

Oil sardine from Oman enter fish markets of Kerala

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The Oil sardine *Sardinella longiceps* is a major fishery resource in India and catches in 2014 were an estimated 5.44 lakh tonnes (t). Of this, Kerala accounted for 1.55 lakh t forming 28% of the All India Oil sardine landings. In the domestic retail markets of Kerala when Oil sardine prices were ranging between ₹ 80 - 140 per kilogram, large sized sardines with average weights > 120 g each were also appearing and being sold at prices 40 - 60% higher than the locally caught sardines. Although market sources informed that these large sized Oil sardine were coming from Oman, the claim could not be traced. However, during a weekly visit to Kalamukku landing centre, Kochi for sampling fish on 23.6.2015, the unloading of packed cartons containing large sized Oil sardine was observed and these were traced to being sourced from Oman. Identity of the sardine as the Oil sardine *Sardinella longiceps* was later confirmed using morphometric and DNA barcoding tools (Fig. 1).

The whole frozen oil sardine packed in 10 kg cardboard crates bearing labels mentioning contents as a Product of Oman dated 12.5.2015 and a shelf

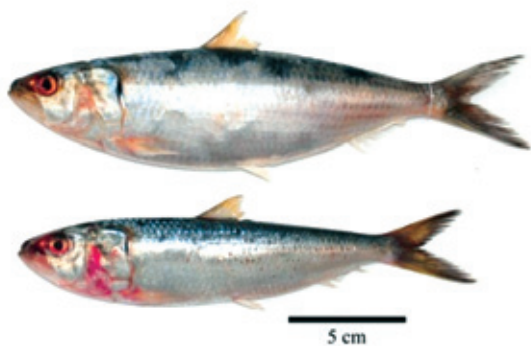


Fig. 1. *Sardinella longiceps* from Oman (top) compared to oil sardine caught locally off Kochi



Fig. 2. Cardboard crates containing frozen oil sardine and bearing label with product details

life of one year was brought in trucks. The cartons were opened by local dealers, the sardines unpacked and washed in fresh water, immediately re-iced and despatched to local markets (Figs. 2 & 3). These repacked sardines were priced at ₹ 200 and above per kg which was much higher than the prices of ₹ 100-140 normally got for locally caught Oil sardine. The total length of individual fish ranged from 22-24 cm and weighed on an average 160 g, with 6-8 numbers adding up to a kilogram. During the same period, due to heavy rains and windy weather effects caused by the monsoon, ring seine and gillnet fishing activities were temporarily suspended by the local fishermen leading to low availability of fish in the markets. The supply - demand gap being high, the generally big - sized sardines from Oman fetched a very good price. In the subsequent days also similar market arrivals of Oil sardine from Oman were recorded. A few specimens analysed to gather information on their biology indicated females had developing gonads containing oocytes in early yolk development stage of 0.1 - 0.2 mm diameter size. Guts contained very little food and copepods (zooplankton), *Thalassiosira* and *Peridinium* (phytoplankton) were noted. The sardine fishery in



Fig. 3. Oil sardine being repacked for local markets

Oman is well established and average annual catches reported during 2002-09 period was about 35,000 t. They are harvested using beach seines and gill nets

operated close to the shore. They are consumed fresh as well as in dried form for using directly as fodder for cattle and goats when green fodder availability is low and at times also exported to other Gulf countries like the UAE. Sardine abundance in Oman Seas is reported during September to April months with peak during December- January when temperatures are lower (Jufaili and Al-Jahwari, 2011, Sultan Quaboos University, Oman). In comparison, along the Kerala coast the Oil sardine fishery peaks during June to September with annual catches recorded in 2014 being 1.5 lakh against a record landing of 3.99 lakh t in 2012. Catch trends indicate steady decline since 2012. During June, 2015 landings were conspicuously low along the Central Kerala coast although catches were reported from other parts of Karala and neighbouring states like Karnataka and Tamil Nadu.