

## FIRST RECORDS OF HYDROMEDUSAE (CNIDARIA: HYDROZOA) FROM THE COAST OF PAKISTAN

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### ABSTRACT

This study presents first records of three species of hydromedusae: *Clytia discoida*, *Clytia loma* and *Liriope tetraphylla* from the Pakistani coast collected as by-catch from a preserved collection of scyphomedusae obtained from Pitiani creek, Thatta. Previously, only one species, *Aequorea pensilis* is known from the region.

**Key words:** Hydromedusae, Leptothecata, Trachymedusae, first records, Pakistan

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Hydromedusae (Cnidaria: Hydrozoa) are usually small, transparent, gelatinous, planktonic organisms that are frequently seasonal, produced during the life cycle of hydroids. With the exception of a recently published record of a single species, *Aequorea pensilis* (Gul and Gravili, 2013) (Leptothecata: Aequoreidae), nothing is known about the hydromedusae of Pakistani coast. This study adds three species of hydromedusae (Fig. 1) found as by-catch from a preserved collection of scyphomedusae made on 20 March 2014 from Pitiani creek (24° 26' 14.3118" N, 67° 17' 26.6886" E) (Thatta, Pakistan). The specimens were identified following original descriptions of species plus, Kramp (1968) and Bouillon *et al.* (2004) while, classification of species was adapted from WoRMS (WoRMS Editorial Board, 2018). Specimens have been deposited in the Museum of Department of Zoology, Jamia Millia Government Degree College Malir, Karachi (MDZ JMGDC).

**Phylum Cnidaria** Verrill, 1865

**Class Hydrozoa** Owen, 1843

**Subclass Hydroidolina** Collins & Marques, 2004

**Order Leptothecata** Cornelius, 1992

**Family Campanulariidae** Johnston, 1836

**Genus *Clytia*** Lamouroux, 1812

*Clytia discoida* (Mayer, 1900)

(Fig. 1A, B)

**Material examined:** 2 specimens, 4 and 5 mm bell width, (MDZ JMGDC CN 25).

**Description:** Umbrella hemispherical, bulging along marginal area. Tentacles sixteen, short, provided with large basal bulbs. Three statocysts between tentacles. Manubrium urn-shaped. Mouth bearing four recurved lips. Gonads cylindrical, occupying most of the length of radial canals.

**Distribution:** This species occurs in the Atlantic and Mediterranean and is recently, reported from the Arabian Gulf (Al-Yamani *et al.*, 2013).

*Clytia loma* (Torrey, 1909)

(Fig. 1C)

**Material examined:** 1 specimen, 10 mm bell width, (MDZ JMGDC CN 26).

**Description:** Umbrella thin, fairly broader than tall. Tentacles 28, short. One statocyst between tentacles. Manubrium small, cruciform. Mouth bearing four somewhat frilled lips. Gonads on distal half of radial canals.

**Distribution:** *Clytia loma* occurs in the Western Pacific and is recently collected from the Red Sea (Gravili *et al.*, 2013). However, no record of the species was found from the Indian Ocean.

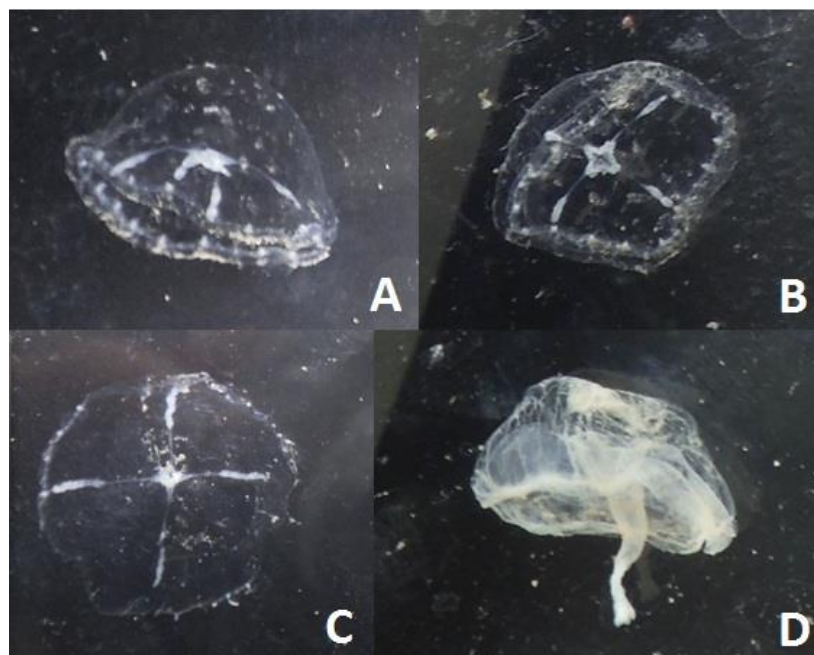


Fig. 2. Hydromedusae from the coast of Pakistan. A, B) *Clytia discoida* (Mayer, 1900) specimens; C) *Clytia loma* (Torrey, 1909); D) *Liriope tetraphylla* (Chamisso & Eysenhardt, 1821).

#### Subclass Trachylinae Haeckel, 1879

#### Order Trachymedusae Haeckel, 1866

#### Family Geryoniidae Eschscholtz, 1829

#### Genus *Liriope* Lesson, 1843

#### *Liriope tetraphylla* (Chamisso & Eysenhardt, 1821)

(Fig. 1D)

**Material examined:** 1 specimen, bell width 12 mm (MDZ JMGDC CN 27).

**Description:** Umbrella hemispherical with flat apex. Four long per-radial and four small inter-radial tentacles. Statocysts eight. Manubrium small, on long cylindrical gastric peduncle. Mouth bearing four simple lips. Four radial canals with centripetal canals in between. Gonads large, almost heart-shaped.

**Distribution:** This is a holoplanktonic and epipelagic medusa distributed in the warm waters of Atlantic, Indo-Pacific and Mediterranean.

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