

## *Ammothea hilgendorfi*

**System:** Marine

Kingdom	Phylum	Class	Order	Family
Animalia	Arthropoda	Pycnogonida	Pantopoda	Ammotheidae

**Common name** Pacific brown-banded sea-spider (English), Zebrazeespin (Dutch)

**Synonym** *Ammothea marginatum* ,(Cole, 1904)  
*Lecythorhynchus marginatus* ,Cole, 1904  
*Lecythorhynchus hilgendorfi* ,(Böhm, 1879)  
*Corniger hilgendorfi* ,Böhm, 1879  
*Ammothea ovatus* ,Hilton, 1942

### Similar species

**Summary** Native to the North Pacific Ocean (e.g., Japan and west America), it has been recorded in Europe since late 70's (Venetian lagoon, Southampton Water) and since 2010 in the North Sea. They likely settled via international shipping by gripping on boat hulls. Their distribution range from 30m depth to the intertidal zone. Apart from a few records in soil samples, information about this species and its impact on the environment are scarce.



[view this species on IUCN Red List](#)

### Species Description

The adult trunk length is ~2mm and the adult trunk width is ~1.5mm. This pycnogonid has 9-articled palps associated with reduced and rounded chelifores. The trunk is completely segmented, with well-distinct lateral processes, and ridges at the end of the first three segments (Faasse, 2013). The yellowish body features black-brownish spots over the legs.

### Notes

*Ammothea hilgendorfi* distinguishes from *Nymphon brevirostre* with its wider body and legs, as well as a brown-banded yellowish body opposed to an unicolorous brown-reddish body.

### Lifecycle Stages

Males bear the eggs on ovigerous legs until they hatch. The larva is protonymphon developmental type 1 according to Brenneis et al. (2017). It develops as endoparasite of gastrovascular cavities of hydroids (Russel & Hedgpeth, 1990).

### Habitat Description

It is found in marine environments from 0 to 30 meters in depth. It may live freely or be associated as ectoparasite to hydroids. Instances of *A. hilgendorfi* associated with sea stars (Nakamura & Fujita, 2004) or sea cucumbers (Ohshima, 1927) were also reported.

### Reproduction

Sexual. External. Polygynandrous mating (Barreto & Avise, 2008).



## General Impacts

Information about the impacts on the environment and biodiversity is lacking.

## Management Info

There is no management regarding this species.

## Pathway

## Principal source:

**Compiler:** Antoine Flandroit, University of Mons (UMONS)

## Review:

**Publication date:** 2022-09-08

## ALIEN RANGE

[1] BELGIUM

[1] NETHERLANDS

[1] ITALY

[3] UNITED KINGDOM

## BIBLIOGRAPHY

10 references found for *Ammothea hilgendorfi*

### Management information

Russel, D. J., & Hedgpeh, J. W. (1990). Host utilization during ontogeny by two pycnogonid species (*Tanystylum duospinum* and *Ammothea hilgendorfi*) parasitic on the hydroid *Eucopeella everta* (Coelenterata: Campanulariidae). *Bijdragen tot de dierkunde*, 60(3/4), 215-224.

### General information

BARRETO, F.S. and AVISE, J.C. (2008). Polygynandry and sexual size dimorphism in the sea spider *Ammothea hilgendorfi* (Pycnogonida: Ammotheidae), a marine arthropod with brood-carrying males. *Molecular Ecology*, 17: 4164-4175. <https://doi.org/10.1111/j.1365-294X.2008.03895.x>

Brenneis, G., Bogomolova, E.V., Arango, C.P. et al. From egg to "no-body": an overview and revision of developmental pathways in the ancient arthropod lineage Pycnogonida. *Front Zool* 14, 6 (2017). <https://doi.org/10.1186/s12983-017-0192-2>

Eno, N. C., A. Robin, and C.W.G. Sanderson. 1997. Non-native marine species in British waters: a review and directory. Joint Nature Conservation Committee Monkstone House, City Road Peterborough PE1 1JY UK.

Hiroshi OHSHIMA, Notes on some Pycnogons Living Semiparasitic on Holothurians. *Proceedings of the Imperial Academy*, 1927, Volume 3, Issue 9, Pages 610-613, Released on J-STAGE March 19, 2008, Online ISSN 1881-1140, Print ISSN 0369-9846. <https://doi.org/10.2183/pjab1912.3.610>

Koichiro Nakamura, Toshihiko Fujita, *Ammothea hilgendorfi* (Pycnogonida: Ammotheidae) Associated with a Sea-Star, *Coscinasterias acutispina* (Echinodermata: Asteroidea), from Sagami Bay, Japan, *Species Diversity*, 2004, Volume 9, Issue 3, Pages 251-258, Released on J-STAGE March 30, 2018, Online ISSN 2189-7301, Print ISSN 1342-1670. <https://doi.org/10.12782/specdiv.9.251>

Krapp, F. and Sconfiatti, R. (1983). *Ammothea hilgendorfi* (Böhm, 1879), an Adventitious Pycnogonid new for the Mediterranean Sea. *Marine Ecology*, 4: 123-132. <https://doi.org/10.1111/j.1439-0485.1983.tb00291.x>

World Register of Introduced Marine Species (WRiMS)

Bamber, R. (2012). Anthropogenic spread of the immigrant sea-spider *Ammothea hilgendorfi* (Arthropoda: Pycnogonida: Ammotheidae) in UK waters. *Marine Biodiversity Records*, 5, E78. doi:10.1017/S1755267212000668

Faasse, Marco. (2013). Further dispersal of the sea-spider *Ammothea hilgendorfi* (Böhm, 1879) in the North Sea to The Netherlands. *BiolInvasions Records*. 2. 10.3391/bir.2013.2.4.04.