Indian oil sardine

**SPECIES NAME(S)**
*Indian oil sardine*

**STOCK IDENTIFICATION**

Indian oil sardine is distributed on the entire west coast of India from Gujarat to Orissa, and also on Tamil Nadu, Pondicherry, Andhra Pradesh and Kerala 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 (Subramoney et al. 2018). Sebha (1983) recently 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.

**Fishery:**
Indian oil sardine

This profile last updated on 28 June 2019

**Fishery Profile**

Indian Central Marine Fisheries Research Institute (CMFRI)
Department of Fisheries, Government of Kerala

**RELATED LINKS:**

- Department of Fisheries, Government of Kerala
- Indian Central Marine Fisheries Research Institute (CMFRI)

**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 fishing 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 biological stock structure.

**SCORES**

**Management Quality:**

- **Managers Compliance:**
  - **Fishes Compliance:**
    - **Data Deficient**

- **Stock Health:**
  - **Future Health**
  - **Current Health**
    - **Data Deficient**

- **FIPS:**
  - No related FIPs

- **MSC**
  - No related MSC fisheries

**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, eg, 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 all in 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 under-reporting 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.

**ASSESSMENT:**

**Management Quality:**

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**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 fishing 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 biological stock structure.
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.

Stock assessment

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Fishery Profile
https://www.fishsource.org/fishery_page/5569