## Short communications

## A PELAGIC ISOPOD, SYSCENUS INFELIX. OVERGROWN WITH HYDROIDS

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A specimen of the pelagic aegid isopod Syscenus infelix, collected in Malangen, N. Norway, was completely overgrown with luxuriant colonies of the hydroid, Obelia longissima.

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An adult female specimen (total length 24 mm) of the pelagic isopod *Syscenus infelix* Harger (Aegidae) was collected in a pelagic trawl at Aursfjord, Malangen, northern Norway (69°20'N, 18°40'E, «J. Ru-

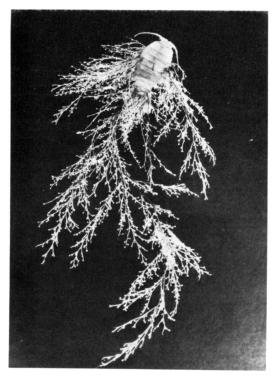


Fig. 1. The isopod Syscenus infelix with its cover of hydroids, Obelia longissima. The isopod is 24 mm long. (photo K. Felsted).

ud», St. 1059, 20—40 m, O.H.J. leg.) on 28 October 1978. The specimen is kept in the collection of Tromsø Museum sub reg. nr. Crust. 9173. The isopod was completely overgrown with hydroids (Fig. 1) which must have hampered it considerably in its movements.

Syscenus infelix is a little known species of wide distribution in the northern Atlantic and the Mediterranean (cf. Hansen 1916). In Norway the species has previously been reported from a few localities on the south and west coasts (for references and map see Pethon 1970), N. to Storegga off Aalesund, c. 63°N (Dons 1935). In the Bergen area S. infelix is of regular, though scarce occurrence in the deeper fjords (Vader, unpubl. obs.). The present specimen extends the known area of distribution some six degrees latitude to the north.

Syscenus infelix has usually been collected pelagically, but appears largely to avoid surface waters. Like the other Aegidae, the species probably feeds as a micropredator on fishes and it has been collected from Gadus merlangus by Boyallius (1885).

The epizoan hydroid clearly belongs to the genus Obella Peron & Lesueur 1810, but the colonies unfortunately are sterile. The taxonomy of the species in this genus is at present in a state of flux. According to the traditional classification the present material belongs to the almost cosmopolitan species O. longissima (Pallas), but Cornelius (1975), in a recent revision of the genus, treats this as a junior synonym of O. dichotoma (L.), and states that the name longissima simply pertains to older and well developed colonies of O. dichotoma. O. longissima and other more common forms of Campanulariidae show, along the coast of Norway, very distinct differences in distribution and selection of habitats, which in our opinion may indicate that they are different species. Only a closer study can solve this problem. O. longissima is common along the entire Norwegian coast, where it is often found epizoic on crabs, especially Hyas spp (Christiansen, unpubl. obs.). Rasmussen (1973) described its occurrence on shore crabs Carcinus maenas in Danish waters.

Little has been published on the occurrence of epizoic hydroids on pelagic or bentho-pelagic organisms, and the phenomenon seems to be rare. Broch (1914) found *Plumularia setacca* on an *Aega* sp. in west African waters, Stechow (1921) recorded *Obelia geniculata* from the ectoparasitic isopod *Anilocra physoides* L. and *O. longa* on a benthic isopod of the genus *Scrolis*, and Leloup (1942, fig. 1) noted the occurrence of *Campanularia jolnistoni* L., on the neritic shrimp *Pandalus montagui* Leach.

It is not clear in what way the hydroid medusae have been able to establish themselves on the isopod. Clearly the absence of the normal moulting rhythm of the host has enabled their luxuriant growth: at an ambiant temp. of  $5-10^{\circ}\text{C}$  the hydroid colonies must have taken at least 1 month to reach their present size.

The medusae of O. longissima will settle on any floating objects, and the hydroid colonies are often

found on floating wood, bottles, fishboxes and even on lumps of tar from oil spils (Christiansen unpubl. obs).

What must have happened in this case is therefore that the "antifouling apparatus" of the isopod, which normally prevents settling by the medusae, somehow has failed.

## REFERENCES

- Boyallius, C., 1885. A new isopod from the coast of Sweden. *Bih. K. sv. Vetensk. Akad. Handl. 10* (10), 1–4.
- Broch, H., 1914. Hydrozoa benthonica. Beitr. Kennthis Meeresfauna Westafrikas T. 1–25.
- Cornelius, P.F.S., 1975. The hydroid species of *Obclia* (Coelenterata, Hydrozoa: Campanulariidae), with notes-on the medusa stage. *Bull. Br. Mus. nat. Hist.* (Zool.) 28, 251–293.

- Dons, C., 1935. Zoologische Notizen. XXVIII. Isopoden aus der MöreKüste und Nord-Norwegen. D.K.N.V.S. Forh. 8, 41—43.
- Hansen, H.J., 1916. Crustacea Malacostraca, (III) V. The order Isopoda. *Danish Ingolf- Exped. 3 (5)*, 1–262.
- Leloup, E., 1942. Contribution à l'étude de la faune belge. XII.- L'hydraire *Campanularia johnstoni* Alder et le mollusque *Mytilus edulis* Linné, épizoaires sur le crustacé *Pandalus montagui* Leach. *Bull. Mus. roy. Hist. nat. Belg. 18*, (18), 1–4.
- Pethon, P., 1970. Isopoda from Oslofjorden and the south coast of Norway. *Rhizocrinus* 6, 1-14.
- Rasmussen, E., 1973. Systematics and ecology of the Isefjord marine fauna (Denmark). *Ophelia 11*, 1–495.
- Stechow, E., 1921. Symbiosen zwischen Isopoden und Hydroiden. Zool. Anz. 53, 221-223.