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On the seasonal abundance of juvenile threadfin breams from Mumbai waters

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A very high catch of juvenile threadfin breams was observed at New Ferry Wharf, Mumbai in March 2007 by shrimp trawlers. The fishing was at about 60-80m depth to the southwest direction of Mumbai (off Ratnagiri) and the fishing duration was for a period of seven days.

On 3rd March 2007, 1,680 kg of juveniles of *Nemipterus* spp. were landed at New Ferry Wharf, forming approximately 30% of the estimated day's catch of threadfin breams. A sample of 180 specimens of the dominant species, *Nemipterus*

mesoprion weighing 1.99 kg was measured and they ranged in size between 40-79 mm with a mode at 70-79 mm (Fig 1). The smaller sized fishes ranging in size between 40-54 mm (Plate 1) were sold as trash, locally known as *kutta* and the comparatively bigger specimens, up to 79 mm (Plate 2) were auctioned at the landing centre at the rate of Rs. 3-4/kg. The species composition showed dominance of *Nemipterus mesoprion* (68.0%), followed by *Nemipterus japonicus* (31.5%) and *Nemipterus delagoae* (0.5%).

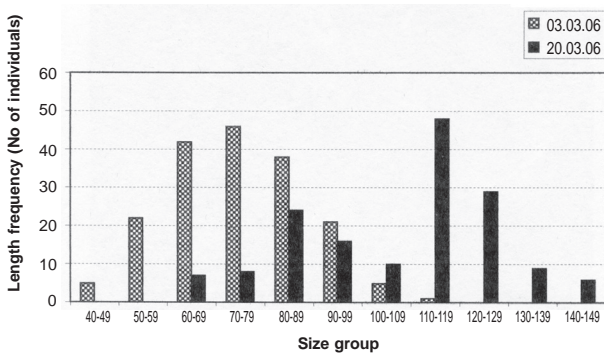


Fig 1. Length frequency of juveniles of *Nemipterus mesoprion* landed during March 2007 at NFW.



Plate 2. Juveniles ranging in size up to 79 mm.

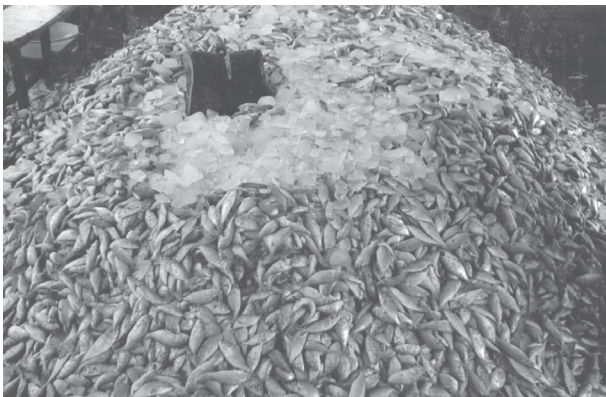


Plate 3. Heap of threadfin breams at New Ferry Wharf.

Heavy landings of juveniles, comprising of larger fishes than the above were observed again on 20th March 2007 (Plate 3). The catch amounting to 2,380 kg, formed about 70% of the total estimated day's catch of threadfin breams. A total of 157 specimens of the major species, *N. mesoprion*, weighing 5.2 kg



Plate 1. Juveniles ranging in size between 40-54 mm.

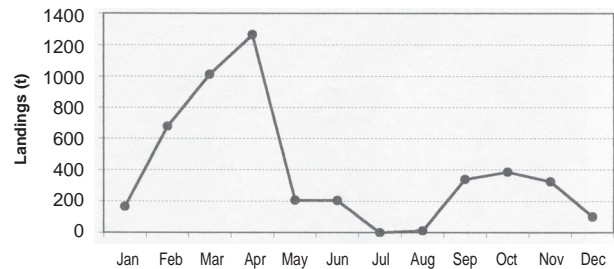


Fig 2. Monthly catch of threadfin breams at Mumbai during 2004-2006

were measured and they ranged in size between 60-149 mm with a prominent mode at 110-119 mm (Fig 1). The catch was auctioned at the landing centre at the rate of Rs. 8/kg. *N. mesoprion* (61.0%) formed the dominant species followed by *N. japonicus* (37.5%) and *N. delagoae* (1.5%).

The total estimated monthly catch of threadfin breams in March '07 was 186.3t. The entire catch including adults was transported to Ratnagiri for processing into a minced paste, known as *Surimi*, which forms an important item for export.

The seasonal abundance of threadfin breams over a period of 3 years from 2004-2006 showed that the maximum catch was during March-April with a smaller peak during September-October (Fig 2). However, occurrence of juveniles of small sizes in large numbers during the periods of abundance in the fishery is indeed a matter of great concern. Such unrestricted exploitation of juveniles could lead to growth overfishing.