

17853

*Dece*

ON SOME ACCOUNT OF THE CRABS  
OF NORTH CHINA

By

C. J. SHEN, PH. D.

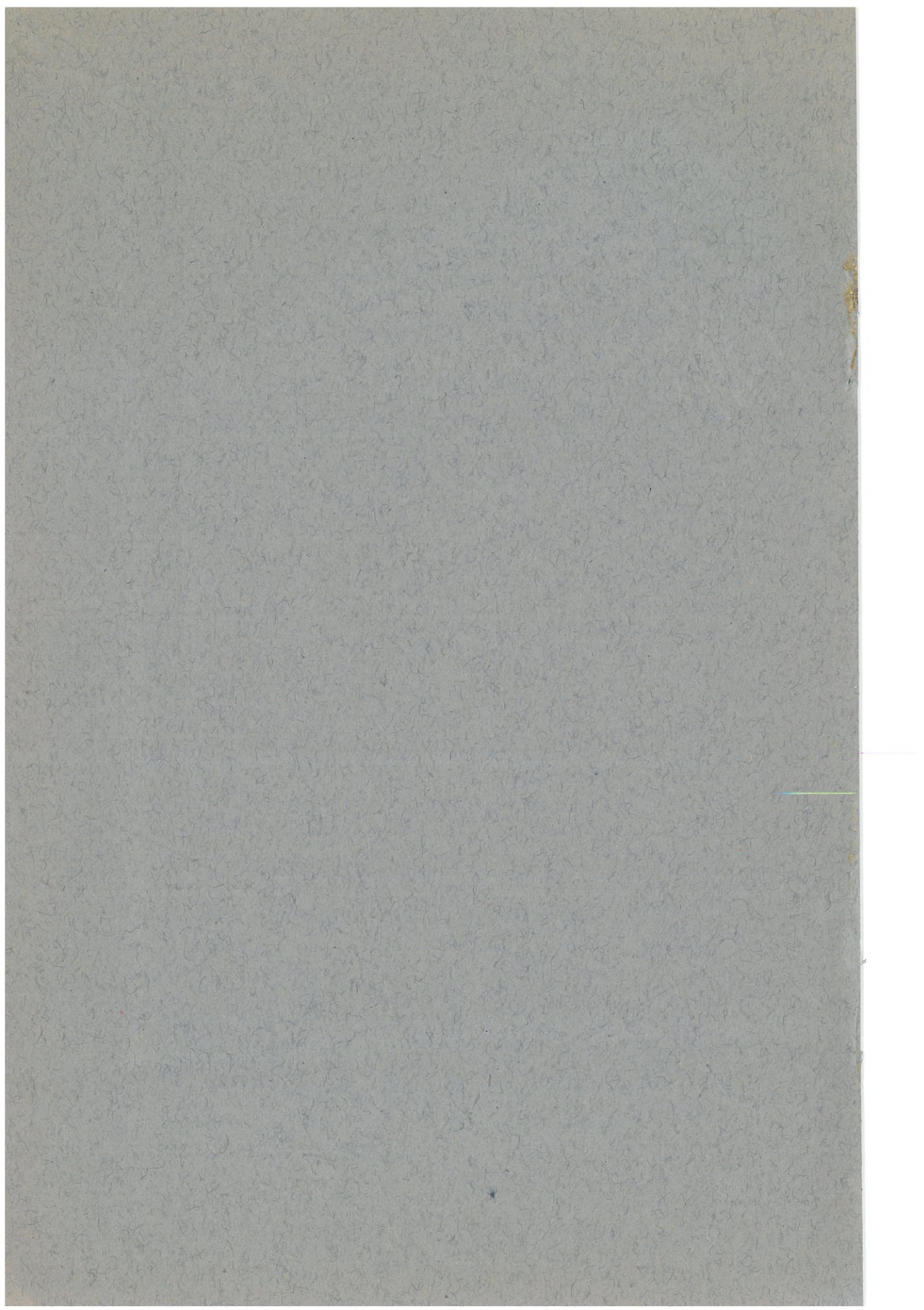
*Instituut voor Zeewetenschappelijk onderzoek*  
*Institute for Marine Scientific Research*  
Prinses Elisabethlaan 69  
8401 Bredene - Belgium - Tel. 059/80 37 15

Reprinted from  
BULLETIN OF THE FAN MEMORIAL INSTITUTE OF BIOLOGY  
(Zoology), Vol. VII, No. 5. December 1937.



**Vlaams Instituut voor de Zee**  
*Flanders Marine Institute*

PUBLISHED  
BY  
THE INSTITUTE, PEIPING, CHINA.



## ON SOME ACCOUNT OF THE CRABS OF NORTH CHINA

BY C. J. SHEN, PH. D.

*Research Associate in Zoology*

### INTRODUCTION

The zoological expeditions to the coast of North China during the three years 1929-1931 adds considerably to our knowledge of Chinese Brachyuran fauna. The scope of this survey is limited from the Liaotung Peninsula (Antung) to the Shantung Peninsula (Kiaochow Bay) both stretching out into the Yellow Sea forming the gulf of Peichihli, in which this fauna is proved to be rich in individuals, although not in species. The Brachyuran crustacea is considered as an important fauna for study as they are involved some economical features of fish industries.

Since the publication of my work (1932)\* on the Brachyuran crustacea of North China, I have had written three supplementary reports<sup>1</sup> dealing with the same subject, and increasing the number of species from sixty-eight to eighty-five,<sup>2</sup> most of them are littoral, except some deep sea forms. They are systematically placed into fifteen families and forty-seven genera. Among these species, twenty-four are considered to be very rare and new to science, namely:

---

\* Shen, C. J., *Zoologia Sinica*, Ser. A, Vol. IX, fas. 1, 1932.

<sup>1</sup> See foot note \* on p. 171.

<sup>2</sup> A list of the species is given in an article published in the Contributions from the Institute of Zoology, National Academy of Peiping, Vol. III, No. 6, Feb. 1937.

1. *Philyra peitaihoensis*, sp. nov.
2. *Philyra carinata chefooensis*, var. nov.
3. *Nursia sinica*, sp. nov.
4. *Rhynchoplax sinensis*, sp. nov.
5. *Halicarcinus yangi*, sp. nov.
6. *Neptunus* (*Neptunus*) *pelagicus* var. *sinensis*, var. nov.
7. *Charybdis* (*Gonioneptunus*) *peichihliensis*, sp. nov.
8. *Pilumnus spinulus*, sp. nov.
9. *Heteropilumnus cristadentatus*, sp. nov.
10. *Tritodynamia rathbuni*, sp. nov.
11. *Tritodynamia intermedia*, sp. nov.
12. *Pinnotheres sinensis*, sp. nov.
13. *Pinnotheres cyclinus*, sp. nov.
14. *Pinnotheres dilatatus*, sp. nov.
15. *Pinnotheres serrignathus*, sp. nov.
16. *Pinnotheres haiyangensis*, sp. nov.
17. *Pinnotheres tsingtaoensis*, sp. nov.
18. *Pinnotheres gordonii*, sp. nov.
19. *Acmaeopleura balssi*, sp. nov.
20. *Sesarma* (*Sesarma*) *gordonii*, sp. nov.
21. *Ilyoplax pingi*, sp. nov.
22. *Ilyoplax dentimerosa*, sp. nov.
23. *Scopimera longidactyla*, sp. nov.
24. *Scopimera bitympana*, sp. nov.

Besides the new species enumerated above, another seventeen species are for the first time recorded in China waters, namely:

1. *Achaeus tuberculatus* Miers
2. *Philyra carinata* Bell
3. *Oregonia gracilis* Dana
4. *Pugettia quadridens* (de Haan)
5. *Pugettia minor* Ortmann

6. *Hyastenus pleione* (Herbst)
7. *Charybdis* (*Gonioneptunus*) *bimaculata* Miers
8. *Cancer pygmaeus* Ortmann
9. *Actaea rüppelli orientalis* Odhner
10. *Carcinoplax vestita* (de Haan)
11. *Typhlocarcinus nudus* Stimpson
12. *Tritodynamia horvathi* Nobili
13. *Pinnixa tumida* Stimpson
14. *Pinnotheres affinis* Bürger
15. *Hemigrapsus longitarsis* (Miers)
16. *Cleistostoma dilatatum* de Haan
17. *Scopimera tuberculata* Stimpson

The other forty-four species are hitherto known only from South China but now are recorded for the first or second time in the north. They are listed in the following table:

1. *Dorippe polita* Alcock & Anderson
2. *Dorippe japonica* von Siebold
3. *Dorippe granulata* de Haan
4. *Philyra pisum* de Haan
5. *Arcania undecimspinosa* de Haan
6. *Arcania globata* stimpson
7. *Orithyia mammillaris* Fabr.
8. *Matuta planipes* Fabr.
9. *Lambrus validus* de Haan
10. *Neptunus* (*Neptunus*) *trituberculatus* Miers
11. *Charybdis* (*Goniosoma*) *japonica* (A. M. Edw.)
12. *Potamon* (*Potamon*) *denticulatus* (H. M. Edw.)
13. *Potamon* (*Geothelphusa*) *dehaani* (White)
14. *Xanthodius distinguendus* (de Haan)
15. *Leptodius exaratus* (H. M. Edw.)

16. *Heteropanope makiana* Rathbun
17. *Parapanope euagora* de Man
18. *Menippe convexa* Rathbun
19. *Eucrate crenata* de Haan
20. *Pinnixa penultipedalis* Stimpson
21. *Xenophthalmus pinnotheroides* White
22. *Hemigrapsus sanguineus* (de Haan)
23. *Hemigrapsus penicillatus* (de Haan)
24. *Hemigrapsus sinensis* Rathbun
25. *Eriocheir sinensis* H. M. Edwards
26. *Eriocheir rectus* Stimpson
27. *Gaetice depressus* Stimpson
28. *Metopograpsus quadridentatus* Stimpson
29. *Sesarma* (*Parasesarma*) *picta* (de Haan)
30. *Sesarma* (*Parasesarma*) *plicata* (Latr.)
31. *Sesarma* (*Holometopus*) *dehaani* H. M. Edw.
32. *Sesarma* (*Holometopus*) *haematocheir* (de Haan)
33. *Helice tridens tridens* (de Haan)
34. *Helice tridens wuana* Rathbun
35. *Helice tridens tientsinensis* Rathbun
36. *Macrophthalmus japonicus* de Haan
37. *Macrophthalmus dilatatus* de Haan
38. *Macrophthalmus eratus* de Man
39. *Camptandrium sexdentatum* Stimpson
40. *Paracleistostoma cristatum* de Man
41. *Ilyoplax deschampsii* (Rathbun)
42. *Scopimera globosa* de Haan
43. *Ocypode stimpsoni* Ortman
44. *Uca arcuata* (de Haan)

## GENERAL ACCOUNT OF THE SPECIES\*

Of the Family Dorippidae, three species were found, namely, *Dorippe polita* Alcock & Anderson, *Dorippe japonica* von Siebold and *Dorippe granulata* de Haan. The first one inhabits in shallow pools of clear water, along the sand beach. It is quite common in the Peichihli Bay, especially on the shore of Chinwangtao. When it moves under sunlight, it always bears a piece of bivalve shell on the carapace with the two posterior prehensile legs. But it soon throws the shell off and buries itself into the sand when any danger approaches to it. The second and third species were dredged out not far off the coast, about eight to fifteen fathoms in depth. *Dorippe japonica* is very common here, while *Dorippe granulata* is very rare and so far only found on the northern coast of the Shantung Peninsula.

Of the Family Leucosiidae, seven species have been recorded. The four species of *Philyra* were found on muddy flats, at low water mark. Besides the species *Philyra pisum* de Haan, *Philyra carinata* Bell, the other two species are described as new to science. The new species *Philyra peitaihoensis* Shen<sup>1</sup> is closely related to Stimpson's *Philyra tuberculosa*, but the distal margin of the branchial channel is obliquely truncate instead of sharply pointed. The pterygostomial region is indistinctly angulated. The movable finger bears a prominence in the case of a male specimen. The other is a new variety, *Philyra carinata chefoensis* Shen,<sup>2</sup> can be easily distinguished from

---

\* For detail descriptions and illustrations, see Zool. Sinica Ser. A Vol. IX, fas. 1, 1932; Contr. Inst. Zool. Nat. Acad. Peiping, Vol. III, No. 3, 1936; No. 6, 1937; Chinese Journ. Zool., Vol. I, 1935.

<sup>1</sup> Shen, C. J., Zool. Sinica, Ser. A. Vol. IX, fas. 1, pp. 18-22, text figs. 10-12, Pl. I, figs. 1, 2, 1932.

<sup>2</sup> Shen, C. J., Zool. Sinica, Ser. A. Vol. IX, fas. 1, pp. 28-30, text figs. 16-17, pl. 1 fig. 4, 1932.

*Philyra pisum* by the more prominent granular patches on the carapace and a line of granules on the exognath of the third maxilliped. These four species can be apparently distinguished by the shape of the male appendages. *Nursia sinica* Shen\* is very recently described as a new species after comparison with the known species. It was dredged from the Kiaochow Bay at a depth between five to forty-five metres where the bottom is of sand-muddy and covered with shells and gravels.

*Arcania globata* Stimpson and *Arcania undecimspinosa* de Haan can be easily distinguished from each other. The latter is larger in size and evenly covered with granules instead of long spines, the front is only slightly projected beyond the orbit instead of a far distance.

Of the Family Calappidae, one species *Orithyia mammillaris* Fabricius has been recorded in this region. It can be found on the market during the early summer time. The carapace is marked with a mammillary spot on each branchial region. It is coloured in dahlia carmine on the buff yellow back ground.

Of the Family Matutidae, one species *Matuta planipes* Fabricius is on record. The carapace is beautifully veined with a net work of rufous lines and dots. The lines are usually in the form of incomplete rings and longitudinal loops. It is common along the entire coast of China.

Of the Family Parthenopidae, *Lambrus validus* de Haan is the only representative and very rare in this particular region. It was dredged merely in the Kiaochow Bay, not being found in north of the Shantung Peninsula.

Of the Family Maiidae, five species, belonging to four different genera, have been collected. *Achaeus tuberculatus* Miers was dredged in the Kiaochow Bay. It is a small species. The regions on the

---

\* Shen, C. J., Contr. Inst. Zool., Nat. Acad. Peiping, Vol. III, No. 6, pp. 279-282, figs. 1, 2, 1937.

carapace are very gibbous, having one prominent tubercle on the gastric region and another one on the cardiac region. *Oregonia gracilis* Dana was collected from Chefoo. The rostral spines are slender, parallel and continuous and the post-orbital spines are slender and acute. *Hyastenus pleione* (Herbst) was found in Tsingtao. The body and legs are tomentose, regions tumid and tuberculate and the rostral spines divergent distally. The latter two were both dredged out from muddy bottoms ranging from five to fifty fathoms in depth. *Pugettia quadridens* de Haan, a common species, is usually found in rocky crevices together with debris or muddy substance. *Pugettia minor* Ortmann is comparatively rare in its occurrence. It was dredged in the Kiaochow Bay at a depth of twenty-nine metres. The differences between these two *Pugettia* have been described and illustrated in my previous work.\*

Of the Family Hymenosomidae, two new species *Rhynchoplax sinensis* Shen and *Halicarcinus yangi* Shen were described from the coast of the Shantung Peninsula. The former was found under stones, sometimes attached on sea urchins on muddy flats when the tide has receded, while the latter is hitherto known only from Tsingtao, but it is now reported also from Chefoo. The most remarkable distinctions between the two genera have been pointed out in one of my publications.\*\*

Of the Family Portunidae, four swimming crabs, which all bear economical importance, occur in North China. *Neptunus* (*Neptunus*) *trituberculatus* Miers, which is a pelagic form, is very abundant during the spawning season from late April to early June. It appears very often on the market even later. It was caught by fishing nets

---

\* Shen, C. J., Contr. Inst. Zool., Nat. Acad. Peiping, Vol. III, No. 6, pp. 287-9, fig. 5. Feb. 1937.

\*\* Shen, C. J., Contr. Inst. Zool., Nat. Acad. Peiping, Vol. III, No. 3, p. 60.

about four or five miles off the coast. *Neptunus (Neptunus) pelagicus* var. *sinensis* Shen\* is a small species. The frontal teeth are blunt but the lateral spines are rather long. It is usually found near the shore at Peitaiho and Tsingtao. *Charybdis (Goniosoma) japonica* (A. Milne-Edwards) is a species usually found in the sea and sometimes under stones or among sea weeds on muddy bottom. It is as numerous as the preceding one during the same season. *Charybdis (Gonioneptunus) peichihliensis* Shen\*\* is a small species and very rare in its occurrence so far only obtained from Peitaiho. Another species, *Charybdis (Gonioneptunus) bimaculata* Miers was dredged from the southern coast of the Shantung Peninsula, which is perhaps the northern limit of its range of distribution.

Of the Family Potamonidae, *Potamon (Potamon) denticulatus* (H. M. Edwards) and *Potamon (Geothelphusa) dehaani* (White) have been recorded from the Shantung Peninsula. The former has only one form with the carapace more convex than those found in the upper Yangtze Valley. It is usually found in the rice fields or creeks in Tsinan, and Kiaochow and sometimes it can be got from the market too. This species has not made its appearance as far north as Peiping. The latter one has been reported from Tsingtao by Dr. H. Bals and I have had the opportunity to examine a male specimen through the kindness of his loan.

Of the Family Cancridae, *Cancer pygmaeus* Ortman is the only species found under stones in the Peichihli Bay and on the northern coast of the Shantung Peninsula at low water mark. It differs from *Cancer gibbosulus* (de Haan) by the less gibbous surface of the carapace, less convex of the cardiacal region, shorter chelipeds and dactyli of the ambulatory legs.

---

\* Shen, C. J., Zool. Sinica, Ser. A. Vol. IX, fas. 1, pp. 70-71, text figs. 39-40, pls. III, fig. 6; IV, fig. 2. 1932.

\*\* l. c., pp. 78-81, text figs. 44-45, pl. V, fig. 4.

Of the Family Xanthidae, there are eight species in our collections: *Actaea rüppelli orientalis* Odhner was dredged from the Kiaochow Bay, it is very rare in its occurrence. *Xanthodius distinguendus* (de Haan) is a common species under stones or bricks at low tide mark, it can be readily distinguished from *Leptodius exaratus* (H. Milne-Edwards) by the shape of the male appendages. The latter was found only in the Tsingtao region. *Parapanope euagora* de Man is not uncommon in the Kiaochow Bay dredged in about forty metres of depth where the bottom is sand-muddy or shelly. *Heteropanope makiana* Rathbun was first described by Dr. Rathbun from Formosa and Fukiën (Muiwha), but it is now known also from the Peichihli Bay and the Shantung Peninsula. It was found under stones at muddy or weedy bottoms at low tidal mark. This species resembles *Heteropanope indica* de Man\* which has fewer granulated ridges on the carapace and almost smooth chelipeds. *Menippe convexa* Rathbun is an elegant species but rare in the Kiaochow Bay. *Pilumnus spinulus* Shen<sup>1</sup> is described as a new species from Tengchow, on the northern coast of the Shantung Peninsula. It is closely related to *pilumnus hirsutus* Stimpson from which the new species differs by the front granulated on dorsal surface, the outer orbital tooth shorter, with two denticles behind it, and the ventral orbital margin armed with nine to ten denticles. *Heteropilumnus cristadentatus* Shen<sup>2</sup> which was found under stone on muddy bottom in the Kiaochow Bay, is described as a new species after comparison with the other nine known species.

Of the Family Goneplacidae, three species have been recorded. *Carcinoplax vestita* (de Haan) is covered with soft hairs on the carapace

\* de Man, J. G., Journ. Linn. Soc. London, Vol. 22, p. 53, pl. 3, figs. 1, 2, 1887.

<sup>1</sup> Shen, C. J., Zool. Sinica, Ser. A, Vol. IX, fas. 1, pp. 107-109, text fig. 62, 1932.

<sup>2</sup> Shen, C. J., Contr. Inst. Zool., Nat. Acad. Peiping, Vol. III, No. 3, pp. 65-9, fig. 2, 1936.

and legs. It was found in Chefoo about two to three miles off the coast, caught by fishing nets from sandy bottoms. *Eucrate crenata* de Haan is a very elegant species, usually found under stones, at low water mark along the rocky shore of the Peichihli Bay and the Shantung Peninsula. *Typhlocarcinus nudus* Stimpson was dredged in the Kiaochow Bay in about four to twenty metres of depth where the bottom is sand-muddy and shelly. It is comparatively rare in its occurrence.

Of the Family Pinnotheridae, three species belong to the genus *Tritodynamia*, two to *Pinnixa*, eight to *Pinnotheres* and one to *Xenophthalmus*. *Tritodynamia*<sup>1</sup> is a genus established by Ortmann (1894) for the species *Tritodynamia japonicus*<sup>2</sup> which is however a synonym to *Asthenognathus inaequipes* Stimpson<sup>3</sup>. Nobili was ignorant of Ortmann's mistake and to that genus he added another species called *Tritodynamia horvathi*<sup>4</sup> in 1905, and consequently his species becomes the real type of the new genus *Tritodynamia*, which was blindly employed by him. In North China, we have found three species of *Tritodynamia*, namely, *Tritodynamia rathbuni* Shen, *Tritodynamia intermedia* Shen and *Tritodynamia horvathi* Nobili. These three species can be readily identified by comparing the breadth of the carapace and some other characters<sup>5</sup>. The first species was found in the Liaotung Peninsula and the Shantung Peninsula, the second was very rare, found only in Chefoo and the third or the last one was found on the southern coast

---

<sup>1</sup> Ortmann, A., Zool. Jahrb. Syst., Bd. 7, p. 692, 1894.

<sup>2</sup> l. c., p. 693, pl. 23, fig. 5, 1894.

<sup>3</sup> Stimpson, W., Proc. Acad. Nat. Sci. Philad., p. 107, 1858.

Smiths. Misc. Coll., Vol. 49, p. 140, pl. 14, fig. 1, 1907.

de Man, J. G., Trans. Linn. Soc. London, Ser. 2, Zoology, Vol. 9, p. 392, 1907.

Balss, H., Archiv f. Natur. heft 11, p. 141, 1922.

<sup>4</sup> Nobili, G., Ann. Mus. Hung., Vol. 3, p. 407, pl. 10, fig. 1, 1905.

<sup>5</sup> Shen, C. J., Chinese Journ. Zool. Vol. 1, pp. 20-24, figs. 1-4, 1935.

of the Shantung Peninsula. They were all taken by fishermen's nets from sandy bottoms, little distance off the coast.

*Pinnixa tumida* Stimpson is a small commensal species peculiarly inhabited in the cloacal cavity of a Holothurian, *Caudina chilensis* (Müller), which was dug out from burrows on very fine sandy flats after the tide has receded. This crab is very rare and obtained only from Peitaiho, Chefoo and Tsingtao in North China. *Pinnixa penulti-petalis* Stimpson was taken out from the tube of a Polychaeta (*Potamilla* sp.) in the Kiaochow Bay. Besides the different habitat, these two *Pinnixa* can be easily distinguished from each other. In *Pinnixa tumida*, the propodus of the third maxilliped is longer, movable finger possesses a big tooth at the middle region, second segment of female abdomen has not a line of hairs, seventh segment is rounded distally. While in *Pinnixa penulti-petalis*, the propodus of the third maxilliped is shorter, movable finger has no big tooth at all, second segment of female abdomen has a line of hairs, seventh segment is truncate distally.

*Pinnotheres* has eight species occurring in our collections. They are all commensal and taken out from the bivalve mollusca. Besides the species *Pinnotheres affinis* Bürger, the other seven are considered to be new. *Pinnotheres sinensis* was found in an oyster (*Ostraea plicata*) from the Kiaochow Bay, *Pinnotheres cyclinus* in a clam (*Cyclina chinensis*) from the southern coast of the Shantung Peninsula. Of the above two species each has the dactyli of the third and fourth legs very long and hairy. The second species is comparatively rare.

*Pinnotheres affinis* Bürger\* was found in a *Pecten* (*Pecten hastatus*) in Chefoo, *Pinnotheres dilatatus* in a *Tapes* (*Tapes variegatus*) from the Kiaochow Bay and *Pinnotheres serrignathus* from the Shantung Peninsula. Of the above three species each has the dactyli of the third

\* Bürger, O., Zool. Jahrb. Syst., Vol. 8, p. 365-366, 1895.

Of the Family Ocypodidae, fifteen species, belonging to eight genera, occur in North China. Of the genus *Macrophthalmus*, three species have been collected, namely, *Macrophthalmus japonicus* de Haan, *Macrophthalmus dilatatus* de Haan and *Macrophthalmus eratus* de Man. They live in burrows on muddy flats. The first two species are quite common on the coast of North China but the last one is so far reported only from Tsingtao. The first species is said to be used as a medicine by the natives in the Yangmatao Island for curing skin disease of children during the summer season.

Of the genus *Camptandrium*, three species are recorded from China. *Camptandrium sexdentatum* Stimpson<sup>1</sup> is the genotype originally described by Stimpson from Hongkong and redescribed by Kemp<sup>2</sup> from Bengal (Chilka Lake) and by Tesch<sup>3</sup> from Batavia, now it is recorded also from North China. It is usually found on muddy bottoms in the Liaotung Bay, the Peichihli Bay and the southern coast of the Shantung Peninsula. This species is very peculiar in the first male abdominal appendage which may serve as a very good distinctive character from other species. Dr. Rathbun has added to the above genotype a new one, *Camptandrium elongatum*<sup>4</sup> from Liuwutien, a locality on the mainland near Amoy, China and I myself have recently added another new one *Camptandrium anomalum*<sup>5</sup> from Taipo, near Canton, China on muddy flats.

Of the genus *Paracleistostoma*, one species is recorded from North China. It is *Paracleistostoma cristatum* de Man<sup>6</sup>, which has a crest on the cardiac region, and another one on each branchial region,

<sup>1</sup> Stimpson, W., Proc. Acad. Nat. Sci. Philad. vol. 10, p. 107, 1858.

Smiths. Misc. Coll. vol. 49, p. 138-139, 1907.

<sup>2</sup> Kemp, S., Mem. Ind. Mus., vol. 5, p. 236, pl. 12, fig. 6, text figs. 13, 14, 1915.

<sup>3</sup> Tesch, J. J., Siboga-Exped., 39c, p. 65, pl. 5, fig. 3; p. 142, 1918.

<sup>4</sup> Rathbun, M. J., Ling. Sci. Journ. vol. 8, p. 95, pl. 13, figs. 40-43, 1929.

<sup>5</sup> Shen, C. J., Chinese Journ. Zool. vol. I, pp. 29-33, and figs. 8-10.

<sup>6</sup> Gordon, I., Linn. Soc. Journ. Zool. vol. 37, p. 551, figs. 28-29, 1931.

and the first abdominal appendage of the male is strikingly different from other species of the genus. It is usually found in burrows on muddy flats or taken from muddy pools together with *Eriocheir rectus* and *Cleistostoma dilatatum* in Tangku or sometimes collected together with *Camptandrium sexdentatum* in Yanghokou, near Peitaiho.

Of the genus *Cleistostoma*, there is a single species, *Cleistostoma dilatatum* de Haan in our collection. It is common in North China, usually found in burrows on muddy estuaries or taken from muddy pools near the shore.

Of the genus *Ilyoplax*, three species have been accumulated, of which one is *Ilyoplax deschampsi* (Rathbun) and the other two *Ilyoplax pingi* Shen<sup>1</sup> and *Ilyoplax dentimerosa* Shen<sup>2</sup> are described as new. *Ilyoplax pingi* has no triangular notches behind the outer orbital tooth, the fifth male abdominal segment not constricted, movable finger of male cheliped usually with two or three prominences, ambulatory legs more or less tomentose. *Ilyoplax dentimerosa* has only one prominence on the movable finger, the ambulatory legs are naked and the merus is more or less denticulated on the ventral margin. They are all burrowing forms living near muddy estuaries.

Of the genus *Scopimera*, four species have been collected, of which two are newly recorded from North China. *Scopimera globosa* de Haan is a well known species, the first ambulatory leg is longer than second. *Scopimera tuberculata* Stimpson is closely allied to the preceding one, their differences in structures were shown in my work published in 1935.<sup>3</sup> *Scopimera longidactyla* Shen<sup>4</sup> has the second ambulatory

<sup>1</sup> Shen, C. J., Zool. Sinica, Ser. A. Vol. IX, fas. 1, pp. 246-250, text figs. 151-152, Pl. X, fig. 1, 1932.

<sup>2</sup> I. c., pp. 250-253, text figs. 153-154, Pl. X, fig. 3, 1932.

<sup>3</sup> Shen, C. J., Chinese Journ. Zool. Vol. 1, pp. 38, 1935.

<sup>4</sup> Shen, C. J., Zool. Sinica, Ser. A. Vol. IX, fas. 1, pp. 259-262 text figs. 158-160, Pl. X, fig. 6, 1932.

leg longer than first and the first male appendage has shown remarkable difference from that of the *Scopimera globosa* de Haan. *Scopimera bitympana* Shen\* has two tympana on the inner surface of the merus of the cheliped, the ischium of the third maxilliped is shorter than the merus, this character is just contrary to those of the foregoing species. They were all collected from small holes on very fine sandy flats when the tide has receded.

Of the genus *Ocypode*, only one species *Ocypode stimpsoni* Ortmann has been collected from North China. It differs from *Ocypode ceratophthalmus* Pallas by the short eye-peduncle not projected beyond the cornea, from *Ocypode cordimana* Desmarest by having a stridulating ridge on the inner surface of the palm. It lives in deep oblique burrows on sandy beach at high water mark.

Of the genus *Uca*, a single representative *Uca arcuata* (de Haan) was found. It is usually in salt marshes along the southern coast of the Shantung Peninsula where may be the northern limit of its distribution.

---

\* Shen, C. J., Zool. Sinica, Ser. A, Vol. IX, fas. 1, pp. 262-267, text figs. 161-163, Pl. X, fig. 7.

## 華北蟹類之概況

沈嘉瑞

華北沿海蟹類動物，自民國十八年至二十年經間，數次之採集，已有相當之明瞭。所採區域，北自遼東半島之安東，南至山東半島之膠州灣，所有標本，經分類研究後，共為六十八種。自二十一年夏“華北蟹類誌”出版後，再經各方繼續採集，又得奇異之種類不少，已將原數增至八十五種。以後如向深海搜集，此數尚可增加無疑。且其種類之習性與分布等情狀，更可使我人增進若干知識。

凡此八十五種，歸入十五科，四十七屬，其中共有二十四新種，十七種為第一次發見於華北者，其他四十四種，雖為華南普通之種類，然在華北亦僅為初次或二次所紀載者。茲將各科各屬種類之概況，追述於此文中，或可作為“華北蟹類誌”之補遺，或可作為“華北蟹類誌”之綱要。均所宜也。

