

FIRST RECORD OF THE BATFISH, *PEGASUS LATERNARIUS* CUVIER  
(PEGASIDAE : PEGASIFORMES) FROM INDIAN WATERS

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ABSTRACT

*Pegasus laternarius* Cuvier was first reported only from China and Ceylon. In 1977, two specimens were collected off Madras at a depth of 15—25 metres over shell/gravel grounds. A short description of the species with ecological notes is given.

INTRODUCTION

During a routine cruise of R. V. CHOTA INVESTIGATOR along the Madras coast on 7. 5. 1977, a haul made with otter-trawl over shell/gravel grounds in depths ranging between 15 and 25 metres yielded *Pegasus laternarius* Cuvier, an interesting Batfish hitherto unknown from Indian waters. This species was previously reported only from China and Ceylon, with some doubt from Java (De Beaufort & Briggs, 1962). The present record from Madras is the first report of this species from Indian waters. The other species of the genus *Pegasus* known from Indian waters are *P. volitans* L., and *P. draconis* L.

SYSTEMATIC ACCOUNT

*P. volitans* (Syn. *P. volans* L., *P. natans* L., *P. pristis* Blkr., *Leptopegasus natans* Blkr. and *Parapegasus natans* Blkr.) is known from Pearl Banks, Ceylon (Munro, 1955), Orissa Coast near the mouth of River Mahanadi (Jones & Pantulu, 1958), Porto Novo (Krishnamurthy, 1961), Kovalam (Jayadev Babu, 1966), Thondi in Palk Bay (Sriramachandra Murthy,

1969), and Appa Island (Venkateshwarlu, 1974).

Similarly, *P. draconis* (Syn. *P. volans* Blkr. (*nec* L.), *P. draco* Kaup, *P. pauciradiatus* Ogilby, *Pegasus papilio* Gilbert, *Zalises umitengu* Jordon & Snyder, *Zalises draconis* Franz, and *P. umitengu* Jordon, Tanaka & Snyder) has been reported from Andamans (Day, 1876), Ceylon (Munro, 1955), Pudumadam in Gulf of Manaar (Sriramachandra Murthy, 1969), and Maldives (De Beaufort & Briggs, 1962), while *P. laternarius* is known only from China and Ceylon with certainty (De Beaufort & Briggs, 1962). The present report is thus the first record of *P. laternarius* from Indian Seas.

***Pegasus laternarius* Cuvier**

(Plate 1)

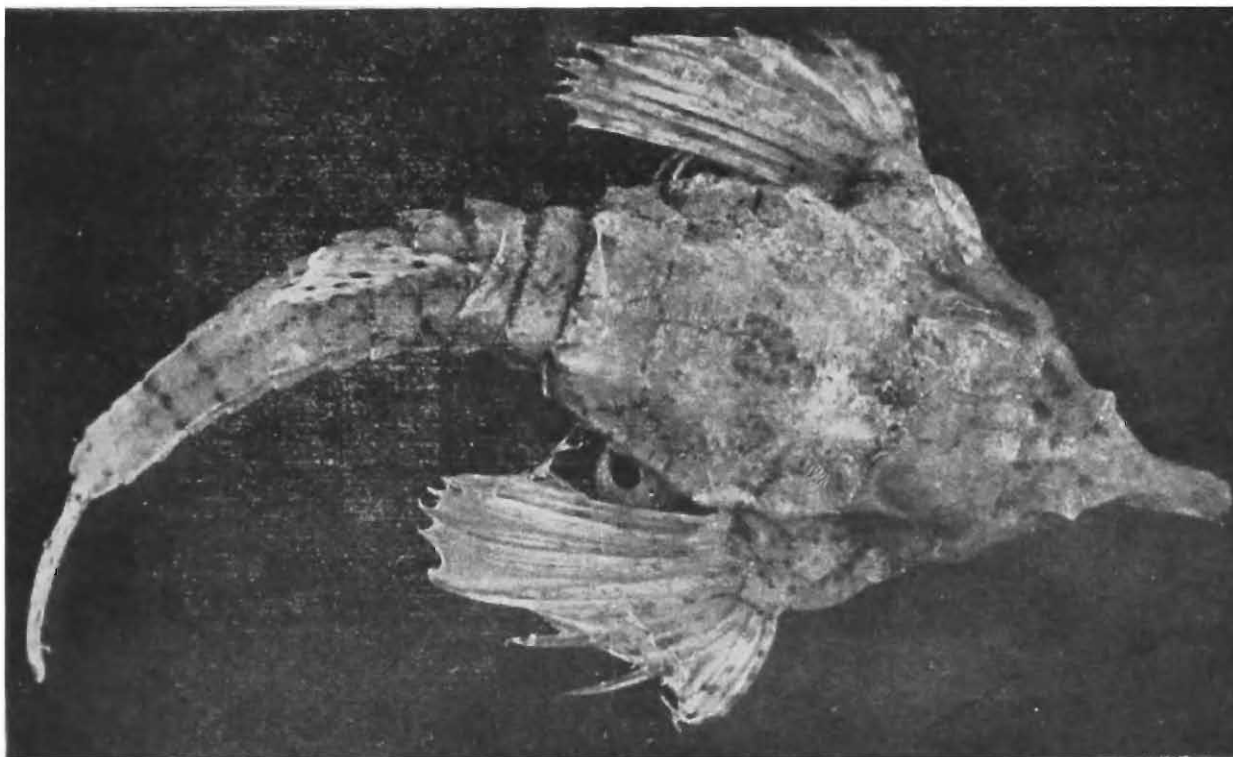
*Pegasus laternarius* Cuvier 1817, 332 ; De Beaufort & Briggs, 1962, 181.

*Pegasus volans* Günther 1870, 148 (*nec* L.), Johnstone, 1904, 214 (*nec* L.), *Parapegasus volans* Munro 1955, 290 (*nec* L.).

*Material* : 2 specimens, 50.0 & 60.00 mm S. L. ; inshore waters of Madras, 15-25 m

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PLATE I



Dorsal view of *Pegasus laternarius* Cuvier measuring 60.0 mm S L., collected from inshore waters of Madras.

depth over shell/gravel bottom, otter-trawl haul, Lat. 13°N., Long. 80°24'E., R. V. CHOTA INVESTIGATOR cruise on 7. 5. 77 (A. K. Nagabhushanam, Coll.).

*Description* : D.5 ; A. 5 ; P. 11 ; V.I.2 ; C.8.

Trunk with 3 rings and eleven tail rings. Pectoral rays spiny, the fifth much stronger than others. Brownish and fins spotted.

*Distribution* : Indo-West Pacific (China, Sri Lanka, Madras, Java ?). On the other hand, *P. volitans* and *P. draconis* are widely distributed in the Indo-Pacific region.

*Remarks* : Further reports of all these three species (adults, eggs and juveniles) from the seas around India would be worth recording. It is probable that *P. laternarius* is much more common than what present data would indicate. The otter-trawl is a very selective gear ; possibly dredges with fine-mesh covers would be better to capture more specimens.

Key to the Indian species of the Genus *Pegasus* (After De Beaufort & Briggs, 1962)

- |   |                       |
|---|-----------------------|
| 1. Twelve tail rings. Pectoral rays not spiny. No pits on occipit ( <i>Pegasus</i> s. str.) ...                                       | <i>P. volitans</i>    |
| 2. Eleven tail rings. Pectoral rays spiny, the fifth much stronger than the others. No pits on occipit ( <i>Spinipegasus</i> ). ...   | <i>P. laternarius</i> |
| 3. Eight tail rings. Pectoral rays spiny, the fifth not stronger than the others. Two deep pits on the occipit ( <i>Zalises</i> ) ... | <i>P. draconis</i> .  |

#### LABORATORY OBSERVATIONS

The specimens were brought alive and introduced into an aquarium (150 l. capacity) in the laboratory. Natural conditions were simulated with sand, shell/gravel, hydroids

and stones carpeting the floor of the aquarium. The seawater in the aquarium was kept well aerated.

The fish were observed to swim entirely with the aid of strong lateral movements of the powerful caudal fin, the fan-like pectorals being used exclusively for gliding purposes. On the floor of the tank, the recurved pelvic fins are used to anchor the fish around hydroids or stones ; they, along with the strongly developed pectoral fins aid in lifting the fish off the substratum ; besides, they, along with the pectorals, help in crawling movements when the fish stalks small prey.

*Feeding* : Although the fish were offered a variety of dried and powdered prawn and fish-meal, it was only on the smaller zooplankters contained in living plankton regularly supplied to them, that were voraciously fed upon by the fish. The mode of feeding was carefully observed : The fish suddenly shot out its tubular protrusible mouth when a copepodite or small copepod swam within range. The prey appeared to be sucked in forcibly in a rush of seawater impelled with a sudden expansion of the fish's buccal cavity. After ingestion, the extra volume of seawater also taken in with the prey was expelled through the gill-covers after the fish had levered itself from the substratum by means of its pelvics and pectorals. The fish ignored dead organisms and crushed prawn and fish meal. When not feeding the protrusible mouth is recessed into the head. Anteriorly the head is provided with a pair of stout vibratile processes, the exact nature of these could not be investigated since the fish both died within 21 days of capture. These processes are situated just ventral to the protrusible tube-like mouth, but are inserted into the skin fold below it on the head itself,

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