Short communication

Record of sponge crab, *Sphaerodromia kendalli* (Alcock and Anderson, 1894) (Brachyura: Dromiidae), *Sozhlayuthu kuli*, off Thoothukudi coast of Gulf of Mannar, from southeast coast of India (08° 31.912'N 78° 25.327'E)

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Received: March 2020 Accepted: July 2020

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Keywords: *Sphaerodromia kendalli*, Dromiidae, off Thoothukudi coast, Gulf of Mannar

Introduction

MaLay (1993) has reviewed the family: Drommidae De Hann, 1833, a primal brachyuran crabs can arise in tropical and temperate seas of all the most important seacoast. According to Alcock were erected *Sphaerodromia* Alcock, 1899, and *Lasiodromia* Alcock, 1901 (a replacement name for *Homalodromia* Miers, 1884). Borradaile (1900) established *Dromidiopsis*, and in 1903a, *Dromides* (later absorbed into *Cryptodromia*) and *cryptodroiopsis*, and he redefined *Dromidia* and *Cryptodromia*. Most recently, the genus *Sphaerodromia* Alcock, 1899, has been reviewed by McLay and Crosnier (1991) and McLay (1991).

Thegenus *Parasphaerodromia* Spirido nov, 1992, was erected for a male specimen collected in an isolated seamount in the western Indian Ocean, it has been shown herein to be a synonym of *Dromidia* Stimpson, 1858. Decapod crustacea from the coast of Seychelles Islands were reviewed by McLay and Crosnier (1991) the genus *Sphaerodromia* Alcock, 1899 contains four species, viz., *S. kendalli* (Alcock and Anderson, 1894), *S. nux* Alcock, 1899b, *S. brizops* Mclay and Crosnier, 1991 and *S. ducoussoi* sp. nov. *S. lethrinusae*(Takeda and Kurata, 1976). The genus *Sphaerodromia* contains the most primitive species of Dromiidae, the present specimen *Sphaerodromia kendalli* (Alcock and Anderson, 1894) is reported to Thoothukudi coromandel

coast. The male specimen of *S. kendalli* on occurrence of deep (at a depth of 310-318 m) Sozhlayuthu Kuli, Thoothukudi fishing harbour, as an incidental by-catch in the deep-sea trawl fisheries off Thoothukudi coast of Gulf of Mannar.

Material and methods

The present investigation was carried pearl-city coast, India. The male specimen of *S. kendalli* are reported Sozhlayuthu Kuli, 22.3 miles away from Thoothukudi fishing harbour, it's by-catch specimen stale pearl coast by the side of 08° 31.912'N 78° 25.327'E long at a depth of 310-318 m.

Results and discussions

Taxonomy

Infraorder Brachyura Latreille, 1802
Superfamily Dromioidea De Haan, 1833
Family Dromiidae De Haan, 1833
Genus *Sphaerodromia* Alcock, 1899
Species *Sphaerodromia kendalli* (Alcock and Anderson, 1894) (Figs. 2 and 3)

Dromidia kendalli Alcock and Anderson, 1894: 175 (Bay of Bengal)
Sphaerodromia kendalli McLay, 1993: 127, Figures. 2a-I, 15a

Material examined

Male specimen (total length 81.5 mm; carapace length 23.1 mm; weighing about 40 gm) has been collecting through Sozhlayuthu Kuli, 22.3 miles away from Thoothukudi fishing harbour, it's by-catch specimen stale pearl coast by the side of 08° 31.912'N 78° 25.327'E long at a depth of 310-318 m (Figs. 1- 3). More recently collections of dromiid specimens have been prepared during crustacean by-catch biodiversity surveys in Thoothukudi coast of Gulf of Mannar, India. Male specimen, our report is based on the dromiid collection from Thoothukudi Fishing Harbour, Thoothukudi district, India.

Figure 1: Overview map from Off Thoothukudi Coast of Gulf of Mannar, India (08° 31.912'N 78° 25.327'E), 318 M, showing the sampling site of *Sphaerodromia kendalli* (Alcock and Anderson, 1894).

Figure 2: A dorsal view - *Sphaerodromia kendalli.*

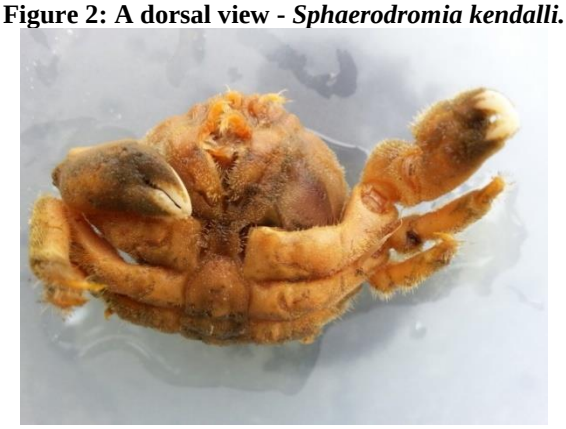

Figure 3:Ventral view - *Sphaerodromia kendalli*.

Remarks

The specimens examined harmonize relatively well by the original description and figures provided by Alcock and Anderson, 1896 (pl.24 Fig. 1, 1a). *Sphaerodromia kendalli* were originally described from a male specimen off Thoothukudi coast of Gulf of Mannar at 318 m depth (Alcock and Anderson, 1896, pl.24 Fig. 1, 1a). A pioneer scientist report by (Alcock and Anderson, 1894) and further consequent publications (Alcock, 1900a; 1901; Sakai, 1936; 1976) provided diminutive descriptions of the Indian and Japanese specimens. McLay (1993) has reviewed the family Dromiidae included a detailed re-description of the material collected from the Philippines and Indonesia, in addition that supported with illustrations of the Philippine material (McLay, 1993: Fig. 2a-i, 15a). *S. kendalli* is most easily distinguished from *S. ducoussoi* in having entire rather than marginally notched later carapace margins.

Diagnosis

Carapace about as wide as long; surface smooth; antero-lateral margin entire, without notches. Orbit with incipient vertical division, not divided horizontally.

Colouration

Dorsal tomentum light tan. Cheliped fingers light pale yellowish in colour.

Distribution

A rare occurrence of sponge crab *S. kendalli*, inedible pearl city coast, India. It extends to the Bay of Bengal, Japan,

Philippines, Southeast Molucca Islands, Indonesia, Madagascar and Seychelles (Alcock and Anderson, 1894; Alcock, 1900, 1901; Balss, 1922, Sakai, 1936; 1976; McLay, 1993; Lewinsohn, 1984).

References

Alcock, A. and Anderson, B. A., 1894. Natural History Notes from H.M. Indian MarineSurvey Steamer "Investigator", Commander C.F. Oldham, R.N., commanding. Series II. no. 14. Anaccount of a Recent Collection of Deep-Sea Crustacea from the Bay of Bengal and Laccadive Sea. *Journal of Asiatic Society of Bengal*, 63, 2(**3**), 141-185, pi. 9.

Alcock, A., 1896. Materials for a carcinological fauna of India. No. 2. The BrachyuraOxyslomata. *Journal of Asiatic Society of Bengal*, 65(**2**), 134-296, pl. 6-8.

Alcock, A., 1899. An account of the deep-sea Brachyura collected by the marine survey ship"Investigator". Trustees of the Indian Museum, Calcutta, 85 P., 4 pis.

Alcock, A., 1900. Materials for a Carcinological Fauna of India. No. 5. Brachyura Primigeniaor Dromiacea. *Journal of Asiatic Society of Bengal*, 1899, 68(**2**), 123-169.

Alcock, A., 1901. Catalogue of the Indian Decapod Crustacea in the collection of the IndianMuseum. Part I. Brachyura. Fase. I. Introduction and Dromides or Dromiacea (Brachyura Primigenia). Trustees of the Indian Museum, Calcutta, 80 P., pi. 1-8.

Balss, H., 1922. Ostasiatische Decapoden. III. Die Dromiaceen, Oxystomen and Parthenopiden.*Archiv fur Naturgeschichte*, 88A(**3**), 104-140.

Borradaile, L.A., 1900. On some Crustaceans from the South Pacific. Part IV. The crabs. *Proceedings of the Zoological Society of London*, 568-596, pi. 40-42.

De Haan, W.DE, 1833-1850. Crustacea. In: P.F. Siebold, Fauna Japonica sive Descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum inIndia Batava Imperium tenent, suspecto, annis 1823-1830 collegil, notis, observationibus etadumbrationibus illustravit. Lugduni Batavorum, fasc. 1-8: i-xxi + vii-xvii + ixxvi + 1-243, pl. 1-55, A-J, L-Q, circ., p

Lewinsohn, C., 1984. Dromiidae (Crustacea, Decapoda, Brachyura) from Madagascar and theSeychelles. *Bulletin du Muséum national d'histoire naturelle*, Paris, 4 Ser., 6. Sect. A(**1**), 89-129.

Mclay, C. L.andCrosnier, A., 1991. Description of a new and unusual species ofSphaerodromia (Brachyura, Dromiidae) from the Seychelle Islands. *Bulletin du Muséum national d'histoire naturelle*, Paris, (4), 13, sect. A(**1-2**), 181-188, fig. 1-3, 1 pl.

Mclay, C.L., 1991. A small collection of deep-water sponge crabs

(Brachyura: Dromiidae) from French Polynesia, including a new species of Sphaerodromia Alcock, 1899. *Bulletin du Muséum national d'histoire naturelle*, Paris, (**4**), 13, sect. A, (**3-4**), 457-481.

McLay, C.L. 1993. Crustacea Decapoda: the sponge crabs (Dromiidae) of New Caledonia and the Philippines with a review of the genera. In: A. Crosnier (ed), Résultats des CampagnesMUSORSTOM, Volume 10. Mémoires du Muséum national d'Histoire naturelle, Paris, 156, 111–251.

Mlers, E.J., 1884. Crustacea. In: Report of the zoological collections made in the Indo- Pacific Ocean during the voyage of H.M.S. "Alert", 1881-2. Part I. The collections fromMelanesia. Part II. The collections from the Western Indian Ocean London: 178-322, pi. 18-32: 513-575,pi. 46-51. (Trustees of the British Museum).

Sakai, T., 1936. Studies on the crabs of Japan I. Dromiacea. Science Reports of the Tokyo Bunrika Daigaku, section B, 3(**Supplement 1**), 1–66, pls. 1–9.

Sakai, T., 1976. Crabs of Japan and the Adjacent Seas. Tokyo, Kodansha Ltd., 773 P, 251 pl

Spiridonov, V.A., 1992. Parasphaerodromia subglobosa gen. et sp. n., a new sponge crab(Crustacea Decapoda Dromiidae) from the Southern Indian Ocean. *Arthropoda Selecta*, 1(**1**), 69-73 (in Russian but with an English summary).

Stimpson, W., 1858. Prodromus descriptionis animalium evertebratorum, quae in Expeditioneand Oceanum Pacificum Septentrionalem, a Republica Federata missa, Cadwaladaro Ringgold et Johanne Rodgers ducibus, observavit et descripsit W. Stimpson, Pars VII.Crustacea Anomoura. *Proceedings of the Zoological Society of London*, Phil ad., 10, 4: 225-252 (**63-90**).

Takeda, M. and Kurata, Y., 1976. Crabs of the Ogasawara Islands. II First report on the speciesobtained from the stomachs of fishes. Res. Crust., Tokyo, 7, 116-137.