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New distributional record of *Obelia longissima* (Pallas, 1766) from Larsemann Hills, East Antarctica

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The benthic hydroid *Obelia longissima* (Pallas, 1766), earlier known from western peninsular region of Antarctica has been described for the first time from Easther Island of Larsemann Hills, East Antarctica.

[**Keywords**: *Obelia longissima*, New record, Larsemann Hills, East Antarctica]

Introduction

The Larsemann Hills (69°20′–69°30′S and 75°55′–76°30′E) is the second largest of the four major ice-free oases of Antarctica[1]. It is spread across a 50 km^2 stretch located between the Vestfold Hills and the Amery Ice Shelf on the south-eastern coast of Princess Elizabeth land, East Antarctica in the Prydz Bay region. It is bordered from two sides by two peninsulas, Broknes and Stornes and several small islands. Hydrozoans are small, bushy, sessile, feather-like colonies, composed of numerous interconnected small polyps, sometimes confused with seaweeds due to their appearance. An estimate puts the species count to about 260 hydrozoan species that occur in Antarctica[2], usually benthic adhering to various substrata like boulders, pebbles, sand, shells and algae. During the 35th Indian Scientific Expedition to Antarctica (InSEA), authors came across a specimen of genus *Obelia* intermingled with marine alga from Easther Island and a subsequent morphotaxonomic study and literature review[3-4] revealed it as a benthic hydroid *Obelia longissima* (Pallas, 1766), which is a new record from East Antarctica.

Materials and Methods

The specimens were handpicked from the intertidal splash zone region of Easther Island, Larsemann Hills (69°22.309′S, 76°14.136′E). Specimens were intermingled with the red alga *Callophyllis variegata*. After thorough cleaning and washing with seawater, the specimens were preserved in 4% formaldehyde solution. Detailed morphological study of the taxon was made under Nikon microscope Ni–11 fitted with Nikon Digital Camera DS–Ri1–U3, operated by Nikon Imaging Software NIS–D + EDF and the specimens were deposited at the National Zoological Collection, Zoological Survey of India, Kolkata (Record no. P3881/1).

Obelia longissima (Pallas, 1766) (Fig. 1)

Colonies regular, main stem 35–55 (–70) mm long, 0.4–0.5 mm wide, attached by creeping rhizomatous basal stolon near the substratum, branching monosiphonic, branch apices acute–obtuse angles mostly less than 30 degree; segments straight to slightly curved, tubular with distinct annulations, annuli up to 8 at the base of hydrotheca and side branches. Hydrotheca bell shaped, 0.75–0.90 mm long, 0.55–0.70 mm wide, pedicels 5–9 annuli long, narrower towards the base, diaphragm of basal chamber slightly oblique, perisarc thin with sinuosous rim.

Discussion

Obelia longissima is closely allied to *O. dichotoma* in general appearance of the segments and hydrotheca. But, the former differs from latter in having regular colony and monosiphonic stem, whereas irregular colony and polysiphonic stem in the latter; hydrotheca and internodes are longer, whereas shorter in the latter and the rim of the hydrotheca are usually sinuosous, whereas usually smooth or rarely sinuosous in the latter.

The taxon was widely recorded from western peninsular region of Antarctica[5-9] (Fig. 2) as well as

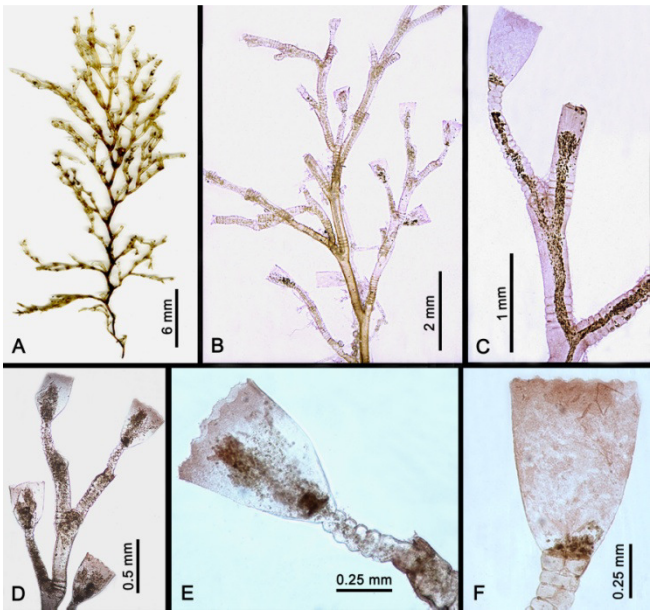

Fig. 1 — *Obelia longissima* (Pallas, 1766) (A: Colonies showing branching pattern, B–D: A portions enlarged showing annulation and hydrotheca, E, F: Details of hydrotheca).

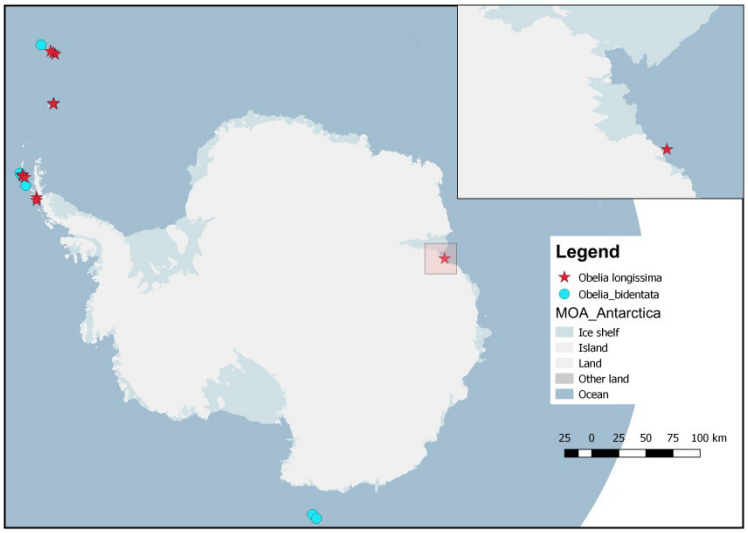

Fig. 2 — Map showing distributional records of *Obelia longissima* and *Obelia bidentata* in Antarctica. Red highlighted box indicates the present record from Easther island, Larsemann hills in east Antarctica.

from other polar regions of the world like Arctic[10], Siberia[11], Greenland and Iceland[3]. The present documentation is not only a new distributional record of the taxon from Larsemann Hills but also from entire eastern antarctic region.

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