

Indian oil sardine Kerala

 Fishery:  Kerala  Kerala  India  Midwater trawls

IDENTIFICATION

SCIENTIFIC NAME

Sardinella longiceps

SPECIES NAME(S)

Indian oil sardine

STOCK IDENTIFICATION

Indian oil sardine is distributed on the entire west coast of India from Gujarat to Kerala, and also on Tamil Nadu, Pondichery, Andhra Pradesh and Orisha in the Indian east coast, but the highest abundance is observed off Kerala and Karnataka coasts. The stock structure of the oil sardine in India has been the subject of different studies in the last years (*Sukumaran et al. 2016*) (*Mohandas 1997*) (*Venkita Krishnan 1993*). Recent research suggests the presence of two stocks in India but the geographical limits of these stocks are not clear. In addition the possible presence of other distinct populations in some regions (especially in the southwestern coast) was evident in the analyses which needs to be confirmed further using more widespread sampling design and powerful markers (*Sebastian et al. 2017*). In India, the State (Provincial) governments have jurisdiction over fisheries in the territorial waters and populations of oil sardine are normally assessed separately for each State.

Due to the lack of certainty in the precise number and geographical limits of the biological stocks of oil sardine in India, one profile at the assessment unit level is defined for each of the six coastal states that account for major catches in India: [Maharashtra](#), [Goa](#), [Karnataka](#), Kerala, [Tamil Nadu](#) and [Andhra Pradesh](#).



RELATED LINKS:

- [Department of Fisheries, Government of Kerala](#)
- [Indian Central Marine Fisheries Research Institute \(CMFRI\)](#)

ASSESSMENT

Strengths

- Rapid stock assessments are conducted frequently for all coastal states by the Central Marine Fisheries Research Institute of India (CMFRI).
- Management measures include prohibitions on certain fishing gear, regulations on mesh size, establishment of closed seasons and areas, demarcations of zones for no-trawling.
- A minimum landing size of 10 cm for oil sardine has been recently established to protect juveniles and facilitate the recovery of the populations off Kerala.

Weaknesses

- Assessment is not conducted at the stock level since the number and geographical limits of oil sardine stocks in India is not clearly understood.
- The quality of the rapid stock assessments conducted by CMFRI cannot be evaluated based on the information provided by the CMFRI.
- Information provided in the CMFRI Annual Reports is not consistent among states and years, and typically not enough to fully understand the fishery in Kerala, e.g. there is no regular information on the percentage of catches captured by each fishing gear, or the percentage of juveniles in the catches.
- Presently no clearly stated long-term objectives are established for this fishery. Oil sardine in India is not managed through quotas or total allowable catches.
- There are no formal or routine arrangements in place to create a link between scientific findings and the management regime for this fishery and reference points have not been set.
- There are concerns in all the country that if the level of fishing effort remains unchecked, the fleet may grow to exceed sustainable levels.
- There is very little information on the environmental impact of the oil sardine fishery in India in terms of bycatch and ecosystem effects.
- Although there is not recent information on illegal, unreported, or unregulated (IUU) fishing related to the oil sardine fishery in India, IUU fishing was flagged as a major issue in the past including a range of illicit activities: fishing without permission or out of season; using outlawed types of fishing gear; non-reporting or underreporting of catch, etc.
- Long time series of state-wise catch data are not publicly available, and the CMFRI website provides catch data only for the last 5 years.
- Catches have drastically decreased since record high values in 2012 as a consequence of overfishing and unfavourable environmental conditions.

SCORES

Management Quality:

Management Strategy	Managers Compliance	Fishers Compliance
< 6	≥ 6	DATA DEFICIENT

Stock Health:

Current Health	Future Health
< 6	DATA DEFICIENT

FIPS

No related FIPs

MSC

No related MSC fisheries

RECOMMENDATIONS

RETAILERS & SUPPLY CHAIN

- Support current improvement efforts and encourage the development of a formal, national, Indian oil sardine fishery improvement project (FIP) covering all stocks including the following activities.
 - Encourage regulators to commission research to better define the biological stock structure.
 - Ask regulators to conduct and fully publish standardized stock assessments at the appropriate spatial scale.
 - Ask managers to publish historic annual catch data, including percentages of juvenile catch, by gear type for each state.
 - Work with managers to develop and agree on long-term objectives for the fishery, and develop a management plan, including biological reference points, a harvest strategy, and a harvest control rule for each

stock.

- Push managers to prevent further growth in effort in these fisheries until adequate stock assessments are available and stock status relative to reference points is known.
- Encourage managers to immediately implement management measures for each state to monitor and prevent or reduce the capture of juvenile fish, as advised by relevant scientific bodies, as done in Kerala.
- Work with scientists to research the environmental impacts of the fishery, especially with regard to effective monitoring of the incidental capture of endangered, threatened, and protected species.
- Support and encourage enhanced surveillance and enforcement to reduce illegal, unreported, and unregulated (IUU) fishing.