A NEW DEEP-SEA NYMPHON (PYCNOGONIDA) COLLECTED BY THE “GALATHEA” OFF KENYA

by

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With eight text-figures

ABSTRACT

Description of Nymphon residuum spec. nov., a blind, uniunguiculate deep-sea species, collected by the Galathea Expedition at Station 241, off Kenya, in 1510 meters.

Dr. Torben Wolff of the Zoologisk Museum, Copenhagen, sent me a single specimen of a deep sea Nymphon, collected by the Galathea Expedition at Station 241. However, it was not treated along with the other Pycnogonida from the Galathea Expedition (Fage, 1956; Stock, 1968), since it was only recently discovered by Dr. Jensenius Madsen, who found it amongst the arms of some brittle-stars.

The pycnogonid proved to be a new species of Nymphon, which I have called for obvious reasons residuum (= left-over). I thank both Dr. Wolff and Dr. Madsen for making the specimen available to me.

Nymphon residuum spec. nov. (figs. 1-8)

Material. — 1♀ (holotype), Galathea Station 241, 04°00’S, 41°27’E (= off Kenya), 1510 m, bottom pure globigerina-ooze, 15 March 1951. Type in Zoologisk Museum, Copenhagen.

Description. — Slender, blind, uniunguiculate. The narrow neck bears a slight swelling, well in front of the first pair of lateral processes indicating the oviger bases. Slightly in front of the oviger bases, a hardly perceptible dorsal swelling provided with 2 minute tubercles, represents the rudiment of the ocular tubercle. Lateral processes separated by very great intervals. Trunk unarmed. Abdomen attaining about the middle of coxa 1 of leg 4. Proboscis slender, almost cylindrical.

Chelifore with a long scape, increasing distally in diameter. Chela slightly longer than the scape; fingers longer than the hand, nearly straight but with incurved tips. Immovable finger with about 66 small, almost regular, teeth; movable finger with about 57 such teeth.
Palp with slender 2nd segment. Segments 4 and 5 combined about equal to segment 3. Segment 5 slightly longer than 4. Numerous long setae, in particular on segment 5.

Oviger without peculiarities. Terminal claw long and slender, armed with \(11\) teeth. Compound spines comparatively simple, with 2 lateral teeth only (the distal one the largest) on either side. Compound spine formula \(9:5:5:6\).

Legs long and slender. Coxa 2 three times as long as coxa 1 or coxa 3. Genital pores at the ventrodistal end of coxa 2 of all legs. Femur strongly

Figs. 1-8. *Nymphon residuum* spec. nov., 9, holotype. 1, dorsal view of trunk (scale A); 2, chela (B); 3, palp (B); 4, oviger (B); 5, compound oviger spine (C); 6, terminal oviger claw (D); 7, third leg (A); 8, distal segments of third leg (B).
swollen in its proximal half, due to the presence of the ovaries. Tibia 2 the longer segment. Only a few short setae adorn the legs. Tarsus clearly shorter than propodus. Tarsal sole with about 30 small, regular spinules; propodal sole slightly curved, without heel. Claw slender, much shorter than the propodus; no auxiliary claws.

Remarks. — This species belongs to the hamatum-group in the genus *Nymphon*, characterized (as Fage, 1956: 165 emphasized) by the absence of eyes and auxiliary claws, as well as by the foreward implantation of the ovigers (i.e., in front of, and well-separated from, the first pair of lateral processes). The members of this group can be identified as follows:

— Terminal oviger claw toothed .......... 2
2. Coxa 1 longer than coxa 2 .......... *N. primacoxa* Stock, 1968
— Coxa 2 longer than coxa 1 .......... 3
3. Femur, tibia 1, and tibia 2, provided with exceedingly long setae .......... *N. tenuimanum* Hodgson, 1914
— Setae on the long segments of the legs, if present, shorter than the diameter of the segments .......... 4
4. Terminal oviger claw with 4 to 6 teeth .......... 5
— Terminal oviger claw with more than 10 teeth .......... 7
5. Femur with distal spur. Chela with 50-55 teeth on the immovable, 60-65 teeth on the movable finger .......... *N. hamatum* Hoek, 1881
— Femur without distal spur. Chela with less than 40 teeth on the fingers .......... 6
6. Trunk segments, lateral processes, and first coxae with dorsal tubercles .......... *N. galatheae* Fage, 1956
— Trunk, lateral processes, and first coxae unadorned .......... *N. profundum* Hilton, 1942 (= *N. nocturn* Hilton, 1942)
7. Fifth palp segment shorter than the fourth. Compound oviger spines with 3 to 4 pairs of lateral teeth .......... 8
— Fifth palp segment longer than the fourth. Compound oviger spines with 2 pairs of lateral teeth .......... *N. residuum* spec. nov.
8. Tarsus longer than the propodus. Terminal oviger claw with 13 teeth .......... *N. femorale* Fage, 1956
— Tarsus much shorter than the propodus. Terminal oviger claw with 18-19 teeth .......... *N. procerum* Hoek, 1881

Measurements of the holotype (in mm).

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
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<tbody>
<tr>
<td>Length proboscis (dorsal)</td>
<td>1.11</td>
</tr>
<tr>
<td>Length trunk segment 1</td>
<td>1.93</td>
</tr>
<tr>
<td>Length trunk segment 2</td>
<td>0.71</td>
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</tbody>
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1) Turpaeva, 1970, considers this feature so important, that she classifies this taxon with the genus *Heteronymphon*. 
Length trunk segment 3  0.68
Length trunk segment 4 (incl. abdomen)  0.79
Width across 2nd lateral processes  1.14
Length scape  1.18
Length chela  1.50
Third leg — coxa 1  0.32
coxa 2  1.00
coxa 3  0.32
femur  2.18
greatest diameter femur  0.50
tibia 1  2.50
tibia 2  3.03
tarsus  0.68
propodus  1.00
claw  0.57

REFERENCES

STOCK, J. H., 1968. Pycnogonida collected by the Galathea and Anton Bruun in the
TURPAEVA, E. P 1970. Belonging of Nymphon abyssale Stock to the genus Hetero-