

A review of family Triacanthidae (Pisces) occurring in Pakistan

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Abstract

A total of two species of family Triacanthidae i.e. *Pseudotriacanthus strigilifer* (Cantor, 1849) and *Triacanthus biaculeatus* (Bloch, 1786) were previously known from Pakistan. Present paper also reports another species i.e. *Triacanthus nieuhofii* Bleeker, 1852 from Pakistan is also given in the paper. A key to known species has been provided.

Keywords: Family Triacanthidae, *Pseudotriacanthus strigilifer*, *Triacanthus biaculeatus*, *T. nieuhofii*

Introduction

Member of Family Triacanthidae (tripodfishes, triplespines) are known to inhabit shallow coastal waters of the Indo-Pacific areas. Seven species of the family i.e. *Pseudotriacanthus strigilifer*, *Triacanthus biaculeatus*, *T. nieuhofii*, *Triaxiphichthys ripodichthys angustifrons weberi*, *Tripodichthys blochii*, *Tripodichthys oxycephalus* are known so far (Froese and Pauly, 2005). Of the known species, only two *Pseudotriacanthus strigilifer* (Cantor, 1849) and *Triacanthus biaculeatus* (Bloch, 1786) were previously known from Pakistan.

Members of family Triacanthidae are commonly caught in the trawl and beach seine fisheries operations along Pakistan coast. These species of this family are not utilized for human consumption but dried alongwith other species and converted into fishmeal. These fishes are known as 'Kookh' in Sindh, 'Pokki' or 'Khar' in Balochistan and 'Tidda' in Katchi language. Present paper gives information about species of the Family Triacanthidae including a new record *Triacanthus nieuhofii* from Pakistan.

Materials and Methods

In addition to review of literature, samples of fishes were collected from landing centers, photographed and preserved in 5 % neutralized formalin for later examination.

Results and Discussions

Two species of Family Tricanthidae belonging to two genera *Pseudotriacanthus strigilifer* and *Triacanthus biaculeatus* are previously reported from Pakistan. Specimens of a third species i.e. *Triacanthus nieuhofii* were collected during the present study.

Pseudotriacanthus strigilifer (Cantor, 1849)

Long-spined tripodfish (Fig. 1)

This species was originally described as *Triacanthus strigilifer* from Sea of Penang, Malaysia by Cantor (1849). Its holotype is not known (Eschmeyer, 1998). Bianchi (1985), Froese and Pauly (2005), Hoda (1985, 1988), Hussain (2003), Jalil and Khalil (1972, 1981) reported this species from Pakistan without specifying any location. This species was reported from Sindh coast by Anonymous (1955), Hutchins (1984). From Sindh, it was also reported from Jhangi Sir by Ahmed *et al* (1999), from Karachi by Ahmad *et al* (1973) and Anonymous (1955) and from Paradise Point by Moazzam and Rizvi (1980). It was reported from Balochistan coast by **Ahmad** *et al* (1973), Anonymous (1955), Hmchins (1984) and Zugmayer (1913). Elsewhere, this species is known from Persian Gulf, Gulf of Oman to Indonesia, the Philippines, Papua New Guinea, Taiwan and Australia.

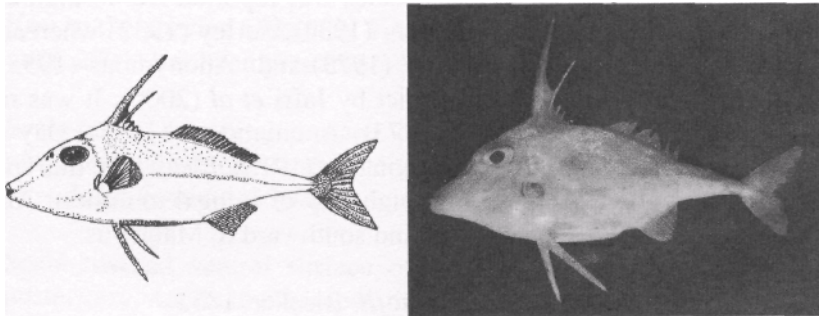


Fig. 1 *Pseudotriacanthus strigilifer* (after Day, 1878)

Triacanthus biaculeatus (Bloch, 1786)

Short-spined tripodfish

Fig. 2

This species was originally described as *Balistes biaculeatus* from Indian Ocean by Bloch (1786). No holotype of this species is known, however, lectotype (ZMB 4148) is housed in Zoologisches Museum, Humboldt Universitat, Berlin, Germany (Eschmeyer, 1998). *Triacanthus indicus* described

by Regan (1903) from Port Blair, Andaman Islands, India is considered to be a synonym of this species. No holotype of this synonym is known, however, lectotype (BMNH 1889.2.1.4096) is housed in British Museum of Natural History, London, U. K. (Eschmeyer, 1998). Another species *Triacanthus brevirostris* was described by Temminck and Schlegel (1850) from Japan which is considered to synonym of this species. Holotype (RMNH 4123) of the latter is housed in Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands (Eschmeyer, 1998).

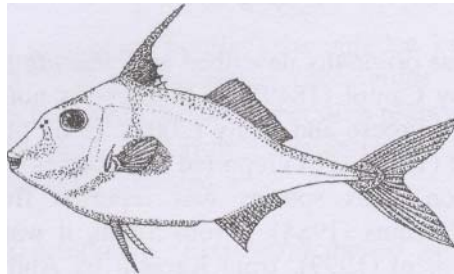


Fig. 2. *Triacanthus biaculeatus* (after Day, 1878)

Bianchi (1985), Froese and Pauly (2005), Hoda (1985, 1988), Hussain (2003) and Jalil and Khalil (1972, 1981) reported this species from Pakistan without specifying any location. This species was reported from Sindh coast by Hutchins (1984), Murray (1880), Punwani (1934), Sorley (1932) whereas it was reported from Karachi by Ahmad *et al* (1973) and Anonymous (1955, 1999) and from Tidal Link Canal, Badin District by Jafri *et al* (2000). It was reported from Balochistan by Ahmad *et al* (1973); Anonymous (1955), Day (1878), Hutchins (1984), Qureshi (1952) and Zugmayer (1913). Elsewhere this species is known from Persian Gulf eastward through Bay of Bengal to eastern Australia, northward to southern Japan and China and southward to Mauritius.

***Triacanthus nieuhoftii* Bleeker, 1852**

Silver tripodfish

(Fig. 3)

This species was originally described from Sibogha, western Sumatra, Indonesia by Bleeker (1852). Its holotype (RMNH 25402) is housed in Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands (Eschmeyer, 1998). This species can be distinguished from other species in having spiny dorsal-fin membrane very dark between first and second spines, slightly to much less darker between second and third spines, and pale between third and fifth spines. Outline of head between base of first dorsal-fin spine and eyes somewhat convex in front of spine and then straight or slightly concave over eye. Scale-covered

ventral surface of pelvis almost as wide anteriorly as posteriorly, not distinctly tapered to a point.

This species is mainly reported from Indonesia, Vietnam, Taiwan, to northwestern Australia. It is also reported from Indian coast in the Bay of Bengal (Froese and Pauly, 2005). It is reported for the first time from Pakistan and is first record from Arabian Sea. Two specimens of this species were collected from commercial catches in Karachi Fish Harbour in August 2005.

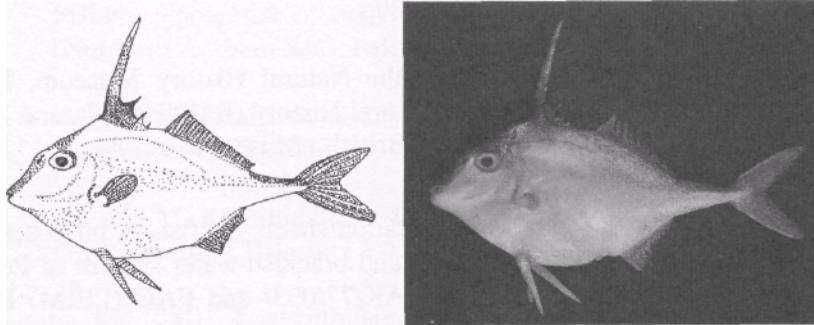


Fig.3. *Triacanthus nieuhofii*

Key to the species of Family Triacanthidae occurring in Pakistan (based on Matsuura, 2001) has been prepared.

1. Scale-covered ventral surface of pelvis much wider anteriorly than posteriorly, distinctly tapered to a point.....
Pseudotriacanthus strigilifer

Scale-covered ventral surface of pelvis almost as wide anteriorly as posteriorly, not distinctly tapered to a point 2
2. Spiny dorsal-fin membrane very dark between first and third spines, and usually equally dark between third and fifth spines; outline of head from base of first dorsal-fin spine to above eye an even slightly convex curve or almost a straight line *Triacanthus biaculeatus*

Spiny dorsal-fin membrane very dark between first and second spines, slightly to much less darker between second and third spines, and pale between third and fifth spines; outline of head between base of first dorsal-fin spine and eyes somewhat convex in front of spine and then straight or slightly concave over eye *Triacanthus nieuhofii*

References

- Ahmad, M.F., Niazi, M.S., Zaidi, S. F. A. and Ahmad, A., 1973. Marine fauna supplement, Pisces. Rec. zool. Surv. Pakistan 4: 22-44.
- Ahmed, M., Ayub, Z and Zaib-un-Nisa, 1999. Distribution and abundance of juvenile and subadult fishes in Sindh creeks and backwaters (Pakistan). *Pakistani. Zool.* 31:327-338.
- Anonymous, 1955. Marine Fishes of Karachi and the coast of Sind and Mekran. Government of Pakistan, Ministry of Food and Agriculture (Central Fisheries Department), Karachi. 80p
- Anonymous, 1999. Fish collection of the Natural History Museum, London (formerly British Museum of Natural History (BMNH)). Natural History Museum, London (formerly British Museum of Natural History (BMNH)).
- Bianchi, G., 1985. FAO species identification sheets for fishery purposes. Field guide to the commercial marine and brackish-water species of Pakistan. Prepared with the support of PAK/77/033/ and FAO (FIRM) Regular Programme. FAO, Rome. 200p
- Bleeker, P. 1852. Bijdrage tot de kennis der ichthyologische fauna van het eiland Banka. *Natuurkd. Tijdschr. Neder. Indie* 3:443-460
- Bloch, M. E. 1786. *Naturgeschichte der ausländischen Fische*. Berlin. *Naturg. Ausl. Fische* 2: 1-160
- Cantor, T. E., 1849. Catalogue of Malayan fishes. *J. Asiatic Soc. Bengal* 18: 981-1443.
- Day, F., 1878. The fishes of India; being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma, and Ceylon. *Fishes India* 553-779.
- Eschmeyer, W.N., Editor, 1998. Catalog of fishes. Special Publication, California Academy of Sciences, San Francisco. 3 vols. 2905 p.
- Froese, R. and D. Pauly. Editors. 2005. FishBase. World Wide Web electronic publication. www.fishbase.org, version (06/2005).
- Hoda, S. M. S., 1985. Identification of coastal fish varieties of Pakistan. *Pak. Agric.* 7:38-44.

- Hoda, S. M. S., 1988. Fishes from the coast of Pakistan. *Biologia (Lahore)* 34: 1-38.
- Hussain, S. M., 2003. Brief Report on Biodiversity in the Coastal Areas of Pakistan. Reg. Tech. Assist. (RETA) ADB/IUCN. 113p (Draft).
- Hutchins, B., 1984. Triacanthidae. In W. Fischer and G. Bianchi (eds.) FAO species identification sheets for fishery purposes. Western Indian Ocean (Fishing Area 51). Vol. 4. FAO, Rome. pag. var.
- Jafri, S. I. H., Ali, S. S., Mahar, M. A., Hussain, S. M. and Khatoon, Z., 2000. Fisheries potential of tidal link lakes (District Badin) of Sindh Coast (Northern Arabian Sea). *Pak. J. Zool.* 32: 301-306.
- Jalil, S. A., and M. Khaliluddin, 1972. A checklist of marine fishes of Pakistan, Government of Pakistan: 1-16.
- Jalil, S. A., and M. Khaliluddin, 1981. A checklist of marine fishes of Pakistan, Government of Pakistan: 1-18.
- Matsuura, K., 2001. Triacanthidae. Triplespines.. In: (Carpenter, K., E. and Niem, V., eds.) FAO species identification guide for fishery purposes. The living marine resources of the Western Central Pacific. Vol. 6. Bony fishes part 4 (Labridae to Latimeriidae), FAO, Rome. Pp. 3905-3910.
- Moazzam, M., and Rizvi, S. H. N., 1980. Fish entrapment in the sea water intake of a power plant at Karachi. *Environ. Biol. Fish.* 5: 49-57.
- Murray, J. A., 1880. A Hand-book to the Geology, Botany and Zoology of Sind. Beacon Press, Kurruchee 310p.
- Punwani, M. G., 1934. Karachi Fish. *J. Sind Nat. His. Soc.* 2: 44-47.
- Qureshi, M. R., 1952. Fishes of Makran coast. *Agric. Pak.* 3: 237-256.
- Sorley, H. T., 1932. Marine Fisheries of the Bombay Presidency. Govt. Press, Bombay.
- Regan, C.T., 1903. A revision of the fishes of the genus *Triacanthus*. *Proc. Zool. Soc. Lond.* (1903): 180-185..
- Zugmayer, E. 1913. Die Fische von Balutschistan. *Abh. Akad. Wiss. Munchen* 26: 1-35