## Jumbo flying squid
### SE Pacific

**Fishery:** Ecuador, Ecuador/SPRFMO, Ecuador

### IDENTIFICATION

**Scientific Name:** Dosidicus gigas

**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:

- Ecuador Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MALAF)
- South Pacific Regional Fisheries Management Organization (SPRFMO)
- National Fisheries Institute of Ecuador (INP)

### 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:**

<table>
<thead>
<tr>
<th>Management Strategy</th>
<th>Managers Compliance</th>
<th>Fishers Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6 to ≥ 6</td>
<td>2.1 ± 0.3</td>
<td>&lt; 6 to ≥ 6</td>
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**Stock Health:**

<table>
<thead>
<tr>
<th>Current Health</th>
<th>Future Health</th>
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<tr>
<td>≥ 6 ± 1.0</td>
<td>10± 1.0</td>
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**FIPS**

No related FIPs

**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 for 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 program 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 (CMAs) 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.

### RESEARCH PROFILE

**https://www.fishsource.org/fishery_page/6039**

This profile last updated on 19 August 2019