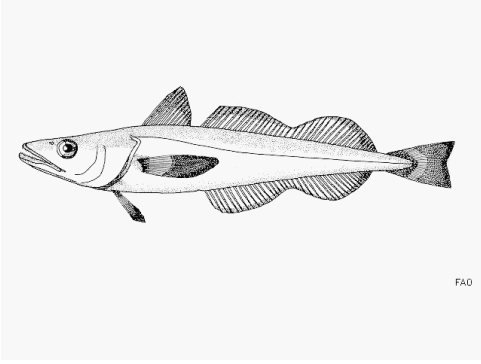


South Pacific hake Chilean

IDENTIFICATION



SCIENTIFIC NAME

Merluccius gayi gayi

SPECIES NAME(S)

South Pacific hake, merluza común

STOCK IDENTIFICATION

Several research studies have been conducted on the stock structure of South Pacific hake. (*Payá et al. 1997*) using morphological characteristics, genetics, parasitology and latitudinal comparisons about the average length of sexual maturity identified a unique stock in Chile; and (*Galleguillos et al. 2000*), supported this conclusion analysing polymorphic loci of distinct localities along Chile. (*George-Nascimento 1996*) and (*Oliva and Ballón 2002*) in turn consider the existence of two stocks according to morphology and parasitology of the species in Puerto Montt and Coquimbo. Finally and more recently (*Vidal et al. 2012*) using mitochondrial DNA presented a division in three genetic stocks: in Perú, Valparaíso-Coquimbo and Corral.

The Fisheries Development Institute (Instituto de Fomento Pesquero, IFOP), using the results obtained by (*Tascheri et al. 2013*) applying length composition and relative abundance data, corroborate the scenario that considers that mixing of the individuals is enough to assume a unique stock to assess along fishery management units IV – X (IFOP, 2013).



RELATED LINKS:

- [Chilean Undersecretary of Fisheries and Aquaculture \(SUBPESCA\)](#)

ASSESSMENT

Strengths

- The recent General Law on Fisheries and Aquaculture established clear rules for setting Management Commissions and Management Plans, stated that the minimum goal for every fishery is to achieve maximum sustainable yield (MSY), and makes mandatory an observer program to address discarding, which is not allowed.
- A management plan has been approved in 2016.
- A bycatch reduction plan has been approved in 2017.
- A partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) has been reached in 2017 to evaluate the stock assessment process and the management strategy.
- The Scientific and Technical Committee composed of scientific and management experts and institutes discuss the status of the stock to advise the Minister. Reference points have been redefined as a consequence.
- A biological closure is established to protect the spawning season from 1st to 30th September.
- Trawling is banned within five miles offshore, an area reserved for artisanal fishing. An observers program is in place with the aim to estimate and mitigate discards.
- A national plan to reduce the bycatch of seabirds in longline fisheries is in place.

Weaknesses

- The stock is in a collapsed state, and the resource is overexploited as per the last stock assessment report (2018).
- Uncertainties in the assessment include the natural mortality due to predation by jumbo flying squid *Dosidicus gigas*, which may be particularly important given the stock's precarious condition. This trophic interaction was thought to be an important factor possibly hindering the recovery of the stock, although it is possible that IUU fishing is responsible for part of the mortality attributed to predation by squid.
- Some members of the Management Committee (CCT-RDZCS) have raised concerns regarding the evaluation and efficiency of the harvest control rule.
- Catch limits have been set within the range of scientific recommendations but at the upper end, despite the stock condition.
- Bycatch levels by the industrial fleet and underreported landings by the artisanal fleet are issues named by the Scientific and Technical Committee that should be addressed in future fishing seasons under a Special Control Plan.
- The industrial fishery uses bottom trawls and no specific research is conducted on the impact on the sea floor.
- There are signs of non-compliance with the discarding ban.
- There is no systematic information but there are recorded interactions with protected species such as skates, sea lions and seabirds.

SCORES

Management Quality:

Management Strategy	Managers Compliance	Fishers Compliance
≥ 6	8.5	< 6

Stock Health:

Current Health	Future Health
< 6	< 6

FIPS

No related FIPs

MSC

- Chile hake trawl:
Withdrawn





RECOMMENDATIONS

RETAILERS & SUPPLY CHAIN

- Engage with managers and fishers to fully implement the current, agreed management plan.
- Improve the regulatory compliance of the fishery to eliminate all IUU fishing, especially unreported landings by the artisanal fleet.
- Implement measures to reduce fish and ETP bycatch and further identify and address environmental impacts, including impacts on the seabed.

Fisheries

Within FishSource, the term "fishery" is used to indicate each unique combination of a flag country with a fishing gear, operating within a particular management unit, upon a resource. That resource may have a known biological stock structure and/or may be assessed at another level for practical or jurisdictional reasons. A fishery is the finest scale of resolution captured in FishSource profiles, as it is generally the scale at which sustainability can most fairly and practically be evaluated.

 ASSESSMENT UNIT	 MANAGEMENT UNIT	 FLAG COUNTRY	 FISHING GEAR
Chileanmng	Chile IV-X Artisanal - Artisanal	Chile	Bottom-set longlines
			Set gillnets (anchored)
	Chile IV-X Industrial - Industrial	Chile	Bottom trawls
			Midwater trawls

Management Unit

 MANAGEMENT UNIT	ORGANIZATION	FISHING AREA
Chile IV-X Artisanal	Chilean Undersecretary of Fisheries and Aquaculture (SUBPESCA)	FAO 87.2.11, FAO 87.2.26, FAO 87.2.27, FAO 87.2.21, FAO 87.2.24, FAO 87.2.25, FAO 87.2.17, FAO 87.2.12, FAO 87.2.15, FAO 87.2.14
Chile IV-X Industrial	Chilean Undersecretary of Fisheries and Aquaculture (SUBPESCA)	FAO 87.2.26, FAO 87.2.27, FAO 87.2.21, FAO 87.2.24, FAO 87.2.25, FAO 87.2.16, FAO 87.2.17, FAO 87.2.15, FAO 87.2.14, FAO 87.2.11