深 5 mの藻場から採集された Idotea 属のヘラムシを調査したところ、北日本の藻場に普通の Idotea ochotensis と最も類似するが、(1)体がより太いこと、(2)第 2 触角が短く、鞭の数が少ないこと、(3)第 1 触角最終節が丸いこと、(4)顎脚、特に髭の形態の相違、(5)胸脚が短いこと、(6)目が小さいこと、(7)胸部基板が顕著でないこと(8)腹尾節後端が尖らないこと等で区別され、既知種該当しないことが判明した。また、別属であるが、日本海と東北地方北部の藻場から知られている Pentidotea rotundata Richardson と外形が類似している。なお、これまで雌 1 個体が採集されているのみなので、新種の記載は差し控えた。本標本は富山市科学文化センター(TOYA Cr-11526)で保管される。

キーワード: ヘラムシ科, 等脚目, 大槌湾

An idoteid specimen collected from Otsuchi Bay, Iwate Prefecture is reported. It is proved to be an undescribed species of the genus *Idotea*, but I refrained to establish a new species, for only one female was available to me.

Key words: Idoteidae, Ispoda, Otsuchi Bay

During an ecological survey at Otsuchi Bay, Dr. Ichiro Takeuchi, of the Otsuchi Marine Research Center, Ocean Institute, University of Tokyo, happened to collect an unfamiliar idoteid crustacean. He handed to me for my study. At the result of closer examination of mine, it proved to represent an undescribed species belonging to the genus *Idotea*, but I refraind to establish a new species, for only one female specimen has been collected.

Before going futher, I wish to express my sincere gratitude to Dr.Ichiro Takeuchi of for his kindness in ginving me a chance to examine such interesting specimen. And most of the parts of this work was carried out at Otuschi Marine Center, Ocean Research Institute, University of Tokyo. This specimen is deposited at the Toyama Science Museum (TOYA Cr-11526).

## Idotea sp.

(Figs.1 and 2)

Material examined; 1 ovigerous ♀(32.7mm in body length), on the sea grass Phyllospadix iwatensis Makino, 5m in depth, Nagasaki, Otsuchi Bay, Iwate Prefecture. This specimen was collected together with some marine isopods, Synidotea hikigawaensis, Holotelson tuberculatus and Dynoides dentisinus, coll. Ichiro Takeuchi.

Description: Body slender, 5.4 times as long as wide. Color dull yellow in alcohol, with four rows of darker lines on dorsal surface. Two perfect and a pair of partial suture lines on pleotelson. Oostegaite from first to

<sup>\*</sup>Contributions from the Toyama Science Museum, No.150

fifth pereonal somites.

Antennula(Fig.1C)small and 4-segmented; first segment stout; second and third segments rectangular; terminal segment rounded with many fine setae on distal margin.

Antenna(Fig.1D)long, reaching third pereonal somite. Pecuncular segments long, occupies three-fifths length of whole length. Flagellum 9-segmented, each segment is relatively stout.

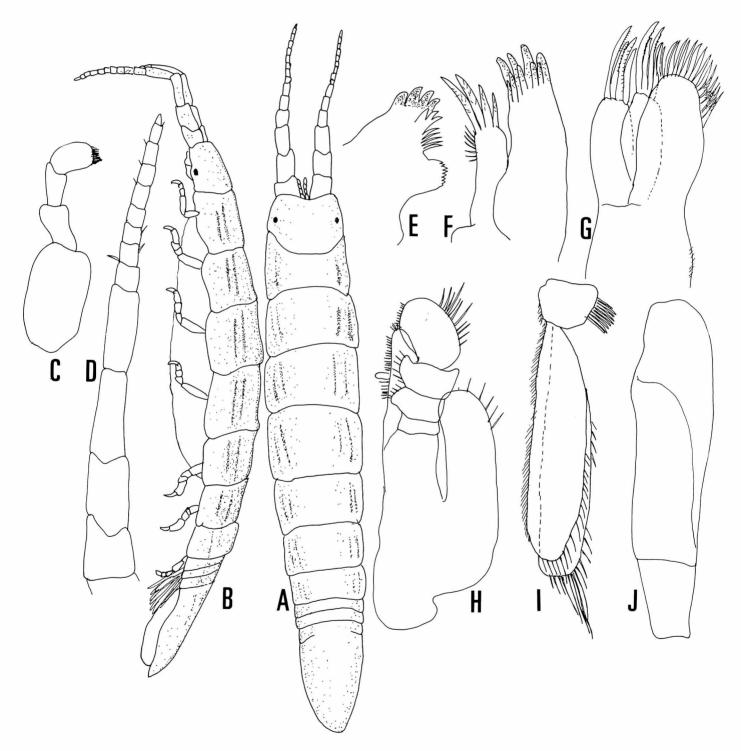


Fig.1. Idotea sp.
A. Dorsal view; B.Lateral view; C.First antenna; D.Second antenna; E.Mandible; F.
Maxillula; G.Maxilla; H.Maxilliped; I.Second pleopod; J.Uropod. (All: female)

Mandible(Fig.1E); pars incisiva 3-headed; lacinia mobilis 4-headed. Five setae behind lacinia mobilis. Processus molaris relatively wide.

Maxillula(Fig.1F); outer lobe with 9 setae; inner lobe with 4 teeth at the tip.

Maxilla(Fig.1G); endoopod with 16 setae and each ramus of exopod with 4 setae on the diatal margin.

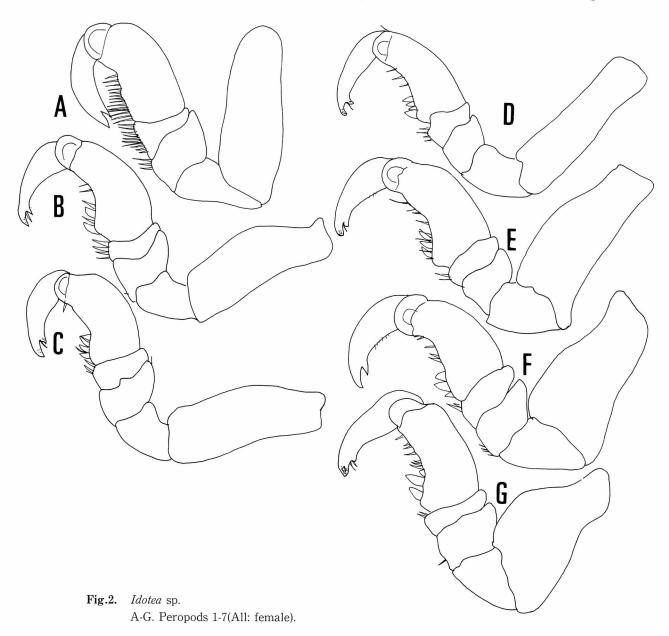
Maxilliped(Fig.1H); palp four-segmented, terminal segment larger rounded; endite small, bearing a coupling hook on inner margin.

First pereopod(Fig.2A); basis oblong; ischium triangular; merus rectangular and relatively large; carpus relatively short and with 12 setae on inner margin; propodus rectangular.

Second pereopod(Fig.2B) basis long; ischium two-fifths length of basis; merus square; carpus very short with 4 setae on inner margin; propodus stout with 2 spines and a few of setae on inner margin.

Third pereopod(Fig.2C); basis long; ischium about two-fifths length of basis; merus almost square; carpus short; propodus stout with 4 spines on inner margin.

Fourth pereopod(Fig.2D); basis long; ischium about one-third as long as basis; merus square; carpus relatively short with 4 setae on inner margin; propodus stout with 4 spines on the basal half of inner margin.



### Noboru Nunomura

Fifth pereopod(Fig.2E); basis oblong; ischium two-fifths as long as basis; merus almost squre; carpus relatively short; propodus stout with 3 spines on basal half of inner margin.

Sixth pereopod(Fig.2F); basis stout; ischium triangular; merus almost square; carpus relatively short; propodus stout with 3 spines on basal half of inner margin.

Seventh pereopod(Fig.2G); basis stout; ischium triangular; merus rectangular; carpus rather short; propodus rectangular with 3 spines on basal half of inner margin.

Pleopod(Fig.1I) not characteristic in female.

Uropod(Fig.1J) long; basal segement long and rectangular; distal segment long and trapeozoidal in shape.

Remarks: The present specimen is relatively similar to *Idotea ochotensis* Brandt, common species in this area, but the former is separable from the latter in the following features: (1)stouter body shape, (2)shorter and less numerous flagellum of antenna, (3)rounded terminal segment of antennula, (4) shape of maxilliped, especially of palp, shoter pereopods, (5) shape of maxilliped, especially of palp, (6)smaller eyes, (7)indistinct epimera of poereonites and (8) less pointed posterior end of pleotelson.

From the external appearance, the present specimen also allied to *Pentidotea rotundata* (Richardson) but it belongs to the separate genus and it is separated: (1)less prominent anterolateral border of cephalon, (2)stouter flagellum of second antenna, (3)less setose inner margin of propodus of first pereopod, (4) less numerous palpal segments of maxilliped, and (5)presence of spines on inner margin of propodus of 2-7 pereopods. But only one female is available for this study, I refrained from establishing a new species.

### References

Brandt, E. 1851. Krebse. Reise in der äussersten Norden und Osten Sibiriens. Zoologie, II:79-148.

Brusca, R.C. 1984. Phylogeny, evolution and biogeography of the marine isopoda subfamily Idoteinae (Crustacea: Isopoda: Idoteidae) Trans. San Diego Soc. Nat. Hist. 20 (7):99-134.

Collinge, W.E. 1917. A revision of the British Idoteidae, a family of marine Isopoda. Trans. Roy. Soc. Edinburgh. III. 51:721-760.

Grujanova, E.F. 1936. Isopods of the Oriental Sea Fauna de l'URSS New Ser. 6:1-279.

Kussakin O.G. 1955. K voptrospoi p sistematik nekro'ukh vidou Idothea Fabr. Isopoda, Valvifera) dal navostchukh morei SSSR. Trud. Zool. Inst Leningrad, 28:219-227.

Nunomura, N. 1984. Two new Idoteid isopod from Otsuchi Bay Northern Japan. Bull. Toyama Sci. Mus., 6: 57-64.

Nunomura, N. 1988. A specimen belonging to the genus *Pentias* (Crustacea: Isopoda) of Ibaragi, Central Japan. Bull. Sci. Mus. 12:33-36.

Richardson, 1905. A monograph on the isopods North America. Bull. U. S. Nat. Hist. Mus. 54:1-724.