



Species fact sheets Sarda chiliensis (Cuvier, 1831)



Black and white drawing: (click for more)

### **Synonyms**

- Pelamys lineolata Girard, 1859
- Pelamys chilensis Gunther, 1860
- Sarda chilensis Jordan & Gilbert, 1882
- Sarda chiliensis Walford, 1936
- Sarda stockii David, 1943
- Sarda sarda chiliensis De Buen, 1958
- Sarda chilensis chilensis Vildosa, 1963
- Sarda sarda chilensis San & Lam, 1970
- Sarda chiliensis chiliensis Kuo, 1970

## **FAO Names**

En - Eastern Pacific bonito, Fr - Bonite du Pacifique oriental, Sp - Bonito del Pacífico oriental. 3Alpha Code: BEP Taxonomic Code: 1750100104

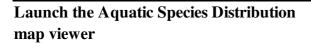
## **Scientific Name with Original Description**

*Pelamys chiliensis* Cuvier in Cuvier and Valenciennes, 1831, Histoire Naturelle des Poissons, 8:163 (Valparaiso, Chile).

## **Diagnostic Features**

Upper jaw teeth 18 to 30; lower jaw teeth 14 to 25; vomerine teeth absent; supramaxilla wide (Collette & Chao, 1975:fig. 32d); 23 to 27 gillrakers on first arch. First dorsal fin with 17 to 19 spines, length of fin base 26.7 to 31.4% of fork length ; dorsal finlets usually 8; 12 to 15 rays in anal fin; anal finlets usually 6 or 7; pectoral fin rays 22 to 26, usually 24 or 25. Vertebrae 22 to 24 precaudal plus 20 to 23 caudal, total 42 to 46, usually 44 or 45. Colour: dorsal stripes slightly oblique.

## **Geographical Distribution**



Restricted to the eastern Pacific Ocean (Collette & Chao, 1975:fig. 70). Its geographical range includes a northern and a southern subspecies separated by a tropical population of *Sarda orientalis*. The southern subspecies, *S. chiliensis chiliensis*, occurs from Mancora, Peru, just south of the Gulf of Guayaquil southward to Talcahuano, Chile. The northern subspecies, *S. chiliensis lineolata* (Girard) occurs from off the coast of Alaska (60° 16'N, 145° 32'W) southward to Cabo San Lucas at the tip of Baja California (22° 20'N, 112° 27'W and in the Revillagigedo Islands).

## Habitat and Biology

An epipelagic, neriticspecies attaining sexual maturity at about 2 years of age.

In the southern hemisphere, spawning occurs in nearshore waters between September and December. In the northern hemisphere, spawning begins in early March (southern populations) progressing northward in the following months as a function of increasing temperature. Evidence suggests that even 1 year old *S. chiliensis lineolata* may spawn in cold-water areas influenced by thermal discharges. Older bonito mature earlier in the season and tend to live further offshore as compared to younger fish. Spawning is in batches, and the number of eggs shed in one season by a 3 kg specimen has been estimated at about half a million. Fecundity increases exponentially with size.

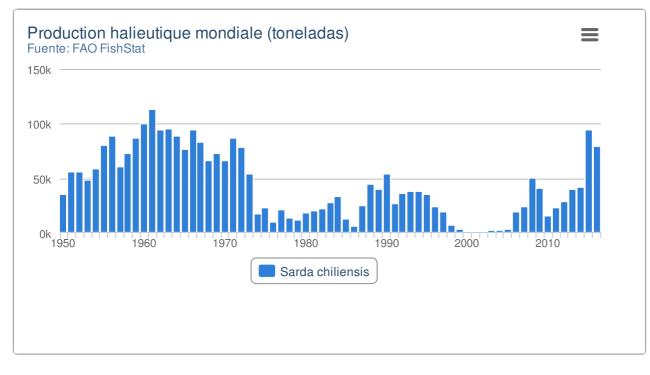
## Size

Maximum fork length is at least 79 cm in the southern hemisphere, and 102 cm in the northern hemisphere, where the fish may reach 11.3 kg of weight. The all-tackle angling record is a 10.07 kg fish with a fork length of 91.4 cm taken off Malibu, California in 1978. The smallest mature individuals recorded range between 47 and 53 cm fork length.

## **Interest to Fisheries**

In California, eastern Pacific bonito is taken commercially by **purse seiners**, but is more important to the recreational **hooks and lines** fishery operating from private and party boats, piers and jetties, and from the shore (Yoshida, 1980:42). In the mid-sixties, the Chilean bonito fishery between lquique and Antofagasta expanded

from an almost entirely artisanal activity with floating **gillnets** and small **purse** seines to an industrial operation with specialized bonito/tuna vessels (Yoshida, 1980:42). The landings of the northern subspecies (*S. c. lineolata*) in California and Mexico have fluctuated greatly over the last 50 years from less than 1 000 metric tons to nearly 14 000 t in the early seventies, ranking in 13th place (4 003 t worth \$1 222 000) in total California landings of 1976. The Peruvian landings of the southern subspecies (*S. c. chiliensis*) increased from almost nil in 1940 to a peak of 110 000 t per year in the early sixties, thereafter gradually dropping off to 40 000 t in the mid-seventies (Yoshida, 1980:44). The world catch for the species as a whole was down to between 10 219 t in 1976 and 15 936 t in 1981, reaching 21 308 t in 1977 (FAO, 1983). The total catch reported for this species to FAO for 1999 was 3 187 t. The countries with the largest catches were Mexico (1 775 t) and Peru (948 t).



## **Local Names**

CHILE : Bonito .

COLOMBIA : Bonito .

MEXICO : Bonito .

**PERU :** Aguadito, Bonito, Cerrajón, Chaucha, Chauchilla (for 1 year old), Monillo, Monito, Mono. **SWEDEN :** Chilensk bonit.

USA : Pacific bonito .

former USSR : Chilijskaya pelamida, Vostochnaya pelamida.

## Remarks

For the scope of this catalogue the species is treated as a whole, although some information pertaining to the northern and southern subspecies is given separately.

## **Source of Information**

FAO Species Catalogue. Vol. 2. Scombrids of the world. An annotated and illustrated catalogue of Tunas, Mackerels, Bonitos and related species known to date.Collette, B.B. & C.E. Nauen 1983. FAO Fish. Synop., (125)Vol.2:137 p.

# Bibliography

Ancieta, (1964) Collins & Mac Call, (1977). Kuo, (1970) Yoshida, (1980, species synopsis)



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