

ZOOLOGICAL RESULTS OF A TOUR IN THE FAR EAST.

MYSIDACEA, TANAIIDACEA AND ISOPODA.

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(Pls. XV, XVI, XVII.)

Dr. Annandale has kindly entrusted to me for examination the Crustacea belonging to the three orders Mysidacea, Tanaidacea and Isopoda (marine or aquatic species only) which he procured during his tour in the Eastern parts of Asia. The collection contains sixteen species, seven Mysids, one Tanaid and eight Isopods and is proved of exceptional interest. I am much indebted to Dr. Annandale for the opportunity of examining it.

The collections were made mainly in brackish or freshwater lakes and while the number of species collected is not large, some interesting results were obtained.

In L. Biwa, Dr. Annandale found an *Asellus* which I am unable to distinguish from the cosmopolitan *Asellus aquaticus* of Europe and America. This discovery is a gap in the known distribution of this species and links up its known occurrence over the greater part of Europe and Northern Asia with the records of the same species from America. It is a survival of the time when Japan was connected by land with the rest of the continent of Asia and with North America by the land bridge to Alaska.

The most interesting specimens in the collection belong to a species of *Caecidothea* found in a well in Otsu. This genus has hitherto only been found in North America. The Japanese species is of further interest in the fact that it possesses distinct eyes and may thus be regarded as a more primitive species than its North American congeners, which are all blind. Otherwise it is a true *Caecidothea*, affording no characteristics to distinguish it generically. The record is a most interesting one from the point of view of geographical distribution.

The remaining species from Japan in the collection were found as follows:—

MARINE SPECIES.

- Siriella watasei*, Nak.
- Gastrosaccus vulgaris*, Nak.
- Anisomysis ijimai*, Nak.
- Rhopalophthalmus egregius*, Hansen.

BRACKISH WATER.

- Neomysis awutschensis*, Brandt.
- I. Kasumi-ga-ura.

FRESH WATER.

Tachaea chinensis, Thiel.

Ogura Pond, near Kyoto.

Ichthyoxenus japonensis, Richardson.

Lake Biwa.

Among the Mysidacea *Siriella watasei*, *Gastrosaccus vulgaris* and *Anisomysis ijimai* are so far only known from the seas in the neighbourhood of Japan, while *Rhopalophthalmus egregius* has a wide distribution in the tropical and sub-tropical parts of the Indian and Pacific Oceans from India to Japan.

On the other hand the brackish water species, *Neomysis awatschensis*, is an immigrant from the North, known hitherto from Kamtschatka.

The two Isopods, *Tachaea chinensis* and *Ichthyoxenus japonensis*, are representatives of genera widely distributed in fresh and brackish water in India, Indo-Malaysia and the islands of the East Indies.

From China the following species were obtained, all from fresh water:—

TAI-HU.

Tachaea chinensis, Thiel.

Exosphaeroma oregonensis, Dana.

WHANGPOO RIVER, BELOW SHANGHAI.

Neomysis nigra, Nak.

Cleantis annandalei, Tattersall.

Exosphaeroma oregonensis, Dana.

Exosphaeroma chinensis, Tattersall.

Of these species, *Tachaea chinensis* is common to Japan and China and is a representative of a southern and tropical fauna. The other species have probably entered the brackish waters of China from the North and are evidence of a northern element in the fauna. *Neomysis nigra* is known from Japan and is very closely allied to the northern *N. awatschensis*. *E. oregonensis* is known from brackish water in Alaska and from several places along the western shores of N. America to as far South as California. The brackish water species of these groups of Crustacea found in China and Japan appear to suggest therefore at least two distinct sources of origin for that fauna.

The Mysids, *Neomysis awatschensis* and *N. nigra*, are distinctly immigrants from the North and there is no suggestion of a southern element in the Mysidacean fauna of the brackish waters of Japan and China. Both species are of the nature of relict species.

Among the Isopods of the same fauna *Tachaea chinensis* found in both China and Japan is of southern origin, while the two species of *Exosphaeroma* and *Cleantis annandalei* probably entered from the North. The purely freshwater species *Asellus aquaticus* and *Caecidothea kuwamurai* are survivors of a fauna of much earlier times, when Japan was in land connection with both America and the rest of Asia.

The collections from the Talé-Sap are small and include the following species:—

MARINE.

Rhopalophthalmus egregius, Hansen.

FRESH TO BRACKISH WATER.

Nanomysis siamensis, gen. and sp. nov.

Apseudes sp.

Ligia exotica Roux.

The Mysid *Nanomysis siamensis* affords the only real evidence of the affinities of the brackish water fauna of this lake.

It is closely related to a species I have described from similar habitats in India (*Potamomysis assimilis*, W.M.T.) and shows no kind of relationship with the species found in China and Japan.

Four species have been described as new to science,

Nanomysis siamensis, gen. et sp. nov.

Caecidothea kawamurai, sp. nov.

Exosphaeroma chinensis, sp. nov.

Cleantis annandalei, sp. nov.

I desire to express my thanks to my wife for the drawings illustrating this paper.

Order **MYSIDACEA.**

Sub-order **MYSIDA.**

Family **MYSIDAE.**

Sub-fam. **SIRIELLINAE.**

Genus **Siriella**, Dana.

Siriella watasei, Nakazawa.

S. watasei, Nakazawa, 1910, p. 256, pl. viii, figs. 8, 36.

Locality:—Tateyama, mouth of Tokyo Bay, Japan, two females (presented by Dr. Nakazawa).

In the absence of males, these specimens agree very closely with the description given by Nakazawa. The species is only known as yet from Japanese waters.

Sub-fam. **GASTROSACCINAE.**

Genus **Gastrosaccus**, Norman.

Gastrosaccus vulgaris, Nakazawa.

G. vulgaris, Nakazawa, 1910, p. 253, pl. viii, figs. 6, 23, 24, 29, 35

G. vulgaris, Zimmer, 1918, p. 15, text figs. 1-4.

Locality:—Osaka Market, Japan, 24, xi, 15, one male.

Zimmer has completed the description of this species by an account, with figures of the first two and last two pleopods of the male. He notes that, in the

female, the first pair of pleopods are only one-branched instead of two-branched as described by Nakazawa. The species is known, so far, only from Japan and Formosa.

"Among large quantities of *Acetes japonicus*, Kish., on sale in the market, probably from the mouth of the Yeddo River. N. J."

Sub-fam *RHOPALOPHTHALMINAE*.

Genus *Rhopalophthalmus*, Illig, 1906.

Rhopalophthalmus egregius. Hansen.

R. egregius. Hansen, 1910, p. 49, pl. vi, figs. 3a-k, pl. vii, figs. 1a-d.

R. egregius. Nakazawa, 1910, p. 255, pl. viii, figs. 12, 22.

R. egregius, Tattersall, 1915, p. 151.

R. egregius, Colosi, 1918, p. 6.

Locality:—Coast of Ariak Sea, Japan, several fathoms, twenty specimens of both sexes (presented by Dr. Nakazawa).

Across the channel from Singgora, Talé Sap, Siam, $4\frac{1}{2}$ metres, 24. i. 1916, two males, 10 mm.

This species is evidently widely distributed in the temperate and tropical parts of the Pacific Ocean and is now known from off Java (Hansen), Japan (Nakazawa), Chilka Lake, Orissa (Tattersall), Torres Straits and Pacific Ocean between New Caledonia and New Zealand (Colosi) and Siam.

Sub-fam. *MYSINAE*.

Nanomysis, gen. nov.

First, second and fifth pleopods of the male, rudimentary, one-jointed and of the same form as the female. Third pleopod of the male with a single-jointed inner ramus and a three-jointed outer ramus which is nearly three-times as long as the inner ramus, the two terminal joints small, the first joint with three long setae on the distal end of the outer margin, the second joint with a single seta on the outer distal corner, the third joint with a single terminal seta longer than the joint.

Fourth pleopod of the male very long, extending to the end of the telson, inner ramus single-jointed, outer ramus four-jointed, the first joint half as long as the whole ramus and almost twice as long as the inner ramus, second joint slightly longer than the third, the terminal joint small and bearing two spiniform setae about four times as long as the joint, third joint with a single long and powerful seta on its outer distal corner twice as long as the third joint and reaching beyond the terminal setae.

Antennal scale narrowly lanceolate and two-jointed, setose all round. Masticatory lobes on the second, third and fourth joints of the endopod of the first thoracic limb well developed.

Tarsus of the posterior thoracic limbs four-jointed.

Inner uropod without spines on the inner margin.

Telson short, apex convex, not split, armed with a comb of spines between two stronger lateral spines, margins with spines along their entire length.

With the aid of Zimmer's key (1915) to the genera of the tribe *Mysini*, it is found that this genus falls into group II D and has its nearest ally in the arctic genus *Stilomysis*. It is to be distinguished from this genus mainly by the much different form of the telson, the absence of a row of spines on the inner margin of the uropods, the presence of lobes on the internal margin of the third and fourth joints of the endopods of the first thoracic limbs and by its very much smaller size.

Superficially and especially in the females, it resembles the genus *Potamomysis*, as recently redefined by me, and can only be distinguished by a close examination of the shape of the telson. But whereas in *Nanomysis*, the third pleopod of the male has a well developed outer ramus, in *Potamomysis* it is a single-jointed plate as in the female.

Nanomysis siamensis, sp. nov.

(Pl. XV, figs. 7-10.)

Locality:—All the specimens in the collection were captured in the Talé Sap, Siam, in January, 1916, at the following stations:—

St. 5. $\frac{1}{2}$ mi. E.N.E. of the mouth of the Patalung River, 2 metres, 13. i. 16, many, fragmentary. . (Fresh water.)

St. 8. $\frac{1}{2}$ mi. off shore a little south of the mouth of the Patalung River, 2 $\frac{1}{2}$ metres, 14. i. 16, about fifty specimens. , . (Fresh water.) TYPES.

St. 10. Koh Si Hah, 17. i. 16, eight specimens. . (Fresh water.)

St. 25. Narrow channel opposite Ban Lem Chak, near Singgora, 6 $\frac{1}{2}$ metres, 25. i. 16, one female, 4 mm., . (Sp. grav. 1.00425.)

Description:—Carapace produced in front only slightly in the form of a rostral projection with a pointed apex; the external portion of the frontal margin of the carapace on each side behind the eyes armed with a series of small spinules, those on the extreme outside the largest, the series gradually decreasing in size towards the centre; pleon with the first and fourth segments shortest and equal in size, second and third slightly longer and equal, fifth segment slightly longer than the fourth, sixth segment 1 $\frac{1}{4}$ times as long as the fifth, telson (Pl. XV, fig. 8) only $\frac{2}{3}$ of the length of the last segment of the pleon, about as long as broad at the base, not cleft, lateral margins armed along their entire length with about 10 small spines with an additional larger spine at the outside corners of the apex, latter slightly convex, half as broad as the base of the telson, and armed with a comb of twelve spines between the larger spines at each corner; inner uropod two and a half times as long as the telson, without spines on its lower inner margin; outer uropod only slightly longer than the inner, about $\frac{1}{10}$ longer.

Second joint of the antennular peduncle very short, first and third joints about equal in size, male appendage well developed and densely hirsute, inner flagellum not much more than one-third, certainly less than one-half of the length of the outer one and much more slender.

Antennal scale (Pl. XV, fig. 7) narrowly lanceolate in shape, about seven times as long as broad, two-jointed, distal joint one-seventh of the entire length of the scale, margin of the scale setose all round; the scale extends for $\frac{2}{3}$ of its length beyond its own peduncle and one-third of its length beyond the antennular peduncle; the second joint of the antennular peduncle is longer than the third and there is a prominent spine on the outer corner of the basal joint from which the scale springs.

Labrum without a spine; masticatory lobes well developed on the second, third and fourth joints of the endopods of the first thoracic limbs; tarsus of the third to the eighth thoracic limbs four-jointed.

First, second and fifth pleopods of the male, as in the female, consisting of a single-jointed uniramous plate.

Third pleopod of the male, (Pl. XV, fig. 9) biramous, inner ramus a single-jointed plate, outer ramus nearly three times as long as the inner ramus, three-jointed, first joint twice as long as the inner ramus, with three long setae on the outer margin near the distal end, second and third joints together about one-third of the first joint the second joint slightly the longer and having a single seta on its outer distal corner, third joint terminated by a single long seta, longer than the third joint but shorter than the second and third joints combined.

Fourth pleopod of the male (Pl. XV, fig. 10) very long, reaching to the posterior end of the telson, biramous, inner branch a single-jointed plate, outer branch four times as long as the inner, four-jointed, the first joint twice as long as the inner ramus, the second joint about half as long as the first, third joint slightly shorter than the second with a single very strong plumose spine on the outer corner, which is nearly twice as long as the joint and extends well beyond the spines on the terminal joint, latter quite short and terminated by two long spines four times as long as the joint.

Length of adult male, 5 mm.

This interesting little species is apparently very abundant in the Talé Sap, more abundant in the inner lake than in the outer. In the inner lake the water is quite fresh, whereas in the outer lake the corrected specific gravity of the water at the time these specimens were taken was 1.00425.

The species is therefore a true lacustrine form. It is readily distinguishable by the spinules on the carapace, the form of the telson and the character of the male pleopods. It is very closely allied to the Indian *Potamomysis assimilis* which lives in very similar habitats, but differs in the form of the telson, and particularly in having the third pleopod of the male rudimentary and of the same form as in the female.

Genus **Neomysis**, Czerniavsky.

Neomysis nigra, Nakazawa.

(Pl. XV, figs. 5-6.)

N. nigra, Nakazawa, 1910, p. 248, pl. viii, figs. 3, 17, 30

Locality: Whangpoo River, 5-10 miles below Shanghai, 5½-7½ metres, 10. xii. 15.

nine specimens up to 10 mm. A note on the label reads "Water fresh permanently, but affected strongly by tide. Very muddy. Bottom firm sandy mud" and a further label says that this species was "only caught at or near the bottom."

It is with some doubt that I refer these specimens to *Neomysis nigra*, Nak. Though the specimens measure up to 10 mm. in length, the males are still immature, to judge by the condition of the fourth pair of pleopods. Nakazawa's specimens, though measuring only 7-8 mm, were, from his description, fully mature. But otherwise I have failed to find any noteworthy point of difference and I tentatively refer them to this species until more material is available.

I may perhaps be allowed to supplement Nakazawa's description in a few particulars.

The segments of the pleon diminish successively in size from the first to the fifth, and the sixth segment is one and a half times as long as the fifth.

The telson (Pl. XV, fig. 6) is slightly longer than the last segment of the pleon. It is one and a half times as long as broad at its base. The apex is truncate, one quarter as broad as the base of the telson, and bears two pairs of spines, an inner shorter pair and an outer longer pair, which are about as long as the apex of the telson is wide. The lateral margins bear 18-19 spines extending the whole way down their length.

The inner uropod is about one and a half times and the outer uropod nearly twice as long as the telson.

I have given a figure of the telson and the eye of one of my specimens for comparison with the same parts of *N. awatschensis*, Brandt, a very closely allied species, also occurring in this collection. The two species differ in the following points:—

- (1) In *N. nigra* the rostrum is broadly triangular with a pointed apex. In *N. awatschensis* the rostrum is a broadly rounded plate.
- (2) *N. nigra* appears to have a broader and stouter eye than in *N. awatschensis*. In *N. nigra* the eye is slightly less than one and a half times as long as broad, with the peduncle half as wide as the eye is long and the pigment occupying the distal half of the eye (Pl. XV, fig. 5). In *N. awatschensis*, the eye is rather more than one and a half times as long as broad, the peduncle only $\frac{1}{2}$ as wide as the eye is long and the pigment occupying less than half of the eye, (Pl. XV, fig. 2).
- (3) In the form of the fourth pleopod of the male.

In my most mature male, the fourth pleopod does not extend the whole length of the last segment of the pleon and has the first joint of the outer branch only one and a half times as long as the second, while the terminal setae are only two-thirds the length of the last joint.

Nakazawa says that the outer branch of the fourth pleopod of the male reaches to the middle of the telson, that its proximal joint is four times as long as the distal and that the terminal filaments are longer than the distal joint.

In *N. awatschensis*, the fourth pleopod of the male reaches to the middle of the telson, the proximal joint of the outer branch is double the length of the distal and the terminal setae are rather more than half as long as the distal joint (Pl. XV, fig. 4).

This species is also very closely allied to *N. intermedia*, Czern., but differs in the form of the rostrum and, to judge from Czerniavsky's figures, also in the form of the fourth pleopod of the male.

N. nigra was found by Nakazawa in the Lake of Hamana, 'a brackish inlet of the sea, and also in the Gulf of Tokio, both localities in Japan. Its occurrence in practically a similar habitat in China is interesting.

Neomysis awatschensis, Brandt.

(Pl. XV, figs. 1-4.)

Mysis awatschensis, Brandt, 1851, p. 126.

Mysis awatschensis, Czerniavsky, 1882, p. 22, pl. xviii, figs. 13-17.

N. awatschensis, Zimmer, 1904.

N. awatschensis, Derzhavin, 1913, p. 197.

Locality:—Lake Kasumi-ga-ura, Japan, 15. x. 15, near bottom, about 30 ft., abundant, up to 10 mm.

This species does not appear to have been redescribed since Brandt published his short account of the species in 1851, except for Czerniavsky's brief diagnosis drawn up from specimens in the Petrograd Museum. This description is based on female examples and it is necessary to supplement it by an account of the pleopods of the male.

The rostrum is in the form of a broadly and evenly rounded plate, not pointed at the apex.

The first five segments of the pleon are more or less subequal while the sixth segment is one and a half times as long as the fifth. The telson (Pl. XV, fig. 3) is as long as the sixth segment of the pleon, one and three quarter times as long as broad at its base, apex truncate, one quarter of the breadth of the telson at its base. The lateral margins of the telson bear about fifteen spines ranged along the whole of their length and the apex bears two pairs of spines, an inner shorter pair and an outer longer pair.

The inner uropod is one and a half times as long as the telson and the outer uropod twice that length.

The eye (Pl. XV, fig. 2) is slightly more than one and a half times as long as broad, the peduncle two-fifths as wide as the length of the eye and the pigmented portion occupying less than one-half of the eye.

There is a prominent spine on the labrum.

The peduncle of the antennules is about one-half of the length of the antennal scale. The latter projects for two-thirds of its length beyond the antennal peduncle and has two prominent spines on the basal joint from which it springs, one on the outer distal corner and the other on the inner lower corner. The scale (Pl. XV, fig. 1)

is about eleven times as long as broad, the terminal joint one-fifth of the total length and acutely pointed.

The tarsus of the third to the fifth thoracic limbs is seven-jointed, of the sixth and seventh limbs six-jointed and of the last thoracic limb eight-jointed. The flagellum of the exopod is nine-jointed and the basal joint of the latter has a small spine on its outer distal corner. The lobes on the inner margin of the third and fourth joints of the endopod of the first thoracic limbs are well developed.

The fourth pleopod of the male (Pl. XV, fig. 4) is very long, reaching to the middle of the telson. The proximal joint of the outer ramus is twice as long as the distal joint which in its turn is one and a half times as long as the two terminal setiform processes.

I have already alluded to the close relationship of this species to *N. nigra* and pointed out that it may be distinguished by the characters of the rostrum, eye and fourth pleopod of the male.

It is, however, even more closely allied to *Heteromysis intermedia*, Czerniavsky, which is a true *Neomysis*, and Zimmer has suggested that the two species are probably synonymous. A fuller description of *N. intermedia* is badly needed. Nakazawa has recorded the latter from Japan but has not offered any detailed description of his specimens. The only serious point in which it differs from *N. awatschensis* is in the form of the fourth pleopod of the male. Czerniavsky describes this appendage as having four joints in the exopod, the first and second of which are equal in length and each as long as the inner ramus, the third and fourth joints quite minute and sub-equal, and the two terminal setae short but longer than the combined third and fourth joints. His figure bears out this description, but I am bound to confess that the figure depicts an appendage which does not look to be fully formed and which belongs in reality to an immature male. Until this point is cleared up by an examination of fully adult specimens it is impossible to regard the two species as synonymous.

N. awatschensis is recorded from Kamtschatka by Brandt, Czerniavsky and Derzhavin. The latter author records it as abundant in the brackish water of the rivers of the Kamtschatka peninsula which drain the large series of relict lakes found there. Its habitat in Japan is of precisely the same nature.

"There is an important fishery for these little Mysids in Kasumi-ga-ura, a lagoon of almost fresh water on the Pacific Coast of the Main Island of Japan. They are caught in a peculiar kind of large trawl, the bag of which is formed of very coarsely woven stuff. *N. A.*"

Genus *Anisomysis*, Hansen, 1910.

Anisomysis ijimai, Nakazawa.

A. ijimai, Nakazawa, 1910, p. 252, pl. viii, figs. 5, 14, 27, 33.

A. ijimai, Zimmer, 1915, p. 171.

Locality:—Tateyama, mouth of Tokyo Bay, Japan, numerous specimens (presented by Dr. Nakazawa).

Zimmer has rightly referred *Cryptomysis lamellicauda*, Hansen, to the genus *Anisomysis* and called attention to its very close resemblance to the present species. The only striking point of difference is in the number of curious processes on the inner margin of the second joint of the mandibular palp, 7-8 in *A. ijimai* and 13 in the only known specimens of *A. lamellicauda*. At first I was inclined to consider these species as synonymous but I think perhaps it would be well to await the examination of further specimens from the type locality of *A. lamellicauda*, especially of male specimens, before deciding this point.

Zimmer, whose recent work on the Mysidacea, has added very largely to our knowledge of the group and whose attempt to systematise the species of the tribe Mysini is of the greatest value, refers both the genera *Cryptomysis*, Hansen, and *Kreagromysis*, Illig, to the synonymy of *Anisomysis*, and the latter genus, therefore, now includes the following species:—

- A. laticauda*, Hansen ;
- A. ijimai*, Nakazawa ;
- A. lamellicauda*, Hansen ;
- A. mixta*, Nakazawa ;
- A. bifurcata*, Tattersall (= *Kreagromysis megalops*, Illig) ;
- A. australis*, Zimmer.

These species agree fundamentally with one another in the form and characters of the pleopods of the male (the male of *A. lamellicauda* is unknown, but in view of the very close affinity of this species with *A. ijimai* there can be little doubt that it also has male pleopods like the other species). In view of this fundamental agreement among this group of species, Zimmer naturally raises the question of the value of the form of the telson as a character of generic importance. In the group generally, the form of the telson has been very largely used as a generic character in the past, and in the main, rightly so. But, for the present, it looks very much as if *Anisomysis* was a genus characterised by great variability in the shape of the telson, with a greater degree of constancy in the other characters. As Zimmer points out, if the shape of the telson is a character of generic importance, the above six species will fall into four genera, viz.:—

- ANISOMYSIS *A. laticauda*.
- CRYPTOMYSIS *A. ijimai*, *A. lamellicauda*.
- KREAGROMYSIS *A. bifurcata*.
- A new genus *A. mixta*, *A. australis*.

Future research may demonstrate the existence of groups of species which fall naturally into these genera and justify their separation, but in the present extent of our knowledge Zimmer's arrangement is the more acceptable.

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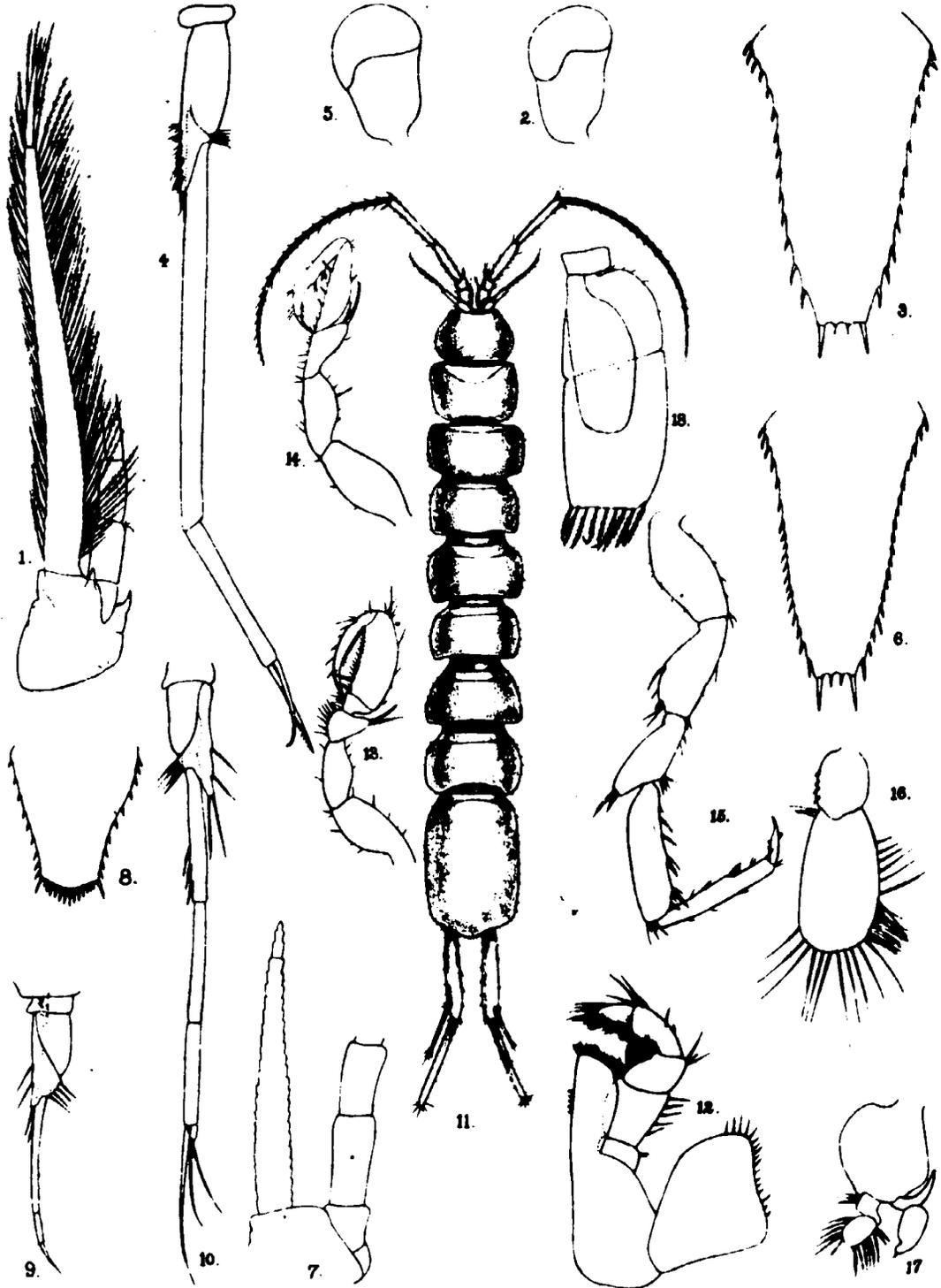
EXPLANATION OF THE PLATES.

Plate XV.

FIG. 1.	— <i>Neomysis awatschensis</i> , Brandt.	Antennal scale × 50.
" 2.	" " "	Eye × 33.
" 3.	" " "	Telson × 50.
" 4.	" " "	4th pleopod of male, × 50.
" 5.	— <i>Neomysis nigra</i> , Nak.	Eye × 33.
" 6.	" " "	Telson × 65.
" 7.	— <i>Nanomysis siamensis</i> , gen. et. sp. nov.	Antennal scale × 100.
" 8.	" " "	Telson × 100.
" 9.	" " "	3rd pleopod of male × 100.
" 10.	" " "	4th " " " × 100.
" 11.	— <i>Caecidothea kawamurai</i> , n. sp.	Adult male × 7.
" 12.	" " "	Maxillipede × 33.
" 13.	" " "	Second thoracic limb × 14.
" 14.	" " "	Third thoracic limb × 14.
" 15.	" " "	Eighth " " × 14.
" 16.	" " "	First pleopod of male × 14.
" 17.	" " "	Second pleopod of male × 33.
" 18.	" " "	Third pleopod of male × 33.

Plate XVI.

FIG. 1.	— <i>Exosphaeroma oregonensis</i> , Dana,	× 17.
" 2.	" " "	Telson and uropods × 17.
" 3.	" " "	Third pleopod × 33.
" 4.	" " "	Fourth " × 33.
" 5.	" " "	Fifth " × 33.
" 6.	" <i>chinensis</i> , n. sp.	Antennule × 65.
" 7.	" " "	Antenna × 45.
" 8.	" " "	Epistome × 65.
" 9.	" " "	Maxillipede × 65.
" 10.	" " "	Second thoracic limb × 45.
" 11.	" " "	Eighth " " × 33.
" 12.	" " "	Second pleopod of male × 33.
" 13.	" " "	Fourth pleopod of male × 33.
" 14.	" " "	Fifth pleopod of male × 33.
" 15.	" " "	Uropod × 33.
" 16.	— <i>Tachaea chinensis</i> , Thielemann.	Mandible × 65.
" 17.	" " "	First maxilla × 65.
" 18.	" " "	Maxillipede × 65.



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