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Utilization of head and vertebrae of *Otolithoides biauritus* - a new economic resource

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O*tolithoides biauritus*, locally called as koth is an important resource in Maharashtra. Exploited by multi-day trawlers, the resource is abundant throughout the year with peak landings during the period of October-December, at New Ferry Wharf landing centre. These trawlers are operated at a depth of 40-60 m, 80-90 km off north-west coast. The total length of the fish in trawl landings usually ranges between 90-150 cm.

Koth has emerged as a resource of high commercial value because of diversification in utilization of its body parts. Apart from air bladders, which are utilized for preparing isinglass in the beverage industry, skin of koth is used as an alternative source of leather. The flesh is cut into pieces at the landing centre itself and sold at the local market. The mature ovary of koth weighing more than 680 g fetches about Rs. 80-100 per piece. Besides, the discard of koth is also converted into fish meal.

Nowadays, head and vertebrae of koth (Fig. 1 and 2) are also being used as an alternative economic resource. The fish is cut laterally, parallel to the vertebral column to separate the flesh. The head is considered a delicacy and the vertebrae are used for the preparation of soups and they are sold at lucrative prices in the local market (Table 1).

Besides local consumption, these are also purchased by merchants in bulk and transported in trucks (Fig. 3) to Jaffrabad in Gujarat and Andhra Pradesh for processing. A small portion is also carried to Sewri in Mumbai, where they are mainly used to prepare poultry feed, mixing it up with



Fig. 1. Head of *Otolithoides biauritus*



Fig. 2. Vertebrae of *Otolithoides biauritus*

soya bean and corn. The dried vertebrae are also exported. The annual landing of koth at New Ferry Wharf in the year 2007 was 1,911 t and the raw head and vertebrae fetched around Rs. 25-30 lakhs. These are further salted and sun-dried, after which they are further processed and made into a fine powder. This

Table 1. Price structure of head and bones of *Otolithoides biauritus*

Length range of fish (cm)	Weight range of fish (kg)	Weight range of head (kg)	Price range of head (Rs./piece)	Length range of vertebrae (cm)	Weight range of vertebrae (kg)	Price range of vertebrae (Rs./piece)
75-95	2.54 - 4.75	0.2 - 0.5	10 - 15	68 - 86	0.4 - 1.0	15 - 20
95-115	4.75 - 6.19	0.5 - 1.5	15 - 25	86 - 110	1.0 - 2.0	20 - 45
115-140	6.19 - 13.55	1.5 - 2.25	25 - 50	110 - 135	2.0 - 3.5	45 - 90



Fig. 3. Head and vertebrae of *Otolithoides biauritus* transported by trucks

powder, selling at Rs. 60/kg, is a rich source of calcium and protein and is used as manure especially in plantain farms. According to the information gathered, the use of this manure in plantain farms increased the yield of the crop. It is also used in the poultry industry as chicken feed.

The landings of koth at New Ferry Wharf gradually decreased over the years from 3,245 t in 2003 to 1,911 t in 2006 contributing 5.3% and 4.8% respectively to the total fish catch (Fig. 4). The pooled data for the period 2003-2007 indicated that October-November is the period of abundance for

this species (Fig. 5). It is during this period, the head and vertebrae are mainly transported to Gujarat.

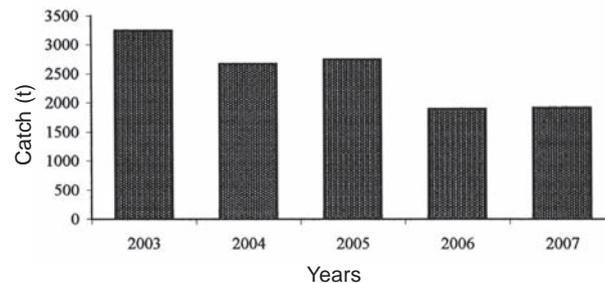


Fig. 4. Landings of *Otolithoides biauritus* at New Ferry Wharf

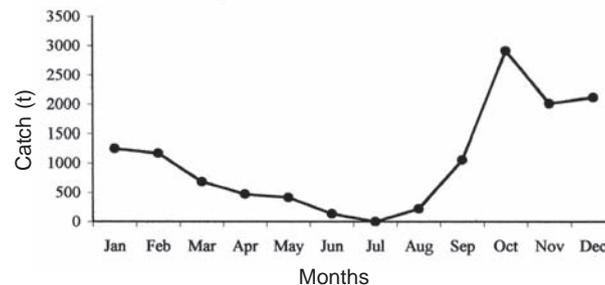


Fig. 5. Seasonal abundance of *Otolithoides biauritus* (2003-2007)