

ADDITION TO THE FISH FAUNA OF PAKISTAN: OCCURRENCE OF *ZORAMIA VIRIDIVENTER* GREENFIELD, LANGSTON AND RANDALL 2005 AND *THALASSOMA AMBLYCEPHALUS* (BLEEKER 1856) AT CHURNA ISLAND

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ABSTRACT

Coral habitats around Churna Island are known to have rich fauna including fish. The present paper adds two new records to the faunal assemblages found on Churna Island. Fragile cardinal fish (*Zoramia viridiventer*) was found abundantly around rocky and reef structures whereas only a few specimens of bluntheaded wrasse (*Thalassoma amblycephalus*) were seen around the crevices in the rocky areas.

Key-words: Fragile cardinal fish, *Zoramia viridiventer*, bluntheaded wrasse (*Thalassoma amblycephalus*), Churna Island

INTRODUCTION

Coral habitats along the coast of Pakistan are restricted to only a few locations including Churna Island, Astola Island, Ormara, Gwadar and Jiwani area (Ali, 2017; Ali, *et al.*, 2021; Moazzam and Sharif, 2020). Despite the rarity of their occurrence, these coral habitats are known to harbour rich associated fauna including fish (Ali *et al.*, 2021). A number of species of cardinal fishes belonging to family Apogonidae are reported from the coast of Pakistan; some of which are known from Churna Island (Moazzam and Osmany, 2023). Wrasses belonging to the family Labridae are not well known from Pakistan except for their inclusion in many checklists including Hoda (1985, 1988), Hussain (2003), Jalil and Khaliluddin (1972, 1981) and Psomadakis *et al.* (2015). During recent SCUBA dive at Churna island in October 2023, fragile cardinal fish (*Zoramia viridiventer*) belonging to family Apogonidae and bluntheaded wrasse (*Thalassoma amblycephalus*) belonging to family Labridae were photographed. These two species are not previously known from Pakistan. Present paper provides details of these two species including some information about their habitats.

MATERIAL AND METHODS

Churna Island is located in the eastern part of province of Balochistan. Patches of corals are known to occur around this island (Ali, 2017; Ali, *et al.*, 2021, Moazzam and Sharif, 2020). Recreational scuba diving is being done at Churna Island during post-southwest monsoon months (October to April). In a dive in this area on October 7, 2023, photography of corals and its associated fauna was done which revealed the presence of two species of fishes which were not previously recorded from Pakistan. They are described in this paper.

RESULTS AND DISCUSSION

Coral assemblages around Churna Islands are known to have a well-diversified fauna and flora including a number of fish species. During the SCUBA diving in October 2023, two species *Zoramia viridiventer* and *Thalassoma amblycephalus* were photographed. These two species have not previously been reported from Pakistan.

Family Apogonidae (Cardinal Fishes)
Zoramia viridiventer Greenfield, Langston and Randall, 2005
(Fig. 1-2)

This species is commonly known as fragile cardinal fish. It was reported for the first time from the lagoon side of Pig Island (Tab Island), Madang Province, Papua New Guinea by Greenfield *et al.* (2005). Its holotype (BPBM 32507) is housed in the Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA. During the present study, its identification was based on an examination of the video clip and photographs taken during

SCUBA dive, therefore, the meristic characteristics were not recorded. Its body was observed to be compressed with dorsal profile of head straight. Mouth very oblique, forming an angle of about 50° to the horizontal axis of the head, the lower jaw strongly projecting; maxilla extending to below the centre of eye. The body colour is semi-transparent with silvery reflections anteriorly on the abdomen and operculum; two parallel, narrow yellow lines running along midside from opercula to caudal peduncle; a faint broad dusky band on side of snout directly before eye head and anterior part of the body is with scattered blue spots, a small black spot midposteriorly on caudal fin base, one-half pupil diameter or more in size the tip of caudal fin lobes may be black.



Fig. 1. *Zoramia viridiventer* photographed at Churna Island.



Fig. 2. *Zoramia viridiventer*. A school gathered around rocky ledge at Churna Island.

According to Rajan *et al.* (2021), this species is usually found in sheltered reefs in shallow water up to the depth of 15 m. During the present study the dive is made to a depth of 12 m and species was seen between 8 and 12 m at Churna Island. This species is known from Indo-Pacific are Indonesia, Malaysia, east to Papua New Guinea, Samoa, Fiji, Marshal Island, North to Japan south to Australia (Frickle, *et al.*, 2023; Froese and Pauly, 2023; Greenfield, *et al.*, 2005). It was also reported from Ladshadweep Islands, India by Rajan, *et al.* (2021). The present paper extends the distribution of this species to further north in the Arabian Sea to the coast of Pakistan.

Family Labridae (Wrasses)
Thalassoma amblycephalus (Bleeker, 1856)
(Fig. 3-4)

This species is commonly known as bluntheaded wrasse. It was originally described as *Julis (Julis) amblycephalus* from Ora Malang, southeastern Java, Indonesia by Bleeker (1856). Its types are not known (Frickle *et al.*, 2023). The body is moderately slender with the dorsal profile of the head slightly convex with the anterior tip of the head forming an acute angle; jaws prominent. The specimens photographed at Churna Island (Fig. 3) were in the initial phase which has a rounded snout; body with pale yellowish green dorsally, white ventrally and a broad blackish stripe from snout through eye to upper caudal-fin base; body above stripe greenish, below the white; upper and lower margins of caudal fin with a broad orange band that narrows posteriorly. A second narrower black stripe from the interorbital along the dorsal-fin base (Fig. 4).



Fig. 3. *Thalassoma amblycephalum* photographed at Churna Island.

It is widely distributed in the Indo-West Pacific area including South Africa, Kenya, Socotra (Yemen), Seychelles, Comoros, Madagascar and Mascarenes (La Réunion, Mauritius, Rodrigues) Chagos Archipelago, Maldives, Lakshadweep, (India), Sri Lanka, Andaman Islands, Indonesia, east to Kiribati, Marquesas Islands and Tuamotu Archipelago (French Polynesia), north to southern Korea, Japan, south to Australia, northern New Zealand, Kermadec Islands, Line Islands, Tuamotu Islands, Lord Howe, Rapa Islands and Tonga (Frickle *et al.*, 2023; Froese and Pauly, 2023; Randall and Victor, 2022). It is reported to occur in aggregations over shallow reef areas feeding on zooplankton (Rajan *et al.*, 2021; Westneat, 2001). During the present study, a few specimens of this species were found to be associated with sea urchin *Echinostrephus molaris* (Blainville, 1825).



Fig.4. *Thalassoma amblycephalum* found in association with photographed at Churna Island.

CONCLUSION

The family Apogonidae is represented by 42 species in Pakistan (Moazzam and Osmany, 2023). Out of these 5 species including *Apogonichthyoides pseudotaeniatus* (Gon, 1986), *A. sialis* (Jordan and Thompson 1914), *Archamia bleekeri* (Gunther, 1859), *Ostorhinchus cookii* (Macleay, 1881) and *O. flagelliferus* Smith 1961 were recorded from Churna Island (Ali *et al.*, 2021; Moazzam and Osmany, 2023). The present paper adds another species i.e. *Zoramia viridiventer* Greenfield *et al.*, 2005 to the family Apogonidae from Pakistan coast. Family Labridae is one of the least known groups of fishes from Pakistan and only 11 species are known from Pakistan (Moazzam and Osmany, unpublished report) whereas only two species i.e. *Halichoeres nigrescens* (Bloch ad Schneider 1801) and *Halichoeres scapularis* (Bennett 1832) are reported from Churna Island (Ali *et al.*, 2021). The present paper adds another species i.e. *Thalassoma amblycephalum* (Bleeker, 1856) to the family Labridae from Churna Island.

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