No. 16 – 2 pages

# Natural History Snippets

Brief reports by members based on their observations of nature

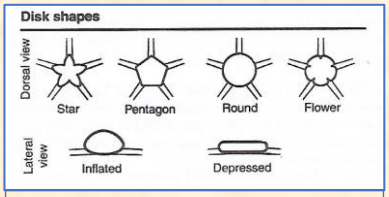
## Brittle stars in Sri Lanka

### ECHINODERMATA, OPHIUROIDEA

On the 23rd of March, 2005, while clearing tsunami-related debris from the seabed at Unawatuna, I found a brittle star wriggling out from under some furniture that I was attempting to raise. I was able to photograph it at once as I happened to be carrying a camera at the time. It turned out to be an *Ophiolepis superba*, an ophiuroid without prominent spines on the arms unlike many—its spines being small and laid against the arms (image at right).

*Ophiolepis superba*, in-situ, Unawatuna
*Malik Fernando*

Ophiuroids have a central disc of varying shape, with 5 thin, long arms that are able to flex sideways. The mouth is on the underside of the disc that also contains its other organs but is without an anus. The animals move by sinuous movements of the arms; they do possess tube feet, but these are not used for locomotion. The animals feed on small animals and organic detritus, as well as plankton that is trapped on mucous coated spines and retrieved by means of the tube feet. They are prey for fish, star fish, and crabs[1].




Reproduced from Weerakkody, 1998

Fig. 1

Kanishka Baduge
Marble Bay, Trincomalee

Brittle stars are usually found under stones, or under rock ledges from where they extend their arms into the open water in search of food. Juveniles can be found in curious associations with other invertebrates—wrapped around the branches of sea fans or hitchhiking on jellyfish. In Fig. 1 numerous little brittle stars can be seen on the umbrella, as well as on the mouth arms, the feeding structures of this jellyfish washed up on a beach. The writer has seen them on the umbrellas of *Cyanea* sp., the Lion's Mane jellyfish, as well as on *Marivagia stellata*, from where he was able to retrieve some for photography (Fig. 2). It is thought that they ride jellyfish to improve the chances of finding food, dropping off to the seabed when they are bigger.[2,3]

Fig. 2

*Marivagia stellata*
Kalmunai
Photo: Arjan Rajasuriya

Little is known about the diversity of brittle stars in Sri Lanka. Clark and Rowe (1971)[4] reported 40 species of brittle stars from the "Ceylon Area", that included the adjacent south Indian coastline. Weerakkody (1998)[5] has recorded 6 species that were not reported by the previous workers from Sri Lankan waters, in his study of brittle stars off the coast between Akurala and Devundara. H. L. Clark (1915)[6] had previously described 8 species in the Colombo Museum, naming *Ophiolepis superba* as a new species, and remarking that it did not have any dark markings, being "uniformly deep buff." The Museum's spirit collection no longer exists, have deteriorated badly when inspected by the writer many years ago.

On the next page are some photographs of brittle stars collected by Prasanna Weerakkody in 1996 off Black Coral Point, Hikkaduwa, identified by him and photographed by the writer.

*Breviturma brevipes* (Peters, 1851)
(=*Ophiocoma brevipes*)

*Ophiogymna elegans*

*Ophiarachnella gorgonia*

Images by Malik Fernando, except where photo credits indicate otherwise.

Text and layout by Malik Fernando.

31.8.2023.

[1]https://oceanconservancy.org/wildlife-factsheet/brittle-star/
[2]http://echinoblog.blogspot.com/2017/02/brittle-stars-that-steal-food-from.html
[3]http://echinoblog.blogspot.com/2009/05/brittle-stars-that-live-in-jellyfish.html
[4]**Clark, A.M. & Rowe, F.W.E., 1971**. *Monograph of shallow-water Indo-west Pacific Echinoderms*, British Museum (N.H.), London.
[5]**Weerakkody, P., 1998.** Observations on some Shallow-Water Brittlestars (Ophiuroidea) from the South and South-western coasts; with notes on field identification of the observed species. *Sri Lanka Naturalist* **II** (3): 22-30.
[6]**Clark, H. L., 1915.** The Echinoderms of Ceylon other than Holothurians. *Spolia Zeylanica.* 10(37): 83-102.

---

**Stöhr, S.; O'Hara, T.; Thuy, B. (Eds), 2023**. World Ophiuroidea Database. *Ophiolepis superba* H.L. Clark, 1915. Accessed through: World Register of Marine Species.
*Breviturma brevipes, Ophiogymna elegans,* and *Ophiorachnella gorgonia* have all been verified using the same resource.