



CCAMLR



# Identification Guide for Toothfish

*Dissostichus eleginoides* (FAO code: TOP)

*Dissostichus mawsoni* (FAO code: TOA)

**Order** Perciformes  
**Family** Nototheniidae  
**Genus** *Dissostichus*  
**Species** *eleginoides* and *mawsoni*

## Customs Codes

**Fresh/chilled** 03026800 (excluding fillets, livers, roes)  
03041210 (fillets), 03041290 (other meats)

**Frozen** 03036200 (excluding fillets, livers, roes)  
03042200 (fillets), 03049200 (other meats)

## About Toothfish

Patagonian toothfish (*Dissostichus eleginoides*) and Antarctic toothfish (*Dissostichus mawsoni*) are highly sought species on the world fish market.

Market names include: Patagonian toothfish, Antarctic toothfish, Chilean seabass, Merluza negra, Mero, White cod.

Other common names include: Sort patagonisk isfisk (Denmark); Legine australe (France); Schwarzer Seehecht (Austria & Germany); Ookuchi (Japan); Antar patagonski (Poland); Marlonga-negra (Portugal); Patagonski klykach (Russia); Austromerluza negra (Spain); Bacalao (Chile); Merluza negra (Argentina & Uruguay); Tandnoting (Sweden).

Toothfish has been subject to high levels of illegal, unreported and unregulated (IUU) fishing. Consignments of IUU-caught toothfish may be misreported as other species.

## Other Similar Species

Toothfish may resemble, or may be misreported as or mixed with the following species: Hake (HKE), Shark, African barrellfish (SEY), Butterfish/Bluenose (BUX) (when filleted), Greenland halibut (GHL) (when filleted and with skin)

## Common Product Forms

Toothfish are normally processed and frozen on board the fishing vessel. Common basic cuts are headed, gutted and tailed (HGT) heads, collars and cheeks. Depending on the market, the fish may also be filleted or simply gutted.

## Physical Description

Toothfish are slow-growing and long-lived, reaching maturity at about 8-10 years of age and living for up to 45-50 years. Toothfish caught in the fisheries are typically 80-140cm long and weigh 10-30kg. Large specimens may grow in excess of 160cm and 60-80kg. Toothfish have a fusiform body shape, protruding lower jaw and large lower lip, large eyes and large gill plates.

## The Fishery

Toothfish are caught by longline, trawl and pot, typically in depths of 500-1800m. Patagonian toothfish is caught off the coasts of Chile, Argentina, Peru, Uruguay, Patagonia, and around sub-Antarctic islands and seamounts. Antarctic toothfish is generally caught at latitudes higher than 55°S in the circumpolar

waters adjacent to Antarctica. In addition, toothfish are caught outside CCAMLR's Convention Area, mostly taken from domestic fisheries around South America and landed in local ports.

## Toothfish Fishing Vessels

Legally-caught toothfish is usually taken by bottom longlines deployed from vessels of 50-60m in length. Some toothfish is also caught by trawl in the Western Indian Ocean and by pot in the Southwest Atlantic Ocean and off South America.

IUU fishing vessels may longline or gillnet, the latter method considered particularly destructive to the Antarctic marine environment. IUU-caught toothfish is often transhipped at sea and landed in port by cargo vessels. CCAMLR maintains a list of IUU vessels which is available on its website.

## Species Identity in Catches

If in doubt as to the species identity, sampling of toothfish catch for protein or DNA analysis may be considered. Protein fingerprints can be obtained from fillet samples using isoelectric focusing on the muscle proteins. For this test, muscle tissue needs to be fresh or frozen at -20°C.

For DNA analysis, an optimum sample would consist of 50-150mg of white muscle tissue, either fresh, frozen at -20°C, or suspended in a solution of 95% alcohol (e.g. pure ethanol) in a well-sealed tube or container. If difficulties are likely in the transportation of ethanol, an alternative method is to soak the sample in ethanol for 1 week, pour off excess and transport. Unsuspended frozen samples can also be transported if low temperatures can be maintained throughout transportation. The recommended initial freezing temperature for samples is -20°C. Photographs of toothfish products and packaging could also be taken to assist with identification.

If local laboratory is not available, information on sample analysis may be obtained from:

### National Seafood Inspection Laboratory

NOAA Fisheries  
P.O. Drawer 1207 or 3209 Frederic St  
Pascagoula, MS 39567, USA  
Phone +1 228 769 8964, ext. 106  
Fax +1 228 762 7144

### CSIRO Marine and Atmospheric Research

Castray Esplanade, Hobart  
Tasmania 7000, AUSTRALIA  
Phone +61 3 6232 5222  
Fax +61 3 6232 5000

### Campden BRI (Campden site) - Steve Garrett

Station Road, Chipping Campden  
Gloucestershire, UK, GL55 6LD  
Phone +44 (0) 1386 842000  
email info@campden.co.uk  
website www.campden.co.uk



Whole single



Headed and gutted fresh



Headed and gutted fresh



Headed and gutted and collars



Fillets fresh



Cheeks fresh



Headed and gutted frozen



IUU toothfish vessel



Key Regulations for ports and importers

RFMO

CCAMLR  
www.ccamlr.org

Catch Documentation Scheme

Conservation Measure 10-05  
see www.ccamlr.org  
- CDS and Publications,  
Conservation Measures

Port inspections on  
vessels carrying toothfish

Conservation Measure 10-03  
see www.ccamlr.org  
- Publications,  
Conservation Measures

IUU Vessel Lists

Conservation Measures 10-06 and 10-07  
see www.ccamlr.org  
- Vessels and Publications,  
Conservation Measures

Catch Documentation Scheme

All toothfish unloaded or transported must be accompanied by a *Dissostichus* catch document (DCD) issued subject to the CCAMLR Catch Documentation Scheme (CDS). For more information see [www.ccamlr.org](http://www.ccamlr.org)

Each CCAMLR Contracting Party is required to identify the origin of any *Dissostichus* spp. landed or imported into or exported from its territories in order to establish if it was caught within the Convention Area according to the Conservation Measures agreed by CCAMLR. Toothfish landed in the port of Contracting Parties will be accompanied by catch and export documents from the point of landing to the point of final consumption. Toothfish without valid documentation cannot be landed in the port of any CCAMLR Contracting Party or subsequently traded. Catch documents cannot be issued to vessels included on CCAMLR's IUU Vessel Lists.