

## Chile South Austral Patagonian toothfish - Chilean longline

### Overview

#### FIP Description

The Chilean seabass (Patagonian toothfish) Fishery Improvement Project (FIP) aims to improve the status of the fishery to a standard that will allow it to pass a full assessment of a well-established, science-based certification program, such as the Marine Stewardship Council (MSC). The project is promoted and financed by the Magallanes Seabass Operators Trade Association (AOBAC, Asociación Gremial de Operadores de Bacalao de Profundidad de Magallanes), an organization that represents the interests of industrial fishermen who fish this resource south of parallel 47°S and includes the companies Globalpesca SpA, Pesca Chile S.A., and Pesca Cisne S.A.

The FIP is led by the Fishing Study Center (CEPES, Centro de Estudios Pesqueros), an organization with extensive experience in stock assessment and sustainable use of the resources of the southern austral zone of Chile, including Chilean seabass. CEPES has historically advised AOBAC and together they have developed a series of research projects, in coordination with the fishing authority, Undersecretary of Fishery (SUBPESCA Subsecretaría de Pesca), providing scientific information valuable for its management (<https://www.aobac.cl/cepes>).

The Chilean sea bass is a deep sea fish with a wide geographical distribution range in the Southern Hemisphere, mainly associated with the cold Antarctic and Southern Ocean waters, extending to the Eastern Pacific, Western Pacific, and Southwest Atlantic. It is a species of high commercial interest due to its high price in the markets and is known internationally as Chilean seabass, Patagonian toothfish and Black hake. Industrial extraction in the Exclusive Economic Zone (EEZ) of Chile, south of the 47°S parallel began in 1989 in an exploratory fisheries framework. After only three years, was development the commercial fishing, which was early ordered by a set of measures aimed mainly at limiting access, avoid the excessive growth of fishing effort and regulating catch rates. Currently, the industrial fleet is composed of five factory longliners (freezers) that fish on the slope, between 1000 and 2500 m in depth. Until 2005, the predominant fishing gear was the longline (Spanish system), which was almost completely replaced in 2008 by the chilean longline (cachalotera), a technological innovation in fishing gear developed to avoid depredation of the catch by mammals (sperm whales and killer whales) during the recovery phase of the fishing set. This new fishing gear has additionally incorporated other improvements in its design that have significantly reduced bird interaction and mortality and have contributed to improved fishing

yields. In the last decade, the landings of the industrial fleet have been very stable, around 1200 t, with increasing yields per hook in the recent six-year period. The 2022 landing of the AOBAC fleet, which owns 75% of the auctioned industrial fishing quota, was 1284 t equivalent to 73% of the total landing in the fishery area. Since 2015 the fishery has had a discard monitoring program, which has onboard cameras that continuously film fishing operations on all vessels. Estimated discard values are low, only 2% of the total Chilean seabass catch is discarded due to specimens damaged by the action of mammals or other operational factors inherent to the fishing activity that decrease its commercial value.

Overall fisheries in Chile are regulated under the General Law for Fishery and Aquaculture (LGPA, Ley General de Pesca y Acuicultura), which provides the regulatory framework for sustainable management of hydrobiological resources and their environment in Chile, through the application of the precautionary and ecosystemic approaches. Specifically, it establishes that the management strategy, based on catch quota, must reach and maintain the stock around the spawning biomass that produces the Maximum Sustained Yield (MSY). The main conservation measure is the Total Allowable Catch (TAC), allocated through individual fishing quotas, called Extraordinary Fishing Permits (PEP, Permisos Extraordinarios de Pesca) tendered in public auctions. The TAC is established annually by SUBPESCA, based on a range of Acceptable Biological Catch (ABC) recommended by the Technical Scientific Committee (CCT, Comité Científico Técnico) according to the status of the stock and the control rule established in the management plan prepared by the Management Committee (CM, Comité de Manejo) of the fishery. At present, the management plan is under development, so the CCT is temporarily applying a constant fishing mortality control rule corresponding to an exploitation rate lower than FMSY.

The status of the Chilean EEZ stock is defined annually by two indicators of the stock assessment model, the fishing mortality rate (F) and the spawning biomass (SSB), and Biological Reference Points (BRP) based on MSY that define thresholds of spawning biomass that it is not advisable to exceed (SSB<sub>limit</sub>), desirable levels to reach (SSB<sub>target</sub>) and an upper limit to fishing mortality (F<sub>limit</sub>) equal to that produced in the long term by MSY. The spawning biomass of UoA stock in 2021 is 39% unfished spawning biomass (SSB<sub>0</sub>), very close to the target biomass (40%SSB<sub>0</sub>) and far from the depletion threshold corresponding to 20%SSB<sub>0</sub>. Thus, the UPL stock is practically in a fully fished and underfishing condition with mortality levels well below the limit (F<sub>45%</sub>SSB<sub>PR</sub>). The 2021 spawning biomass estimate has a significant level of uncertainty, reflected in the width of the confidence interval; however, the probability of being below the depletion threshold is negligible.

The FIP aims to promote collaboration between the government, users of the fishery, and scientific advisors to achieve the objectives of sustainability of the fishery, minimize its impact on the ecosystem and improve its governance.

## How is this FIP Doing?

### Current Status:

18%

82%

**Actions Progress** This shows the proportion of actions in the workplan that the FIP has completed.

0%

**Actions Overview** This shows the proportion of actions that are behind schedule, on track, completed, or not yet started.

Behind	On Track	Complete	Future
0%	100%	0%	0%

**FIP Progress Rating**

C - Some Recent Progress

**FIP Objective(s)**

By **March 2026**, the FIP aims to meet the 80+ score for each MSC performance indicator and be able to enter MSC full assessment to achieve certification, addressing the following specific objectives;

- **Objective 1 (PI: 1.2.1).** Improve the harvest strategy in place to be responsive to the state of the stock and achieve the stock management objectives reflected in PI 1.1.1 SG80.
- **Objective 2 (PI: 1.2.2, 1.2.1).** Implement a well defined and effective Harvest Control Rule (HCR).
- **Objective 3 (PI: 1.2.4).** To have an adequate stock status assessment.
- **Objective 4 (PI: 2.4.3).** To have spatio-temporal information to identify the degree of interaction and potential impacts of the cachalotera on the seabed in the area of the UoA and establish a monitoring system if required.
- **Objective 5 (PI: 3.2.1).** Develop explicit fishery specific objectives.

**FIP Type**

Comprehensive

**FIP Stage**

Stage 3: FIP Implementation

**Start and Projected End Dates**

June, 2023 -  
June, 2026

**Species**

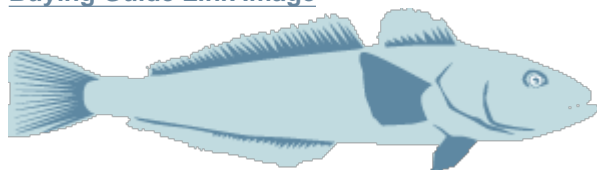
Common Name

Patagonian Toothfish

**Scientific Name**

Dissostichus eleginoides

[Buying Guide](#) [Link](#) [Image](#)



[Patagonian Toothfish](#)

[Buying Guide](#)

**Gear Type**

[Chilean longline](#)

**Location**

**FAO Major Fishing Area**

[Area 87 \(Pacific, Southeast\)](#)

**Exclusive Economic Zones**

**Country**

Chile

**Geographic Scope**

South of parallel 47°S

**Country Flag of Vessel**

Chile

**Estimated Total FIP Landings**

1300 metric tons

**FIP Leads**

**Organization Name**

Centro de Estudios Pesqueros (CEPES)

**Organization Type**

Consultant

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