

Cephalopod fishery of Visakhapatnam - trend and present status

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Andhra Pradesh contributes nearly 8% to the total marine fish production of India. The cephalopods contribute a little over 1% to the total marine fish landings of Andhra Pradesh. In Andhra Pradesh, cephalopods are landed by large trawlers (12-14 m, 98/110 HP), known as sona boats and smaller trawlers (9.5-10 m, 68/90 HP). Total cephalopods landed during the period 2000-2010 was 23629 t and the total effort was 37399153. Cephalopod production increased from 1011 t in 2000 to over 2300 t in 2002. Thereafter there was a declining trend up to 2006. In 2006-2007, the production increased to over 2500 t. In 2008, there was a drastic decline. However, there has been an increasing trend in production in 2009-2010 (Fig. 1). Cephalopods contributed 0.53% in 2000 and 1.6% in 2010, to the total marine fish landings of Andhra Pradesh (Fig. 1). The annual average cephalopod production for the period was 2148 t, forming an average 1.04% of the total marine fish landings in Andhra Pradesh. Squids and cuttlefish contributed to the cephalopod

landings; however, Octopus landings were insignificant.

The trend and present status of the cephalopod fishery at the Visakhapatnam Fishing Harbour during the period 1998-2010 are detailed here. The total cephalopod production in Visakhapatnam during 1998-2010 was 12113.6 t with an average annual production of 931.8 t. The cephalopod production during 1998-2003 was less than 1000 t; thereafter the production increased to nearly 1400 t and 2010 recorded a steep increase to 2193 t (Fig. 2). The total effort during the period was 16810029 and average annual effort was 1293079. The effort also increased over the period from 139462 in 1998 to 2461167 in 2010. The average catch per unit effort was 1.03 Kg. The CPUE was very low during 2002 – 2006, although the effort was high (Fig. 2). In Visakhapatnam, cephalopods are landed by the large trawlers (sona boats) and small mechanised boats (SMBs). The landings by the sona boats and the

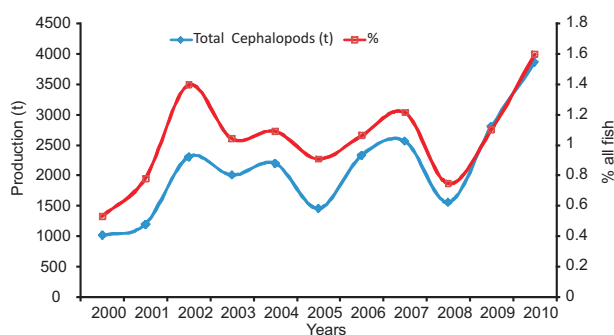


Fig. 1. Cephalopod landings in Andhra Pradesh (2000-2010)

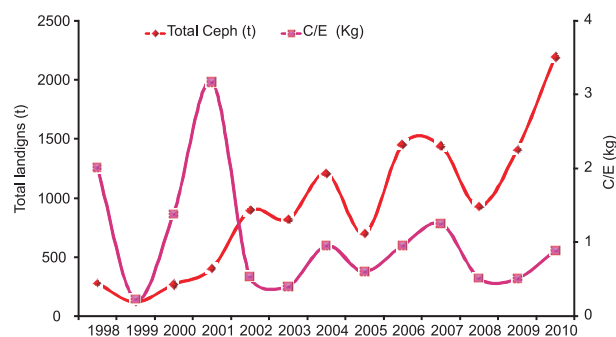


Fig. 2. Landings of cephalopods in Visakhapatnam Fishing Harbour (1998-2010)

small mechanised boats are shown in Fig 3. The SMBs contributed to the cephalopod landings during 1998 -2003, however, from 2004 onwards the contribution of the larger trawlers increased tremendously in Visakhapatnam (Fig. 3). The small mechanised trawlers contributed 58.3% during 1998 to 2001 while sona boats contributed 63.4 % of the cephalopod landings during 2002-2010. (Fig. 3). Active fishery begins by June and peak landings occur during June to September (Fig. 4).

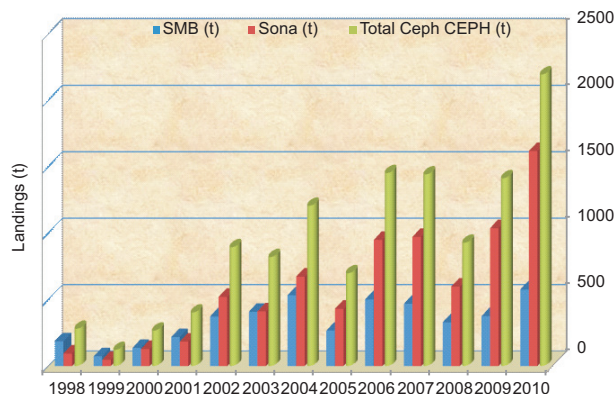


Fig. 3. Landings of cephalopods by Sona and SM boats at Visakhapatnam Fishing Harbour (1998-2010)

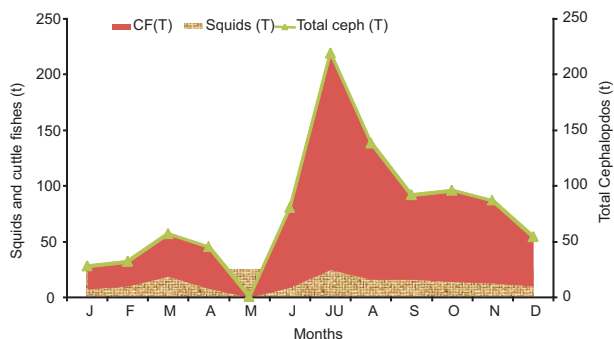


Fig. 4. Average monthly landings of cephalopods (1998-2010)

Squids contributed 20.5%, while cuttlefish contributed 79.8% to the total cephalopod landings in Visakhapatnam during the period 1998-2010.

Octopus landings were negligible. Among cuttlefish, *Sepia pharaonis*, *S. aculeata*, *Sepiella inermis* and occasionally *S. elliptica*, *S. brevimana* and *S. prashadi* were landed in Visakhapatnam. *S. aculeata* contributed 34.22% while *S. pharaonis* 29.6%, *S. inermis* 9.6%, *Loligo duvauceli* 20.54% and the rest 6.23% to the total cephalopod landings in Visakhapatnam during the period. Among squids, *L. duvauceli* contributed entirely to the squid landings. Stray numbers of *L. yuii* and *Sepiotuethis lessoniana* were observed. Octopus species did not contribute significantly to the fishery in Visakhapatnam. During 1998-2010 periods, *L. duvauceli* was dominant species from 2008 to 2010. During 2002 to 2007, *S. aculeata* was the dominant species contributing to the fishery and *S. pharaonis* from 2008 to 2010 (Fig. 5).

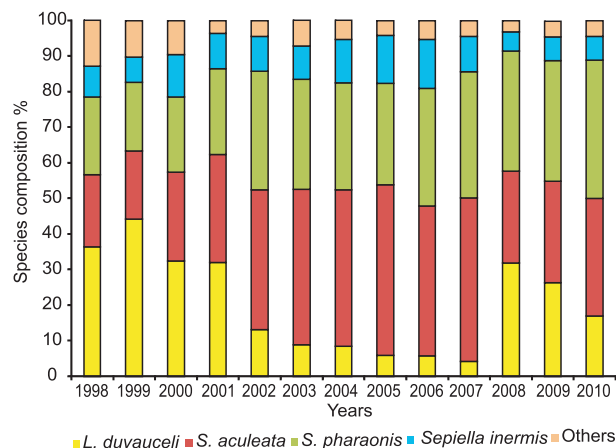


Fig. 5. Species composition (%) during 1998-2010

Over the decade, the production of cephalopods has shown drastic fluctuations in annual landings. However, there is an increasing trend with increase in demand for exports. The price of *S. pharaonis* is ₹ 220 to ₹ 230 per kg, *S. aculeata* is priced at ₹ 220 per kg, while *S. inermis* costs ₹ 80-100 per kg. *L. duvauceli* is priced at ₹ 50-60 per kg.