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Record of complete albinism in marine catfish, *Osteogeneiosus militaris* (Linnaeus, 1758), landed at Mumbai

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Albinism is due to one of several gene mutations that affect the normal pigmentation. There are various degrees of albinism. True albino or amelanistic animals lack melanin and are white with unpigmented pink eyes. The term 'Albinism' is

generally used to denote absence of pigmentation, which is only nature's freak (Jones and Pantalu, 1952) and not necessarily a hereditary trait (Martin, 1963).

One such case of albinism was observed in a marine catfish landed at Versova landing centre on

6-9-07 by a trawler. The specimen was brought to the laboratory and was identified as a mature female specimen of *Osteogeneiosus militaris*. This species is commonly known as 'Soldier catfish' and locally known as *Pethra singada*. The specimen measured 294 mm in total length and weighed 220 g. The diameter of the intra-ovarian eggs varied from 6.38 to 8.62 mm and total number of eggs was 17. The gut was found to be without any food matter.

The entire fish including the fins was dull whitish pink in colour and devoid of any pigmentation (Fig. 1). Normally in *O. militaris*, the top of the head and back is bluish and the belly is lighter greyish white. The tips of first dorsal and adipose fins are dark blue.

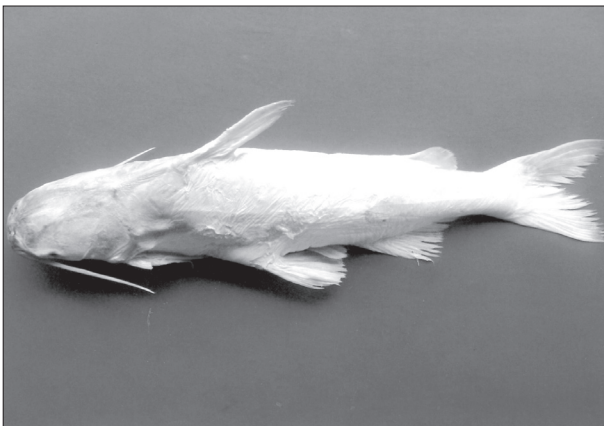


Fig. 1. Albino specimen of catfish, *Osteogeneiosus militaris* (Linnaeus, 1758)

Although there are a number of reports on partial albinism, cases of complete albinism were reported only in a few instances. Some of the instances of complete albinism reported in catfish from Indian waters are given in Table 1.

The present report seems to be the first instance of complete albinism in *O. militaris*. Hence, detailed morphometric measurements were taken and compared with those of a normal female individual of approximately the same size (289 mm) to see if any

variations existed due to albinism (Table 2). But for the absence of pigmentation and some variations in

Table 2. Comparative morphometric measurements of albino and normal catfish *Osteogeneiosus militaris*

Morphometric measurements (Length (mm)/weight (g))	Albino catfish	Normal catfish
Total length	294	289
Snout to penduncle length	234	231
Length of barble	72	70
Distance from snout to dorsal fin	89	88
Distance from snout to pectoral fin	62	59
Distance from snout to pelvic fin	121	114
Distance from snout to anal fin	168	163
Outer margin of dorsal fin	54	51
Inner margin of dorsal fin	23	19
Distance from snout to adipose fin	181	176
Outer margin of adipose fin	28	27
Inner margin of adipose fin	18	16
Length of mouth	61	60
Outer margin of pectoral fin	43	40
Inner margin of pectoral fin	14	11
Length of air bladder	40	39
Length of pelvic	35	34
Weight of pelvic	0.77	0.67



Fig. 2 : Albino and normal specimen of *Osteogeneiosus militaris*

Table 1. Complete albinism reported in catfish from Indian waters

Author	Year	Species	Publication
Gupta and Bhowmik	1958	<i>Arius jella</i> Day	<i>Sci. & Cul.</i> , 24(6): 283
Rajapandian and Sundaram	1968	<i>Tachysurus dussumieri</i> (Cuvier and Valenciennes)	<i>J.M.B.A.</i> , 9(1): 194-195.
James <i>et al.</i>	1975	<i>Tachysurus tenuispinis</i> (Day)	<i>Matsya</i> , 2:82.
Pillai and Somavanshi	1981	<i>Arius caelatus</i> (Valenciennes)	<i>I.J.F.</i> , 26:240-241.
Thakurdas <i>et al.</i>	2006	<i>Arius caelatus</i> (Valenciennes)	<i>M.F.I.S.</i> , 188:21-22

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Weight of ovary	7.16	0.95
Weight of lever	3.05	2.01
Weight of air blader	4.14	3.34

the length and colour of the barbels, the albino agrees in morphological characters with the normal

specimen, typical of the species (Fig. 2). The weight of the albino specimen (220 g) was more than the normal specimen which was a maturing one and weighed only 178 g.

The specimen is preserved in formalin at the Mumbai Research Centre of C. M. F. R. I.