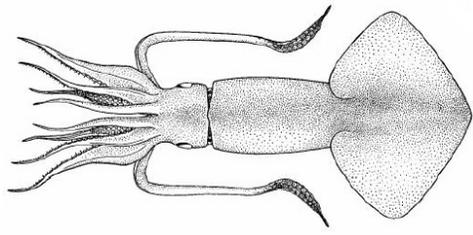


# Jumbo flying squid SE Pacific

## IDENTIFICATION



### SCIENTIFIC NAME

*Dosidicus gigas*

### SPECIES NAME(S)

Jumbo flying squid

### COMMON NAMES

calamar gigante, calamar rojo, Humboldt squid, jibia, pota

### STOCK IDENTIFICATION

Jumbo flying squid in the Eastern Pacific extends from the waters off Chile to the North American coast. The **NE Pacific** and **SE Pacific** represent genetically different stocks with some migration among them, in a genetic structure apparently influenced by oceanic currents (*Sandoval-Castellanos et al. 2010*).

Three intraspecific groups have been identified for Giant or Jumbo flying squid (*Dosidicus gigas*) in the Southeast Pacific, based on size-at-maturity (*Nigmatullin et al. 2001*), but as no genetic difference has been found between the three proposed sub-unit populations, thus it is still considered to constitute a single stock (*Xu et al. 2017*).



### RELATED LINKS:

- [Chilean Undersecretary of Fisheries and Aquaculture \(SUBPESCA\)](#) , [Ecuador Ministry of Agriculture, Livestock, Aquaculture and Fisheries \(MALAF\)](#) , [Ministry of Production - Peru \(PRODUCE\)](#) , [South Pacific Regional Fisheries Management Organization \(SPRFMO\)](#)
- [Fisheries Development Institute \(Chile\) \(IFOP\)](#) , [Instituto Nacional de Pesca, Ecuador \(INP\)](#) , [Marine Institute of Peru \(IMARPE\)](#) , [National Fisheries Institute of Ecuador \(INP\)](#) , [South Pacific Regional Fisheries Management Organization \(SPRFMO\)](#)

## ASSESSMENT

### Weaknesses

- No management exists at a whole-stock level, and there is thus scope for high-seas fleets to increase their catch levels at any time, potentially jeopardizing stock health.
- Ongoing uncertainty regarding the stock structure (three functionally independent stocks or one semi-mixed stock) combined with high annual/environmental variability hampers efforts to forecast and manage the stock(s) across national boundaries and in the high seas.
- Assessment of the full stock needs improvement in fishery-independent and dependent data from Peru and Chile and the SPRFMO area.

## SCORES

### Management Quality:

Management Strategy	Managers Compliance	Fishers Compliance
< 6 to ≥ 6	2.1 to 10	< 6 to ≥ 6

### Stock Health:

Current Health	Future Health
≥ 6 to 10	≥ 6 to 10

## FIPS

- Peruvian Jumbo flying squid - Jig:

Stage 3 , Progress Rating C , Type: Fip , Evaluation Start Date: 15 Feb 2018

## MSC

No related MSC fisheries

## RECOMMENDATIONS

### RETAILERS & SUPPLY CHAIN

- Work with the South Pacific RFMO and its members to define the population structure and agree on the approach to stock assessments, ensuring that the models incorporate appropriate fisheries, environmental, and biological data from the entire stock(s).
- Develop a common management strategy covering the entire population unit(s) and seek its adoption by all management authorities (RFMO and states). The common management strategy will include clear management objectives, specific management measures, and use of biological reference points and harvest control rules.
- Design and implement an effective fishery monitoring program that covers both national and international waters, assuring standardized and regular data collection covering all fleets required to support stock assessment. Ensure transparency and share data with all management authorities in the South Pacific RFMO.
- Design and implement a research programme aimed at determining biological parameters and the effects of environmental variability on the stock(s).
- Implement effective surveillance and enforcement mechanisms to ensure compliance with conservation and management measures (CMMs) within both national and international waters.
- Engage in and support the work of CALAMASUR in advocating for better science and management for jumbo flying squid fisheries in the Pacific.

# 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/SPRFMO	Chile	Midwater trawls
			Purse seines
			Vertical Lines
Ecuadormng	Ecuador/SPRFMO	Ecuador	Vertical Lines
Peruvianmng	Peru/SPRFMO	Peru	Handlines hand operated
			Pole-lines hand operated
			Vertical Lines
SE Pacific High Seas mng	SPRFMO - Industrial	China	Vertical Lines
		Japan	Vertical Lines
		Korea, Republic of	Vertical Lines
		Taiwan, Province of China	Vertical Lines

## Management Unit

 MANAGEMENT UNIT	ORGANIZATION	FISHING AREA
Chile/SPRFMO	South Pacific Regional Fisheries Management Organization (SPRFMO), Chilean Undersecretary of Fisheries and Aquaculture (SUBPESCA)	FAO 87.33, FAO 87.2.6
Ecuador/SPRFMO	Ecuador Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MALAF), South Pacific Regional Fisheries Management Organization (SPRFMO)	FAO 87.112, FAO 87.1.4, FAO 87.1.22, FAO 87.1.3
Peru/SPRFMO	South Pacific Regional Fisheries Management Organization (SPRFMO), Ministry of Production - Peru (PRODUCE)	FAO 87.1.4
SPRFMO	South Pacific Regional Fisheries Management Organization (SPRFMO)	FAO 87.2.6, FAO 87.3.3, FAO 87.1.4