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# First record of rare pelagic sting ray, *Pteroplatytrygon violacea (*Boneparte, 1832) from Visakhapatnam coastal waters, north east coast of India

*** Muddula Krishna N, V Govinda Rao**

Department of Marine Living Resources, Andhra University, Visakhapatnam, Andhra Pradesh, India

**Abstract**
Pelagic stingray, *Pteroplatytrygon violacea* (Boneparte, 1832) was recorded for the first time from Visakhapatnam coastal waters, India. Three specimens measuring 92- 106 cm TL was collected from Visakhapatnam fish landing centre on 13.03. 2016. Description, morphometric characters of the fish species are provided and data on occurrence of this species in this region are generalized.

**Keywords:** first record, pelagic sting ray *Pteroplatytrygon Violacea*, Visakhapatnam, north east coast of India

## 1. Introduction
The pelagic or violet sting ray *Pteroplatytrygon violacea (*Boneparte, 1832) is common and widespread in tropical and warm temperate oceanic waters, including Indian, Pacific and Atlantic Ocean [1, 2]. Family Dasyatidae representative single species in genus *Pteroplatytrygon. Pteroplatytrygon* is a monotypic genus [3, 4] and one of the six genera which is the largest stingray family comprising about 68 species in this order. In the Indian waters, 32 rays including 18 species of Dasyatidae have been reported [5, 6]. From Indian waters this species has been reported from the south west coast of India by [7-9]. From Indian Ocean are very rare and restricted to the waters off South Africa and eastern Indonesia [10]. Catches of *P. violacea* in Visakhapatnam coastal waters is a very rare occurrence. Since there has been a lack of records, this species has not been included in the key for the identification of cartilaginous fish.This statement gives the first occurrence of *P. violacea* from the Visakhapatnam coastal waters.

## 2. Material and Methods
Three *Pteroplatytrygon violacea (*Boneparte, 1832) fish specimens were collected from Visakhapatnam fish landing centre on 13.03.2016. The pelagic stingray specimens 92-106 cm TL were caught by fishermen with trawl net catches. Specimens were identified using standard taxonomic works such as [11]. The stingrays were measured according to the recommendations by [12]. The *P. violacea* (Boneparte, 1832) specimen was preserved in 5% formalin and kept in the Department of Marine Living Resources, Andhra University, Visakhapatnam, and Andhra Pradesh, India.

## 3. Results
**Order: Myliobatiformes**
**Family: Dasyatidae**
**Genus: *Pteroplatytrygon***
**Species: *violacea* (Fig1 and 2)**

**Fig 1:** Dorsal and Ventral view of *Pteroplatytrygon violacea* 92-106 cm TL

### 3.1 Description
The pelagic stingray (Figure: 1 and 2) body is slightly broad and wedge shaped disc; dorsal surface is characterised by clearly marked head with well-developed opercular and stomach regions which is unique to this species; mouth small with 8-12 short, bifurcated papillae in continuous row across floor; labial furrows and folds prominent; lower jaw weakly convex; the snout is slightly small and more or less rudimentary; the tail has a membranous fold on the ventral surface underneath the spine; eyes moderate with thick eyelid;

body is covered with slimy mucous with single spine in the tail; a whip-like tail with a long ventral fold, ridge absent. Single row of 42-46 irregular tubercles facing downward runs through the middle of the body. Five pairs of gill slits present; a dark, medium-sized sting ray with an evenly rounded anterior disc margin; a dark ventral surface; small thorns in a continuous row along the back. Tail exceeding twice length of disc; broad based, tapering, slightly depressed in cross section anteriorly, whip like beyond sting; ventral cutaneous fold low, elongate, extending for about half to three quarters of tail length beyond sting.

**Fig 2:** Rows of teeth view of *Pteroplatytrygon violacea*

## 4. Discussion

The pelagic stingray *P. violacea* (Bonaparte, 1832) is found in the open oceans and inshore bays. It is the only whiptail stingray known to inhabit epipelagic waters of oceans [13-15]. The morphometric characteristics (Table:5) of the present study well agreement with different world authors described from North Sea [9, 14] from Arabian Sea [15] Gulf of Manner. The present study agrees with many morphological characters such as colour patterns of earlier workers [14, 15] but variation was observed in the disc width, interspace first gill slits, mouth width which may be variations geographical distribution differences.

**Table 1:** Morphometric characters (%) of *P. violacea* from Visakhapatnam, north east coast of India.

| ***P. violacea,n = 3*** | | |
|---|---|---|
| Character | Min-Max | Average (%) |
| Total length (%) | 178-225 | 205.915 |
| Disc width (%) | 44.44-48.91 | 46.36 |
| Disc length | 33.62-39.17 | 36.17 |
| Preorbital distance | 10.02-12.45 | 11.37 |
| Length of the eye | 1.54-3.14 | 2.18 |
| Interorbital distance | 5.24-6.68 | 5.96 |
| Pre narial distance | 4.89-5.16 | 5.02 |
| Inter narial distance | 4.43-4.65 | 4.54 |
| Pre oral distance | 6.15-6.52 | 6.53 |
| Mouth width | 14.77-15.74 | 15.17 |
| Head length to the 1st gill opening | 29.57-33.14 | 31.01 |
| Head length to the 5th gill opening | 42.85-48.30 | 45.49 |
| Interspaces between 1st gillslit | 24.91-30.80 | 27.44 |
| Interspaces between 5th gill slit | 18.34-23.94 | 20.69 |
| Snout to first gill opening | 10.35-11.37 | 10.82 |
| Snout to 5th gill opening | 15.00-16.57 | 15.88 |
| Snout to cloaca length | 28.4-32.08 | 30.17 |
| Cloaca to end of the tail | 56.12-70.10 | 64.30 |

## 5. Note

This is the International Union for Conservation of Nature threatened species [19].


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