FURTHER ZOOLOGICAL RESULTS
OF THE SWEDISH ANTARCTIC EXPEDITION
1901—1903
UNDER THE DIRECTION OF DR. OTTO NORDENSKJÖLD
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THE PYCNOGONIDA

BY

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(Amsterdam)

UTGIVET MED UNDERSTÖD AV LÄNGMANSKA KULTURFONDEN

STOCKHOLM
P. A. NORSTEDT & SÖNER
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THE PYCNOGONIDA OF THE SWEDISH ANTARCTIC EXPEDITION (1901—1903)

(»ANTARCTIC»)

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Introduction.

The collection of Pycnogonida gathered by the Swedish Antarctic Expedition (1901—1903), is rich in species and rich in specimens. Where so many other explorers have acquired a large booty of new genera and species at different places of the Antarctic Continent, and have borne witness to the abundance of Sea-spiders of these regions, it was not to be expected that many new facts would be brought to light. The Fauna of South-Georgia, which was chiefly explored by the expedition, does not deviate from that of the neighbouring countries. As early as 1889 some Pycnogonids of this island were described by PFEFFER, but without drawings. His diagnoses, which at the time may have been sufficient, are no longer so, so that only an examination of the types could throw new light on the question. It is with great pleasure that I express my indebtedness here for the kindness and courtesy shown by the direction of the Hamburg Natural History Museum, where these types are preserved. Through Prof. G. PFEFFER'S mediation several cotypes were sent to me, which rendered it possible to succeed in establishing the identity of a few species.

Besides to Prof. Dr. H. LOHMANN of Hamburgh I feel obliged to Dr. W. T. CALMAN of London, Dr. A. SCHELLENBERG of Berlin, Prof. E. L. BOUVIER and Prof. CH. GRAVIER of Paris, who furnished information at my request or gave assistance in the study of types from their musea.

But not only has the Swedish Expedition contributed in this way to shed light on insufficiently known Museum types, there is another respect in which the collection is of importance. It has repeatedly happened that what was described as a new species, was at bottom only a case of difference of age. Especially when no more than one specimen is available, there is a danger that it is mistaken for a new species. When, therefore, of a Nymphonspecies I discovered numerous specimens of different ages, I have tried, by comparison, to find properties which, already present at an early age, change little in adult specimens. Thus, I hope, it will become possible, to recognize better individuals of different ages belonging to the same species, as such.

As I have had to confess elsewhere:[1]) a change of the generic names, prescribed by the rules of zoological nomenclature, I did not venture. It gives too much rise to regrettable confusion; not for the author himself — he knows, of course, in what sense he uses a name — but for the poor reader. And yet the paper was after all meant for the readers! If I could have thought, that my historical huntings in this group would give rise to such misleading and unnecessary changes of the oldest generic names, I should never have published them.

Prof. BOUVIER'S suggestion[2]) to retain the name *Ammothea*, but always add between parentheses in what sense the word must be understood, is under these circumstances perhaps the best solution. Accordingly I will speak in these pages of *Ammothea* (*Achelia*) and of *Ammothea* (*Leonymphon*). In this way serious misunderstanding is at least precluded.

Among all the antarctic expeditions the "Discovery" has without any doubt collected the largest spoil of Pycnogonida. Particularly the interesting new genera *Pentanymphon*, *Austrodecus* and *Austroraptus* have become wellknown to us through HODGSON'S efficient description. BOUVIER, who has treated the Pycnogonida of the "Français" and of the "Pourquoi-pas?", found the no less remarkable *Pentapycnon* and the *Decolopoda antarctica*, a new species of an ancient genus. HODGSON has further shown that also *Rhynchothorax* from the Mediterranean, and *Pipetta* from the Malay Archipelago have their representatives in the waters surrounding the antarctic continent.

The total number of collected specimens in the present collection approaches a thousand. More than 600 of them belong to *Chaetonymphon australe* var. *austrinorum* HODGSON, and not much less than 200 to *Chaetonymphon brevicaudatum* MIERS, both exceedingly common species. Also the other finds can only corroborate the opinion that the Fauna of South-Georgia presents no difference worth mentioning from that of the South-Orkney or South-Shetland islands. A few new species nevertheless were found.

Several animals in the collection were not labeled at all, the habitat, therefore, remaining unknown. In these cases of wanting station-numbers I was forced to give only the presumptive locality.

So far it had been thought that there occurred only a single species of *Pycnogonum* in this region, viz. *P. Gaini*, described some ten years ago by BOUVIER. It is, therefore, noteworthy that the Swedish Expedition caught a second species, still somewhat larger than the first, which I have called *P. rhinoceros*, and that I found a third one *P. platylophum* n. sp., among the spoils of the Swedish "Tierra del Fuego"-Expedition (1896)[3]).

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[1]) LOMAN, Pycnogoniden von Iuan Fernandez, in: SKOTTSBERG, The Natural History of Iuan Fernandez, 1921, Vol. **3**, p. 137.

[2]) BOUVIER, Pycnogonides des campagnes scientifiques, Monaco, 1917, p. 40.

[3]) LOMAN, Subantarctic Pantopoda from the Stockholm Museum, in: Arkiv f. Zool. **15**, 1923, no. 9, p. 10.

The Pantopoda described in the following pages have not given occasion for systematic considerations, so there was no necessity to mention the names of the families. The reader will only successively find the generic names.

In the descriptions I used the terms adopted by recent authors.

Descriptions of Species.

Colossendeis JARZ.

Of this genus, which is rich in species, only one specimen was found, belonging to

Colossendeis frigida HODGSON.

Colossendeis frigida HODGSON, Pycnogonida "Discovery", 1907, p. 63.

Station 34. South-Georgia, outside the entrance to Cumberland Bay. 252—310 m. 1 ♂.

The animal has a proboscis of somewhat more than 17 mm., and agrees closely with the specimen of Cape Adare, the measurements of which have been given by CALMAN ("Terra Nova" Report, 1915, p. 17). With other investigators I fear that the differences between this species, *C. megalonyx* HOEK and *C. rugosa* HODGSON will vanish when there are a great many specimens available for comparison. A single individuum, as is the case here, is not sufficient to confirm this opinion.

In earlier publications the palpi of this genus are described as 10-jointed. I have now come to the conclusion that it is better to assign only *nine* joints to them, because in my opinion the so-called first is merely a body-process, like that of the ovigers.

Pycnogonum BRÜNNICH.

Pycnogonum rhinoceros n. sp.

(Fig. A.)

Station 34. South-Georgia, outside the entrance to Cumberland Bay. 252—310 m. On a big simple ascidian. 2 ♂♂.

Trunk robust, thickset, with well marked segmental sutures, and three prominent transverse ridges dorsally, ending in rounded knobs in the middle line. The lateral processes are short, not widely separated, each bearing distally a low, more or less oblong knob. The ocular tubercle is at the front margin of the cephalon, obtusely rounded and directed slightly forward. No trace of eyes.

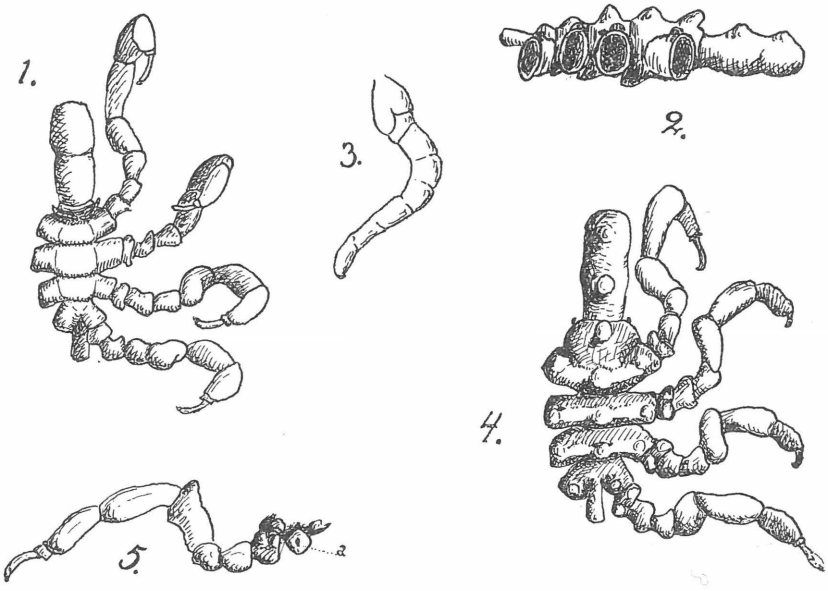

Fig. A. *Pycnogonum rhinoceros* n. sp. Male. 1. Ventral view of body, legs of right side omitted. 2. Lateral view of body, legs omitted. 3. Oviger, much enlarged. 4. Dorsal view of body, legs of left side omitted. 5. Fourth leg, from behind; *a* anus.

The proboscis stout, horizontal, nearly cylindrical, rounded at the top, with a shallow groove about the middle and bearing dorsally two thick, round knobs, the foremost lower than the other.

The abdomen is short, expanding towards the truncated extremity.

There are neither chelifori nor palps.

The ovigers are very small and feeble, showing merely seven more or less distinct joints. The first joint is the smallest, the other being nearly of a size. The terminal claw is almost vestigial.

The legs are short and stout. Of the three coxae the first is rather broad, bearing dorsally two rounded knobs, similar to those occurring at the extremity of the lateral processes. Second and third joints about the same size, more irregularly round. Genital apertures have not been found. Femur and Tibiae sub-equal in length, the first tibia being the longest. The short and thick femur bears dorsally at the distal extremity a conspicuous swelling. Tarsus very small. Propodus as usual thinner and much longer. Terminal claw without auxiliaries, feeble, showing a thicker proximal portion and a much thinner hook-like extremity.

Measurements in millimeters:

Proboscis 5.	Abdomen $1^1/_2$.
Trunk 8.	Third leg 14.

Remarks. That the two specimens are not quite full-grown is proved by the small ovigers with rudimentary claw, and by the male genital apertures being not yet visible. It it probable that the adult animals become still larger after the next moult and that the number of joints of the oviger will increase to 8 or 9. And as, with *Pycnogonum*, the females are always greater than the males, this species surely is one of the largest of the genus. Like the second antarctic species *P. Gaini* it belongs to the "shagreen" section of BOUVIER. Colour in alcohol whitish yellow or darkish yellow.

Decolopoda EIGHTS.

Decolopoda australis EIGHTS.

Decolopoda australis, EIGHTS, Journ. Boston Nat. Hist. Soc. **1**, 1834—37, p. 203.
— — , STEBBING, Knowledge, **25**, 1902, p. 185.
— — , COLE, Ann. Mag. Nat. Hist. (7), **15**, 1905, p. 405.
— — , LOMAN, Zool. Anzeiger, **28**, 1905, p. 722.
— — , HODGSON, Proc. Roy. Phys. Soc. Edinburgh, **16**, 1905, p. 35.
— — , HODGSON, Zool. Anzeiger, **29**, 1905, p. 254.
— — , BOUVIER, Pycnogonides du "Français", 1906, p. 20.
— — , BOUVIER, Pycnogonides du "Pourquoi pas?", 1913, p. 48.

East Coast of Seymour Island. Dead on the shore. 2 ♀.

Station 34. South-Georgia, outside the entrance to Cumberland Bay. 252—310 m. 3 specimens: 2 adult ♂, 1 immature (genital apertures non-developed).

Several specimens of this remarkable decapod species were collected in South-Georgia and on the beach of Seymour-Island. They do not call for a detailed discussion, since the characters of this animal have been sufficiently known through the investigations of HODGSON and BOUVIER.

The Femur of the second leg of the largest specimen (a male) measures 23 mm; the total length of the leg is over 100 mm.

Pentanymphon HODGSON.

Pentanymphon antarcticum HODGSON.

Pentanymphon antarcticum, HODGSON, Pycnogonida "Discovery", 1907, p. 36.

Station 6. Graham Region. S. W. of Snow Hill Island. 125 m. 2 specimens.

One specimen that I suppose to be a nearly adult male, is larger than the other damaged one. It was impossible to perceive any genital pores. I only took some measurements and compared them with those given by CALMAN (Pycnogonida, "Terra Nova" p. 27).

Measurements in mm:

	"Discovery" Syntype	"Antarctic" Large specim.	"Antarctic" Small specim.
Length of proboscis	2.2	2.5	1.65
Length of trunk	6.64	5.9	3.85
Greatest width of cephalon	1.08	1.25	
Width of neck	0.4	0.55	
Second Coxa	2.4	1.9	1.1
Femur	6	5.75	
First Tibia	6.48	7.25	
Second Tibia	9.92	9.5	

Nymphon FABRICIUS.

SARS found some species among the *Nymphons* with a short body, thick legs and hairy covering. These he classed separately in his new genus *Chaetonymphon*. CALMAN, however, drew attention to the difficulty of distinguishing these genera sharply, and justly adduces *Chaetonymphon australe* HODGSON as an instance. MÖBIUS describes this animal as *Nymphon altioculatum* and BOUVIER as *Nymphon stylops*, whereas HODGSON himself had originally also called it *Nymphon australe*. I agree with CALMAN that among the distinctive characters of these genera there is none that holds good everywhere. There exist *Nymphon*-species which are somewhat hairy, but also *Chaetonymphon*-species with fairly long legs and not quite condensed bodies. But notwithstanding all this, for practical purposes, I cannot but see the validity of the distinction that SARS proposed; I have retained it. The doubtful cases are few. Exceptions prove the rule. In the following list I have, therefore, once more tried to enumerate the differences found in the body, in the chelifori, the ovigera and the legs. What could remain of SARS' original diagnosis, I have copied literally:

Nymphon FABRICIUS.	**Chaetonymphon** SARS.
Body smooth, more or less slender. Cephalon with well-marked neck and somewhat expanded frontal part.	Body usually thickset, more or less densely setous. Cephalon with comparatively short neck and frontal part much expanded.
Chelifori not very hairy; hand distally not conspicuously broadening.	Chelifori densely hairy; hand distally much broadening.
Fifth joint of male oviger gradually widening to the distal part.	Fifth joint of male oviger much expanded in the outer part and there densely beset with setae.
Legs elongate and slender, more than five times longer than the trunk, sparingly bristle-beset, almost never hairy.	Legs as a rule short and thickset, at the most five times longer than the trunk, more or less prominently setous.

The male and the female ovigers of *Nymphon* do not differ much; those of the males are sometimes robuster. The last four joints of these limbs each bear a single

row of microscopical toothed spinules, which are placed side by side like palisades, and which must be considered as exceedingly sensitive prehensile organs. The number and the form of these denticulate spines varies in different *Nymphon*-species. But in one and the same species this number remains within definite limits, and increases with the age, so that the full-grown animals present a maximum of these microscopical spruces. This had already struck me years ago in our common *N. rubrum* HODGE, and is borne out by the finds of the Swedish Expedition. Of a *Nymphon*-species, which I at first called *N. suspensum* because it seemed new to me, and which is closely related to, but larger than *N. gracilipes* MIERS, numerous specimens were collected, not only adult male and female individuals, but also middle-sized and small ones. A closer comparison of all these animals of different ages with other species, revealed that the number and the arrangement of the denticulate spines furnish a very reliable criterion to distinguish the species. This may appear from the following list, in which also the measures of some parts of the body have been recorded, and in which the arrangement was made according to the lengths of proboscis and trunk.

Antarctic *Nymphon*-Species	Lengths in mm. of						Total number of denticulate spines
	Proboscis	Cephalic segment	Trunk	Femur	1. Tibia	2. Tibia	
Pfefferi n. n. = *antarcticum* . . . . . PFEFFER	0.75	0.73	1.75	1.70	1.75	2.35	20
fuscum . . . . . HOEK	1.44	1.88	3.72	4.0	4.72	7.2	54
meridionale . . . . . HOEK	1.68	2.2	4.4	4.2	5.0	7.32	59
"*suspensum*" . . . . (small specimen)	1.85	2.1	4.2	6.2	7.3	8.7	54
gracillimum . . . . . CALMAN	1.92	2.3	4.8	6.4	8.16	12.0	30—33
gracilipes . . . . . MIERS	2.08	2.56	5.28	7.2	8.0	10.4	54
"*suspensum*" . . . . (medium size)	2.55	2.6	5.4	7.4	9.95	13.0	62
hiemale . . . . . HODGSON	3.32	2.96	6.64	9.6	10.4	15.7	42
"*suspensum*" . . . . (adult male)	3.4	3.6	6.7	10.5	14.0	20.0	68
"*suspensum*" . . . . (adult female)	3.9	4.2	7.2	11.9	16.0	24.5	72

When this list is considered more closely, we see from it:

1. that the legs grow more rapidly than body or proboscis, a general rule with the Pantopoda.

2. that the numbers of denticulate spines of *N. fuscum* HOEK, *N. meridionale* HOEK, and *N. gracilipes* MIERS agree so closely that CALMAN'S opinion is fully confirmed. These three species are in reality one.

3. that also *N. suspensum* may be ranged with the same species, which follows from the measures of a very small specimen, one of medium size, an adult oviferous male, and a still larger female.

4. that the numbers of denticulate spines regularly increase with the sizes of the animals, so that while *N. fuscum* gives the numbers

17, 12, 12, 13,

a very small specimen of *N. suspensum* also already possesses

17, 13, 12, 12,

the specimen of medium size

19, 14, 12, 17,

the large male

22, 15, 14, 17,

and the female, the largest of all,

24, 17, 16, 15.

If *N. gracillimum* or *N. hiemale* also belonged to the same species, we might expect with certainty that their ovigers would bear corresponding numbers of spines. Now that this is not the case, I feel firmly convinced that they are different species. The total number of spines in the last column proves this convincingly. Of *N. gracillimum* it is only 30—33, of *N. hiemale* 42. If we had to do with representatives of *N. gracilipes*, we might certainly expect 55 for the first number, and about 66 for the second.

5. that the legs of *N. gracillimum* are longer, and those of *N. hiemale* on the other hand shorter than would have been expected if these two animals belonged to the same species.

6. that the name *suspensum*, which I gave to my specimens when I thought that I had to do with a new species, may be dropped. They are all representatives of *N. gracilipes*, but neither the type of this species nor *N. fuscum* or *N. meridionale* were quite full-grown. The Swedish Expedition has now succeeded in capturing males with eggs and large females.

I will add a list of antarctic *Nymphon*-species, illustrating the different numbers of denticulate spines. The usefulness of such a list is obvious, and in doubtful cases, as those above, it may render good services. It will now immediately be seen that

N. gracillimum and *N. hiemale*, though they are both allied to *N. gracilipes*, may not be classed with the same species.

Of course the reverse is not allowed, and we must not conclude to equality of species from agreement in denticulate spines. As an instance of this I might adduce *N. frigidum* HODGSON and *N. proceroides* BOUVIER, which both possess 8, 5, 4, 5, as numbers of denticulate spines, though they are quite different species. I should sooner be inclined to assume *N. Pfefferi* (nomen novum for *N. antarcticum* PFEFFER) which is re-described later on, to be allied to *N. tridentatum* HODGSON, notwithstanding the difference in size. Here, however, only a careful comparison of the types can lead to the right decision.

Auxiliaries not or well developed		Antarctic *Nymphon*-Species	Numbers of denticulate spines on joints of oviger:			
			VII	VIII	IX	X
	well	*antarcticum* PFEFFER, cotype = *Pfefferi* n. n.	6	4	4	6
		— — —	7	4	4	5
	well	*articulare* HODGSON	6	6	5	7
	well	*brachyrhynchum* HOEK	13	9	7	7
not		*capense* HODGSON	15	12	11	12
not		*Charcoti* BOUVIER	10	9	9	11
		— —	11	7	6	8
		— —	15	7	6	8
not		*compactum* HOEK	11	11	8	9
	well	*distensum* MÖBIUS	13	9	10	9
		— —	14	9	9	10
	well	*frigidum* HODGSON	8	5	4	5
	well	*fuscum* HOEK (after HOEK)	14	14	13	13
		— — (after CALMAN)	17	12	12	13
	well	*gracilipes* MIERS (after CALMAN)	16	12	12	14
		— — (after CALMAN)	16	12	13	13
	well	*gracillimum* CALMAN	12	7	5	6
		— —	11	8	6	5
		— —	12	8	6	7
not		*hamatum* HOEK	11	7	5	6
	well	*hiemale* HODGSON (after CALMAN)	13	9	9	10
		— — (after HODGSON)	13	10	10	9
		— — (after CALMAN)	14	9	9	10
not		*lanare* HODGSON	10	5	4	5
		— —	11	7	6	8
not		*longicollum* HOEK	9	6	5	5
not		*longicoxa* HOEK	13	8	7	6
		— —	15	9	8	9
		— —	19	12	10	9
	well	*meridionale* HOEK	17	16	13	13
	well	*Pfefferi*, see *antarcticum*				
not		*proceroïdes* BOUVIER	8	5	4	5
	well	*signatum* MÖBIUS	12	9	7	8
	well	*subtile* n. sp.	9	7	6	8
	well	*suspensum*, small specimen	17	13	12	12
		—, specimen of medium size	19	14	12	17
		—, adult male	22	15	14	17
		—, adult female	24	17	16	15
not		*tenuipes* BOUVIER	10	7	6	9
	well	*tridentatum* HODGSON	small numbers			

Key to the determination of antarctic *Nymphon*-species, as a substitute for that given before by BOUVIER, (Pycnogonides du "Pourquoi-pas?", 1913, p. 72), which requires modification in view of the discoveries of the last few years:

1. No auxiliaries, or rudimentary auxiliaries 2
   Auxiliaries well developed 12
2. Four terminal joints of Palp sub-equal 3
   Four terminal joints of different size 4
3. Legs, especially the two tibiae, nearly smooth . . . . . *Charcoti*, BOUVIER
   Legs, especially the two tibiae, clothed with long. woolly hairs . . . *lanare*, HODGSON
4. First Tibia longer than second 5
   First Tibia as long as, or shorter than second 6
5. Second joint of Palp almost as long as third . . . . . *proceroïdes*, BOUVIER
   Second joint of Palp much longer than third . . . . . *hamatum*, HOEK
6. No ocular tubercle; blind animals 7
   Ocular tubercle well developed 8
7. Long Abdomen. Second joint of Palp much longer than third . . . *compactum*, HOEK
   Short Abdomen. Second joint of Palp hardly longer than third . . . *procerum*, HOEK
8. Claw of leg almost as long as propodus 9
   Claw of leg not nearly so long as propodus 10
9. First Tibia long-haired . . . . . *tenuipes*, BOUVIER
   First Tibia fairly smooth . . . . . *capense*, HODGSON
10. Second Coxa nearly four times as long as first, next to half the length of Femur . . . . . *longicoxa*, HOEK
    Second Coxa only twice as long as first 11
11. Neck elongated . . . . . *longicollum*, HOEK
    Hardly any neck . . . . . *brachyrhynchum*, HOEK
12. Tarsus shorter, or much shorter than Propodus 13
    Tarsus equal to, or longer than Propodus 17
13. Second and third joint of Palp sub-equal, or second joint shorter 14
    Second joint longer than third 15
14. Auxiliaries very small. Numbers of spines on oviger 13, 9, 7, 7, *brachyrhynchum*, HOEK
    Slender auxiliaries. Small number of denticulate spines . . . . *tridentatum*, HODGSON
15. Terminal joints of Oviger with few curved blades only . . . . . *adareanum*, HODGSON
    Terminal joints of Oviger with denticulate spines 16
16. Neck very short. Legs short. Numbers of denticulate spines 6, 4, 4, 6 . . . . . *Pfefferi*, nomen novum
    Neck very long. Legs long. Numbers of denticulate spines 9, 7, 6, 8 . *subtile* n. sp.
17. Total number of denticulate spines between 25 and 45 18
    Total number of denticulate spines less than 25, or more than 45 21
18. Ocular tubercle short, rounded or blunt 19
    Ocular tubercle tall, two-pointed at summit 20
19. Second Tibia nearly twice as long as Femur; First Tibia longer than Femur; Second Coxa much longer than 1. and 3. together . . . . . *gracillimum*, CALMAN
    Second Tibia not so long; First Tibia as long as Femur; Second Coxa equal to 1. and 3. together . . . . . *hiemale*, HODGSON
20. Eyes near base of Ocular tubercle . . . . . *signatum*, MÖBIUS
    Eyes nearer to summit of Ocular tubercle, on its upper half . . . *distensum*, MÖBIUS
21. Second Tibia longer than Femur, longer than First Tibia 22
    Second Tibia about as long as Femur, or first Tibia . . . . . *articulare*, HODGSON
22. Total number of denticulate spines small (8, 5, 4, 5) . . . . . *frigidum*, HODGSON
    Total number of denticulate spines more than 45 . . . . . *gracilipes*, MIERS

Nymphon adareanum HODGSON.

Nymphon adareanum, HODGSON, Pycnogonida "Discovery", 1907, p. 23.

South-Georgia, Grytviken, in pools on the shore at low tide. 23. 7. 1902. 1 specimen.

The only specimen of the "Antartic" agrees with the holotype of the "Discovery". I have, however, not succeeded in counting the exact numbers of the odd-looking spines on the oviger, as the animal was too much covered with dirt, which could not be removed.

Nymphon Charcoti BOUVIER.

Nymphon Charcoti BOUVIER, Pycnogonides du "Pourquoi-pas?", 1913, p. 81.

Station 11. Graham Region. 400 m. 2 specimens, mutilated.

South-Georgia:

Station 18. Cumberland Bay. Entrance to West-Fjord. 250 m. 7 specimens.

Station 20. Antarctic Bay. 250 m. 9 specimens.

Station 22. Outside May Cove. Cumberland Bay. 75 m. 16 specimens.

Station 34. Outside the entrance to Cumberland Bay. 252—310 m. 7 specimens.

One large specimen without locality.

The Swedish Expedition collected many specimens of this fine species, and among them many adult females and oviferous males. The largest specimen of all has a proboscis of more than 8 mm. BOUVIER'S observation: "Cette espèce est nettement caractérisée par ses palpes, ses coxae, ses très longues griffes, sa forte taille" is certainly correct, but he goes on to say: "on ne saurait la comparer à aucune autre, sauf pourtant au *N. capense*" and I do not agree with this statement. *N. Charcoti* presents a close resemblance with *N. lanare* HODGSON, which is somewhat hairier. The characters of the two species correspond, and when the numbers of denticulate spines of the ovigers are compared, they seem to be still more closely akin. I should not wonder, therefore, if it should finally appear that the two species are identical, and that *N. Charcoti* is only a less hairy variety of *N. lanare*.

Nymphon gracilipes MIERS.

Nymphon gracilipes, MIERS, in: Ann. Mag. Nat. hist. (4.), **16**, 1875, p. 76.
Nymphon antarcticum, MIERS, Phil. Trans. Roy. Soc., **168**, 1879, p. 211.
Nymphon meridionale, HOEK, Rep. Pycnogonida "Challenger", 1881, p. 43.
Nymphon fuscum, HOEK, Rep. Pycnogonida "Challenger", 1881, p. 48.
Nymphon gracilipes, CALMAN, Ann. Mag. Nat. Hist. (8), **15**, 1915, p. 584.

Station 6. Graham Region. 125 m. 1 specimen, not wholly adult.

Besides there are in four different bottles more than twenty specimens of different sizes, all without locality.

The type of this species in the British Museum was lately once more carefully described by CALMAN, and then it became clear that there is no ground to consider

N. meridionale HOEK and *N. fuscum* HOEK as separate species; they are synonyms. When among the collection of the Swedish Expedition I believed I had found a new large species, I gave it the provisional name of *N. suspensum*. Besides oviferous males and adult females, there were also individuals of medium size and smaller ones. A close and detailed comparison soon brought to light that the not yet full-grown animals entirely agreed with *N. gracilipes* MIERS. What I had taken till then for a new species, was none, but only the large mature specimens of *N. gracilipes*. Especially the so characteristic numbers of the denticulate spines on the ovigera were decisive. From young to old there is a regular increase in the number of these spines. Consult for this the list on p. 13, in which designedly three other species have been inserted to set forth the sharp differences.

Another characteristic of the full-grown specimens is that at last the animals become almost hairless, and the legs still longer in proportion to the body. Accordingly *N. gracilipes* is a fairly large species; the type not entirely full-grown.

Nymphon gracillimum CALMAN.

Nymphon gracillimum, CALMAN, Pycnogonida, "Terra Nova", 1915, p. 30.

Station 2. East Coast of Argentinia. 100 m. 1 oviferous male.

1 ♂, without locality.

Only two specimens of this species were collected, and these agree pretty closely with CALMAN'S type. Noteworthy is the great length of the second coxa on the third pair of legs (3 mm.), shorter on the first leg (2.2 mm).

CALMAN considers the possibility that this species may prove to be united by intermediate gradations with *N. gracilipes* MIERS, which is related. But it is sufficiently proved by the quite different numbers of denticulate spines on the oviger that this supposition is not valid, and I think that *N. gracillimum* CALMAN may claim to be considered as a separate species (cf. the exposition on p. 11 and 12).

Nymphon hiemale HODGSON.

Nymphon hiemale, HODGSON, Pycnogonida "Discovery", p. 20.

Station 22. South-Georgia, Cumberland Bay, outside May Cove. 75 m. 2 ♂, one with larvae, just hatched.

Nymphon lanare HODGSON.

Nymphon lanare, HODGSON, Pycnogonida "Discovery", p. 22.

Station 8. Graham Region. 360 m.? 14 specimens.

The collection also contains large specimens of this species with a proboscis of nearly 7 mm. Especially in the small ones the woolly hair is clearly visible; in the adult it is less noticeable. Cf. *N. charcoti*, p. 15.

Nymphon Pfefferi, nomen novum.

(Fig. B.)

Nymphon antarcticum PFEFFER, Zur Fauna von Süd-Georgien, in: Jahrb. Hamburg. Wiss. Anst. **6.** Hft 2, 1889, p. 42.

South-Georgia, Grytviken (Pot Cove). 22. 5. 1902. 1 adult and 1 young specimen.
Same locality. 25 fathoms. 23. 5. 1902. 1 ovigerous male.
Station 28. South-Georgia. Entrance to Grytviken. 12—15 m. 1 ♀.

In 1889 PFEFFER described some new Pycnogonids from South-Georgia, and among them there was a *Nymphon antarcticum*. But already in 1879 this same name had been given by MIERS to an entirely different antarctic species, therefore *N. antarcticum* PFEFFER becomes nomen castigandum and must be cancelled. Now that I have come into possession of a male co-type of this species from the Natural History Museum of Hamburg, through Prof. PFEFFER's kindness, which enables me to give a more fuller detailed description with figures, I propose to re-christen the animal *N. Pfefferi*.

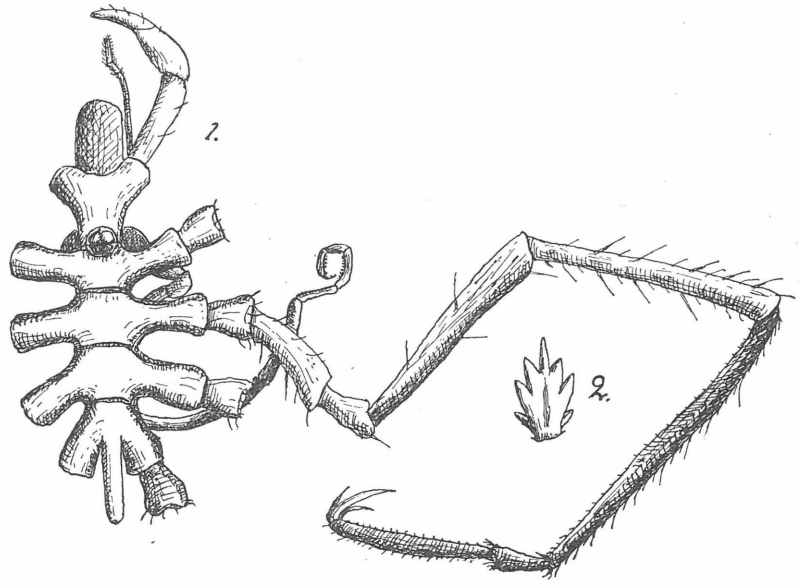

Fig. B. *Nymphon Pfefferi*, nomen novum. 1. Dorsal view of body with right chelifore, palp, oviger and second leg. 2. Denticulate spine of oviger, much enlarged.

Description of co-type (Mus. Hamburg).

Body slender, lateral processes long, separated by their own diameter. Neck thick, very short. Segments strongly marked. Cephalon expanded anteriorly into two lobes, separated by a conspicuous groove. Ocular tubercle short, broad and stout; its top,

bearing the four large eyes, rounded. Abdomen long and thin, reaching to the distal end of the first coxa.

Proboscis very short, cylindrical, smooth, and rounded at the extremity.

Chelifori well developed. Scape little longer than the proboscis; it bears a few hairs. The chelae have the same length as the scape, half their length being taken up by the palm. Fingers with few fine setae, not much incurved, with many small teeth.

Palp as usual; 1. joint very small; 2. joint the longest of all, about three fourths of proboscis; 3. joint a little shorter, provided with few short setae; 4. joint about one third of the third; 5. joint again longer than the preceding one, both richly clothed with setae.

Oviger of male long and stout. First three joints small, sub-ovoïd, the second being the longest. 4. joint a little longer than the three preceding together, slightly curved. 5. joint longest of all, much curved. 6. joint about half as long as fifth. The four terminal joints smaller, decreasing in length. Terminal claw, with six tack-like teeth. Denticulate spines few, broad and stout; they carry three teeth on each side, those at the base small, sometimes wanting. Exact numbers of denticulate spines 6, 4, 4, 6 and 7, 4, 4, 5.

Legs not long. Coxae short; 2. coxa as long as the other two together. Femur about as long as three coxae together; 1. Tibia but little longer; 2. Tibia four thirds of femur. Tarsus about one third of propodus. Propodus half the second tibia. Claw stout, nearly two fifths of propodus, auxiliaries more than half of main claw.

The legs are very scantily clothed with rows of setae of no great length. On the femur there are but few. They are longest on the first tibia, becoming smaller but denser on the second tibia and on the propodus. A distinct distal fringe of hairs can be observed on the first coxa, on the tarsus, and on the propodus. Genital pores on the second coxae of the two posterior legs.

Measurements in mm.:

Proboscis	0.65	2. Tibia	2.30
Length of trunk	1.75	Tarsus	0.40
Width of trunk	1.40	Propodus	1.15
1. Segment of trunk	0.80	Claw	0.40
Abdomen	0.65	Auxiliaries	0.25
3. Coxae	1.60	Scape of chelifore	0.70
Femur	1.65	Hand of chelifore	0.70
1. Tibia	1.70		

Remarks. Female genital openings on all the legs. I venture to suspect *N. tridentatum* HODGSON to be a young specimen of the just described species.

Nymphon subtile n. sp.

(Fig. C.)

Station 51. Falkland Islands, Port William. 22 m. 1 ovigerous male.

Body slender. Lateral processes separated by their own diameter. Neck long and rather thin, anteriorly expanded into two short lobes; segments strongly marked. Ocular tubercle very low, rounded, with four large eyes. Abdomen rather short, obliquely directed upwards.

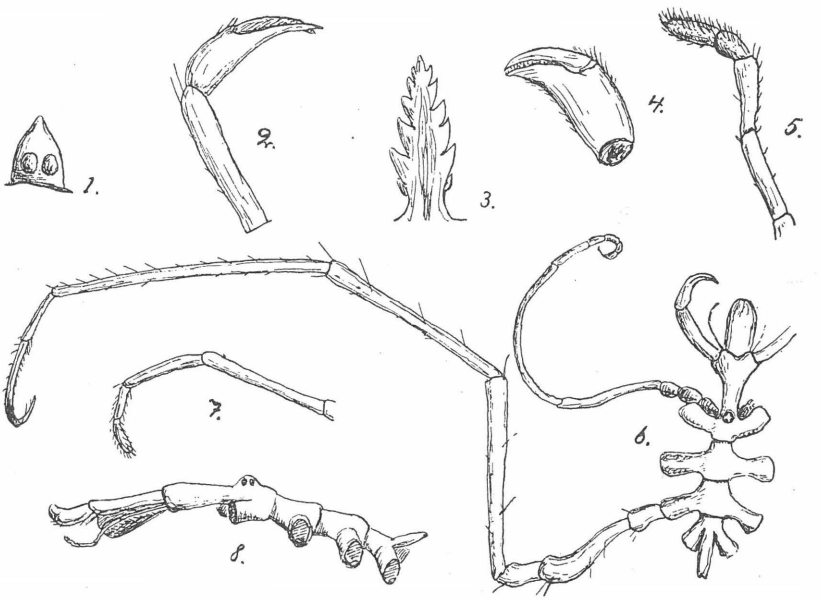

Fig. C. *Nymphon subtile* n. sp. Male, compared with *Nymphon rubrum* HODGE (after SARS). 1. *N. rubrum*, Eye Tubercle. 2. *N. subtile*, Chelifore. 3. *N. subtile*, denticulate spine of oviger, much enlarged. 4. *N. rubrum*, Hand of Chelifore. 5. *N. rubrum*, Palp. 6. *N. subtile*, Dorsal view of body with left palp, chelifore, oviger and third leg. 7. *N. subtile*, Palp. 8. *N. subtile*, Body from left side, legs omitted.

Proboscis of moderate length, cylindric, with rounded extremity.

Chelifori long and slender. Scape as long as proboscis. Hand as long as scape, with long fingers, provided with small and numerous teeth.

Palps slender, 2. joint longest; 3. joint about two thirds of second; 4. and 5. joints sub-equal, together as long as third.

Oviger normal, slender. First three joints small; 4. joint longer than three preceding together; 5. joint much longer than fourth; 6. joint smaller, about one fourth of the fifth. Of the four small terminal joints the 7. is the longest, the other three but little shorter. All bear small setae and distal fringes. The claw has four teeth. The numbers of denticulate spines are 9, 7, 6, 8. Each spine has about 6 denticulations, the inferior being small, the next larger, the remainder decreasing.

Legs long and thin. 2. Coxae longer than the other two together; Femur but little longer than the three coxae together; 1. Tibia but very little longer than femur; 2. Tibia much longer than first; the foot nearly half the second tibia, the Tarsus being three fifths of Propodus. Claw short and stout, about one third of propodus. Auxiliaries two thirds of main claw.

The body is smooth, the legs are sparsely beset with rather longish setae, mostly arranged in distal fringes. Besides there are some on the femur and tibiae, especially on the 2. tibia. The propodus bears an inferior row of small setae, in the ordinary way.

Measurements in mm.:

Proboscis	0.6	1. Tibia	1.90
Neck	0.5	2. Tibia	2.50
Length of Trunk	1.55	Tarsus	0.35
Width of Trunk	1.15	Propodus	0.75
Length of Cephalon	0.9	Claw	0.25
Abdomen	0.45	Auxiliaries	0.17
2. Coxa	0.85	Scape of Chelifore	0.60
Femur	1.75	Hand of Chelifore	0.65

Remarks. When studying the collection of the "Vettor Pisani", SCHIMKÉWITSCH may have had this species before him, and described it as *N. gracile* LEACH.[1]) In fact, a cursory consideration gives rise to such an opinion. However, it is not very likely that a species from Western Europe should also be found near Cape Virgines at the entrance of the Strait of Magellan. But this question can never be solved without examination of the type specimen of SCHIMKÉWITSCH. Properly speaking the slender *N. subtile* resembles *N. rubrum* HODGE still more closely. Further investigation, however, at once reveals the differences. To set them forth clearly I have copied a few figures from SARS,[2]) among others: the eye eminence, the palp, and the hand of the chelifore, which will remove all doubt of the difference of the species.[3])

Differences between	**Nymphon subtile** n. sp. and	**Nymphon rubrum** HODGE.
Coxae	Second coxa longer than first and third together	Second coxa as long as first and third together
Hand of Chelifore	long and slender	short and thickset
Ocular Tubercle	low, rounded apex	higher, pointed apex
Oviger	4. joint much shorter than 5.	4. joint longer than 5.
Abdomen	about once and a half the lateral processes	shorter than lateral processes
Palp	slender; 2. joint longer than third; 4. and 5. joints sub-equal	thicker; 2. and 3. joints sub-equal 4. joint very short
Tarsus	hardly three fifths of propodus	but little shorter than propodus.

[1]) SCHIMKÉWITSCH, Pantopodes du "Vettor Pisani", p. 346.

[2]) SARS, Pycnogonida Nordhavs Expedition, 1891, Pl. V.

[3]) MÖBIUS (Arctische und Subarctische Pantopoden, 1902, p. 59) likewise clearly explains that the *Nymphon*-species of the "Vettor-Pisani" cannot be identical with *N. gracile* LEACH.

Nymphon gracile has, according to SARS, a condensed body, a short neck, thick chelifores, short palps, pointed ocular tubercle, short legs, small tarsus, etc.

Nymphon tenuipes BOUVIER resembles *N. subtile*, the numbers of denticulate spines are nearly the same. But for the rest the species differ in so many particulars, that synonymy is out of question.

Chaetonymphon SARS.

Chaetonymphon brevicaudatum MIERS.

Nymphon brevicaudatum, MIERS, Ann. Mag. Nat. Hist. (4), **14**, 1875, p. 115.
— — MIERS, Phil. Trans, **168**, 1879, p. 211.

South Georgia, Cumberland Bay:

Station 22. Outside May Cove. 75 m. 135 specimens.

Station 27. Outside Grytviken (Pot-Cove). 20 m. 1 specimen.

Station 33. Grytviken. 22 m. 1 specimen.

Station 34. Outside the entrance to Cumberland Bay. 252—310 m. 48 specimens.

$^{23}/_{5}$ 1902. Grytviken. 25 fathoms. 7 specimens.

A species exceedingly common in all antarctic regions, which accordingly was found in large numbers in South-Georgia, young and old.

Chaetonymphon australe HODGSON.

var. *austrinorum*. HODGSON.

Nymphon australe HODGSON, Pycnogonida, "Southern Cross", 1902, p. 228.
Chaetonymphon altioculatum, MÖBIUS, Pantopoden "Valdivia", 1902, p. 179.
Chaetonymphon australe, HODGSON, Pycnogonida "Discovery", 1907, p. 32.
— — var. *austrinorum*, HODGSON, t. c., p. 35.
Nymphon stylops, BOUVIER, Pycnogonides du "Pourquoi-pas?", 1913, p. 73.

Station 4. Graham Region. Near Paulet Island. 100—150 m. 65 specimens.

Station 6. Graham Region. S. W. of Snow Hill. 125 m. 1 specimen.

Station 8. Graham Region. 20 specimens.

Station 34. South-Georgia, outside the entrance to Cumberland Bay. 252—31c m 570 specimens.

Station 88. Graham Region. 200 m. 1 specimen.

A species, as common as the preceding one, and like this collected in immense quantities, animals of all ages, mature and immature, adult females and oviferous males with hatching larvae. Not a single specimen agrees with the typical *australe*-form. Probably *N. australe*, smaller and more compact, occurs, therefore, only in the Eastern Seas of the Antarctic Regions, with Cape Adare as centre.

Chaetonymphon Orcadense HODGSON.

Ch. Orcadense, HODGSON, Pycnogonida "Scotia", 1908, p. 173.

1 oviferous male, without locality.

This species, which is very easy to recognise, was found among specimens of *Nymphon gracilipes*, and agrees with HODGSON'S description. The locality of the station is uncertain; probably it is, however, South-Georgia.

Austropallene HODGSON.

Austropallene cornigera (MÖBIUS).

Pseudopallene cornigera, MÖBIUS, Pycnogoniden der "Valdivia", 1902, p. 186.
Pseudopallene australis, HODGSON, Pycnogonida "Discovery", 1907, p. 10.
Cordylochele turqueti, BOUVIER, Pycnogonides du "Français" 1907, p. 35.

Station 6. Graham Region, S. W. of Snow Hill, 125 m. 1 ♀.

This species is represented by a single female with genital pores on all the legs. It may be identified by the structure of the denticulate spines of the oviger and by the small number of proximal thorns at the inferior side of the propodus. The specime presents a close resemblance with the *Pseudopallene australis* HODGSON. This author, however, having himself declared his species a synonym with the *Pseudopallene cornigera* of MÖBIUS, I believe I am in the right to give it that name.

Ammothea LEACH.

Ammothea (Leonymphon) gibbosa (MÖBIUS).

Colossendeis gibbosa, MÖBIUS, Pycnogonida "Valdivia", 1902, p. 192.
Ammothea curculio, BOUVIER, Pycnogonida "Français", 1907, p. 40.
Leonymphon gibbosum, HODGSON, Pycnogonida "Discovery", 1907, p. 40.
Ammothea gibbosa, BOUVIER, Pycnogonida "Pourquoi-pas?", 1913, p. 127.
Ammothea gibbosa, CALMAN, Pycnogonida "Terra Nova", 1915, p. 51.

Station 22. South-Georgia, Cumberland Bay, outside May Cove. 75 m. 1 specimen.

Remarks. The only specimen in the collection is not entirely full-grown, and very closely resembles the immature specimen of this species described by BOUVIER. After a careful consideration of all the arguments I am convinced that in the end the type of *Colossendeis gibbosa* MÖBIUS will appear to be nothing but young *Ammothea grandis* PFEFFER, but, as CALMAN already stated, this can only be decided by renewed examination and comparison of the original specimens preserved at Berlin and Hamburg.

Ammothea (Leonymphon) australe (HODGSON).

Leonymphon australe, HODGSON, Pycnogonida "Discovery", 1907, p. 46.

Station 22. South-Georgia, Cumberland Bay, outside May Cove, 75 m. 1 ♀.

This easily recognisable species is represented by only one adult female, with large genital pores on all legs.

Ammothea (Leonymphon) Clausii PFEFFER.

Ammothea Clausii, PFEFFER, Jahrb. Hamburg Wiss. Anst. **6**, Hft 2, p. 42.

Station 6. Graham Region. S. W. of Snow Hill, 125 m. 2 specimens (1 ♂ oviferous, 1 ♀).

South Georgia:

Station 20. Antarctic Bay (east of Possession Bay). 250 m. About 20 specimens of all ages.

Station 22. Cumberland Bay, outside May Cove, 75 m. About 25 specimens of all ages.

Station 24. Cumberland Bay, outside Grytviken (Pot Cove). 95 m. 1 specimen.

Station 26. Same locality. 30 m. 1 specimen.

Station 28. Entrance to Grytviken, 12—15 m. 1 specimen, immature.

$^9/_5$ 1902. Cumberland Bay, May Cove. 1 ♀.

1 ♀ without locality.

A common species, which has been brought home by nearly all expeditions, and which seems exclusively confined to the Western part of the Antarctic Ocean, at least so far it has only been caught in the Magellan Province. (Long. 20° W. to Long. 130° W.)

Ammothea (Leonymphon) minor HODGSON.

Leonymphon minus, HOGDSON, Pycnogonida "Discovery", 1907, p. 44.

Station 22. South-Georgia, Cumberland bay, outside May Cove, 75 m. 2 specimens, immature.

Two young animals, with still chelate chelifores and small ovigers, were examined. The shape of the proboscis is slender and pyriform. The last joint of the palp is almost twice as long as the preceding one. But the legs are slenderer than those of the type, as given by HODGSON, and remind of those of *A. gracilipes* BOUVIER (Pycnogonida "Pourquoi-pas?", 1913, p. 134). By comparison of numerous specimens CALMAN has been lead to consider this last species as synonymous with *A. minor*. (Pycnogonida "Terra Nova", 1915, p. 52.) With some hesitation I range the two specimens with the species mentioned above.

Ammothea (Achelia).

As the collections of the Swedish Expedition were partly made in South-Georgia, it was of importance to examine the species found there at earlier times very carefully, and compare them with the material at my disposal. Prof. PFEFFER, who in 1889 had been charged with the provisional description of some Pycnogonids from this desolate island, mentions under *Ammothea* the following species: *A. grandis*, *A. Clausii* and *A. Hoekii*, finishing his enumeration with the very closely allied *Clotenia Dohrnii*. *A. grandis* and *A. Clausii* have been recognized as genuine *Leonymphons*,[1]) and *Clotenia Dohrnii* belongs to the genus *Tanystylum*[1]). There still remains *A. Hoekii* PFEFFER, which is taken for an *Ammothella* by BOUVIER, among others on account of the 9-jointed palps. I have, however, always hesitated to embrace this opinion without a sufficient re-examination of the type. Now that some co-types have been sent to me from the Hamburgh Museum through the kind mediation of Prof. PFEFFER himself, I am able to shed light on this question. It may be imagined how astonished I was when I realized that the *Achelia communis* of BOUVIER was the same animal as the enigmatic *Ammothea Hoekii* PFEFFER. Specimens from the museum of Paris, which were kindly put at my disposal for a comparison, have removed all doubt as to the validity of this conclusion. It is again seen that a short, incorrect, provisional diagnosis, without drawings, can lead us astray for years. A good solution can only be expected from re-examination of the types by a specialist.

Ammothea (Achelia) Hoekii PFEFFER.

Ammothea Hoekii, PFEFFER, Jahrb. Hamburg. Wiss. Anst. **6**, Hft 2, p. 46.
Ammothea communis, BOUVIER, Pycnogonides "Français", 1907, p. 44.
Ammothea affinis, BOUVIER, l. c. p. 50.
Achelia communis, BOUVIER, Pycnogonides "Pourquoi-pas?", 1913, p. 144.

Station 35. South-Georgia, Grytviken. 2—8 m. 1 ♀.
Station 39. Port William, Falkland Islands. 40 m. 1 ♀.
Station 41. Port Louis, Falkland Islands, 2—4 m. 1 specimen, young.
Station 53. Port William, Falkland Islands. 1 specimen, immature.
5/5 1902. South Georgia, Cumberland Bay, May Cove. 11 specimens: 4 ♂ (3 ovif.), 3 ♀, 4 immature.

The variability of this species was already pointed out by BOUVIER. Among the co-types examined by me there was a male showing the two characteristic distal processes of the first coxae very clearly. In a female animal they were vaguely visible, nor are they mentioned in the original discription of PFEFFER, though they are present.

[1]) See for them under these names.

It may, perhaps, be superfluous to state that the palp has, of course, only eight joints, and not nine, as PFEFFER says.

The specimen of station 39 bears some resemblance to *Ammothea (Achelia) spicata* CALMAN, but it also has properties, among others long auxiliary claws, which rather remind of the species *communis*. For the present it is impossible to decide whether all the species described by CALMAN, have really right of existence, or that they are only varieties of the common *Hoekii*.

Ammothea (Achelia) serratipalpis BOUVIER.

Achelia serratipalpis, BOUVIER, Pycnogonides "Pourquoi-pas?", 1913, p. 140.

Station 22. South-Georgia. Outside May Cove. 75 m. 4 adult specimens (1 ovif); 1 young, with chelate chelifores and small, undeveloped ovigers.

Also this species seems not to be rare in the Western part of the Antarctic Ocean. BOUVIER'S types originate from the Graham Region (depths to 129 meters).

Ammothea (Achelia) Wilsoni SCHIMKÉWITSCH.

Ammothea Wilsoni, SCHIMKÉWITSCH, Pantopodes "Vettor Pisani", Atti. R. Acad. Linc. Mém. (4), **6**, 1889, p. 336.
Ammothea Wilsoni, HODGSON, Pycnogoniden Hamburg. Mag. Sammelreise, 1907, p. 10.

Station 51. Port-William. Falkland Islands. 22 m. 1 ♂.

Station 59. Burdwood Bank. South of West Falkland. 137—150 m. 1 ♂.

Station 60. Terra-del-Fuego Archipelago, entrance to Beagle-Channel. 11 specimens (3 oviferous ♂♂).

This species, which was discovered in various places near the Southern point of South America by earlier expeditions, also occurs in the collection af the "Antarctic". It shows many variations, as HODGSON already pointed out, and I have been able to confirm this. The characteristic dorsal spines are sometimes small, the hindmost one is often wanting, so that only two can be clearly observed.

Tanystylum MIERS.

From the Antarctic Ocean already several species of this genus have become known, viz. *T. styligerum* MIERS 1879 from Kerguelen, *T. Dohrnii* SCHIMKÉWITSCH 1887 from the Abrolhos Islands, *T. Pfefferi* nom. nov. from South-Georgia (= *Clotenia Dohrnii* PFEFFER 1889), *T. Chierchiae* SCHIMKÉWITSCH 1887, near the Chonos Islands, *T. longicaudatum* HODGSON, 1907, Beagle-Channel. Nevertheless I have had to add two new species, because it seemed too hazardous to identify them with one of the preceding ones.

Tanystylum Pfefferi nomen novum.

(Fig. D).

Clotenia Dohrnii, PFEFFER, Jahrb. Hamburg Wiss. Anst. **6**, Hft 2, 1889, p. 48.

Station 22. South-Georgia, outside May-Cove. 75 m. 1 specimen, not full-grown.

Station 35. South-Georgia, Grytviken. 2—8 m. 1 specimen, (oviferous ♂ with monstrous abdomen).

Station 60. Terra-del-Fuego Archipelago. Entrance to Beagle-Channel. 100 m. 1 specimen, not full-grown.

$^{5}/_{5}$ 1902. South-Georgia. May-Cove. A few females.

$^{23}/_{5}$ 1902. South-Georgia. Grytviken. Several males (1 ovif.) and young.

Body with lateral processes circular, nearly smooth; no spine-bearing, prominent tubercles on the lateral processes.

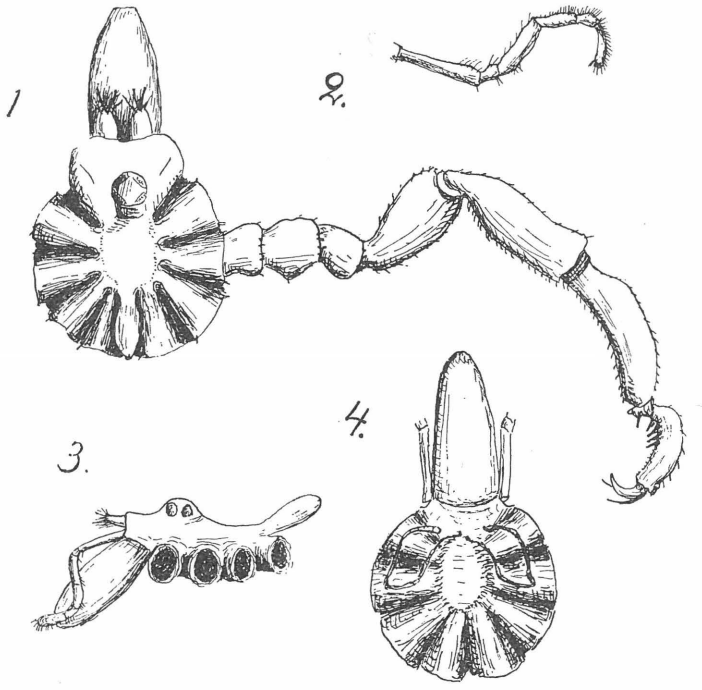

Fig. D. *Tanystylum Pfefferi* nomen novum. 1. Dorsal view of body with chelifores and second right leg, palps omitted. 2. Right palp. 3. Side view of body, oviger and legs omitted. 4. Ventral view of body, with bases of palps, legs omitted.

Proboscis oblong-ovate, directed downward, as long as trunk.

Chelifori short, conical, one-jointed, about one fifth of proboscis, bearing a bristle of spiny hairs on top.

Eye tubercle thick, lower than its diameter, with rounded top and large eyes.

Abdomen short, hardly longer than lateral processes, directed obliquely upward, with swollen and bluntly rounded apex.

Palpi 7-jointed, somewhat longer than proboscis. 1. joint short; 2. joint much longer, longest of all; 3. joint as short as first; 4. joint not so long as second, but thicker; a few longish hairs on the outer distal corners of joint 2 to 4; terminal three joints smaller, densely covered with hairs, 5. and 7. joints of about the same length; 6. joint much smaller.

Oviger as usual, 10-jointed; 4. and 5. joints longest; 10. joint very small. Terminal joints armed with few simple spines. No denticulate spines could be found. Male oviger much longer than female one.

Legs thickset, stout, covered with very short hairs, nearly unarmed. Coxae with a distal fringe of short, thin hairs; 2. coxa but little longer than first or third, which are sub-equal; Femur shorter than the three coxae together; 1. Tibia much longer than femur; 2. Tibia curved, but little longer than femur; Tarsus very short, with a ventral spine; Propodus curved, about half as long as second tibia, and half as wide, armed ventrally with 3—4 proximal spines, followed by a series of smaller ones; Claw stout, not half so long as propodus; Auxiliaries slender, about two thirds of main claw.

Measurements in mm.:

Proboscis	1.20	1. Tibia	1.60
Length of trunk	0.95	2. Tibia	1.35
Greatest width of trunk	1.20	Tarsus	0.09
Abdomen	0.55	Propodus	0.90
3. Coxae	1.60	Claw	0.40
Femur	1.15	Auxiliaries	0.25

Remarks. *Clotenia Dohrnii* PFEFFER was found in various places. As appears from the co-types sent to me, the animal belongs to the genus *Tanystylum*, which was already pointed out by HODGSON. Hence it ought now to be called *Tanystylum Dohrnii* (PFEFFER). But BOUVIER says with perfect justice (Pycnogonides du "Pourquoi-pas?", 1913, p. 5): "Il est bon de rappeler à ce propos que M. SCHIMKÉWITSCH, en 1887 et 1889, fit connaître sous le nom de *Tanystylum Dohrnii* une espèce trouvée par le lieutenant CHIERCHIA aux îles Abrolhos; la *Clotenia* de M. PFEFFER, étant un *Tanystylum*, ne saurait conserver le qualitatif spécifique *Dohrnii* que lui donna l'auteur; je propose d'attribuer à cette espèce le nom de *Tanystylum Pfefferi* en souvenir du savant qui l'a décrite." It is therefore at his proposal that the name of the animal has been changed; I have given a more detailed description of it above.

Tanystylum kentrodes n. sp.
(Fig. E.)

Station 40. Falkland Islands. Berkeley Sound. 16 m. 1 ♀.

Trunk without segmentation. Anterior border very broad, nearly as wide as body, across the second lateral processes. Lateral processes wedge-shaped, closely crowded. Antero-lateral corners of cephalon, and distal ends of first three lateral processes with stout tubercles, each bearing a strong spine or long needle.

Proboscis broadly ovate, directed nearly straight forward.

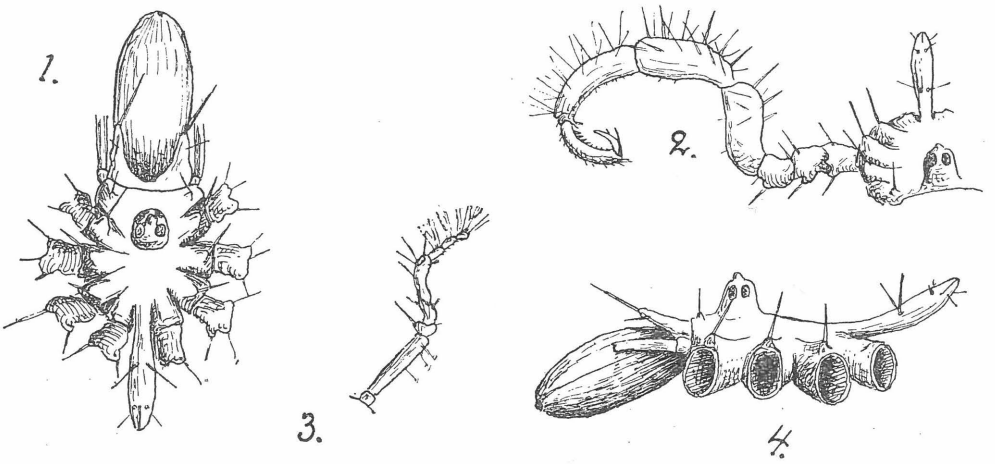

Fig. E. *Tanystylum kentrodes* n. sp. Female. 1. Dorsal view of body, palps and legs omitted. 2. Frontal view of body with second right leg only, chelifori and palps omitted. 3. Left palp from right side. 4. Body from left side, palp, oviger and legs omitted.

Chelifori very short, one-jointed, conical knobs, continuous at the base, bearing a long spine at the top, besides another shorter, exterior one.

Eye tubercle large, situated at the posterior end of the cephalic segment, rounded, with pointed apex.

Abdomen long, directed obliquely upward, swollen in the middle, armed on the dorsal surface with two (or three) pairs of long spines.

Palpi 7-jointed, longer than proboscis. 2. joint longest; 4 joint curved, somewhat shorter. Terminal three joints much smaller, sub-equal, with many long, inferior spines (needles); other joints with a few scattered ones.

Oviger as usual, without denticulate spines, the terminal joints armed with short, simple spinules only.

Legs short; 1. and 3. coxa sub-equal; 2. coxa hardly longer. Femur and Tibiae rather thick; 2. Tibia hardly longer than 1. tibia or femur: Tarsus very small; Pro-

podus slender, curved, two thirds of second tibia; Claw one half of propodus; Auxiliaries two thirds of main claw. The legs are armed with spines or needles of the same kind as those on the trunk: Dorsally and ventrally on the coxae, two dorsal rows on femur and tibiae. The tarsus has a ventral, small, sharp thorn; the propodus proximally and ventrally three of the same kind, followed by many smaller ones; dorsally a series of short hairs.

Measurements in mm.:

Proboscis	0.90	2. Tibia	0.7
Trunk	0.55	Tarsus	0.09
Abdomen	0.8	Propodus	0.45
3. Coxae	0.65	Claw	0.25
Femur	0.5	Auxiliaries	0.15
1. Tibia	0.65		

Remarks. Features of this species are the characteristic thin needles on the body and the limbs, the long abdomen, the thick proboscis and the large and thick eye-tubercle.

Tanystylum oedinotum n. sp.

(Fig. F.)

Station 51. Port-William, Falkland Islands. 22 m. 1 ♀.

Trunk without segmentation. Lateral processes closely crowded, their outer borders and the anterior margin, forming a circle. On the distal, posterior ends of

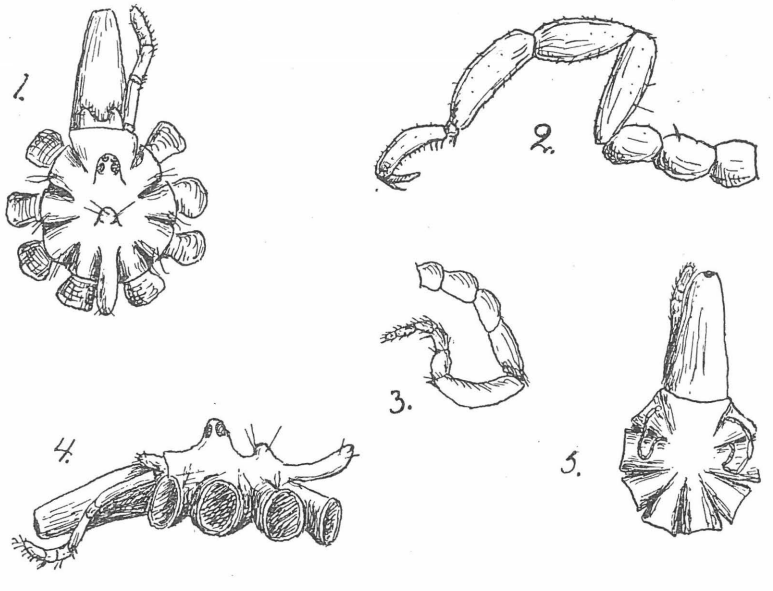

Fig. F. *Tanystylum oedinotum* n. sp. Female. 1. Dorsal view of body, legs omitted. 2. Left third leg. 3. Female Oviger. 4. Lateral view of body, oviger and legs omitted. 5. Ventral view of body, legs omitted

the three first lateral processes a small tubercle, bearing two longish hairs, the fourth lateral process being smooth. Between eye tubercle and base of abdomen a thick knob, bearing few long hairs.

Proboscis about as long as trunk, directed nearly straight forward, broadly conical, anteriorly truncate.

Eye tubercle clumsy, situated at the posterior end of the cephalic segment, with rounded apex and four large eyes.

Abdomen reaching to the end of the first coxa, a little bent upward, with rounded top, bearing a few hairs.

Chelifori very small, one-jointed, conical knobs, continuous at the base, each bearing a bristle of very short hairs at the top.

Palpi short, 7-jointed, but little longer than proboscis. 2. joint longest, 4. joint shorter, remaining joints much smaller, sub-equal, the last somewhat longer. Terminal joints densely short-haired.

Oviger as usual; 5. joint longest, the terminal joints rapidly diminishing in size, armed with many short spiny hairs, without true denticulate spines.

Legs short; round coxae; 2. Coxa hardly longer than first or third, nearly hairless; Femur and Tibiae short and thick, covered with microscopical hairs, the femur showing one or two longer dorsal ones only; Tarsus very small; Propodus longer than half of second tibia, only half as wide; Claw half as long as propodus; Auxiliaries about two thirds of main claw. The foot has a small, sharp and ventral thorn on the tarsus and three proximal ones of the same kind on the propodus, followed by many smaller ones. Dorsally it bears a series of short hairs.

Measurements in mm.:

Proboscis	0.55	2. Tibia	0.8
Trunk	0.5	Tarsus	0.07
Abdomen	0.4	Propodus	0.5
3. Coxae	0.8	Claw	0.27
Femur	0.75	Auxiliaries	0.15
1. Tibia	0.7		

Remarks. The type of this species, a single female specimen, bears a distant resemblance to *Tanystylum Chierchiae* SCHIMK., yet the likeness seems not striking enough to believe them to be synonyms.

Austroraptus HODGSON.

Austroraptus polaris HODGSON.

Austroraptus polaris, HODGSON, Pycnogonida "Discovery", 1907, p. 54.

Station 6. Graham Region. S. W. of Snow Hill Island. 125 m. 1 large male. 1 young specimen, without locality.

The large specimen of Station 6 exhibits all the characters of this strange species: rudimentary chelifores, pointed proboscis, six-jointed palps, stout legs with heavy spurs on the first coxae. The other, young specimen, with chelate chelifores, has the ocular tubercle produced above the eyes into a spike-like appendix, and the proboscis tapering at the tip to a thin tube. The palps are indistinctly 8-jointed (see CALMAN, Pycnogonida "Terra Nova", 1915, p. 63).

Measurements of large male in mm.:

Length of Trunk	2.7
» » 2. Tibia	5.7
» » Abdomen	1.5

Austrodecus HODGSON.

Austrodecus glaciale HODGSON.

Austrodecus glaciale, HODGSON, Pycnogonida "Discovery", 1907, p. 52.

Station 3. Terra-del-Fuego, Staten Island. 36 m. 1 small ♀.
Station 7. Graham Region. 920 m. 1 very small ♂.
Station 39. Port-William. Falkland Islands. 40 m. 1 ♀.
Station 53. Same locality. 12 m. 1 ♀.
5/5, 1902. South-Georgia. Cumberland Bay, May-Cove. 1 ♀.

This is one of the smallest Pycnogonids known, standing apart from all others by the ovigera of both sexes having only six joints. HODGSON mentions that "the entire animal does not cover a space 8 mm. square". My specimens being still smaller, I think it not useless to give the measures of the only male in the collection, which I believe to be wholly full-grown, spite of its minuteness.

Measurements in mm.:

Proboscis	1.00	Tarsus	0.036
Length of trunk	0.98	Propodus	0.27
Greatest width of trunk	0.53	Claw	0.11
Abdomen	0.29	Auxiliaries	0.069
3. Coxae	0.40	Oviger ♂	0.31
Femur	0.33	Femoral process, bearing opening of Cement-gland	0.09
1. Tibia	0.355		
2. Tibia	0.29		

Pallenopsis WILSON.

Several species of this southern genus have been described, but they are not always easy to distinguish. Therefore HODGSON is perfectly justified when he writes

(Pycnogonida "Discovery", 1907, p. 11): "They are separated by characters which, when committed to paper, do not appear as definite as one would like". Only he who like CALMAN, has the privilege of being able to compare the types, is in the possibility of giving a right decision. In many descriptions it strikes us that the characters are mere generic, and that the real specific characteristics are wanting. It is highly probable that there are many synonyms among the antarctic species. A solution of these difficulties can only be expected from a comparison of the types. What confusion may ensue when the definition of a species rests on insufficient data is most strikingly proved by the *Pallene fluminensis* of KRÖYER. The type of this species was subjected to a new investigation by MEINERT, from which it appears that the animal is a male *Pallenopsis*. But in his description MEINERT enumerates only characters which are common to all *Pallenopsis*-species, so that it is by no means certain what species it really is. Only his drawings are elucidating. Afterwards first BÖHM, then HOEK, and finally SCHIMKÉWITSCH have successively given the same name to animals studied by them. But MEINERT strongly doubts of the identity of these species; nor do I consider it at all impossible that we have here four different species before us, instead of a single one. Since an accurate comparison of the types has not been possible to me, I could not solve the difficulties of the identification. The available data are entirely inadequate.[1] We do not know at all how a species can vary, and the description of new species from one single individuum has for this reason led to disappointment in many cases. It was, therefore, very welcome to me to find, among the extensive material of the Swedish Expedition, a species represented by about four dozen specimens, all from the same locality. Now I have been able to examine young and old animals, males and females, and succeeded in ascertaining the differences of the sexes and the ages.

What is required is sharp distinctive characters for the species. What was taken as such before, is generally nothing but the characteristics of the genus *Pallenopsis*.

Pallenopsis tumidula n. sp.

(Fig. G.)

Station 2. Coast of North Argentinia. 100 m. Many specimens (nearly four dozens, females and males, young and full-grown).

Trunk distinctly segmented, smooth. Lateral processes separated by about half their diameter. Cephalic segment nearly half as long as trunk.

Eye tubercle cylindrical, twice as high as wide. In the young ones it is capped by a sharp point. When full-grown the top becomes mores irregularly rounded, with a minute apical cone, which is often wanting. Two foremost eyes larger than the posterior ones.

[1]) LOMAN, Pallenopsis and Rigona, Zool. Mededeel. Leiden, **2**, 1916, p. 15.

Proboscis nearly cylindrical, directed downwards, slightly inflated in the middle, rounded at apex, covered with very short setae.

Abdomen long, curved, nearly vertically erected.

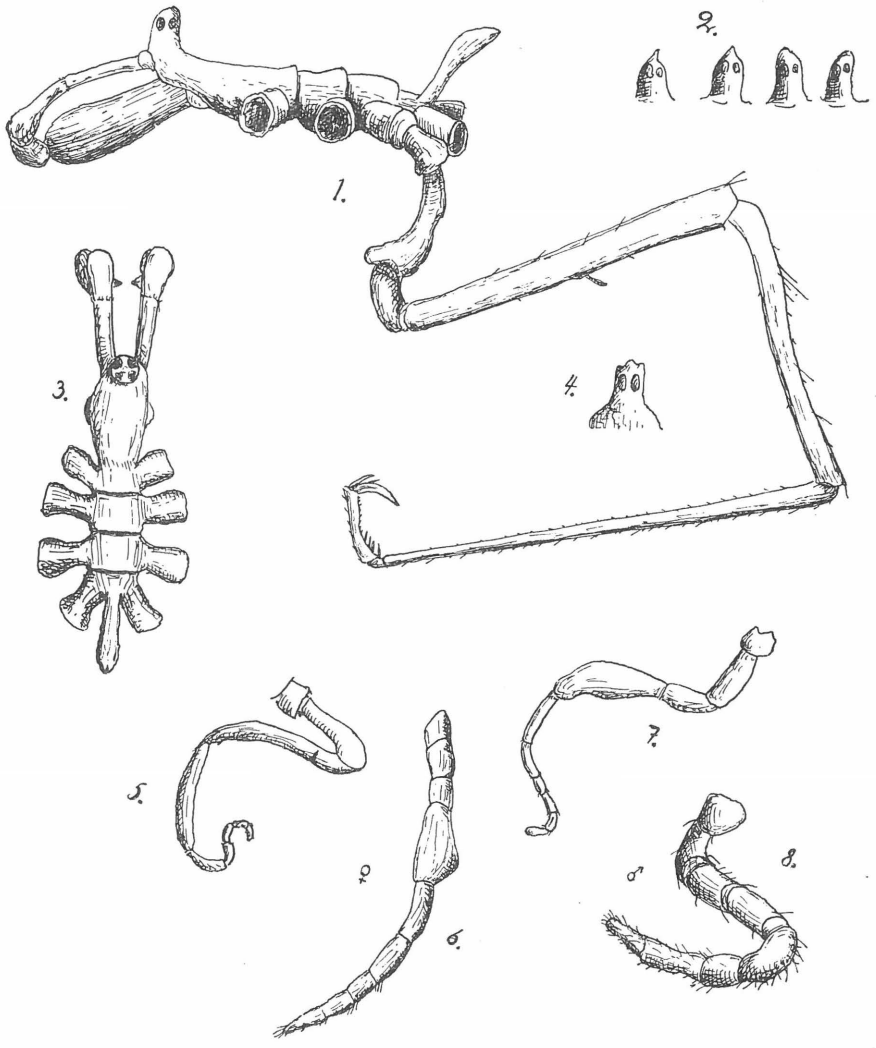

Fig. G. *Pallenopsis tumidula* n. sp. 1. Male, lateral view of body with chelifore palp, and left third leg; remaining legs and oviger omitted. 2. Side views of four ocular tubercles of different shape. 3. Dorsal view of body, proboscis and legs omitted. 4. Eye tubercle, front view. 5. Oviger of adult male. 6. Oviger of young female. 7. Oviger of adult female. 8. Oviger of young male.

Chelifores with scape, undistinctly divided. Only a superior fringe of minute setae showing vestige of articulation.

Palp a thick, round knob between bases of chelifore and oviger.

Oviger of the males strong, of usual form, 10-jointed (Fig. 5). Young ones show

subequal joints, fourth and fifth only somewhat longer than the others. Seventh and eigth not yet well discernable, no more than ninth and tenth (Fig. 8). In the females the oviger is all the same 10-jointed; the fourth joint swollen; the fifth nearly half the fourth; the terminal joints small, the seventh by far the shortest (Fig. 7). This swelling of the fourth joint is already visible in young specimens, with small ovigers, their terminal joints being not yet fully developed (Fig. 6).

Legs rather slender; 2. Coxa longer than the other two together; Femur longer than 1. Tibia, but shorter than 2. Tibia; 2. Tibia thin, 1. Tibia a little wider, Femur twice as broad as 2. Tibia; Tarsus very small, with one or two large ventral thorns; Propodus small, with three ventral proximal thorns, followed by a series of much smaller ones; Terminal claw about two thirds of propodus; Auxiliaries nearly half of main claw.

The adult females are larger than the males. The duct of the male femoral cement-gland is easily visible; on an average it is as long as half the width of the femur. The limbs are nearly smooth, with only a few short hairs on the first tibia, more numerous on the second tibia.

Measurements in mm.:

	Large female.	Large male.		Large female.	Large male.
Proboscis	3.25	3.00	1. Tibia	8.25	6.10
Trunk	6.00	5.60	2. Tibia	11.50	9.40
Abdomen	2.50	2.15	Tarsus	0.35	0.30
1. Coxa	1.00	0.95	Propodus	1.55	1.45
2. Coxa	3.25	2.90	Claw	0.95	0.85
3. Coxa	1.50	1.30	Auxiliaries	0.40	0.35
Femur	9.75	7.05	Oviger	4.15	7.75

Remarks. I feel quite sure the *Pallenopsis fluminensis* SCHIMKÉWITSCH, collected by the "Vettor Pisani" in the straits of Magellan, to be distinct from my *P. tumidula*. Likewise, there is no doubt about the first-quoted species also being different from the original *Pallene fluminensis* of KRÖYER, with which SCHIMKÉWITSCH has identified it.

Pallenopsis patagonica (HOEK).

Phoxichilidium patagonicum, HOEK, (Report "Challenger", 1881, Pycnogonida, p. 84).
Pallenopsis glabra, MÖBIUS, (Pycnogonida "Valdivia", 1902, p. 184).
Pallenopsis hiemalis, HODGSON, (Pycnogonida, "Discovery", 1907, p. 17).

Station 6. Graham Region. S. W. of Snow Hill Island. 2 specimens. (1 ♂ ovig.)

Station 20. South Georgia. Antarctic Bay. 10 specimens, young and old.

Station 23. South Georgia. Cumberland Bay, outside Moraine-Fjord. 1 adult ♀, with large genital openings.

Station 59. Burdwood Bank. S. of W. Falkland. 1 ♀.

I am fully convinced that CALMAN is right in considering *Phoxichilidium patagonicum* HOEK to be the same species as *Pallenopsis glabra* MÖBIUS and *P. hiemale* HODGSON.

Pallenopsis vanhöffeni HODGSON(?).

P. vanhöffeni, HODGSON. Pycnogonida "Gauss", Zoologischer Anzeiger, **45**, 1914, p. 162.
P. gaussiana HODGSON, ibid. p. 162.
P. setigera, HODGSON, ibid. p. 162.

Station 16. Between Falkland Islands and South-Georgia. 150 m. 1 ♂.

This definition ought to be accepted with some reserve. We must wait for the detailed description of HODGSON.

Pallenopsis sp. n.?

Station 60. Terra-del-Fuego-Archipelago, Entrance to Beagle-Channel. 100 m. 1 ♂.

This animal, an ovigerous male of rather small dimensions, belongs perhaps to a new species. As I could not find any pregnant special characteristics, I did not venture to give it a new name, for fear of again increasing the number of perplexing and annoying synonyms. It is much to be hoped that a serious attempt to disentangle the various species of *Pallenopsis* may soon be made by a competent specialist. I refer to the introductory remarks about that genus (p.31).

List of stations at which Pycnogonida were obtained.

Station 2. $^{23}/_{12}$ 1901. Lat. 37° 30′ S., Long. 56° 11′ W. Coast of North Argentinia. 100 m. Gravel and sand.
Pallenopsis tumidula n. sp.

Station 3. $^{6}/_{1}$ 1902. Lat. 54° 43′ S., Long. 64° 8′ W. Terra del Fuego. 36 m. Small stones and gravel.
Austrodecus glaciale HODGSON.

Station 4. $^{15}/_{1}$ 1902. Lat. 63° 36′ S., Long. 55° 48′ W. Graham Region. Near Paulet Island. 100—150 m. Gravel with small stones.
Nymphon austrinorum HODGSON.

Station 6. $^{20}/_{1}$ 1902. Lat. 64° 36′ S., Long. 57° 42′ W. Graham Region. SW of Snow Hill Island. 125 m. Stones and gravel.
Nymphon gracilipes MIERS; *Pallenopsis patagonica* HOEK; *Austropallene australis* HODGSON; *Nymphon austrinorum* HODGSON; *Pentanymphon antarcticum* HODGSON; *Austroraptus polaris* HODGSON; *Ammothea (Leonymphon) Clausii* PFEFFER.

Station 7. $^{22}/_{1}$ 1902. Lat. 65° 56′ S., Long 54° 35′ W. Graham Region. 920 m. Mud and stones.

Austrodecus glaciale HODGSON.

Station 8. $^{11}/_{2}$ 1902. Lat. 64° 3′ S. Long. 56° 37′ W. Graham Region. 360 m. Loose clay. (Station and depth uncertain).

Nymphon Charcoti BOUVIER; *Nymphon lanare* HODGSON; *Nymphon austrinorum* HODGSON.

Station 11. $^{8}/_{2}$ 1902. Lat. 65° 19′ S., Long. 56° 48′ W Graham Region. 400 m. Clay and gravel.

Nymphon Charcoti BOUVIER.

Station 16. $^{11}/_{4}$ 1902. Lat. 51° 40′ S., Long. 57° 25′ W. Between Falkland-Isles and South-Georgia. 150 m. Sand.

Pallenopsis vanhöffeni HODGSON (?).

Station 17. $^{19}/_{4}$ 1902. Lat. 53° 34′ S., Long. 43° 23′ W. Between Falkland-Isles and South-Georgia. On the Shag-Rock Bank. 160 m. Gravel and Sand.

Nymphon austrinorum HODGSON.

Station 18. $^{22}/_{4}$ 1902. Lat. 54° 15′ S., Long. 36° 25′ W. South-Georgia. Entrance to Westfjord. Cumberland-Bay. 250 m. Bottom-temperature + 1°.2. Loose clay.

Nymphon Charcoti BOUVIER.

Station 20. $^{6}/_{5}$ 1902. Lat. 54° 12 S., Long. 36° 50′ W. South-Georgia. Antarctic-Bay. 250 m. Small stones.

Nymphon Charcoti BOUVIER; *Ammothea* (*Leonymphon*) *Clausii* PFEFFER; *Pallenopsis patagonica* (HOEK).

Station 22. $^{14}/_{5}$ 1902. Lat. 54° 17′ S., Long. 36° 18′ W. South-Georgia. Outside of May-creek. 75 m. Bottom temperature + 1°.5. Clay and some sea-weed.

Nymphon Charcoti BOUVIER; *Chaetonymphon brevicaudatum* MIERS; *Nymphon hiemale* HODGSON; *Nymphon gracillimum* CALMAN; *Ammothea* (*Achelia*) *serratipalpis* BOUVIER; *Ammothea* (*Leonymphon*) *Clausii* PFEFFER; *Ammothea* (*Leonymphon*) *australe* HODGSON; *Tanystylum Pfefferi* nom. nov.

Station 23. $^{16}/_{5}$ 1902. Lat. 54° 23′ S., Long. 36° 26′, W. South-Georgia. Outside of Moraine-Fjord. 64—74 m. Bottom temperature + 1°.65. Grey clay with gravel and stones.

Pallenopsis patagonica (HOEK).

Station 24. $^{20}/_{5}$ 1902. Lat. 54° 22′ S., Long. 36° 27′ W. South-Georgia, Outside of Grytviken (Pot cove). 95 m. Clay.

Ammothea (*Leonymphon*) *Clausii* PFEFFER.

Station 26. $^{24}/_{5}$ 1902. Lat. 54° 22′ S., Long. 36° 27′ W. South-Georgia. Outside Grytviken (Pot Cove). 30 m. Stony bottom with sea-weed, outside the Macrocystis Region.

Ammothea (*Leonymphon*) *Clausii* PFEFFER.

Station 27. $^{24}/_{5}$ 1902. Lat. 54° 22′ S., Long 36° 27′ W. South-Georgia. Outside Grytviken (Pot Cove). 20 m. Macrocystis Region.

Chaetonymphon brevicaudatum MIERS.

Station 28. $^{24}/_{5}$ 1902. Lat. 54° 22′ S., Long. 36° 28′ W. South Georgia. Entrance to Grytviken (Pot Cove). 12—15 m. Sand and Algae.

Ammothea (Leonymphon) Clausii PFEFFER; *Nymphon Pfefferi* nom. nov.

Station 33. $^{30}/_{5}$ 1902. Lat. 54° 22′ S., Long. 36° 28′ W. South-Georgia. Grytviken (Pot Cove). 22 m. Clay and Algae.

Chaetonymphon brevicaudatum MIERS.

Station 34. $^{5}/_{6}$ 1902. Lat. 54° 11′ S., Long. 36° 18′ W. South-Georgia. Entrance to Cumberland-Bay. 252—310 m. Bottom temperature + 1°.45. Grey clay with few stones.

Chaetonymphon austrinorum HODGSON; *Chaetonymphon brevicaudatum* MIERS; *Pycnogonum rhinoceros* n. sp.; *Colossendeis frigida* HODGSON; *Nymphon Charcoti* BOUVIER; *Decolopoda australis* EIGHTS.

Station 35. $^{12}/_{6}$ 1902. Lat. 54° 22′ S., Long. 36° 28′ W. South-Georgia. Grytviken (Pot Cove). 2—8 m. Inner margin of Macrocystis Region. Stony bottom.

Tanystylum Pfefferi nom. nov.; *Ammothea (Achelia) Hoekii* PFEFFER.

Station 39. $^{4}/_{7}$ 1902. Lat. 51° 40′ S., Long. 57° 41′ W. Port William, Falkland-Isles. 40 m. Sand and small stones, with Algae

Austrodecus glaciale HODGSON; *Ammothea (Achelia) Hoekii* PFEFFER.

Station 40. $^{10}/_{7}$ 1902. Lat. 51° 33′ S., Long. 58° 0′ W. Berkeley-Sound, Falkland-Isles. 16 m. Gravel and Sand, with Algae.

Tanystylum kentrodes n. sp.

Station 41. $^{23}/_{7}$ 1902. Lat. 51° 33′ S., Long. 58° 9′ W. Port-Louis, Berkeley-Sound, Falkland-Isles. 2—4 m. Gravel and mud.

Ammothea (Achelia) Hoekii PFEFFER.

Station 51. $^{3}/_{9}$ 1902. Lat. 51° 40′ S., Long. 57° 42′ W. Port-William, Falkland-Isles. 22 m. Sand.

Nymphon subtile n. sp.; *Tanystylum oedinotum* n. sp.; *Ammothea (Achelia) Wilsoni* SCHIMKÉWITSCH.

Station 53. $^{3}/_{9}$ 1902. Lat. 51° 40′ S., Long. 57° 47′ W. Port William, Falkland-Isles. 12 m. Sand and gravel.

Ammothea (Achelia) Hoekii PFEFFER; *Ammothea (Achelia) Wilsoni* SCHIMKÉWITSCH; *Austrodecus glaciale* HODGSON.

Station 59. $^{12}/_{9}$ 1902. Lat. 53° 45′ S., Long. 61° 10′ W. Burdwood-Bank, Falkland-Isles. 137—150 M. Broken shells with stones.

Pallenopsis patagonica (HOEK).

Station 60. $^{15}/_{9}$ 1902. Lat. 55° 10′ S., Long. 60° 15′ W. Terra del Fuego-Archipelago, Entrance to Beagle-Channel. 100 m. Broken shells.

Pallenopsis n. sp.?; *Ammothea (Achelia) Wilsoni* SCHIMKÉWITSCH; *Tanystylum Pfefferi* nom. nov.

Station 61. $^{16}/_{9}$ 1902. Lat. 54° 54′ S., Long. 67° 52° W. Terra del Fuego, Beagle-Channel. 125 m. Bottom-temperature + 4°.1. Gravel and small stones.

Pallenopsis patagonica (HOEK).

Station 88. $^{3}/_{12}$ 1902. Lat. 69° 50′ S., Long. 61° 6′ W. Graham Region. 200 m. Bottom temperature + 1.°05. Sandy clay.
Chaetonymphon austrinorum HODGSON.

Station ?. $^{5}/_{5}$ 1902. South-Georgia. Cumberland-Bay. May-creek.
Tanystylum Pfefferi nom. nov.; *Ammothea (Achelia) Hoekii* PFEFFER; *Ammothea (Leonymphon) Clausii* PFEFFER.

Station ?. $^{23}/_{5}$ 1902. South-Georgia. Grytviken (Pot Cove). 25 fathoms.
Chaetonymphon brevicaudatum MIERS; *Nymphon adareanum* HODGSON; *Tanystylum Pfefferi* nom. nov.

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