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THE FISHERY FOR TUNAS AND BILLFISHES IN THE EASTERN PACIFIC OCEAN IN 2012

INTRODUCTION

This report provides a summary of the fishery for tunas in the eastern Pacific Ocean (EPO), summary assessments of the major stocks of tunas and billfishes that are exploited in the fishery, and an evaluation of the pelagic ecosystem in the EPO, in 2012.

The report is based on data available to the IATTC staff in March 2013. As a result, some of the data tables for 2012 are incomplete, and all data for 2011 and 2012 should be considered preliminary.

All weights of catches and discards are in metric tons (t). In the tables, 0 means no effort, or a catch of less than 0.5 t; - means no data collected; * means data missing or not available. The following acronyms are used:

Species:	
ALB	Albacore tuna (*Thunnus alalunga*)
BET	Bigeye tuna (*Thunnus obesus*)
BIL	Unidentified istiophorid billfishes
BKJ	Black skipjack (*Euthynnus lineatus*)
BLM	Black marlin (*Makaira indica*)
BUM	Blue marlin (*Makaira nigricans*)
BZX	Bonito (*Sarda* spp.)
CAR	Chondrichthyes, cartilaginous fishes nei[1]
CGX	Carangids (Carangidae)
DOX	Dorado (*Coryphaena* spp.)
MLS	Striped marlin (*Kajikia audax*)
MZZ	Osteichthyes, marine fishes nei
PBF	Pacific bluefin tuna (*Thunnus orientalis*)
SFA	Indo-Pacific sailfish (*Istiophorus platypterus)*
SKJ	Skipjack tuna (*Katsuwonus pelamis*)
SKX	Unidentified elasmobranchs
SSP	Shortbill spearfish (*Tetrapturus angustirostris*)
SWO	Swordfish (*Xiphias gladius*)
TUN	Unidentified tunas
YFT	Yellowfin tuna (*Thunnus albacares*)

Fishing gears:	
FPN	Trap
GN	Gillnet
HAR	Harpoon
LL	Longline
LP	Pole and line
LTL	Troll
LX	Hook and line
OTR	Other[2]
NK	Unknown
PS	Purse seine
RG	Recreational
TX	Trawl
Ocean areas:	
EPO	Eastern Pacific Ocean
WCPO	Western and Central Pacific Ocean
Set types:	
DEL	Dolphin
NOA	Unassociated school
OBJ	Floating object FLT: Flotsam FAD: Fish-aggregating device

[1] not elsewhere included

[2] Used to group known gear types

Flags:	
IATTC Members & cooperating non-Members	
BLZ	Belize
BOL	Bolivia
CAN	Canada
CHN	China
COK	Cook Islands
COL	Colombia
CRI	Costa Rica
ECU	Ecuador
EU	European Union
FRA	France
GTM	Guatemala
JPN	Japan
KIR	Kiribati
KOR	Republic of Korea
MEX	Mexico
NIC	Nicaragua
PAN	Panama
PER	Peru
SLV	El Salvador
TWN	Chinese Taipei
USA	United States of America
VEN	Venezuela
VUT	Vanuatu
Other flags	
BMU	Bermuda
CHL	Chile
CYM	Cayman Islands
CYP	Cyprus
FSM	Federated States of Micronesia
HND	Honduras
LBR	Liberia
NZL	New Zealand
PRT	Portugal
RUS	Russia
SEN	Senegal
VCT	St. Vincent and the Grenadines
UNK	Unknown

Stock assessment:	
B	Biomass
C	Catch
CPUE	Catch per unit of effort
F	Rate of fishing mortality
MSY	Maximum sustainable yield
S	Index of spawning biomass
SBR	Spawning biomass ratio
SSB	Spawning stock biomass

This document summarizes the fisheries for species covered by the IATTC Convention (tunas and other fishes caught by tuna-fishing vessels) in the eastern Pacific Ocean (EPO). The most important of these are the scombrids (Family Scombridae), which include tunas, bonitos, seerfishes, and mackerels. The principal species of tunas caught are yellowfin, skipjack, bigeye, and albacore, with lesser catches of Pacific bluefin, black skipjack, and frigate and bullet tunas; other scombrids, such as bonitos and wahoo, are also caught.

This document also covers other species caught by tuna-fishing vessels in the EPO: billfishes (swordfish, marlins, shortbill spearfish, and sailfish) carangids (yellowtail, rainbow runner, and jack mackerel), dorado, elasmobranchs (sharks, rays, and skates), and other fishes.

Most of the catches are made by the purse-seine and longline fleets; the pole-and-line fleet and various artisanal and recreational fisheries account for a small percentage of the total catches.

Detailed data are available for the purse-seine and pole-and-line fisheries; the data for the longline, artisanal, and recreational fisheries are incomplete.

The IATTC Regional Vessel Register contains details of vessels authorized to fish for tunas in the EPO. The IATTC has detailed records of most of the purse-seine and pole-and-line vessels that fish for yellowfin, skipjack, bigeye, and/or Pacific bluefin tuna in the EPO. The Register is incomplete for small vessels. It contains records for most large (overall length >24 m) longline vessels that fish in the EPO and in other areas.

The data in this report are derived from various sources, including vessel logbooks, observer data, unloading records provided by canners and other processors, export and import records, reports from governments and other entities, and estimates derived from the species and size composition sampling program.

1. CATCHES AND LANDINGS OF TUNAS, BILLFISHES, AND ASSOCIATED SPECIES

Estimating the total catch of a species of fish is difficult, for various reasons. Some fish are discarded at sea, and the data for some gear types are incomplete. Data for fish discarded at sea by purse-seine vessels with carrying capacities greater than 363 metric tons (t) have been collected by observers since 1993, which allows for better estimation of the total amounts of fish caught by the purse-seine fleet. Estimates of the total amount of the catch that is landed (hereafter referred to as the retained catch) are based principally on data from unloadings. Beginning with Fishery Status Report 3, which reports on the fishery in 2004, the unloading data for purse-seine and pole-and-line vessels have been adjusted, based on the species composition estimates for yellowfin, skipjack, and bigeye tunas. The current species composition sampling program, described in Section 1.3.1, began in 2000, so the catch data for 2000-2012 are adjusted, based on estimates by flag for each year. The catch data for the previous years were adjusted by applying the average ratio by species from the 2000-2004 estimates, by flag, and summing over all flags. This has tended to increase the estimated catches of bigeye and decrease those of yellowfin and/or skipjack. These adjustments are all preliminary, and may be improved in the future. All of the purse-seine and pole-and-line data for 2012 are preliminary.

Data on the retained catches of most of the larger longline vessels are obtained from the governments of the nations that fish for tunas in the EPO. Longline vessels, particularly the larger ones, direct their effort primarily at bigeye, yellowfin, albacore, or swordfish. Data from smaller longliners, artisanal vessels, and other vessels that fish for tunas, billfishes, dorado, and sharks in the EPO were gathered either directly from the governments, from logbooks, or from reports published by the governments. Data for the western and central Pacific Ocean (WCPO) were provided by the Ocean Fisheries Programme of the Secretariat of the Pacific Community (SPC). All data for catches in the EPO by longlines and other gears for 2011 and 2012 are preliminary.

The data from all of the above sources are compiled in a database by the IATTC staff and summarized in this report. In recent years, the IATTC staff has increased its effort toward compiling data on the catches of tunas, billfishes, and other species caught by other gear types, such as trollers, harpooners, gillnetters, and recreational vessels. The estimated total catches from all sources mentioned above of yellowfin, skipjack, and bigeye in the entire Pacific Ocean are shown in Table A-1, and are discussed further in the sections below.

Estimates of the annual retained and discarded catches of tunas and other species taken by tuna-fishing vessels in the EPO during 1983-2012 are shown in Tables A-2a-c. The catches of yellowfin, bigeye, and skipjack tunas, by gear and flag, during 1983-2012 are shown in Tables A-3a-e, and the purse-seine and pole-and-line catches of tunas and bonitos during 2011-2012 are summarized by flag in Table A-4. There were no restrictions on fishing for tunas in the EPO during 1988-1997, but the catches of most species have been affected by restrictions on fishing during some or all of the last six months of 1998-2012. Furthermore, regulations placed on purse-seine vessels directing their effort at tunas associated with dolphins have affected the way these vessels operate, especially since the late 1980s, as discussed in Section 3.

The catches have also been affected by climate perturbations, such as the major El Niño events that occurred during 1982-1983 and 1997-1998. These events made the fish less vulnerable to capture by purse seiners due to the greater depth of the thermocline, but had no apparent effect on the longline catches. Yellowfin recruitment tends to be greater after an El Niño event.

1.1. Catches by species

1.1.1. Yellowfin tuna

The annual catches of yellowfin during 1983-2012 are shown in Table A-1. The EPO totals for 1993-2012 include discards from purse-seine vessels with carrying capacities greater than 363 t. In the EPO, catches increased steadily to a high of 443 thousand t in 2002. During 2004-2009 the catch decreased substantially, and the catch during 2012, 191 thousand t, was comparable to the lowest catches of the 2006-2008 period, and less than half the highest catches of the 2001-2003 period. The El Niño event of 1982-1983 led to a reduction in the catches in those years, whereas the catches in the WCPO were apparently not affected. Although the El Niño episode of 1997-1998 was greater in scope, it did not have the same effect on the yellowfin catches in the EPO. In the WCPO, the catches of yellowfin increased steadily, to 551 thousand t in 1998, and remained high through 2011. They peaked at 573 thousand t in 2008, and declined to 477 thousand t by 2011.

The annual retained catches of yellowfin in the EPO by purse-seine and pole-and-line vessels during 1983-2012 are shown in Table A-2a. The average annual retained catch during 1997-2011 was 264 thousand t (range: 167 to 412 thousand t). The preliminary estimate of the retained catch in 2012, 190 thousand t, was 6% less than that of 2011, and 28% less than the average for 1997-2011. The average amount of yellowfin discarded at sea during 1997-2011 was about 1.3% of the total purse-seine catch (retained catch plus discards) of yellowfin (range: 0.3 to 2.4%) (Table A-2a).

The annual retained catches of yellowfin in the EPO by longliners during 1983-2012 are shown in Table A-2a. During 1993-2003 they remained relatively stable, averaging about 22 thousand t (range: 12 to 30 thousand t), or about 7% of the total retained catches of yellowfin. Longline catches have declined steadily

since 2003, reaching a low of 6 thousand t in 2011, or about 3% of the total retained catches. Yellowfin are also caught by recreational vessels, as incidental catch in gillnets, and by artisanal fisheries. Estimates of these catches are shown in Table A-2a, under "Other gears" (OTR); during 1997-2011 they averaged about 1 thousand t.

1.1.2. Skipjack tuna

The annual catches of skipjack during 1983-2012 are shown in Table A-1. Most of the skipjack catch in the Pacific Ocean is taken in the WCPO. The greatest reported catch in the WCPO, about 1.8 million t, occurred in 2009, and the greatest total catch in the EPO, 310 thousand t, occurred in 2006.

The annual retained catches of skipjack in the EPO by purse-seine and pole-and-line vessels during 1983-2012 are shown in Table A-2a. During 1997-2011 the annual retained catch averaged 217 thousand t (range 141 to 297 thousand t). The preliminary estimate of the retained catch in 2012, 271 thousand t, is 25% greater than the average for 1997-2011, and 9% less than the previous record-high retained catch of 2006. Discards of skipjack at sea decreased steadily during 1997-2011, from a high of 20% in 1997 to a low of 2% in 2011. During the period about 7% of the total catch of the species was discarded at sea (Table A-2a).

Small amounts of skipjack are caught with longlines and other gears (Table A-2a).

1.1.3. Bigeye tuna

The annual catches of bigeye during 1983-2012 are shown in Table A-1. Overall, the catches in both the EPO and WCPO have increased, but with considerable fluctuations. The catches in the EPO reached 105 thousand t in 1986, and have fluctuated between about 73 and 149 thousand t since then, with the greatest catch in 2000. In the WCPO the catches of bigeye increased to more than 77 thousand t during the late 1970s, decreased during the early 1980s, and then increased in the late 1980s, with lesser fluctuations, until 1998, when they reached more than 164 thousand t. They reached a high of 174 thousand t in 2004, and then fluctuated between 130 and 160 thousand t during 2005-2011.

During 1993-1994 the use of fish-aggregating devices (FADs), placed in the water by fishermen to aggregate tunas, nearly doubled, and continued to increase in the following years. This resulted in greater catches of bigeye by purse-seine vessels. Prior to 1994, the annual retained catch of bigeye taken by purse-seine vessels in the EPO was about 8 thousand t (Table A-2a). Following the development of FADs, the annual retained catches of bigeye increased from 35 thousand t in 1994 to between 44 and 95 thousand t during 1995-2011. The preliminary estimate of the retained catch in the EPO in 2012 is 69 thousand t.

During 1997-2011 about 3.5% of the purse-seine catch of the species was discarded at sea (range: 1 to 9%). Small amounts of bigeye have been caught in some years by pole-and-line vessels, as shown in Table A-2a.

Prior to 1994, longliners caught an average of 94% of the bigeye in the EPO (average 80 thousand t; range; 46 to 104 thousand t). During 1997-2011 this percentage dropped to an average of 40%, with a low of 25% in 2008 (average: 44 thousand t; range: 26 to 74 thousand t) (Table A-2a). The preliminary estimate of the longline catch in the EPO in 2012 is 19 thousand t (Table A-2a).

Small amounts of bigeye are caught by other gears, as shown in Table A-2a.

1.1.4. Bluefin tuna

The catches of Pacific bluefin in the entire Pacific Ocean, by flag and gear, are shown in Table A-5. The data, which were obtained from the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), are reported by fishing nation or entity, regardless of the area of the Pacific Ocean in which the fish were caught.

The catches of Pacific bluefin in the EPO during 1983-2012, by gear, are shown in Table A-2a. Purse-

seine vessels accounted for over 90% of the total EPO retained catch during 1997-2011. During this period the annual retained catch of bluefin in the EPO by purse-seine vessels averaged 4.2 thousand t (range 1.2 to 9.9 thousand t). The preliminary estimate of the retained purse-seine catch of bluefin in 2012, 6.7 thousand t, is 2.5 thousand t more than the average for 1997-2011 (Table A-2a).

1.1.5. Albacore tuna

The catches of albacore in the entire Pacific Ocean, by gear and area (north and south of the equator) are shown in Table A-6a-b. The catches of albacore in the EPO, by gear, are shown in Table A-2a. A significant portion of the albacore catch is taken by troll gear, included under "Other gears" (OTR) in Table A-2a. The catch data were obtained from IATTC data for the EPO and from data compiled by the SPC for the WCPO.

1.1.6. Other tunas and tuna-like species

While yellowfin, skipjack, and bigeye tunas comprise the most significant portion of the retained catches of the purse-seine and pole-and-line fleets in the EPO, other tunas and tuna-like species, such as black skipjack, bonito, wahoo, and frigate and bullet tunas, contribute to the overall harvest in this area. The estimated annual retained and discarded catches of these species during 1983-2012 are presented in Table A-2a. The catches reported in the unidentified tunas category (TUN) in Table A-2a contain some catches reported by species (frigate or bullet tunas) along with the unidentified tunas. The total retained catch of these other species by these fisheries was 12.5 thousand t in 2012, which is greater than the 1997-2011 annual average retained catch of 5.5 thousand t (range: 500 t to 19 thousand t).

Black skipjack are also caught by other gears in the EPO, mostly by coastal artisanal fisheries. Bonitos are also caught by artisanal fisheries, and have been reported as catch by longline vessels in some years.

1.1.7. Billfishes

Catch data for billfishes (swordfish, blue marlin, black marlin, striped marlin, shortbill spearfish, and sailfish) are shown in Table A-2b.

In general, dolphins, sea turtles, whale sharks, and small fish are the only animals captured in the purse-seine fishery that are released alive. In previous versions of this report, all billfishes caught in that fishery were classified as discarded dead. When most of the individuals of species caught incidentally are discarded, the difference between catches and discards is not significant for those species, but as the rate of retention of species formerly discarded increases, part of the bycatch becomes catch, and the distinction becomes important. As a result of a review in 2010, this has been clarified in Table A-2b with the addition of a column for retained catch next to the column for discards.

Swordfish are caught in the EPO with large-scale and artisanal longline gear, gillnets, harpoons, and occasionally with recreational gear. The longline catch of swordfish in 2011 was 24 thousand t, but during 2005-2008 averaged about 14 thousand t. It is not clear whether this is due to increased abundance of swordfish or increased effort directed toward that species.

Other billfishes are caught with large-scale and artisanal longline gear and recreational gear. The average annual longline catches of blue marlin and striped marlin during 1997-2011 were about 3.5 thousand and 2.5 thousand t, respectively. Smaller amounts of other billfishes are taken by longline.

Unfortunately, little information is available on the recreational catches of billfishes, but they are believed to be substantially less than the commercial catches for all species.

Small amounts of billfishes are caught by purse seiners, some are retained, and others are considered to be discarded although some may be landed but not reported. These data are also included in Table A-2b. During 1997-2011 purse seiners accounted for less than 2% of the total catch of billfishes in the EPO.

1.1.8. Other species

Data on the catches and discards of carangids (yellowtail, rainbow runner, and jack mackerel), dorado,

elasmobranchs (sharks, rays, and skates), and other fishes caught in the EPO are shown in Table A-2c.

Bycatches in the purse-seine fishery are reported in Table A-2c as either retained or discarded. A revision was made to the allocation of catches into those categories as a result of a review in 2010.

Dorado are unloaded mainly in ports in South and Central America. Although the catches are greater than 50 thousand t in some years, the gear types used are often not reported.

1.2. Distributions of the catches of tunas

1.2.1. Purse-seine catches

The average annual distributions of the purse-seine catches of yellowfin, skipjack, and bigeye, by set type, in the EPO during 2007-2011, are shown in Figures A-1a, A-2a, and A-3a, and preliminary estimates for 2012 are shown in Figures A-1b, A-2b, and A-3b.

The majority of the yellowfin catches in 2012 were taken from the areas north of 5°N and east of 140°W. Catches of yellowfin on dolphins were greatest in the inshore areas off the coast of Central America. Offshore catches on dolphins around the equator were higher than the 2007-2011 average.

Yellowfin catches on unassociated schools in 2012 were concentrated mainly in the inshore areas off southern Mexico. Inshore catches around the equator were lower than the 2007-2011 average.

Yellowfin catches on floating objects in the coastal area between 10°S and 20°S were greater than the 2007-2011 average.

Inshore skipjack catches in 2012 were similar to those of previous years. Catches were higher than the 2007-2011 average in the area west of 130°W, and were almost exclusively caught on floating objects, except for catches around 10°N, which were mostly on unassociated schools.

Bigeye are not often caught north of about 7°N, and the catches of bigeye have decreased in the inshore areas off South America for several years. With the development of the fishery for tunas associated with FADs, the relative importance of the inshore areas has decreased, while that of the offshore areas has increased. Most of the bigeye catches are taken in sets on FADs between 5°N and 5°S.

1.2.2. Longline catches

Data on the spatial and temporal distributions of the catches in the EPO by the distant-water longline fleets of China, Chinese Taipei, French Polynesia, Japan, the Republic of Korea, Spain, the United States, and Vanuatu are maintained in databases of the IATTC. Bigeye and yellowfin tunas make up the majority of the catches by most of these vessels. The distributions of the catches of bigeye and yellowfin tunas in the Pacific Ocean by Japanese, Korean, and Chinese Taipei longline vessels during 2007-2011 are shown in Figure A-4. Data for the Japanese longline fishery in the EPO during 1956-2003 are available in IATTC Bulletins describing that fishery.

1.3. Size compositions of the catches of tunas

1.3.1. Purse-seine, pole-and-line, and recreational fisheries

Length-frequency samples are the basic source of data used for estimating the size and age compositions of the various species of fish in the landings. This information is necessary to obtain age-structured estimates of the populations for various purposes, including the integrated modeling that the staff has employed during the last several years. The results of such studies have been described in several IATTC Bulletins, in its Annual Reports for 1954-2002, and in its Stock Assessment Reports.

Length-frequency samples of yellowfin, skipjack, bigeye, Pacific bluefin, and, occasionally, black skipjack from the catches of purse-seine, pole-and-line, and recreational vessels in the EPO are collected by IATTC personnel at ports of landing in Ecuador, Mexico, Panama, the USA, and Venezuela. The catches of yellowfin and skipjack were first sampled in 1954, bluefin in 1973, and bigeye in 1975. Sampling has continued to the present.

The methods for sampling the catches of tunas are described in the IATTC Annual Report for 2000 and in IATTC Stock Assessment Reports 2 and 4. Briefly, the fish in a well of a purse-seine or pole-and-line vessel are selected for sampling only if all the fish in the well were caught during the same calendar month, in the same type of set (floating-object, unassociated school, or dolphin), and in the same sampling area. These data are then categorized by fishery (Figure A-5), based on the staff's most recent stock assessments.

Data for fish caught during the 2007-2012 period are presented in this report. Two sets of length-frequency histograms are presented for each species, except bluefin and black skipjack; the first shows the data by stratum (gear type, set type, and area) for 2012, and the second shows the combined data for each year of the 2007-2012 period. For bluefin, the histograms show the 2007-2012 catches by commercial and recreational gear combined. For black skipjack, the histograms show the 2006-2011 catches by commercial gear. Only a small amount of catch was taken by pole-and-line vessels in 2012, and no samples were obtained from these vessels.

For stock assessments of yellowfin, nine purse-seine fisheries (four associated with floating objects, three associated with dolphins, and two unassociated) and one pole-and-line fishery are defined (Figure A-5). The last fishery includes all 13 sampling areas. Of the 954 wells sampled during 2012, 592 contained yellowfin. The estimated size compositions of the fish caught are shown in Figure A-6a. The majority of the yellowfin catch was taken in sets associated with dolphins and in unassociated sets. Most of the larger yellowfin (>100 cm) were caught in the Inshore dolphin fishery in the first quarter, and in the Northern dolphin fishery in the second and third quarters. Smaller yellowfin (<100 cm) were caught primarily in the Inshore floating object fishery during the first quarter, and in the Northern unassociated fishery during the third quarter.

The estimated size compositions of the yellowfin caught by all fisheries combined during 2007-2012 are shown in Figure A-6b. The average weight of the yellowfin caught in 2012 (13.0 kg) was greater than that of 2011 (10.3 kg) and 2010 (8.8 kg).

For stock assessments of skipjack, seven purse-seine fisheries (four associated with floating objects, two unassociated, one associated with dolphins) and one pole-and-line fishery are defined (Figure A-5). The last two fisheries include all 13 sampling areas. Of the 954 wells sampled, 546 contained skipjack. The estimated size compositions of the fish caught during 2012 are shown in Figure A-7a. Large amounts of skipjack in the 40- to 50-cm size range were caught in the Southern unassociated fishery during the first and fourth quarters, in the Northern unassociated fishery during the third quarter, in the Inshore floating-object fishery in the first quarter, in the Northern and Equatorial floating-object fisheries primarily in the third and fourth quarters, and in the Southern floating-object fishery throughout the year. Larger skipjack in the 60- to 70-cm size range were taken in the Southern unassociated fishery in the first and second quarters, in the Northern unassociated fishery during the third and fourth quarters, and in the Equatorial and Coastal floating-object fisheries during the second and third quarters.

The estimated size compositions of the skipjack caught by all fisheries combined during 2007-2012 are shown in Figure A-7b. The average weight of skipjack in 2012 (2.1 kg) was less than that of 2011 (2.4 kg), but only slightly less than the average for the previous five years.

For stock assessments of bigeye, six purse-seine fisheries (four associated with floating objects, one unassociated, one associated with dolphins) and one pole-and-line fishery are defined (Figure A-5). The last three fisheries include all 13 sampling areas. Of the 954 wells sampled, 196 contained bigeye. The estimated size compositions of the fish caught during 2012 are shown in Figure A-8a. In 2000 the majority of the catch was taken in floating-object sets in the Equatorial area, whereas from 2001 to 2003 the majority of the bigeye catch was taken in sets on floating objects in the Southern area. In 2012, most of the bigeye was taken in the Northern, Equatorial, and Southern floating-object fisheries, with a negligible amount taken in the unassociated fishery during the third quarter. Larger bigeye (>100 cm) were caught in the Equatorial floating-object fishery primarily in the second quarter, with lesser amounts

in the third quarter. Smaller bigeye in the 40- to 80-cm size range were caught in the Equatorial floating-object fishery in the first quarter, in the Southern floating-object fishery in the first and fourth quarters, and in the Northern floating-object fishery in the fourth quarter.

The estimated size compositions of the bigeye caught by all fisheries combined during 2007-2012 are shown in Figure A-8b. The average weight of bigeye in 2012 (6.7 kg) was less than that of 2011 (8.0 kg), but greater than those of 2009 and 2010 (6.0 and 5.2 kg. respectively).

Pacific bluefin are caught by purse-seine and recreational gear off California and Baja California from about 23°N to 35°N, with most of the catch being taken during May through October. During 2012 bluefin were caught between 28°N and 32°N from June through August. The majority of the catches of bluefin by both commercial and recreational vessels were taken during July and August. Prior to 2004, the sizes of the fish in the commercial and recreational catches have been reported separately. During 2004-2012, however, small sample sizes made it infeasible to estimate the size compositions separately. Therefore, the sizes of the fish in the commercial and recreational catches of bluefin were combined for each year of the 2004-2012 period. The average weight of the fish caught during 2012 (14.2 kg) was less than that of 2011 (15.4 kg), but very close to the average weights in 2009 and 2010. The estimated size compositions are shown in Figure A-9.

Black skipjack are caught incidentally by fishermen who direct their effort toward yellowfin, skipjack, and bigeye tuna. The demand for this species is low, so most of the catches are discarded at sea, but small amounts, mixed with the more desirable species, are sometimes retained. The estimated size compositions for each year of the 2006-2011 period are shown in Figure A-10.

1.3.2. Longline fishery

The estimated size compositions of the catches of yellowfin and bigeye by the Japanese longline fishery in the EPO during 2007-2011 are shown in Figures A-11 and A-12. The average weight of yellowfin in 2011 (35.4 kg) was considerably less than those of 2009 and 2010 (46.1 and 48.5 kg respectively), but close to that of 2007-2008 (about 38 kg). The average weight of bigeye fell sharply from 49.4 kg in 2009 and 44.9 kg in 2010, to 29.0 kg in 2011. Information on the size compositions of fish caught by the Japanese longline fishery in the EPO during 1958-2003 is available in IATTC Bulletins describing that fishery.

1.4. Catches of tunas and bonitos, by flag and gear

The annual retained catches of tunas and bonitos in the EPO during 1983-2012, by flag and gear, are shown in Tables A-3a-e. These tables include all of the known catches of tunas and bonitos compiled from various sources, including vessel logbooks, observer data, unloading records provided by canners and other processors, export and import records, estimates derived from the species and size composition sampling program, reports from governments and other entities, and estimates derived from the species- and size-composition sampling program. Similar information on tunas and bonitos prior to 2001, and historical data for tunas, billfishes, sharks, carangids, dorado, and miscellaneous fishes are available on the IATTC website. The purse-seine and pole-and-line catches of tunas and bonitos in 2011 and 2012, by flag, are summarized in Table A-4. Of the 549 thousand t of tunas and bonitos caught in 2012, 42% were caught by Ecuadorian vessels, and 23% by Mexican vessels. Other countries with significant catches of tunas and bonitos in the EPO included Panama (9%), Venezuela (8%), and Colombia (7%).

2. FISHING EFFORT

2.1. Purse seine

Estimates of the numbers of purse-seine sets of each type (associated with dolphins, associated with floating objects, and unassociated) in the EPO during the 1997-2012 period, and the retained catches of these sets, are shown in Table A-7 and in Figure 1. The estimates for vessels ≤363 t carrying capacity were calculated from logbook data in the IATTC statistical data base, and those for vessels >363 t carrying capacity were calculated from the observer data bases of the IATTC, Colombia, Ecuador, the

European Union, Mexico, Nicaragua, Panama, the United States, and Venezuela. The greatest numbers of sets associated with floating objects and unassociated sets were made from the mid-1970s to the early 1980s. Despite opposition to fishing for tunas associated with dolphins and the refusal of U.S. canners to accept tunas caught during trips during which sets were made on dolphin-associated fish, the numbers of sets associated with dolphins decreased only moderately during the mid-1990s, and in 2003 were the greatest recorded.

There are two types of floating objects, flotsam and fish-aggregating devices (FADs). The occurrence of the former is unplanned from the point of view of the fishermen, whereas the latter are constructed by fishermen specifically for the purpose of attracting fish. The use of FADs increased sharply in 1994, with the percentage of FADs almost doubling from the previous year, to almost 60% of all floating-object sets. Their relative importance has continued to increase since then, reaching 95% of all floating-object sets in recent years, as shown in Table A-8.

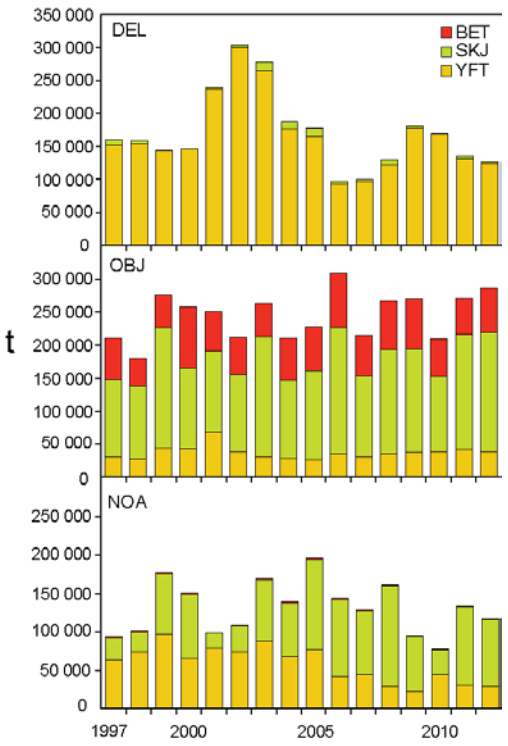

Figure 1. Purse-seine catches of tunas, by species and set type, 1997-2012

2.2. Longline

The reported nominal fishing effort (in thousands of hooks) by longline vessels in the EPO, and their catches of the predominant tuna species, are shown in Table A-9.

3. THE FLEETS

3.1. The purse-seine and pole-and-line fleets

The IATTC staff maintains detailed records of gear, flag, and fish-carrying capacity for most of the vessels that fish with purse-seine or pole-and-line gear for yellowfin, skipjack, bigeye, and/or Pacific bluefin tuna in the EPO. The fleet described here includes purse-seine and pole-and-line vessels that have fished all or part of the year in the EPO for any of these four species.

Historically, the owner's or builder's estimates of carrying capacities of individual vessels, in tons of fish, were used until landing records indicated that revision of these estimates was required.

Since 2000, the IATTC has used well volume, in cubic meters (m^3), instead of weight, in metric tons (t), to measure the carrying capacities of the vessels. Since a well can be loaded with different densities of fish, measuring carrying capacity in weight is subjective, as a load of fish packed into a well at a higher density weighs more than a load of fish packed at a lower density. Using volume as a measure of capacity eliminates this problem.

The IATTC staff began collecting capacity data by volume in 1999, but has not yet obtained this information for all vessels. For vessels for which reliable information on well volume is not available, the estimated capacity in metric tons was converted to cubic meters.

Until about 1960, fishing for tunas in the EPO was dominated by pole-and-line vessels operating in coastal regions and in the vicinity of offshore islands and banks. During the late 1950s and early 1960s most of the larger pole-and-line vessels were converted to purse seiners, and by 1961 the EPO fishery was dominated by these vessels. From 1961 to 2012 the number of pole-and-line vessels decreased from 93 to 3, and their total well volume from about 11 thousand to about 268 m^3. During the same period the number of purse-seine vessels increased from 125 to 211, and their total well volume from about 32

thousand to about 219 thousand m^3, an average of about 1,038 m^3 per vessel. An earlier peak in numbers and total well volume of purse seiners occurred from the mid-1970s to the early 1980s, when the number of vessels reached 282 and the total well volume about 195 thousand m^3, an average of about 700 m^3 per vessel (Table A-10; Figure 2).

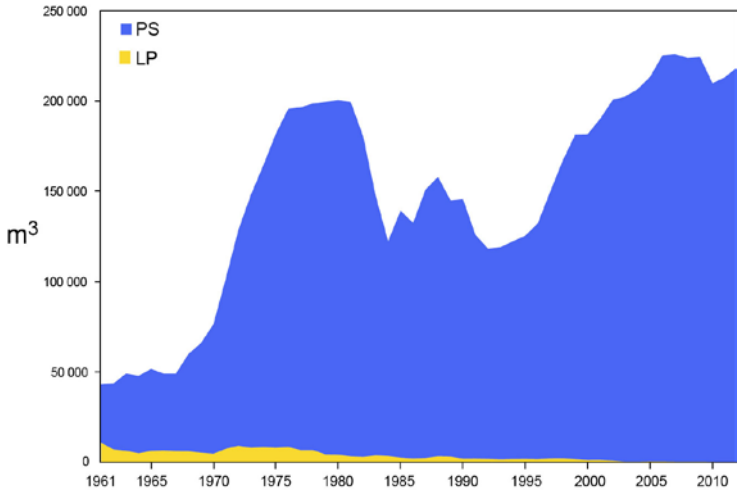

Figure 2. Carrying capacity, in cubic meters of well volume, of the purse-seine and pole-and-line fleets in the EPO, 1961-2012

The catch rates in the EPO were low during 1978-1981, due to concentration of fishing effort on small fish, and the situation was exacerbated by a major El Niño event, which began in mid-1982 and persisted until late 1983 and made the fish less vulnerable to capture. The total well volume of purse-seine and pole-and-line vessels then declined as vessels were deactivated or left the EPO to fish in other areas, primarily the western Pacific Ocean, and in 1984 it reached its lowest level since 1971, about 119 thousand m^3. In early 1990 the U.S. tuna-canning industry adopted a policy of not purchasing tunas caught during trips during which sets on tunas associated with dolphins were made. This caused many U.S.-flag vessels to leave the EPO, with a consequent reduction in the fleet to about 117 thousand m^3 in 1992. With increases in participation of vessels of other nations in the fishery, the total well volume has increased steadily since 1992, and in 2012 was 219 thousand m^3.

The 2011 and preliminary 2012 data for numbers and total well volumes of purse-seine and pole-and-line vessels that fished for tunas in the EPO are shown in Tables A-11a and A-11b. During 2012, the fleet was dominated by vessels operating under the Ecuadorian and Mexican flags, with about 36% and 22%, respectively, of the total well volume; they were followed by Venezula (10%), Panama (8%), Colombia (7%), European Union (Spain) (5%), Nicaragua (4%), El Salvador (3%), and Guatemala and United States (2% each).

The cumulative capacity at sea during 2012 is compared to those of the previous five years in Figure 3.

The monthly average, minimum, and maximum total well volumes at sea (VAS), in thousands of cubic meters, of purse-seine and pole-and-line vessels that fished for tunas in the EPO during 2002-2011, and the 2012 values, are shown in Table A-12. The monthly values are averages of the VAS estimated at weekly intervals by the IATTC staff. The fishery was regulated during some or all of the last four months of 1998-2012, so the VAS values for September-December 2012 are not comparable to the average VAS

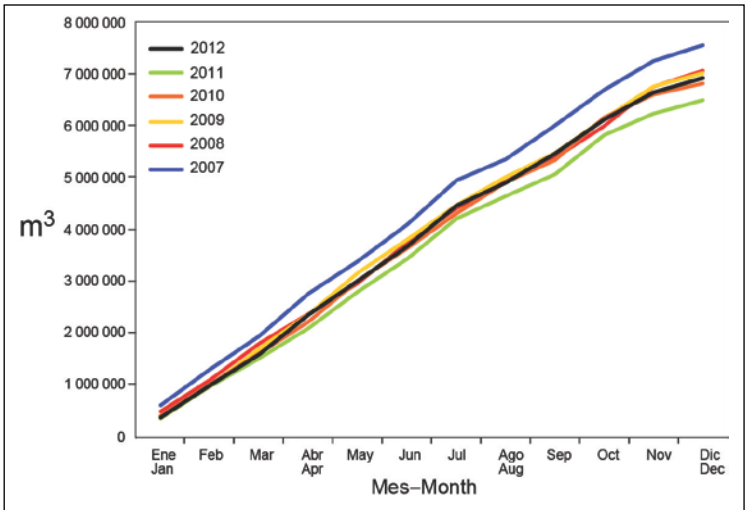

Figure 3. Cumulative capacity of the purse-seine and pole-and-line fleet at sea, by month, 2007-2012

values for those months of 1998-2012. The average VAS values for 2002-2011 and 2012 were 133 thousand m^3 (62% of total capacity) and 134 thousand m^3 (61% of total capacity), respectively.

3.2. Other fleets of the EPO

Information on other types of vessels that fish for tunas in the EPO is available in the IATTC's Regional Vessel Register, on the IATTC website. The Register is incomplete for small vessels. In some cases, particularly for large longline vessels, the Register contains information for vessels authorized to fish not only in the EPO, but also in other oceans, and which may not have fished in the EPO during 2012, or ever.

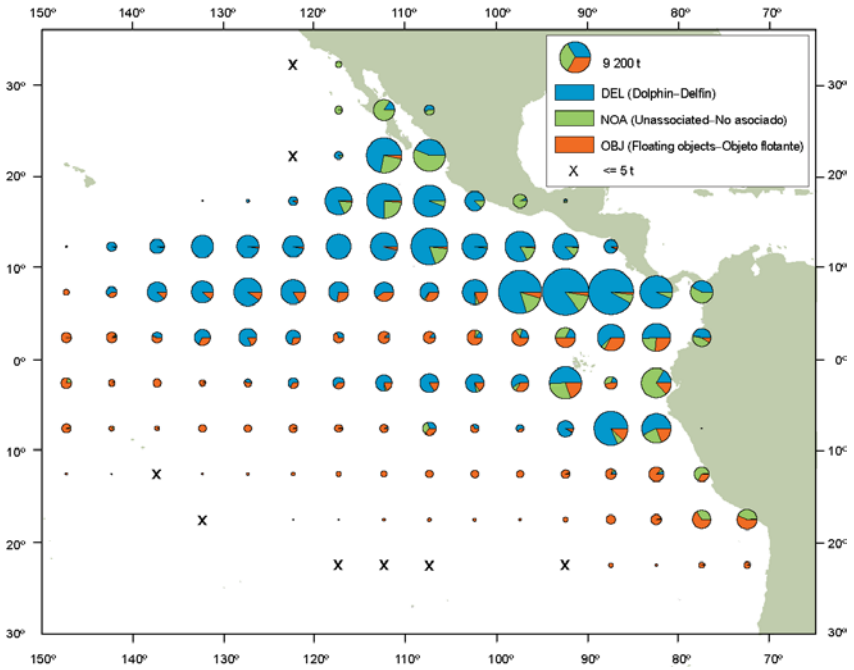

FIGURE A-1a. Average annual distributions of the purse-seine catches of yellowfin, by set type, 2007-2011. The sizes of the circles are proportional to the amounts of yellowfin caught in those 5° by 5° areas.
FIGURA A-1a. Distribución media anual de las capturas cerqueras de aleta amarilla, por tipo de lance, 2007-2011. El tamaño de cada círculo es proporcional a la cantidad de aleta amarilla capturado en la cuadrícula de 5° x 5° correspondiente.

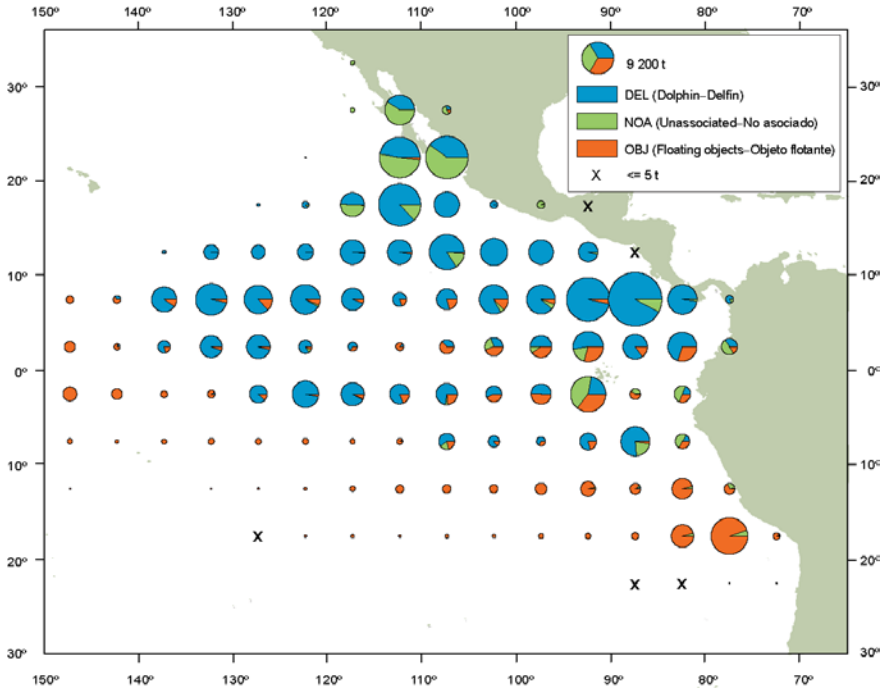

FIGURE A-1b. Annual distributions of the purse-seine catches of yellowfin, by set type, 2012. The sizes of the circles are proportional to the amounts of yellowfin caught in those 5° by 5° areas.
FIGURA A-1b. Distribución anual de las capturas cerqueras de aleta amarilla, por tipo de lance, 2012. El tamaño de cada círculo es proporcional a la cantidad de aleta amarilla capturado en la cuadrícula de 5° x 5° correspondiente.

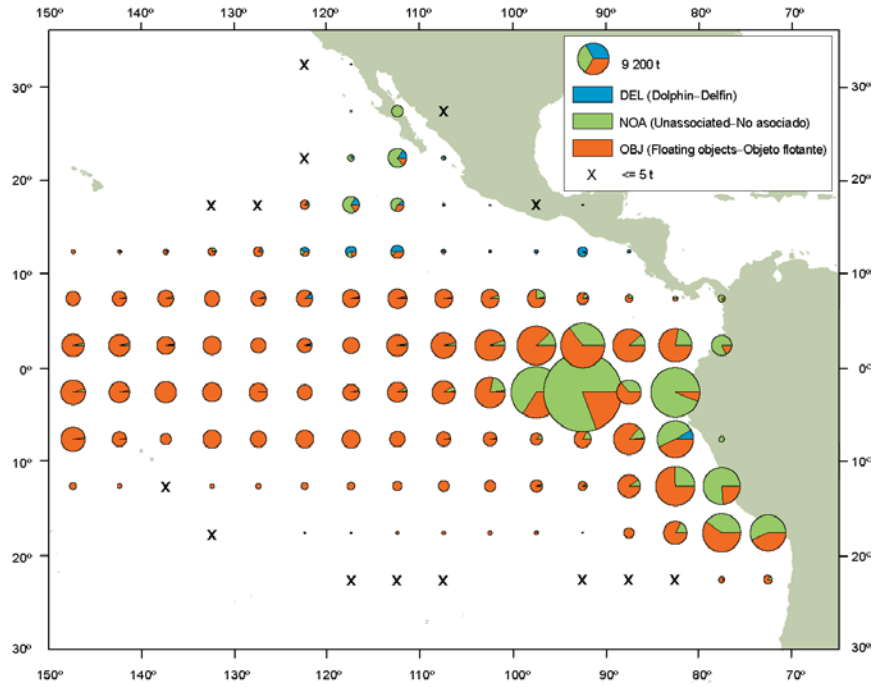

FIGURE A-2a. Average annual distributions of the purse-seine catches of skipjack, by set type, 2007-2011. The sizes of the circles are proportional to the amounts of skipjack caught in those 5° by 5° areas.
FIGURA A-2a. Distribución media anual de las capturas cerqueras de barrilete, por tipo de lance, 2007-2011. El tamaño de cada círculo es proporcional a la cantidad de barrilete capturado en la cuadrícula de 5° x 5° correspondiente.

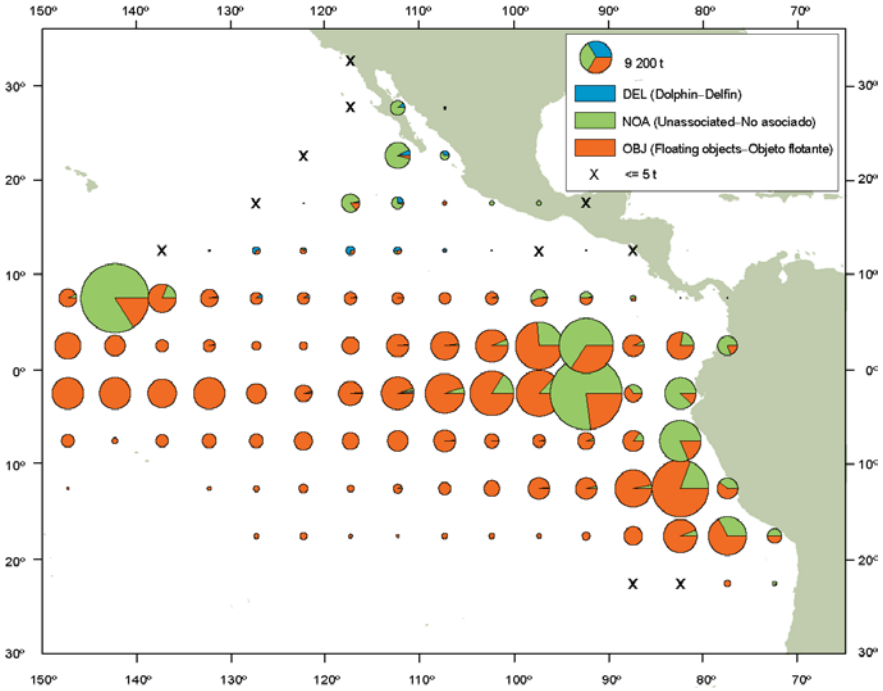

FIGURE A-2b. Annual distributions of the purse-seine catches of skipjack, by set type, 2012. The sizes of the circles are proportional to the amounts of skipjack caught in those 5° by 5° areas.
FIGURA A-2b. Distribución anual de las capturas cerqueras de barrilete, por tipo de lance, 2012. El tamaño de cada círculo es proporcional a la cantidad de barrilete capturado en la cuadrícula de 5° x 5° correspondiente.

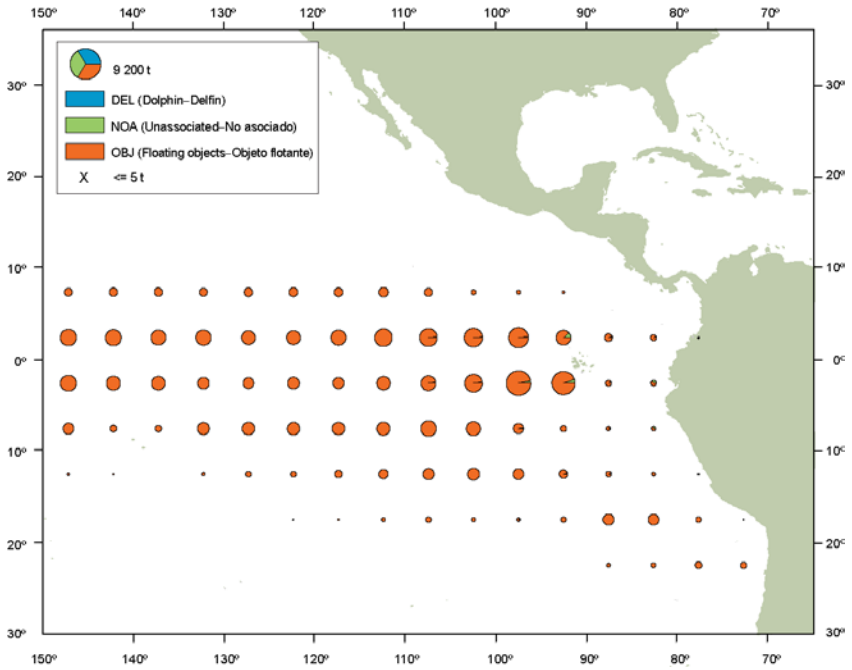

FIGURE A-3a. Average annual distributions of the purse-seine catches of bigeye, by set type, 2007-2011. The sizes of the circles are proportional to the amounts of bigeye caught in those 5° by 5° areas.
FIGURA A-3a. Distribución media anual de las capturas cerqueras de patudo, por tipo de lance, 2007-2011. El tamaño de cada círculo es proporcional a la cantidad de patudo capturado en la cuadrícula de 5° x 5° correspondiente.

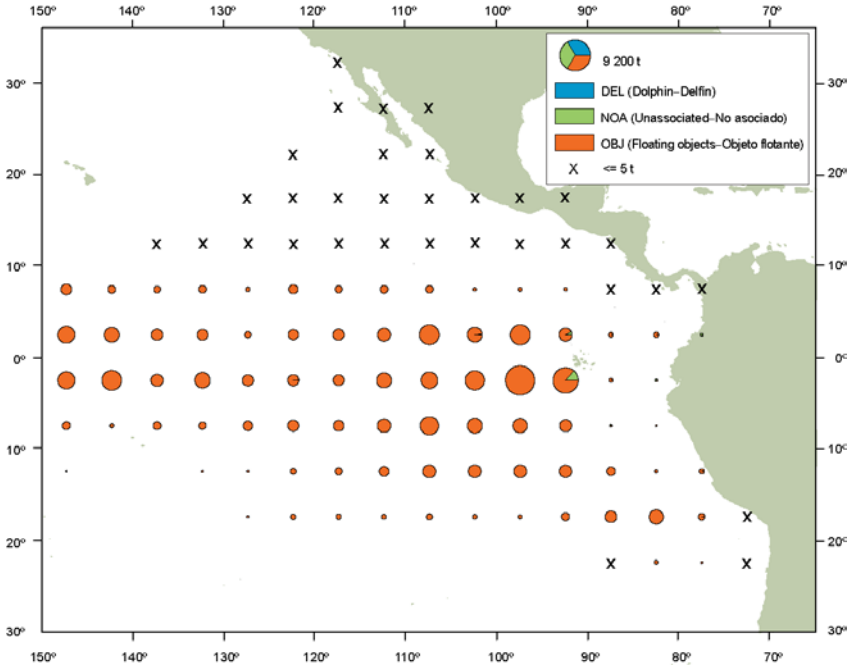

FIGURE A-3b. Annual distributions of the purse-seine catches of bigeye, by set type, 2012. The sizes of the circles are proportional to the amounts of bigeye caught in those 5° by 5° areas.
FIGURA A-3b. Distribución anual de las capturas cerqueras de patudo, por tipo de lance, 2012. El tamaño de cada círculo es proporcional a la cantidad de patudo capturado en la cuadrícula de 5° x 5° correspondiente.

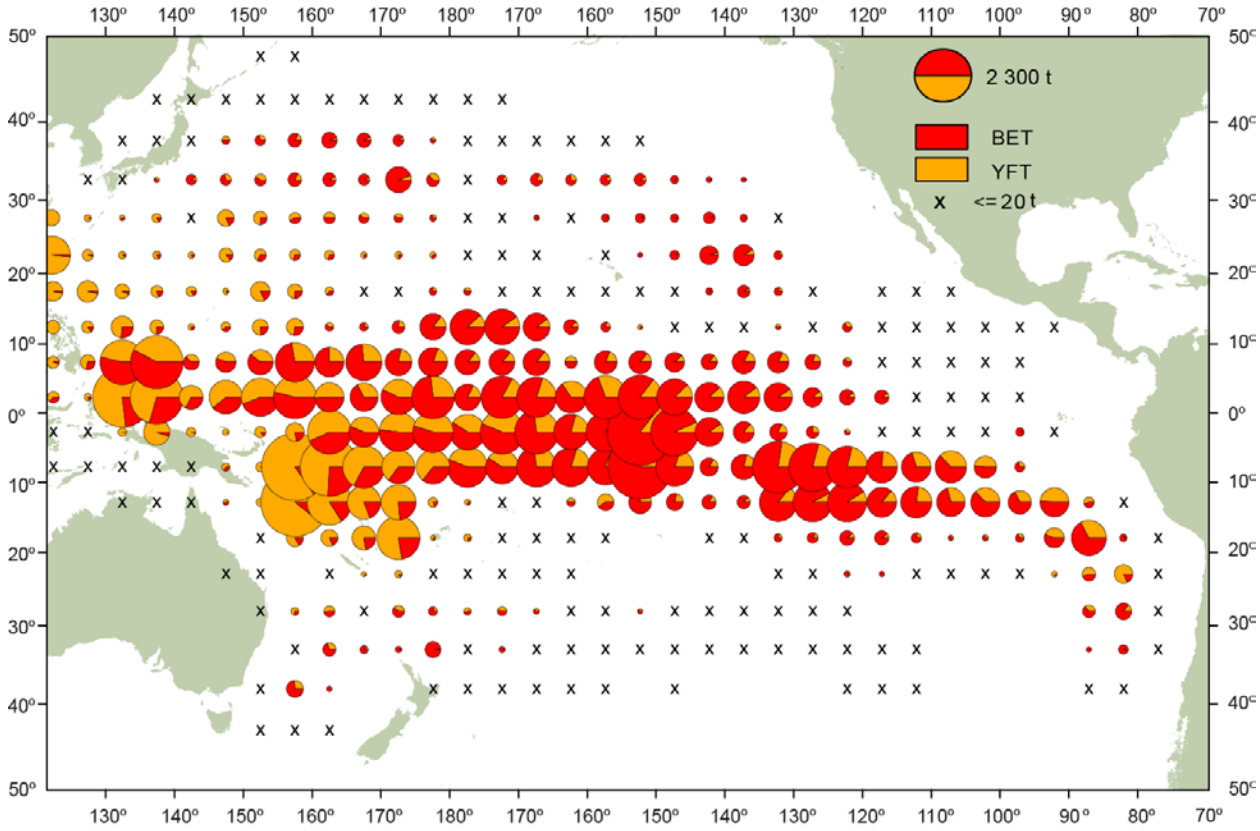

FIGURE A-4. Distributions of the average annual catches of bigeye and yellowfin tunas in the Pacific Ocean, in metric tons, by Chinese, Japanese, Korean and Chinese Taipei longline vessels, 2007-2011. The sizes of the circles are proportional to the amounts of bigeye and yellowfin caught in those 5° by 5° areas.

FIGURA A-4. Distribución de las capturas anuales medias de atunes patudo y aleta amarilla en el Océano Pacifico, en toneladas métricas, por buques palangreros de China, Corea, Japón y Taipei Chino 2007-2011. El tamaño de cada círculo es proporcional a la cantidad de patudo y aleta amarilla capturado en la cuadrícula de 5° x 5° correspondiente.

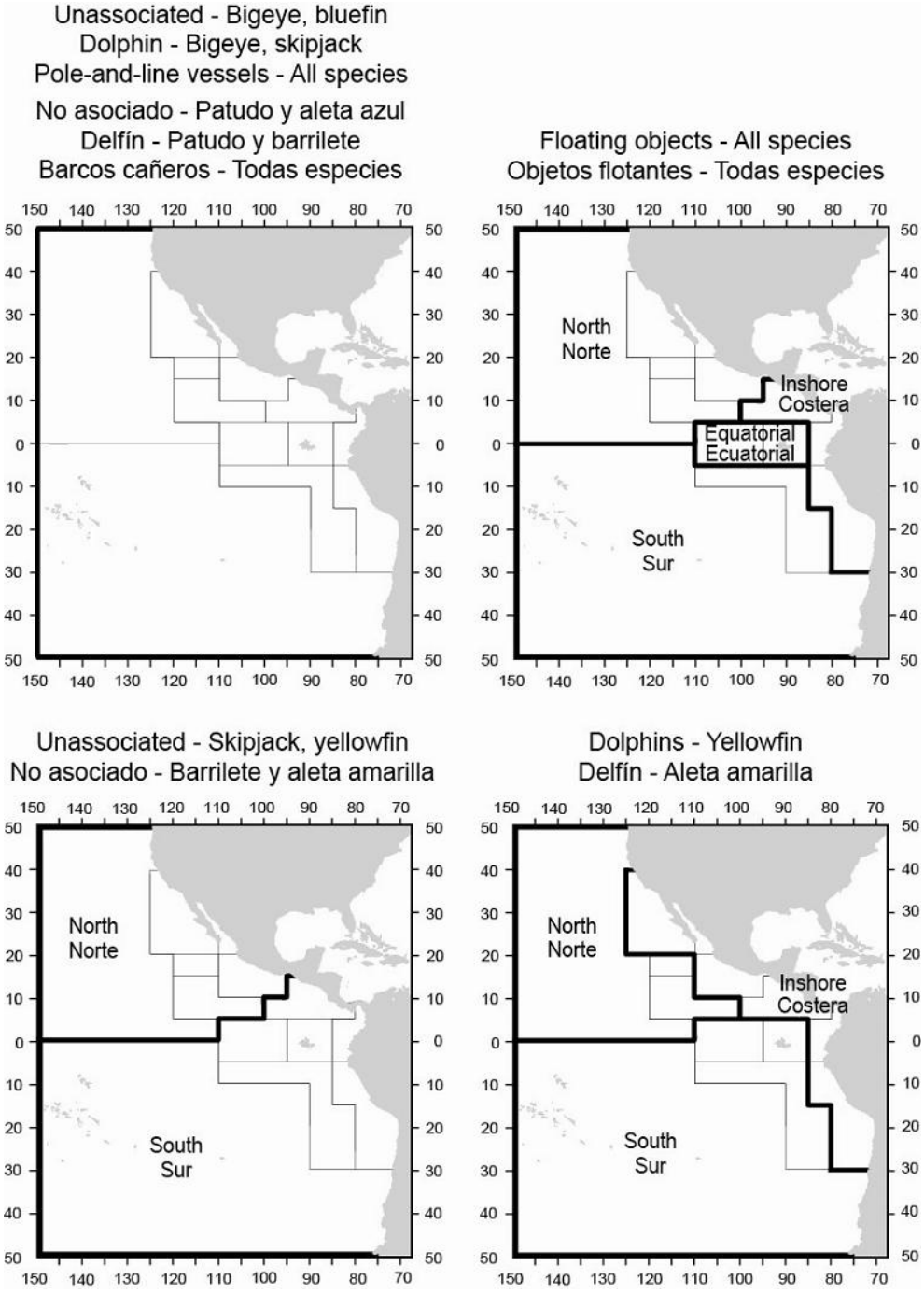

FIGURE A-5. The fisheries defined by the IATTC staff for stock assessment of yellowfin, skipjack, and bigeye in the EPO. The thin lines indicate the boundaries of the 13 length-frequency sampling areas, and the bold lines the boundaries of the fisheries.

FIGURA A-5. Las pesquerías definidas por el personal de la CIAT para la evaluación de las poblaciones de atún aleta amarilla, barrilete, y patudo en el OPO. Las líneas delgadas indican los límites de las 13 zonas de muestreo de frecuencia de tallas, y las líneas gruesas los límites de las pesquerías.

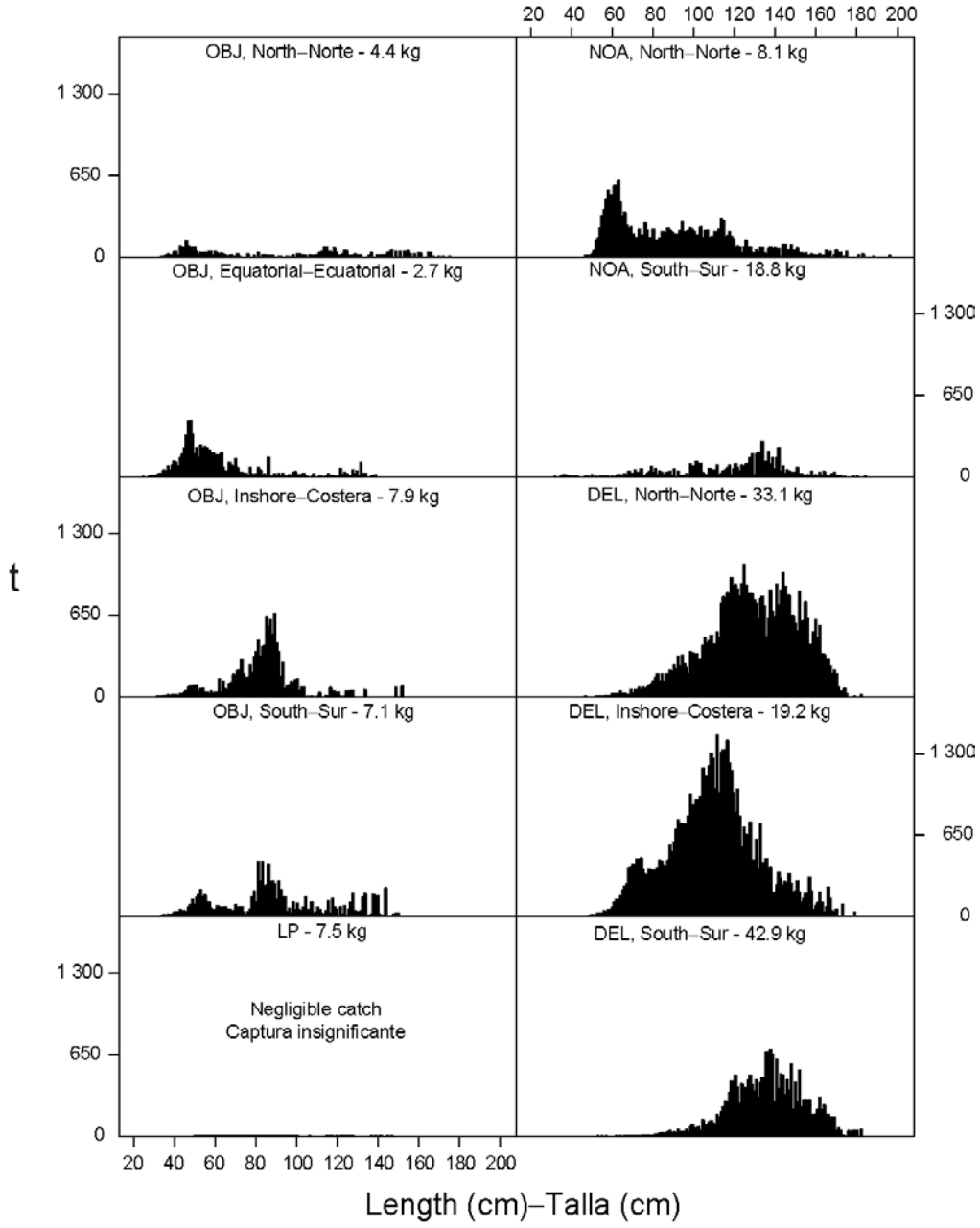

FIGURE A-6a. Estimated size compositions of the yellowfin caught in the EPO during 2012 for each fishery designated in Figure A-5. The average weights of the fish in the samples are given at the tops of the panels.

FIGURA A-6a. Composición por tallas estimada del aleta amarilla capturado en el OPO durante 2012 en cada pesquería ilustrada en la Figura A-5. En cada recuadro se detalla el peso promedio de los peces en las muestras.

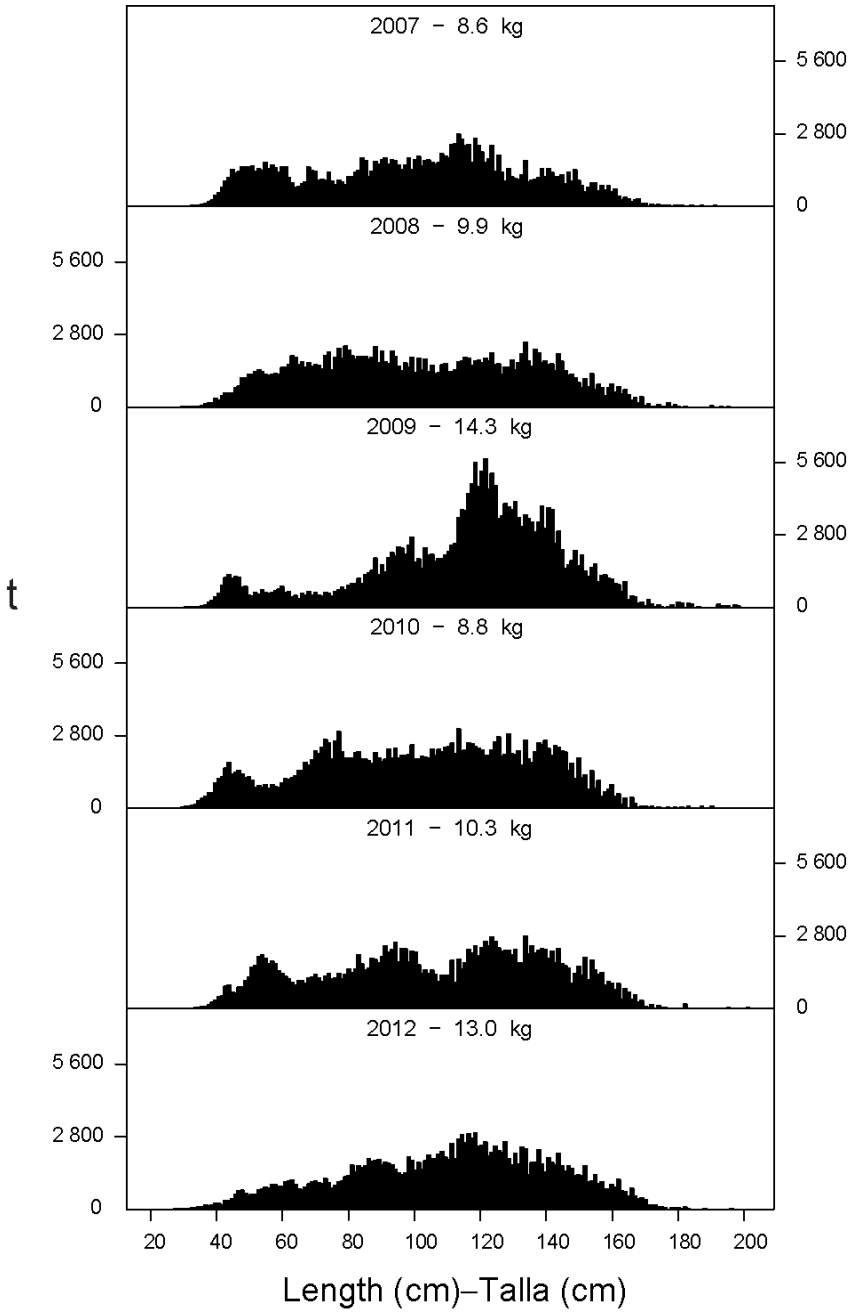

FIGURE A-6b. Estimated size compositions of the yellowfin caught by purse-seine and pole-and-line vessels in the EPO during 2007-2012. The average weights of the fish in the samples are given at the tops of the panels.

FIGURA A-6b. Composición por tallas estimada del aleta amarilla capturado por buques cerqueros y cañeros en el OPO durante 2007-2012. En cada recuadro se detalla el peso promedio de los peces en las muestras.

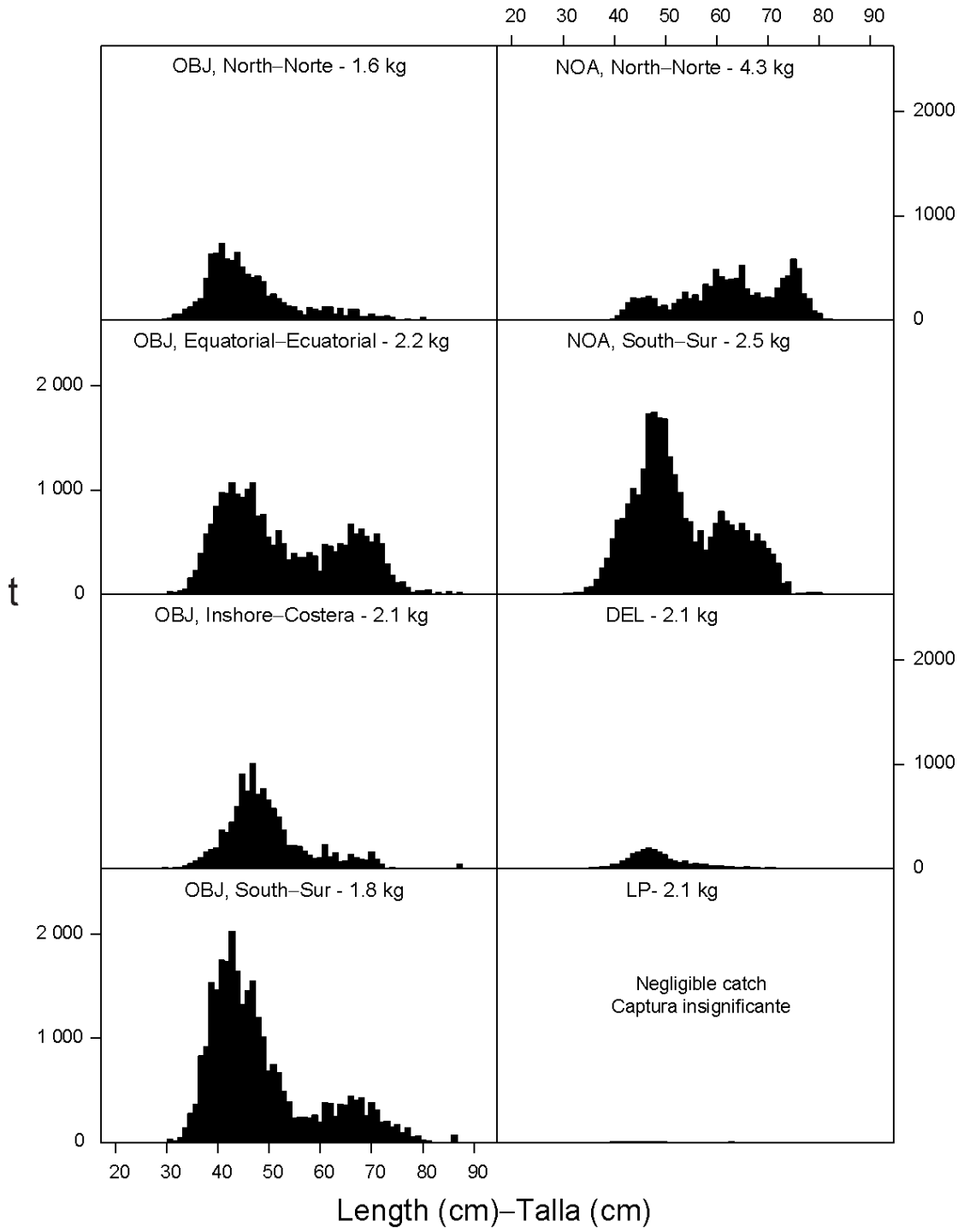

FIGURE A-7a. Estimated size compositions of the skipjack caught in the EPO during 2012 for each fishery designated in Figure A-5. The average weights of the fish in the samples are given at the tops of the panels.

FIGURA A-7a. Composición por tallas estimada del barrilete capturado en el OPO durante 2012 en cada pesquería ilustrada en la Figura A-5. En cada recuadro se detalla el peso promedio de los peces en las muestras.

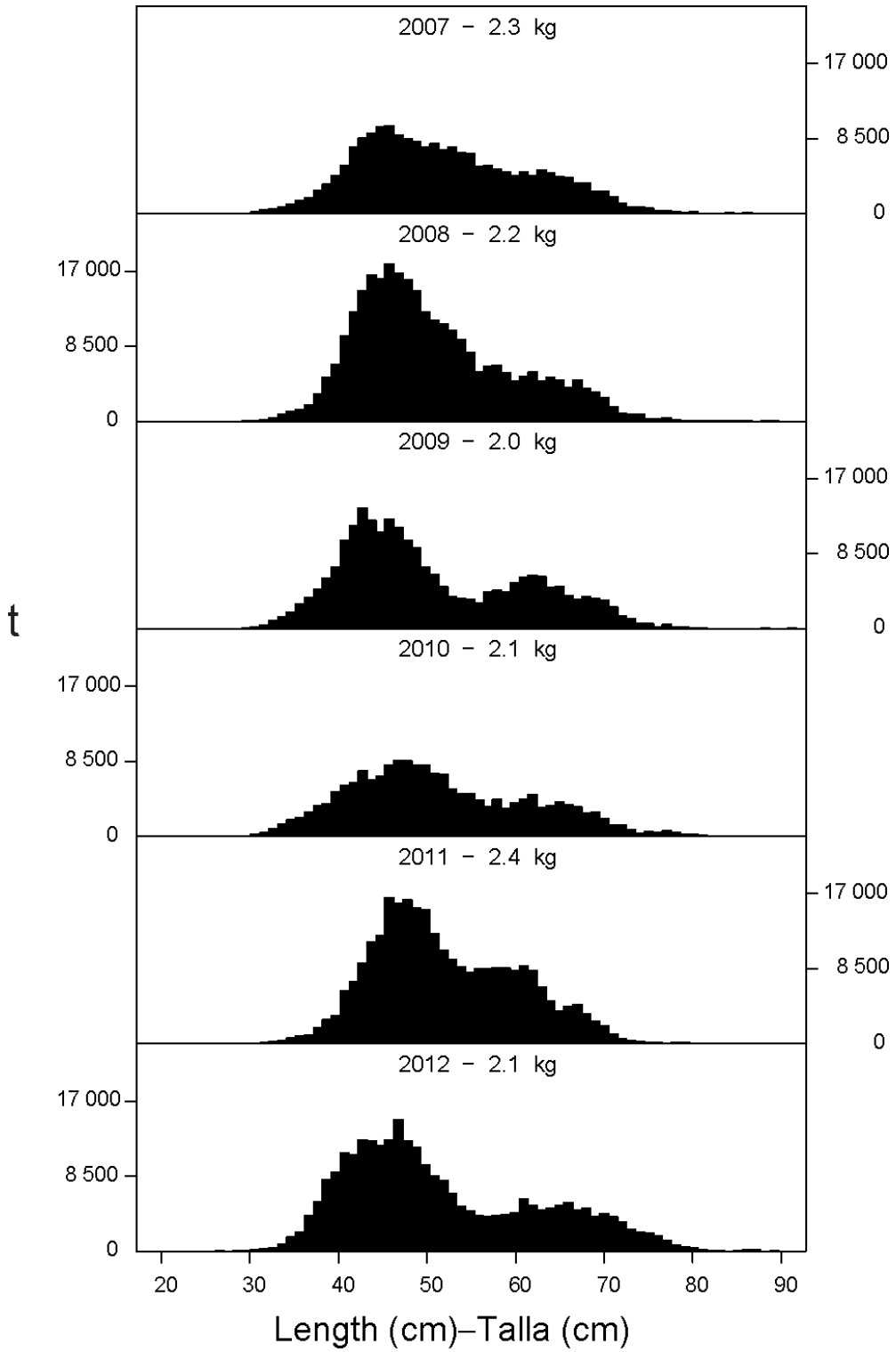

FIGURE A-7b. Estimated size compositions of the skipjack caught by purse-seine and pole-and-line vessels in the EPO during 2007-2012. The average weights of the fish in the samples are given at the tops of the panels.

FIGURA A-7b. Composición por tallas estimada del barrilete capturado por buques cerqueros y cañeros en el OPO durante 2007-2012. En cada recuadro se detalla el peso promedio de los peces en las muestras.

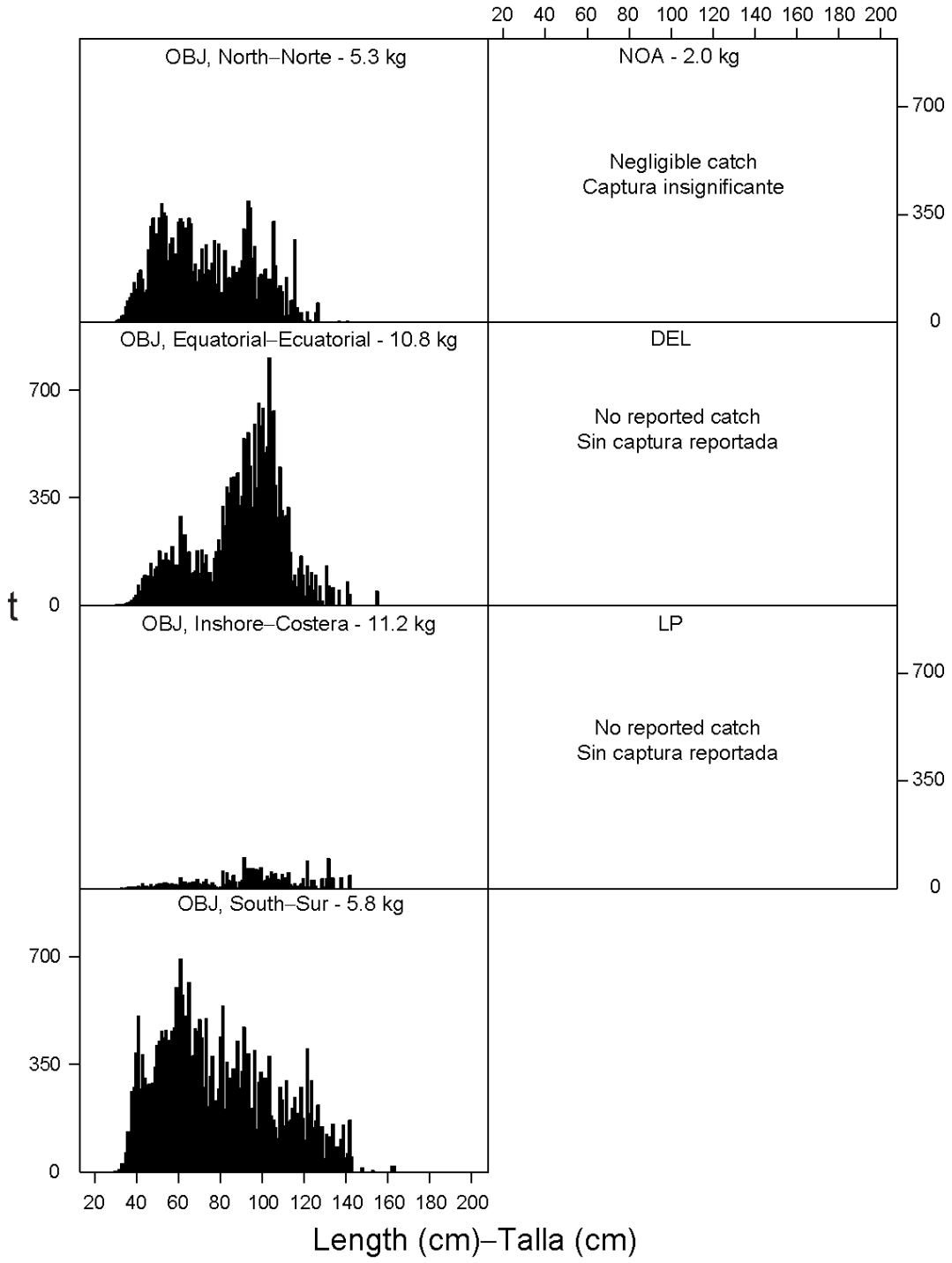

FIGURE A-8a. Estimated size compositions of the bigeye caught in the EPO during 2012 for each fishery designated in Figure A-5. The average weights of the fish in the samples are given at the tops of the panels.

FIGURA A-8a. Composición por tallas estimada del patudo capturado e en el OPO durante 2012 en cada pesquería ilustrada en la Figura A-5. En cada recuadro se detalla el peso promedio de los peces en las muestras.

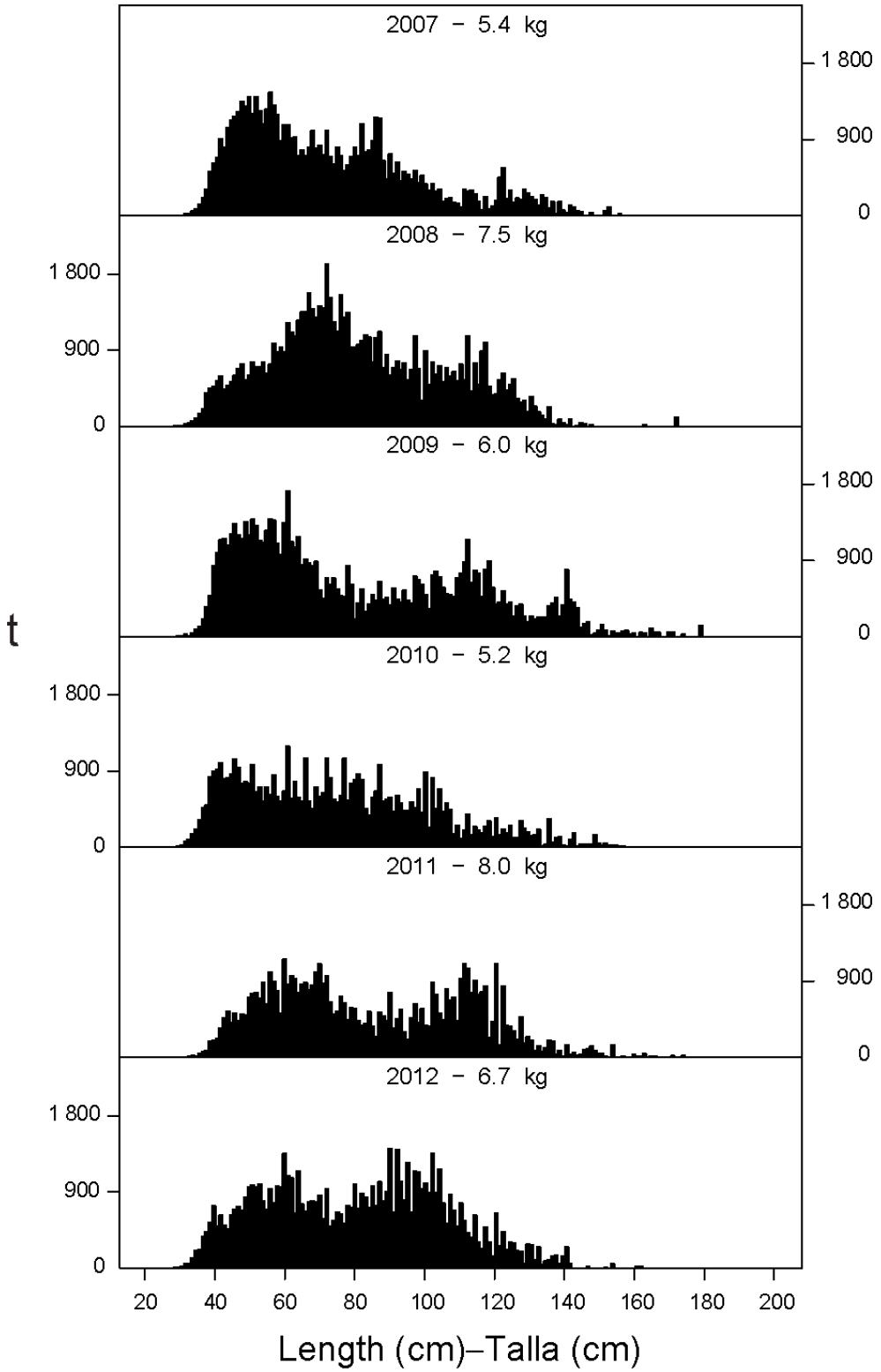

FIGURE A-8b. Estimated size compositions of the bigeye caught by purse-seine vessels in the EPO during 2007-2012. The average weights of the fish in the samples are given at the tops of the panels.
FIGURA A-8b. Composición por tallas estimada del patudo capturado por buques cerqueros en el OPO durante 2007-2012. En cada recuadro se detalla el peso promedio de los peces en las muestras.

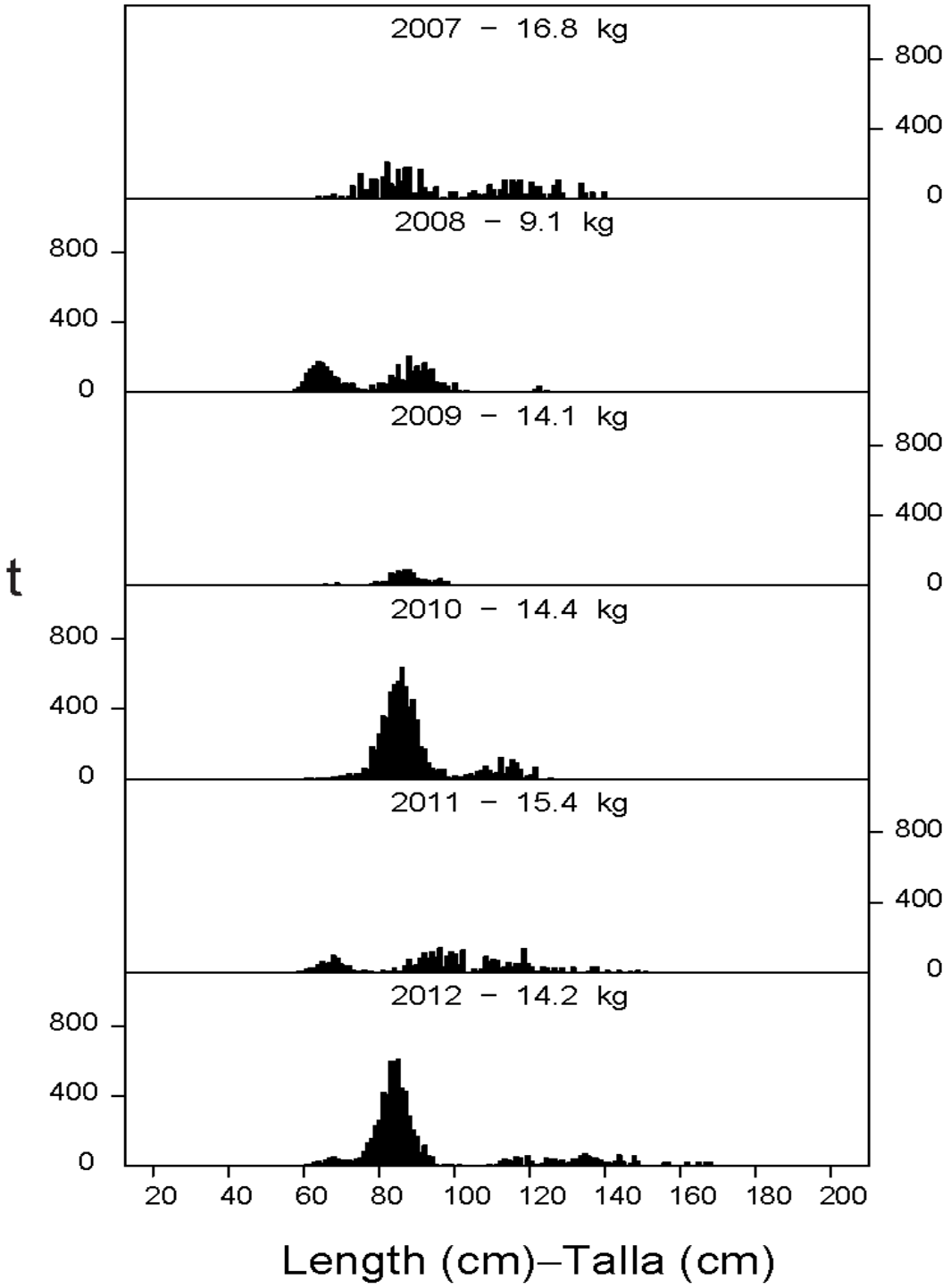

FIGURE A-9. Estimated catches of Pacific bluefin by purse-seine and recreational gear in the EPO during 2007-2012. The values at the tops of the panels are the average weights.
FIGURA A-9. Captura estimada de aleta azul del Pacífico con arte de cerco y deportiva en el OPO durante 2007-2012. El valor en cada recuadro representa el peso promedio.

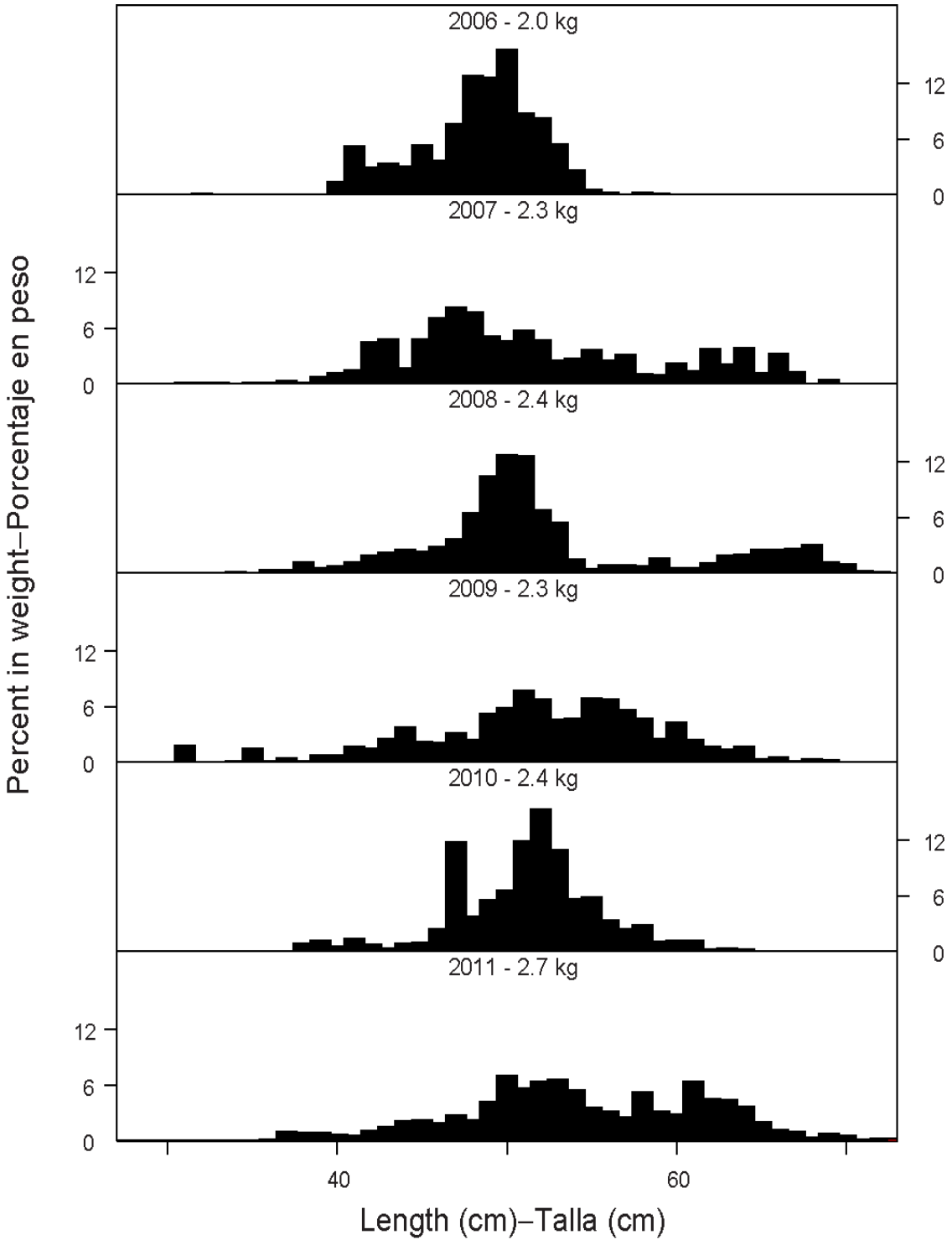

FIGURE A-10. Estimated size compositions of the catches of black skipjack by purse-seine vessels in the EPO during 2006-2011. The values at the tops of the panels are the average weights.
FIGURA A-10. Composición por tallas estimada del barrilete negro capturado por buques cerqueros en el OPO durante 2006-2011. El valor en cada recuadro representa el peso promedio.

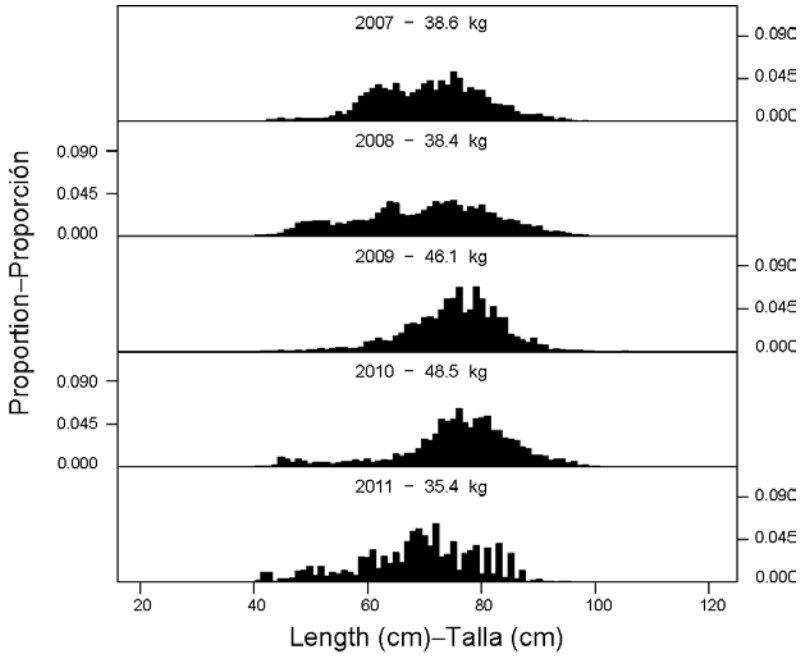

FIGURE A-11. Estimated size compositions of the catches of yellowfin tuna by the Japanese longline fishery in the EPO, 2007-2011.
FIGURA A-11. Composición por tallas estimada de las capturas de atún aleta amarilla por la pesquería palangrera japonesa en el OPO, 2007-2011.

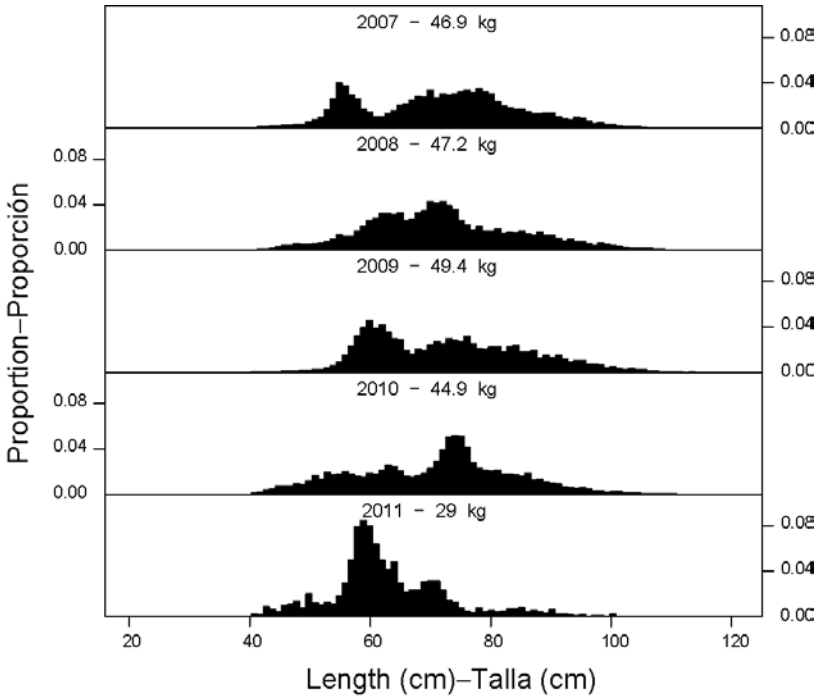

FIGURE A-12. Estimated size compositions of the catches of bigeye tuna by the Japanese longline fishery in the EPO, 2007-2011.
FIGURA A-12. Composición por tallas estimada de las capturas de atún patudo por la pesquería palangrera japonesa en el OPO, 2007-2011.

TABLE A-1. Annual catches of yellowfin, skipjack, and bigeye, by all types of gear combined, in the Pacific Ocean. The EPO totals for 1993-2012 include discards from purse-seine vessels with carrying capacities greater than 363 t.

TABLA A-1. Capturas anuales de aleta amarilla, barrilete, y patudo, por todas las artes combinadas, en el Océano Pacífico. Los totales del OPO de 1993-2012 incluyen los descartes de buques cerqueros de más de 363 t de capacidad de acarreo.

	YFT			SKJ			BET			Total		
	EPO	**WCPO**	**Total**	**EPO**	**WCPO**	**Total**	**EPO**	**WCPO**	**Total**	**EPO**	**WCPO**	**Total**
1983	99,680	263,312	362,992	61,975	667,402	729,377	64,694	70,028	134,722	226,349	1,000,742	1,227,091
1984	149,465	253,624	403,089	63,611	753,966	817,577	55,268	75,492	130,760	268,344	1,083,082	1,351,426
1985	225,939	270,832	496,771	52,002	581,309	633,311	72,398	79,734	152,132	350,339	931,875	1,282,214
1986	286,071	240,216	526,287	67,745	747,821	815,566	105,185	81,866	187,051	459,001	1,069,903	1,528,904
1987	286,164	271,488	557,652	66,466	700,808	767,274	101,347	98,464	199,811	453,977	1,070,760	1,524,737
1988	296,428	291,415	587,843	92,127	798,332	890,459	74,313	90,961	165,274	462,868	1,180,708	1,643,576
1989	299,436	321,684	621,120	98,921	795,695	894,616	72,994	97,193	170,187	471,351	1,214,572	1,685,923
1990	301,522	355,402	656,924	77,107	863,143	940,250	104,851	112,983	217,834	483,480	1,331,528	1,815,008
1991	265,970	375,467	641,437	65,890	1,113,831	1,179,721	109,121	94,365	203,486	440,981	1,583,663	2,024,644
1992	252,514	364,632	617,146	87,294	1,029,432	1,116,726	92,000	111,181	203,181	431,808	1,505,245	1,937,053
1993	256,244	297,031	553,275	100,518	988,850	1,089,368	82,843	96,023	178,866	439,605	1,381,904	1,821,509
1994	248,073	344,957	593,030	84,674	1,043,745	1,128,419	109,331	112,970	222,301	442,078	1,501,672	1,943,750
1995	244,639	366,918	611,557	150,661	1,045,708	1,196,369	108,210	100,619	208,829	503,510	1,513,245	2,016,755
1996	266,928	351,284	618,212	132,344	970,704	1,103,048	114,706	99,579	214,285	513,978	1,421,567	1,935,545
1997	277,575	457,798	735,373	188,285	909,269	1,097,554	122,274	145,869	268,143	588,134	1,512,936	2,101,070
1998	280,607	551,299	831,906	165,490	1,189,144	1,354,634	93,954	164,431	258,385	540,051	1,904,874	2,444,925
1999	304,638	474,893	779,531	291,249	1,100,901	1,392,150	93,078	144,854	237,932	688,965	1,720,648	2,409,613
2000	286,865	518,666	805,531	230,520	1,145,569	1,376,089	148,557	130,809	279,366	665,942	1,795,044	2,460,986
2001	425,008	507,591	932,599	157,676	1,041,299	1,198,975	130,546	133,583	264,129	713,230	1,682,473	2,395,703
2002	443,458	471,379	914,837	167,048	1,220,791	1,387,839	132,806	161,404	294,210	743,312	1,853,574	2,596,886
2003	416,018	512,222	928,240	300,470	1,220,440	1,520,910	115,175	131,694	246,869	831,663	1,864,356	2,696,019
2004	296,856	503,768	800,624	217,355	1,308,319	1,525,674	110,897	173,576	284,473	625,108	1,985,663	2,610,771
2005	286,822	561,562	848,384	283,766	1,378,194	1,661,960	111,249	146,802	258,051	681,837	2,086,558	2,768,395
2006	179,756	486,062	665,818	310,316	1,481,027	1,791,343	120,065	159,816	279,881	610,137	2,126,905	2,737,042
2007	182,075	507,815	689,890	216,902	1,646,738	1,863,640	94,380	143,006	237,386	493,357	2,297,559	2,790,916
2008	196,200	573,155	769,355	307,489	1,645,736	1,953,225	103,480	152,024	255,504	607,169	2,370,915	2,978,084
2009	248,436	506,876	755,312	238,873	1,794,790	2,033,663	109,200	153,750	262,950	596,509	2,455,416	3,051,925
2010	260,271	541,822	802,093	152,069	1,678,949	1,831,018	94,991	130,014	225,005	507,331	2,350,785	2,858,116
2011	208,509	476,843	685,352	286,759	1,550,377	1,837,136	87,908	153,521	241,429	583,176	2,180,741	2,763,917
2012	191,358	*	191,358	275,226	*	275,226	88,842	*	88,842	555,426	*	555,426

TABLE A-2a. Estimated retained catches (Ret.), by gear type, and estimated discards (Dis.), by purse-seine vessels with carrying capacities greater than 363 t only, of tunas and bonitos, in metric tons, in the EPO. The purse-seine and pole-and-line data for yellowfin, skipjack, and bigeye tunas have been adjusted to the species composition estimate and are preliminary. The data for 2011-2012 are preliminary.

TABLA A-2a. Estimaciones de las capturas retenidas (Ret.), por arte de pesca, y de los descartes (Dis.), por buques cerqueros de más de 363 t de capacidad de acarreo únicamente, de atunes y bonitos, en toneladas métricas, en el OPO. Los datos de los atunes aleta amarilla, barrilete, y patudo de las pesquerías cerquera y cañera fueron ajustados a la estimación de composición por especie, y son preliminares. Los datos de 2011-2012 son preliminares.

	Yellowfin—Aleta amarilla						Skipjack—Barrilete						Bigeye—Patudo					
	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total
	Ret.	Dis.					Ret.	Dis.					Ret.	Dis.				
1983	83,929	-	4,007	10,895	849	99,680	56,851	-	4,387	28	709	61,975	4,575	-	39	60,043	37	64,694
1984	135,785	-	2,991	10,345	344	149,465	59,859	-	2,884	32	836	63,611	8,861	-	2	46,394	11	55,268
1985	211,459	-	1,070	13,198	212	225,939	50,829	-	946	44	183	52,002	6,056	-	2	66,325	15	72,398
1986	260,512	-	2,537	22,808	214	286,071	65,634	-	1,921	58	132	67,745	2,686	-	-	102,425	74	105,185
1987	262,008	-	5,107	18,911	138	286,164	64,019	-	2,233	37	177	66,466	1,177	-	-	100,121	49	101,347
1988	277,293	-	3,723	14,660	752	296,428	87,113	-	4,325	26	663	92,127	1,535	-	5	72,758	15	74,313
1989	277,996	-	4,145	17,032	263	299,436	94,934	-	2,940	28	1,019	98,921	2,030	-	-	70,963	1	72,994
1990	263,253	-	2,676	34,633	960	301,522	74,369	-	823	41	1,874	77,107	5,921	-	-	98,871	59	104,851
1991	231,257	-	2,856	30,899	958	265,970	62,228	-	1,717	36	1,909	65,890	4,870	-	31	104,195	25	109,121
1992	228,121	-	3,789	18,646	1,958	252,514	84,283	-	1,957	24	1,030	87,294	7,179	-	-	84,808	13	92,000
1993	219,492	4,758	4,951	24,009	3,034	256,244	83,830	10,599	3,772	61	2,256	100,518	9,657	653	-	72,498	35	82,843
1994	208,408	4,527	3,625	30,026	1,487	248,073	70,126	10,504	3,240	73	731	84,674	34,899	2,266	-	71,360	806	109,331
1995	215,434	5,275	1,268	20,596	2,066	244,639	127,047	16,373	5,253	77	1,911	150,661	45,321	3,251	-	58,269	1,369	108,210
1996	238,607	6,312	3,762	16,608	1,639	266,928	103,973	24,503	2,555	52	1,261	132,344	61,311	5,689	-	46,958	748	114,706
1997	244,878	5,516	4,418	22,163	600	277,575	153,456	31,338	3,260	135	96	188,285	64,272	5,402	-	52,580	20	122,274
1998	253,959	4,698	5,085	15,336	1,529	280,607	140,631	22,644	1,684	294	237	165,490	44,129	2,822	-	46,375	628	93,954
1999	281,920	6,547	1,783	11,682	2,706	304,638	261,565	26,046	2,044	201	1,393	291,249	51,158	4,932	-	36,450	538	93,078
2000	253,263	6,207	2,431	23,855	1,109	286,865	205,647	24,508	231	68	66	230,520	95,282	5,417	-	47,605	253	148,557
2001	383,936	7,028	3,916	29,608	520	425,008	143,165	12,815	448	1,214	34	157,676	60,518	1,254	-	68,755	19	130,546
2002	412,286	4,140	950	25,531	551	443,458	153,546	12,506	616	261	119	167,048	57,421	949	-	74,424	12	132,806
2003	383,279	5,950	470	25,174	1,145	416,018	273,968	22,453	638	634	2,777	300,470	53,052	2,326	-	59,776	21	115,175
2004	272,557	3,009	1,884	18,779	627	296,856	197,824	17,182	530	713	1,106	217,355	65,471	1,749	-	43,483	194	110,897
2005	268,101	2,929	1,822	12,118	1,852	286,822	263,229	17,228	1,299	231	1,779	283,766	67,895	1,952	-	41,377	25	111,249
2006	166,631	1,665	686	9,316	1,458	179,756	296,268	12,403	435	224	986	310,316	83,838	2,385	-	33,802	40	120,065
2007	170,016	1,947	894	7,779	1,439	182,075	208,295	7,159	276	107	1,065	216,902	63,450	1,039	-	29,847	44	94,380
2008	185,057	1,019	812	8,371	941	196,200	296,603	9,166	501	56	1,163	307,489	75,028	2,287	-	26,137	28	103,480
2009	236,772	1,482	709	8,479	994	248,436	230,523	6,903	151	185	1,111	238,873	76,799	1,104	-	31,282	15	109,200
2010	251,009	1,145	460	6,699	958	260,271	147,192	3,419	47	142	1,269	152,069	57,752	653	-	36,584	2	94,991
2011	201,693	564	274	5,557	421	208,509	280,401	6,087	4	102	165	286,759	57,190	730	-	29,987	1	87,908
2012	189,838	583	386	551	*	191,358	271,115	3,948	144	19	*	275,226	68,598	773	-	19,471	*	88,842

TABLE A-2a. (continued)
TABLA A-2a. (continuación)

	Pacific bluefin—Aleta azul del Pacífico						Albacore—Albacora						Black skipjack—Barrilete negro					
	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total
	Ret.	Dis.					Ret.	Dis.					Ret.	Dis.				
1983	836	-	-	2	38	876	7	-	449	7,433	7,840	15,729	1,222	-	-	-	13	1,235
1984	839	-	-	3	51	893	3,910	-	1,441	6,712	9,794	21,857	662	-	-	-	3	665
1985	3,996	-	-	1	77	4,074	42	-	877	7,268	6,654	14,841	288	-	-	-	7	295
1986	5,040	-	-	1	64	5,105	47	-	86	6,450	4,701	11,284	569	-	-	-	18	587
1987	980	-	-	3	88	1,071	1	-	320	9,994	2,662	12,977	571	-	-	-	2	573
1988	1,379	-	-	2	52	1,433	17	-	271	9,934	5,549	15,771	956	-	-	-	311	1,267
1989	1,103	-	5	4	91	1,203	1	-	21	6,784	2,695	9,501	801	-	-	-	-	801
1990	1,430	-	61	12	103	1,606	39	-	170	6,536	4,105	10,850	787	-	-	-	4	791
1991	419	-	-	5	55	479	0	-	834	7,893	2,754	11,481	421	-	-	-	25	446
1992	1,928	-	-	21	147	2,096	0	-	255	17,080	5,740	23,075	105	-	-	3	-	108
1993	580	0	-	11	325	916	0	-	1	11,194	4,410	15,605	104	4,144	-	31	-	4,279
1994	969	0	-	12	111	1,092	0	-	85	10,390	10,154	20,629	188	857	-	40	-	1,085
1995	659	0	-	25	300	984	0	-	465	6,185	7,427	14,077	203	1,448	-	-	-	1,651
1996	8,333	0	-	19	84	8,436	11	-	72	7,631	8,398	16,112	704	2,304	-	12	-	3,020
1997	2,608	3	2	14	245	2,872	1	-	59	9,678	7,540	17,278	100	2,512	-	11	-	2,623
1998	1,772	0	-	94	525	2,391	42	-	81	12,635	13,158	25,916	489	1,876	39	-	-	2,404
1999	2,553	54	5	152	564	3,328	47	-	227	11,633	14,510	26,417	171	3,412	-	-	-	3,583
2000	3,712	0	61	46	378	4,197	71	-	86	9,663	13,453	23,273	293	1,995	-	-	-	2,288
2001	1,155	3	1	148	401	1,708	3	-	157	19,410	13,727	33,297	2,258	1,019	-	-	-	3,277
2002	1,758	1	3	71	653	2,486	31	-	381	15,289	14,433	30,134	1,459	2,283	8	-	-	3,750
2003	3,233	0	3	87	404	3,727	34	-	59	24,901	20,397	45,391	433	1,535	6	13	117	2,104
2004	8,880	19	-	16	62	8,977	105	-	126	18,444	22,011	40,686	884	387	-	27	862	2,160
2005	4,743	15	-	-	85	4,843	2	-	66	11,398	15,738	27,204	1,472	2,124	-	-	22	3,618
2006	9,928	0	-	-	101	10,029	109	-	1	13,728	19,154	32,992	1,999	1,972	-	-	-	3,971
2007	4,189	0	-	-	15	4,204	187	-	21	11,031	19,889	31,128	2,306	1,625	-	-	54	3,985
2008	4,392	14	15	-	103	4,524	49	-	1,050	8,963	16,565	26,627	3,624	2,251	-	-	8	5,883
2009	3,428	24	0	0	179	3,631	59	2	2,218	12,187	17,155	31,621	4,362	1,020	-	-	-	5,382
2010	7,746	0	0	3	123	7,872	25	-	0	13,888	20,119	34,032	3,425	1,079	-	-	184	4,688
2011	2,829	4	-	1	474	3,308	51	-	0	17,828	16,972	34,851	2,317	719	-	-	*	3,036
2012	6,705	0	-	*	*	6,705	-	-	*	*	*	*	4,379	440	-	-	*	4,819

TABLE A-2a. (continued)
TABLA A-2a. (continuación)

	Bonitos						Unidentified tunas—Atunes no identificados						Total					
	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total	PS		LP	LL	OTR + NK	Total
	Ret.	Dis.					Ret.	Dis.					Ret.	Dis.				
1983	3,827	-	2	-	7,291	11,120	60	-	-	-	4,711	4,771	151,307	-	8,884	78,401	21,488	260,080
1984	3,514	-	0	-	7,291	10,805	6	-	-	-	2,524	2,530	213,436	-	7,318	63,486	20,854	305,094
1985	3,599	-	5	-	7,869	11,473	19	-	-	-	678	697	276,288	-	2,900	86,836	15,695	381,719
1986	232	-	258	-	1,889	2,379	177	-	4	-	986	1,167	334,897	-	4,806	131,742	8,078	479,523
1987	3,195	-	121	-	1,782	5,098	481	-	-	-	2,043	2,524	332,432	-	7,781	129,066	6,941	476,220
1988	8,811	-	739	-	947	10,497	79	-	-	-	2,939	3,018	377,183	-	9,063	97,380	11,228	494,854
1989	11,278	-	818	-	465	12,561	36	-	-	-	626	662	388,179	-	7,929	94,811	5,160	496,079
1990	13,641	-	215	-	371	14,227	200	-	-	3	692	895	359,640	-	3,945	140,096	8,168	511,849
1991	1,207	-	82	-	242	1,531	4	-	-	29	192	225	300,406	-	5,520	143,057	6,160	455,143
1992	977	-	-	-	318	1,295	24	-	-	27	1,071	1,122	322,617	-	6,001	120,609	10,277	459,504
1993	599	12	1	-	436	1,048	9	2,014	-	10	4,082	6,115	314,271	22,180	8,725	107,814	14,578	467,568
1994	8,331	147	362	-	185	9,025	9	498	-	1	464	972	322,930	18,799	7,312	111,902	13,938	474,881
1995	7,929	55	81	-	54	8,119	11	626	-	-	1,004	1,641	396,604	27,028	7,067	85,152	14,131	529,982
1996	647	1	7	-	16	671	37	1,028	-	-	1,038	2,103	413,623	39,837	6,396	71,280	13,184	544,320
1997	1,097	4	8	-	34	1,143	71	3,383	-	7	1,437	4,898	466,483	48,158	7,747	84,588	9,972	616,948
1998	1,330	4	7	-	588	1,929	13	1,233	-	24	18,158	19,428	442,365	33,277	6,896	74,758	34,823	592,119
1999	1,719	-	-	24	369	2,112	27	3,092	-	2,113	4,279	9,511	599,160	44,083	4,059	62,255	24,359	733,916
2000	636	-	-	75	56	767	190	1,410	-	1,992	1,468	5,060	559,094	39,537	2,809	83,304	16,783	701,527
2001	17	-	0	34	19	70	191	679	-	2,448	55	3,373	591,243	22,798	4,522	121,617	14,775	754,955
2002	-	-	-	-	1	1	576	1,863	-	482	1,422	4,343	627,077	21,742	1,958	116,058	17,191	784,026
2003	-	0	1	-	25	26	80	1,238	-	215	750	2,283	714,079	33,502	1,177	110,800	25,636	885,194
2004	15	35	1	8	3	62	256	973	-	349	258	1,836	545,992	23,354	2,541	81,819	25,123	678,829
2005	313	18	0	-	11	342	190	1,922	-	363	427	2,902	605,945	26,188	3,187	65,487	19,939	720,746
2006	3,507	80	12	-	3	3,602	50	1,910	-	3	193	2,156	562,330	20,415	1,134	57,073	21,935	662,887
2007	15,906	628	107	-	-	16,641	598	1,221	-	2,194	301	4,314	464,947	13,619	1,298	50,958	22,807	553,629
2008	7,874	37	9	-	26	7,946	136	1,380	1	727	876	3,120	572,763	16,154	2,388	44,254	19,710	655,269
2009	10,053	15	0	0	165	10,233	162	469	-	1,933	67	2,631	562,158	11,019	3,078	54,066	19,686	650,007
2010	2,820	19	4	-	0	2,843	136	709	-	1,754	36	2,635	470,105	7,024	511	59,070	22,691	559,401
2011	7,969	29	18	*	9	8,025	108	784	-	3,173	*	4,065	552,558	8,917	296	56,648	18,042	636,461
2012	8,187	-	*	*	*	8,187	41	354	-	1,939	*	2,334	548,863	6,098	530	21,980	0	577,471

TABLE A-2b. Estimated retained catches, by gear type, and estimated discards, by purse-seine vessels with carrying capacities greater than 363 t only, of billfishes, in metric tons, in the EPO. Data for 2011-2012 are preliminary. PS dis. = discards by purse-seine vessels.

TABLA A-2b. Estimaciones de las capturas retenidas, por arte de pesca, y de los descartes, por buques cerqueros de más de 363 t de capacidad de acarreo únicamente, de peces picudos, en toneladas métricas, en el OPO. Los datos de 2011-2012 son preliminares. PS dis. = descartes por buques cerqueros.

	Swordfish—Pez espada					Blue marlin—Marlín azul					Black marlin—Marlín negro					Striped marlin—Marlín rayado				
	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total
	Ret.	Dis.				Ret.	Dis.				Ret.	Dis.				Ret.	Dis.			
1983	-	-	3,341	2,338	5,679	-	-	4,460	-	4,460	-	-	240	-	240	-	-	4,472	-	4,472
1984	-	-	2,752	3,336	6,088	-	-	5,198	-	5,198	-	-	248	-	248	-	-	2,662	-	2,662
1985	-	-	1,885	3,768	5,653	-	-	3,589	-	3,589	-	-	180	-	180	-	-	1,599	-	1,599
1986	-	-	3,286	3,294	6,580	-	-	5,278	-	5,278	-	-	297	-	297	-	-	3,540	-	3,540
1987	-	-	4,676	3,740	8,416	-	-	7,282	-	7,282	-	-	358	-	358	-	-	7,647	-	7,647
1988	-	-	4,916	5,642	10,558	-	-	5,663	-	5,663	-	-	288	-	288	-	-	5,283	-	5,283
1989	-	-	5,202	6,072	11,274	-	-	5,392	-	5,392	-	-	193	-	193	-	-	3,473	-	3,473
1990	-	-	5,807	5,066	10,873	-	-	5,540	-	5,540	-	-	223	-	223	-	-	3,260	333	3,593
1991	-	17	10,671	4,307	14,995	-	69	6,719	-	6,788	-	58	246	-	304	-	76	2,993	409	3,478
1992	-	4	9,820	4,267	14,091	-	52	6,626	-	6,678	-	95	228	-	323	-	69	3,054	239	3,362
1993	3	1	6,187	4,414	10,605	84	20	6,571	-	6,675	57	31	218	-	306	47	20	3,575	259	3,901
1994	1	0	4,990	3,822	8,813	69	15	9,027	-	9,111	39	23	256	-	318	20	9	3,396	257	3,682
1995	3	1	4,495	2,974	7,473	70	16	7,288	-	7,374	43	23	158	-	224	18	8	3,249	296	3,571
1996	1	0	7,071	2,486	9,558	62	15	3,596	-	3,673	46	24	100	-	170	20	9	3,218	430	3,677
1997	2	1	10,580	1,781	12,364	126	15	5,915	-	6,056	71	22	154	-	247	28	3	4,473	329	4,833
1998	3	0	9,800	3,246	13,049	130	20	4,856	-	5,006	72	28	168	-	268	20	3	3,558	509	4,090
1999	2	0	7,569	1,965	9,536	181	38	3,691	-	3,910	83	42	94	-	219	26	11	2,621	376	3,034
2000	3	0	8,930	2,383	11,316	120	23	3,634	-	3,777	67	21	105	-	193	17	3	1,889	404	2,313
2001	3	1	16,007	1,964	17,975	119	40	4,196	-	4,355	67	48	123	-	238	13	8	1,961	342	2,324
2002	1	-	17,598	2,119	19,718	188	33	3,480	-	3,701	86	30	78	-	194	69	5	2,158	412	2,644
2003	3	1	18,161	353	18,518	185	21	4,015	-	4,221	121	26	73	-	220	31	4	1,904	417	2,356
2004	2	0	15,372	309	15,683	140	21	3,783	-	3,944	62	5	41	-	108	23	1	1,547	390	1,961
2005	2	0	8,987	4,304	13,293	209	14	3,407	-	3,630	95	9	52	-	156	37	4	1,559	553	2,153
2006	7	0	9,164	3,800	12,971	164	21	2,396	105	2,686	124	21	43	-	188	54	3	1,627	490	2,174
2007	4	-	9,586	4,390	13,980	124	13	2,394	106	2,637	74	8	48	-	130	32	4	1,391	1,024	2,451
2008	6	0	11,593	3,071	14,670	125	8	1,711	114	1,958	76	9	100	-	185	33	2	1,009	1,045	2,089
2009	4	0	14,384	3,809	18,197	159	15	2,116	131	2,421	76	8	99	-	183	23	2	1,019	7	1,051
2010	4	0	17,151	5,141	22,296	176	12	2,451	170	2,809	62	9	159	0	230	21	2	1,671	37	1,731
2011	3	-	18,261	5,945	24,209	150	6	1,392	38	1,586	59	7	184	*	250	28	1	1,993	31	2,053
2012	5	-	846	3	854	174	15	9	*	198	72	4	0	*	76	28	0	121	*	149

TABLE A-2b. (continued)
TABLA A-2b. (continuación)

	Shortbill spearfish—Marlín trompa corta					Sailfish—Pez vela					Unidentified istiophorid billfishes—Picudos istiofóridos no identificados					Total billfishes—Total de peces picudos				
	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total
	Ret.	Dis.				Ret.	Dis.				Ret.	Dis.				Ret.	Dis.			
1983	-	-	-	-	-	-	-	890	-	890	-	-	2	-	2	-	-	13,405	2,338	15,743
1984	-	-	-	-	-	-	-	345	-	345	-	-	-	-	-	-	-	11,205	3,336	14,541
1985	-	-	-	-	-	-	-	395	-	395	-	-	1	-	1	-	-	7,649	3,768	11,417
1986	-	-	5	-	5	-	-	583	-	583	-	-	1	-	1	-	-	12,990	3,294	16,284
1987	-	-	15	-	15	-	-	649	-	649	-	-	398	-	398	-	-	21,025	3,740	24,765
1988	-	-	13	-	13	-	-	649	-	649	-	-	368	-	368	-	-	17,180	5,642	22,822
1989	-	-	-	-	-	-	-	192	-	192	-	-	51	-	51	-	-	14,503	6,072	20,575
1990	-	-	-	-	-	-	-	6	-	6	-	-	125	-	125	-	-	14,961	5,399	20,360
1991	-	-	1	-	1	-	-	717	-	717	-	-	112	-	112	-	220	21,459	4,716	26,395
1992	-	1	1	-	2	-	-	1,351	-	1,351	-	-	1,123	-	1,123	-	221	22,203	4,506	26,930
1993	0	0	1	-	1	26	32	2,266	-	2,324	29	68	1,650	-	1,747	246	172	20,468	4,673	25,558
1994	0	0	144	-	144	18	21	1,682	-	1,721	7	16	1,028	-	1,051	154	84	20,523	4,079	24,841
1995	1	0	155	-	156	12	15	1,351	-	1,378	4	9	232	-	245	151	72	16,928	3,270	20,421
1996	1	0	126	-	127	10	12	738	-	760	7	13	308	-	328	147	73	15,157	2,916	18,293
1997	1	0	141	-	142	12	11	1,891	-	1,914	3	5	1,324	-	1,332	243	57	24,478	2,110	26,888
1998	0	0	200	-	200	28	31	1,382	-	1,441	5	8	575	55	643	258	90	20,539	3,810	24,697
1999	1	0	278	-	279	33	8	1,216	-	1,257	6	12	1,136	-	1,154	332	111	16,605	2,341	19,390
2000	1	0	285	-	286	33	17	1,380	-	1,430	3	6	879	136	1,024	244	70	17,102	2,923	20,339
2001	0	0	304	-	304	18	45	1,539	325	1,927	2	5	1,742	204	1,953	222	147	25,872	2,835	29,075
2002	1	0	273	-	274	19	15	1,792	17	1,843	4	5	1,862	14	1,885	368	88	27,241	2,562	30,259
2003	1	4	291	-	296	38	49	1,174	-	1,261	6	5	1,389	-	1,400	385	110	27,007	770	28,271
2004	1	0	207	-	208	19	13	1,400	17	1,449	4	4	1,385	-	1,393	251	44	23,735	716	24,746
2005	1	0	229	-	230	32	11	805	15	863	5	3	901	-	909	381	41	15,940	4,872	21,234
2006	1	0	231	-	232	30	13	1,007	35	1,085	23	4	490	1	518	403	62	14,958	4,431	19,854
2007	1	0	240	-	241	41	8	930	64	1,043	13	4	107	15	139	289	37	14,696	5,599	20,621
2008	1	0	257	-	258	28	7	383	72	490	16	5	85	8	114	285	31	15,138	4,310	19,764
2009	1	0	444	-	445	17	6	194	8	225	11	1	28	12	52	291	32	18,284	3,967	22,574
2010	1	0	488	31	520	27	20	316	4	367	8	2	534	-	544	299	45	22,770	5,383	28,497
2011	-	-	285	31	316	18	5	271	28	322	15	1	358	3	377	273	20	22,744	6,076	29,113
2012	1	-	-	-	1	14	2	77	-	93	10	1	224	-	235	304	22	1,277	3	1,606

TABLE A-2c. Estimated retained catches (Ret.), by gear type, and estimated discards (Dis.), by purse-seine vessels of more than 363 t carrying capacity only, of other species, in metric tons, in the EPO. The data for 2011-2012 are preliminary.

TABLA A-2c. Estimaciones de las capturas retenidas (Ret.), por arte de pesca, y de los descartes (Dis.), por buques cerqueros de más de 363 t de capacidad de acarreo únicamente, de otras especies, en toneladas métricas, en el OPO. Los datos de 2011-2012 son preliminares.

	Carangids—Carángidos					Dorado (*Coryphaena* spp.)					Elasmobranchs—Elasmobranquios					Other fishes—Otros peces				
	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total	PS		LL	OTR	Total
	Ret.	Dis.				Ret.	Dis.				Ret.	Dis.				Ret.	Dis.			
1983	1,240	-	-	0	1,240	88	-	-	3,374	3,462	34	-	85	695	814	288	-	-	1	289
1984	414	-	-	0	414	102	-	-	202	304	48	-	6	1,039	1,093	415	-	-	3	418
1985	317	-	-	4	321	93	-	-	108	201	27	-	13	481	521	76	-	7	-	83
1986	188	-	-	19	207	633	-	-	1,828	2,461	29	-	1	1,979	2,009	93	-	-	-	93
1987	566	-	-	5	571	271	-	-	4,272	4,543	95	-	87	1,020	1,202	210	-	535	-	745
1988	825	-	-	1	826	69	-	-	1,560	1,629	1	-	23	1,041	1,065	321	-	361	-	682
1989	60	-	-	2	62	211	-	-	1,680	1,891	29	-	66	1,025	1,120	670	-	152	-	822
1990	234	-	-	1	235	63	-	-	1,491	1,554	-	-	280	1,095	1,375	433	-	260	14	707
1991	116	-	-	0	116	57	-	7	613	677	1	-	1,112	1,352	2,465	463	-	458	1	922
1992	116	-	-	0	116	69	-	37	708	814	-	-	2,294	1,190	3,484	555	-	183	-	738
1993	31	43	-	2	76	266	477	17	724	1,484	277	1,154	1,028	916	3,375	145	554	184	2	885
1994	19	28	-	16	63	687	826	46	3,459	5,018	372	1,029	1,234	1,314	3,949	243	567	251	-	1,061
1995	27	32	-	9	68	465	729	39	2,127	3,360	278	1,093	922	1,075	3,368	177	760	211	-	1,148
1996	137	135	-	57	329	548	885	43	183	1,659	239	1,001	1,120	2,151	4,511	155	467	457	-	1,079
1997	38	111	-	39	188	567	703	6,866	3,109	11,245	413	1,232	956	2,328	4,929	261	654	848	-	1,763
1998	83	149	-	4	236	426	426	2,528	9,167	12,547	279	1,404	2,099	4,393	8,175	302	1,133	1,340	-	2,775
1999	108	136	-	1	245	568	751	6,284	1,160	8,763	260	843	5,997	2,088	9,188	245	748	976	-	1,969
2000	95	66	4	4	169	813	785	3,537	1,041	6,176	263	772	8,418	405	9,858	148	408	1,490	-	2,046
2001	15	145	18	26	204	1,028	1,275	15,941	2,825	21,069	183	641	12,540	107	13,471	391	1,130	1,727	-	3,248
2002	19	111	15	20	165	932	938	9,464	4,137	15,471	137	758	12,398	99	13,392	355	722	1,913	-	2,990
2003	9	141	54	0	204	583	346	5,301	288	6,518	118	833	14,722	372	16,045	279	406	4,682	-	5,367
2004	39	103	1	0	143	811	317	3,986	4,645	9,759	157	622	11,273	173	12,225	339	1,031	670	-	2,040
2005	80	79	-	0	159	863	295	3,854	8,667	13,679	199	496	12,127	224	13,046	439	276	676	-	1,391
2006	247	146	-	0	393	1,002	385	3,404	13,125	17,916	235	674	6,613	297	7,819	496	381	525	100	1,502
2007	174	183	6	17	380	1,264	350	2,980	7,827	12,421	343	395	8,807	424	9,969	830	675	2,246	120	3,871
2008	85	55	5	17	162	933	327	4,423	5,458	11,141	540	357	9,112	529	10,538	522	429	1,297	86	2,334
2009	63	42	10	16	131	1,923	476	4,239	51,328	57,966	279	339	7,908	386	8,912	1,036	374	1,938	220	3,568
2010	80	15	8	23	126	1,242	253	2,073	48,066	51,634	335	463	15,834	306	16,938	884	192	1,469	205	2,750
2011	71	24	8	0	103	1,291	386	1,934	20,715	24,326	280	316	13,028	226	13,850	511	219	692	-	1,422
2012	53	23	1	0	77	1,789	401	460	0	2,650	229	278	4,370	51	4,928	838	230	287	*	1,355

TABLE A-3a. Catches of yellowfin tuna by purse-seine vessels in the EPO, by vessel flag. The data have been adjusted to the species composition estimate, and are preliminary. *: data missing or not available; -: no data collected; C: data combined with those of other flags; this category is used to avoid revealing the operations of individual vessels or companies.

TABLA A-3a. Capturas de atún aleta amarilla por buques de cerco en el OPO, por bandera del buque. Los datos están ajustados a la estimación de composición por especie, y son preliminares. *: datos faltantes o no disponibles; -: datos no tomados; C: datos combinados con aquéllos de otras banderas; se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

	COL	CRI	ECU	EU(ESP)	MEX	NIC	PAN	PER	SLV	USA	VEN	VUT	C + OTR[1]	Total
1983	-	C	7,579	-	18,576	-	2,444	943	-	43,780	7,840	-	2,767	83,929
1984	-	2,702	10,526	C	53,697	-	C	C	-	57,162	9,268	-	2,430	135,785
1985	-	2,785	8,794	C	80,422	-	10,887	C	-	84,364	20,696	C	3,511	211,459
1986	-	C	16,561	C	103,644	-	9,073	C	C	88,617	28,462	C	14,155	260,512
1987	-	-	15,046	C	96,182	-	C	C	C	95,506	34,237	C	21,037	262,008
1988	-	-	23,947	C	104,565	-	7,364	1,430	C	82,231	38,257	C	19,499	277,293
1989	-	C	17,588	C	116,928	-	10,557	1,724	C	73,688	42,944	C	14,567	277,996
1990	C	C	16,279	C	115,898	-	6,391	C	-	50,790	47,490	22,208	4,197	263,253
1991	C	-	15,011	C	115,107	-	1,731	C	-	18,751	45,345	29,687	5,625	231,257
1992	C	-	12,119	C	118,455	-	3,380	45	-	16,961	44,336	27,406	5,419	228,121
1993	3,863	-	18,094	C	101,792	-	5,671	-	-	14,055	43,522	24,936	7,559	219,492
1994	7,533	-	18,365	C	99,618	-	3,259	-	-	8,080	41,500	25,729	4,324	208,408
1995	8,829	C	17,044	C	108,749	-	1,714	-	-	5,069	47,804	22,220	4,005	215,434
1996	9,855	C	17,125	C	119,878	-	3,084	-	-	6,948	62,846	10,549	8,322	238,607
1997	9,402	-	18,697	C	120,761	-	4,807	-	-	5,826	57,881	20,701	6,803	244,878
1998	15,592	-	36,201	5,449	106,840	-	3,330	-	C	2,776	61,425	17,342	5,004	253,959
1999	13,267	-	53,683	8,322	114,545	C	5,782	-	C	3,400	55,443	16,476	11,002	281,920
2000	6,138	-	35,492	10,318	101,662	C	5,796	-	-	4,374	67,672	8,247	13,563	253,263
2001	12,950	-	55,347	18,448	130,087	C	9,552	-	C	5,670	108,974	10,729	32,180	383,936
2002	17,574	-	32,512	16,990	152,864	C	15,719	C	7,412	7,382	123,264	7,502	31,068	412,286
2003	9,770	-	34,271	12,281	172,807	-	16,591	C	C	3,601	96,914	9,334	27,710	383,279
2004	C	-	40,886	13,622	91,442	C	33,563	-	C	C	39,094	7,371	46,577	272,557
2005	C	-	40,596	11,947	110,898	4,838	33,393	-	6,470	C	28,684	C	31,276	268,101
2006	C	-	26,049	8,409	69,449	4,236	22,521	-	C	C	13,286	C	22,679	166,631
2007	C	-	19,749	2,631	65,091	3,917	26,024	-	C	C	20,097	C	32,507	170,016
2008	C	-	18,463	3,023	84,462	4,374	26,993	C	C	C	17,692	C	30,050	185,057
2009	C	-	18,167	7,864	99,785	6,686	35,228	C	C	C	25,298	C	43,744	236,772
2010	20,493	-	34,764	2,820	104,969	9,422	34,538	C	C	-	21,244	C	22,758	251,009
2011	18,384	-	25,923	1,077	102,613	7,774	18,410	-	C	C	18,344	C	9,167	201,693
2012	19,620	-	23,029	958	96,700	7,038	14,290	C	C	C	22,689	C	5,514	189,838

[1] Includes—Incluye: BLZ, BMU, BOL, CAN, CHN, CYM, CYP, GTM, HND, KOR, LBR, NZL, RUS, VCT, UNK

TABLE A-3b. Annual catches of yellowfin tuna by longline vessels, and totals for all gears, in the EPO, by vessel flag. The data for 2011-2012 are preliminary. *: data missing or not available; -: no data collected; C: data combined with those of other flags; this category is used to avoid revealing the operations of individual vessels or companies.

TABLA A-3b. Capturas anuales de atún aleta amarilla por buques de palangre en el OPO, y totales de todas las artes, por bandera del buque. Los datos de 2011-2012 son preliminares. *: datos faltantes o no disponibles; -: datos no tomados; C: datos combinados con aquéllos de otras banderas; se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

	CHN	CRI	FRA-PYF	JPN	KOR	MEX	PAN	TWN	USA	VUT	C + OTR[1]	Total LL	Total PS+LL	OTR[2]
1983	-	-	-	9,404	1,382	49	-	60	-	-	*	10,895	94,824	4,856
1984	-	-	-	9,134	1,155	-	-	56	-	-	*	10,345	146,130	3,335
1985	-	-	-	10,633	2,505	2	-	58	-	-	*	13,198	224,657	1,282
1986	-	-	-	17,770	4,850	68	-	120	-	-	*	22,808	283,320	2,751
1987	-	-	-	13,484	5,048	272	-	107	-	-	*	18,911	280,919	5,245
1988	-	-	-	12,481	1,893	232	-	54	-	-	*	14,660	291,953	4,475
1989	-	-	-	15,335	1,162	9	-	526	-	-	*	17,032	295,028	4,408
1990	-	-	-	29,255	4,844	-	-	534	-	-	*	34,633	297,886	3,636
1991	-	169	-	23,721	5,688	-	-	1,319	2	-	*	30,899	262,156	3,814
1992	-	119	57	15,296	2,865	-	-	306	3	-	*	18,646	246,767	5,747
1993	-	200	39	20,339	3,257	C	-	155	17	-	2	24,009	243,501	7,985
1994	-	481	214	25,983	3,069	41	-	236	2	-	*	30,026	238,434	5,112
1995	-	542	198	17,042	2,748	7	-	28	31	-	*	20,596	236,030	3,334
1996	-	183	253	12,631	3,491	0	-	37	13	-	*	16,608	255,215	5,401
1997	-	715	307	16,218	4,753	-	-	131	11	-	28	22,163	267,041	5,018
1998	-	1,124	388	10,048	3,624	16	-	113	15	-	8	15,336	269,295	6,614
1999	-	1,031	206	7,186	3,030	10	-	186	7	-	26	11,682	293,602	4,489
2000	-	1,084	1,052	15,265	5,134	153	359	742	10	5	51	23,855	277,118	3,540
2001	942	1,133	846	14,808	5,230	29	732	3,928	29	13	1,918	29,608	413,544	4,436
2002	1,457	1,563	278	8,513	3,626	4	907	7,360	5	290	1,528	25,531	437,817	1,501
2003	2,739	1,418	462	9,125	4,911	365	C	3,477	5	699	1,973	25,174	408,453	1,615
2004	798	1,701	767	7,338	2,997	32	2,802	1,824	6	171	343	18,779	291,336	2,511
2005	682	1,791	530	3,966	532	1	1,782	2,422	7	223	182	12,118	280,219	3,674
2006	246	1,402	537	2,968	-	0	2,164	1,671	21	199	108	9,316	175,947	2,144
2007	224	1,204	408	4,582	353	8	-	745	11	154	90	7,779	177,795	2,333
2008	469	1,248	335	5,383	83	5	-	247	33	167	401	8,371	193,428	1,753
2009	629	1,003	590	4,268	780	10	-	636	84	259	220	8,479	245,251	1,703
2010	459	3	301	3,639	737	6	-	872	54	259	369	6,699	257,708	1,418
2011	1,807	-	-	2,011	754	6	-	646	54	173	106	5,557	207,250	695
2012	-	515	-	-	-	7	-	-	-	29	*	551	190,389	386

[1] Includes—Incluye: BLZ, CHL, ECU, EU(ESP), GTM, HND, NIC, SLV

[2] Includes gillnets, pole-and-line, recreational, troll and unknown gears—Incluye red de transmalle, caña, artes deportivas, y desconocidas

TABLE A-3c. Catches of skipjack tuna by purse-seine and longline vessels in the EPO, by vessel flag. The data have been adjusted to the species composition estimate, and are preliminary. *: data missing or not available; -: no data collected; C: data combined with those of other flags; this category is used to avoid revealing the operations of individual vessels or companies.

TABLA A-3c. Capturas de atún barrilete por buques de cerco y de palangre en el OPO, por bandera del buque. Los datos están ajustados a la estimación de composición por especie, y son preliminares. *: datos faltantes o no disponibles; -: datos no tomados; C: datos combinados con aquéllos de otras banderas; se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

	PS														LL+ OTR[2]
	COL	CRI	ECU	EU(ESP)	MEX	NIC	PAN	PER	SLV	USA	VEN	VUT	C+OTR[1]	Total	
1983	-	C	12,590	-	6,277	-	764	170	-	32,009	3,352	-	1,689	56,851	5,124
1984	-	31	18,085	-	8,550	-	C	-	-	23,966	7,797	-	1,430	59,859	3,752
1985	-	87	22,806	C	5,334	-	1,197	-	-	9,907	8,184	C	3,314	50,829	1,173
1986	-	C	23,836	C	6,061	-	1,134	C	C	12,978	11,797	C	9,828	65,634	2,111
1987	-	-	20,473	C	4,786	-	C	C	C	13,578	11,761	C	13,421	64,019	2,447
1988	-	-	11,743	C	15,195	-	1,863	714	C	36,792	12,312	C	8,494	87,113	5,014
1989	-	C	22,922	C	14,960	-	4,361	276	-	21,115	16,847	C	14,453	94,934	3,987
1990	C	C	24,071	C	6,696	-	3,425	C	-	13,188	11,362	11,920	3,707	74,369	2,738
1991	C	-	18,438	C	10,916	-	1,720	C	-	13,162	5,217	9,051	3,724	62,228	3,662
1992	C	-	25,408	C	9,188	-	3,724	352	-	14,108	10,226	13,315	7,962	84,283	3,011
1993	3,292	-	21,227	C	13,037	-	1,062	-	-	17,853	7,270	10,908	9,181	83,830	6,089
1994	7,348	-	15,083	C	11,783	-	2,197	-	-	8,947	6,356	9,541	8,871	70,126	4,044
1995	13,081	C	31,934	C	29,406	-	4,084	-	-	14,032	5,508	13,910	15,092	127,047	7,241
1996	13,230	C	32,433	C	14,501	-	3,619	-	-	12,012	4,104	10,873	13,201	103,973	3,868
1997	12,332	-	51,826	C	23,416	-	4,277	-	-	13,687	8,617	14,246	25,055	153,456	3,491
1998	4,698	-	67,074	20,012	15,969	-	1,136	-	C	6,898	6,795	11,284	6,765	140,631	2,215
1999	11,210	-	124,393	34,923	16,767	C	5,286	-	C	13,491	16,344	21,287	17,864	261,565	3,638
2000	10,138	-	104,849	17,041	14,080	C	9,573	-	-	7,224	6,720	13,620	22,382	205,647	365
2001	9,445	-	66,144	13,454	8,169	C	6,967	-	C	4,135	3,215	7,824	23,813	143,165	1,696
2002	10,908	-	80,378	10,546	6,612	C	9,757	C	4,601	4,582	2,222	4,657	19,283	153,546	996
2003	14,771	-	139,804	18,567	8,147	-	25,084	C	C	5,445	6,143	14,112	41,895	273,968	4,049
2004	C	-	89,621	8,138	24,429	C	20,051	-	C	C	23,356	4,404	27,825	197,824	2,349
2005	C	-	140,927	9,224	32,271	3,735	25,782	-	4,995	C	22,146	C	24,149	263,229	3,309
2006	C	-	138,490	16,668	16,790	8,396	44,639	-	C	C	26,334	C	44,952	296,268	1,645
2007	C	-	93,553	2,879	21,542	4,286	28,475	-	C	C	21,990	C	35,571	208,295	1,448
2008	C	-	143,431	4,841	21,638	7,005	43,230	C	C	C	28,333	C	48,125	296,603	1,720
2009	C	-	132,712	6,021	6,847	5,119	26,973	C	C	C	19,370	C	33,481	230,523	1,447
2010	11,400	-	82,280	1,569	3,010	5,242	19,213	C	C	-	11,818	C	12,660	147,192	1,458
2011	23,746	-	154,814	5,442	8,596	4,021	30,549	-	C	C	27,417	C	25,816	280,401	271
2012	16,662	-	159,008	15,077	14,568	4,077	25,734	C	C	C	21,335	C	14,653	271,115	163

[1] Includes—Incluye: BLZ, BMU, BOL, CAN, CHN, CYM, CYP, GTM, HND, KOR, LBR, NZL, RUS, VCT, UNK

[2] Includes gillnets, pole-and-line, recreational, and unknown gears—Incluye red de transmalle, caña, artes deportivas y desconocidas

TABLE A-3d. Catches of bigeye tuna by purse-seine vessels in the EPO, by vessel flag. The data have been adjusted to the species composition estimate, and are preliminary. *: data missing or not available; -: no data collected; C: data combined with those of other flags; this category is used to avoid revealing the operations of individual vessels or companies.

TABLA A-3d. Capturas de atún patudo por buques de cerco en el OPO, por bandera del buque. Los datos están ajustados a la estimación de composición por especie, y son preliminares. *: datos faltantes o no disponibles; -: datos no tomados; C: datos combinados con aquéllos de otras banderas; se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

	COL	CRI	ECU	EU(ESP)	MEX	NIC	PAN	PER	SLV	USA	VEN	VUT	C + OTR[1]	Total
1983	-	*	457	-	16	-	663	*	-	1,801	1,319	-	319	4,575
1984	-	3	1,164	*	40	-	*	*	-	5,335	2,181	-	138	8,861
1985	-	17	2,970	C	19	-	-	-	-	1,806	939	C	305	6,056
1986	-	-	653	C	1	-	-	-	-	266	1,466	C	300	2,686
1987	-	-	319	C	2	-	*	-	C	224	453	C	179	1,177
1988	-	-	385	C	-	-	431	*	C	256	202	C	261	1,535
1989	-	-	854	C	-	-	-	*	-	172	294	C	710	2,030
1990	-	-	1,619	C	29	-	196	-	-	209	1,405	2,082	381	5,921
1991	-	-	2,224	C	5	-	-	-	-	50	591	1,839	161	4,870
1992	-	-	1,647	C	61	-	38	*	-	3,002	184	1,397	850	7,179
1993	686	-	2,166	C	120	-	10	*	-	3,324	253	1,848	1,250	9,657
1994	5,636	-	5,112	C	171	-	-	*	-	7,042	637	8,829	7,472	34,899
1995	5,815	C	8,304	C	91	-	839	*	-	11,042	706	12,072	6,452	45,321
1996	7,692	C	20,279	C	82	-	1,445	*	-	8,380	619	12,374	10,440	61,311
1997	3,506	-	30,092	C	38	-	1,811	*	-	8,312	348	6,818	13,347	64,272
1998	596	-	25,113	5,747	12	-	12	*	C	5,309	348	4,746	2,246	44,129
1999	1,511	-	24,355	11,703	33	C	1,220	*	C	2,997	10	5,318	4,011	51,158
2000	7,443	-	36,094	12,511	0	C	7,028	*	-	5,304	457	10,000	16,446	95,282
2001	5,230	-	24,424	7,450	0	C	3,858	*	C	2,290	0	4,333	12,933	60,518
2002	5,283	-	26,262	5,108	0	C	4,726	C	2,228	2,219	0	2,256	9,340	57,421
2003	3,664	-	22,896	4,605	0	-	6,222	C	C	1,350	424	3,500	10,390	53,052
2004	C	-	30,817	3,366	0	C	8,294	*	C	C	9,661	1,822	11,511	65,471
2005	C	-	30,507	3,831	0	1,551	10,707	*	2,074	C	9,197	C	10,028	67,895
2006	C	-	39,302	5,264	6	2,652	14,099	*	C	C	8,317	C	14,197	83,838
2007	C	-	40,445	711	0	1,058	7,029	*	C	C	5,428	C	8,780	63,450
2008	C	-	41,177	1,234	327	1,785	11,018	C	C	C	7,221	C	12,266	75,028
2009	C	-	35,646	2,636	1,334	2,241	11,807	C	C	C	8,479	C	14,657	76,799
2010	4,206	-	34,902	579	11	1,934	7,089	C	C	-	4,360	C	4,672	57,752
2011	2,993	-	33,007	3,902	635	2,131	7,438	*	C	C	279	C	6,803	57,190
2012	2,275	-	43,582	4,455	730	1,596	8,896	C	C	C	1,044	C	6,019	68,598

[1] Includes—Incluye: BLZ, BOL, CHN, CYM, CYP, GTM, HND, LBR, NZL, VCT, UNK

TABLE A-3e. Annual catches of bigeye tuna by longline vessels, and totals for all gears, in the EPO, by vessel flag. The data for 2011-2012 are preliminary. *: data missing or not available; -: no data collected; C: data combined with those of other flags; this category is used to avoid revealing the operations of individual vessels or companies.

TABLA A-3e. Capturas anuales de atún patudo por buques de palangre en el OPO, y totales de todas las artes, por bandera del buque. Los datos de 2011-2012 son preliminares. *: datos faltantes o no disponibles; -: datos no tomados; C: datos combinados con aquéllos de otras banderas; se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

	CHN	CRI	FRA-PYF	JPN	KOR	MEX	PAN	TWN	USA	VUT	C + OTR[1]	Total LL	Total PS + LL	OTR[2]
1983	-	-	-	57,185	2,614	-	-	244	-	-	*	60,043	64,618	76
1984	-	-	-	44,587	1,613	-	-	194	-	-	*	46,394	55,255	13
1985	-	-	-	61,627	4,510	0	-	188	-	-	*	66,325	72,381	17
1986	-	-	-	91,981	10,187	0	-	257	-	-	*	102,425	105,111	74
1987	-	-	-	87,913	11,681	1	-	526	-	-	*	100,121	101,298	49
1988	-	-	-	66,015	6,151	1	-	591	-	-	*	72,758	74,293	20
1989	-	-	-	67,514	3,138	-	-	311	-	-	*	70,963	72,993	1
1990	-	-	-	86,148	12,127	-	-	596	-	-	*	98,871	104,792	59
1991	-	1	-	85,011	17,883	-	-	1,291	9	-	*	104,195	109,065	56
1992	-	9	7	74,466	9,202	-	-	1,032	92	-	*	84,808	91,987	13
1993	-	25	7	63,190	8,924	*	-	297	55	-	*	72,498	82,155	35
1994	-	1	102	61,471	9,522	-	-	255	9	-	*	71,360	106,259	806
1995	-	13	97	49,016	8,992	-	-	77	74	-	*	58,269	103,590	1,369
1996	-	1	113	36,685	9,983	-	-	95	81	-	*	46,958	108,269	748
1997	-	9	250	40,571	11,376	-	-	256	118	-	*	52,580	116,852	20
1998	-	28	359	35,752	9,731	-	-	314	191	-	*	46,375	90,504	628
1999	-	25	3,652	22,224	9,431	-	-	890	228	-	*	36,450	87,608	538
2000	-	27	653	28,746	13,280	42	14	1,916	162	2,754	11	47,605	142,887	253
2001	2,639	28	684	38,048	12,576	1	80	9,285	147	3,277	1,990	68,755	129,273	19
2002	7,614	19	388	34,193	10,358	-	6	17,253	132	2,995	1,466	74,424	131,845	12
2003	10,066	18	346	24,888	10,272	-	C	12,016	232	1,258	680	59,776	112,828	21
2004	2,645	21	405	21,236	10,729	-	48	7,384	149	407	459	43,483	108,954	194
2005	2,104	23	398	19,113	11,580	-	30	6,441	536	1,001	151	41,377	109,272	25
2006	709	18	388	16,235	8,694	-	37	6,412	85	1,029	195	33,802	117,640	40
2007	2,324	15	361	13,977	5,611	-	-	6,057	417	992	93	29,847	93,297	44
2008	2,379	16	367	14,908	4,150	-	-	1,852	1,277	731	456	26,137	101,165	28
2009	2,481	13	484	15,490	6,758	-	-	3,396	730	1,130	800	31,282	108,081	15
2010	2,490	4	314	15,847	9,244	-	-	5,276	1,357	1,439	613	36,584	94,336	2
2011	5,450	-	-	11,782	6,617	-	-	3,956	1,051	1,006	127	29,987	87,177	1
2012	1,993	1	-	7,424	6,892	-	-	2,937	-	224	*	19,471	88,069	*

[1] Includes—Incluye: BLZ, CHL, ECU, EU(ESP), GTM, HND, NIC, EU(PRT), SLV

[2] Includes gillnets, pole-and-line, recreational, and unknown gears—Incluye red de transmalle, caña, artes deportivas, y desconocidas

TABLE A-4. Preliminary estimates of the retained catches in metric tons, of tunas and bonitos caught by purse-seine, pole-and-line, and recreational vessels in the EPO in 2011 and 2012, by species and vessel flag. The data for yellowfin, skipjack, and bigeye tunas have been adjusted to the species composition estimates, and are preliminary.

TABLA A-4. Estimaciones preliminares de las capturas retenidas, en toneladas métricas, de atunes y bonitos por buques cerqueros, cañeros, y recreacionales en el OPO en 2011 y 2012, por especie y bandera del buque. Los datos de los atunes aleta amarilla, barrilete, y patudo fueron ajustados a las estimaciones de composición por especie, y son preliminares.

	YFT	SKJ	BET	PBF	ALB	BKJ	BZX	TUN	Total	%
2011	**Retained catches–Capturas retenidas**									
COL	18,384	23,746	2,993	-	10	-	-	-	45,133	8.2
ECU	25,923	154,814	33,007	-	-	186	3	40	213,973	38.7
EU(ESP)	1,077	5,442	3,902	-	-	-	-	-	10,421	1.9
MEX	102,887	8,600	635	2,730	-	2,023	7,984	43	124,902	22.6
NIC	7,774	4,021	2,131	-	-	-	-	-	13,926	2.5
PAN	18,410	30,549	7,438	-	-	-	-	-	56,397	10.2
VEN	18,344	27,417	279	-	-	39	-	10	46,089	8.3
OTR[1]	9,168	25,816	6,805	99	41	69	-	15	42,013	7.6
Total	201,967	280,405	57,190	2,829	51	2,317	7,987	108	552,854	
2012	**Retained catches–Capturas retenidas**									
COL	19,620	16,662	2,275	-	-	-	-	-	38,557	7.0
ECU	23,029	159,008	43,582	-	-	752	3,837	38	230,246	41.9
EU(ESP)	958	15,077	4,455	-	-	5	-	-	20,495	3.7
MEX	97,086	14,713	730	6,667	-	3,614	4,325	-	127,135	23.1
NIC	7,038	4,077	1,596	-	-	-	-	-	12,711	2.3
PAN	14,290	25,734	8,896	-	-	-	25	-	48,945	8.9
VEN	22,689	21,335	1,044	-	-	7	-	2	45,077	8.2
OTR[2]	5,514	14,653	6,020	38	-	1	-	1	26,227	4.8
Total	190,224	271,259	68,598	6,705	-	4,379	8,187	41	549,393	

[1] Includes Bolivia,, El Salvador, Guatemala, Honduras, United States and Vanuatu This category is used to avoid revealing the operations of individual vessels or companies.

[1] Incluye Bolivia,, El Salvador, Estados Unidos, Guatemala, Honduras y Vanuatú Se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

[2] Includes El Salvador, Guatemala, United States and Vanuatu This category is used to avoid revealing the operations of individual vessels or companies.

[2] Incluye El Salvador, Estados Unidos, Guatemala y Vanuatú Se usa esta categoría para no revelar información sobre las actividades de buques o empresas individuales.

TABLE A-5. Annual retained catches of Pacific bluefin tuna, by gear type and flag, in metric tons. The data for 2010 and 2011 are preliminary.
TABLA A-5. Capturas retenidas anuales de atún aleta azul del Pacífico, por arte de pesca y bandera, en toneladas métricas. Los datos de 2010 y 2011 son preliminares.

PBF	Western Pacific flags—Banderas del Pacífico occidental[1]										Eastern Pacific flags—Banderas del Pacífico oriental						Total
	JPN				KOR[1]		TWN			Sub-total	MEX		USA		Sub-total	OTR	
	PS	LP	LL	OTR	PS	OTR	PS	LL	OTR		PS	OTR	PS	OTR			
1983	14,774	356	224	4,116	13	-	9	175	2	19,670	214	-	629	44	887	-	20,557
1984	4,433	587	164	4,977	4	-	5	477	8	10,655	166	-	673	78	917	-	11,573
1985	4,154	1,817	115	5,587	1	-	80	210	11	11,975	676	-	3,320	117	4,113	-	16,089
1986	7,412	1,086	116	5,100	344	-	16	70	13	14,157	189	-	4,851	69	5,109	-	19,266
1987	8,653	1,565	244	3,524	89	-	21	365	14	14,474	119	-	861	54	1,033	-	15,507
1988	3,605	907	187	2,464	32	-	197	108	62	7,562	447	1	923	56	1,427	-	8,989
1989	6,190	754	241	1,933	71	-	259	205	54	9,707	57	-	1,046	134	1,236	-	10,943
1990	2,989	536	336	2,421	132	-	149	189	315	7,067	50	-	1,380	157	1,587	-	8,653
1991	9,808	286	238	4,204	265	-	-	342	119	15,262	9	-	410	98	517	2	15,781
1992	7,162	166	529	3,205	288	-	73	464	8	11,896	-	-	1,928	171	2,099	-	13,995
1993	6,600	129	822	1,759	40	-	1	471	3	9,825	-	-	580	401	981	6	10,811
1994	8,131	162	1,226	5,667	50	-	-	559	-	15,795	63	2	906	148	1,118	2	16,916
1995	18,909	270	688	7,224	821	-	-	335	2	28,248	11	-	657	308	975	2	29,225
1996	7,644	94	909	5,360	102	-	-	956	-	15,066	3,700	-	4,639	110	8,449	4	23,519
1997	13,152	34	1,312	4,354	1,054	-	-	1,814	-	21,720	367	-	2,240	290	2,897	14	24,632
1998	5,390	85	1,266	4,439	188	-	-	1,910	-	13,277	1	-	1,771	694	2,466	20	15,763
1999	16,173	35	1,174	5,192	256	-	-	3,089	-	25,919	2,369	35	184	625	3,213	21	29,153
2000	16,486	102	960	6,935	2,401	-	-	2,780	2	29,666	3,019	99	693	403	4,214	21	33,901
2001	7,620	180	797	5,477	1,176	10	-	1,839	4	17,103	863	-	292	404	1,559	50	18,712
2002	8,903	99	846	4,158	932	1	-	1,523	4	16,466	1,708	2	50	666	2,426	65	18,957
2003	5,768	44	1,249	3,124	2,601	-	-	1,863	21	14,670	3,211	43	22	412	3,688	60	18,418
2004	8,257	132	1,856	3,592	773	-	-	1,714	3	16,327	8,880	14	-	60	8,954	77	25,358
2005	12,817	549	1,939	6,136	1,318	-	-	1,368	2	24,129	4,542	-	201	86	4,829	27	28,985
2006	8,880	108	1,132	3,742	1,012	-	-	1,149	1	16,024	9,928	-	-	98	10,026	24	26,074
2007	6,840	236	2,095	5,097	1,281	-	-	1,401	10	16,960	4,147	-	42	16	4,205	25	21,190
2008	10,221	64	1,503	5,624	1,866	-	-	979	2	20,259	4,392	15	-	94	4,501	25	24,785
2009	8,077	50	1,319	5,024	936	-	-	877	11	16,294	3,019	-	410	181	3,610	25	19,929
2010	3,742	83	914	3,822	1,196	-	-	373	36	10,166	7,745	-	-	122	7,867	25	18,058
2011	8,331	63	713	4,217	670			292	24	14,310	2,730	-	99	474	3,303	25	17,638

[1] Source: International Scientific Committee, 11th Plenary Meeting, PBFWG workshop report on Pacific Bluefin Tuna, November 2012—Fuente: Comité Científico Internacional, 11ª Reunión Plenaria, Taller PBFWG sobre Atún Aleta Azul del Pacífico, noviembre de 2012

TABLE A-6a. Annual retained catches of North Pacific albacore by region and gear, in metric tons, compiled from IATTC data (EPO) and SPC data (WCPO). The data for 2010 and 2011 are preliminary.
TABLA A-6a. Capturas retenidas anuales de atún albacora del Pacífico Norte por región, en toneladas métricas, compiladas de datos de la CIAT (OPO) y la SPC (WCPO). Los datos de 2010 y 2011 son preliminares.

ALB (N)	Eastern Pacific Ocean / Océano Pacífico oriental					Western and central Pacific Ocean / Océano Pacífico occidental y central					Total
	LL	LP	LTL	OTR	Subtotal	LL	LP	LTL	OTR	Subtotal	
1983	1,572	449	7,751	94	9,866	15,014	21,256	1,833	7,582	45,685	55,551
1984	2,592	1,441	8,343	5,337	17,713	13,541	25,602	1,011	13,333	53,487	71,200
1985	1,313	877	5,308	1,218	8,716	13,468	21,335	1,163	13,729	49,695	58,411
1986	698	86	4,282	243	5,309	12,442	16,442	456	10,695	40,035	45,344
1987	1,114	320	2,300	172	3,906	14,297	18,920	570	11,337	45,124	49,030
1988	899	271	4,202	81	5,453	14,702	6,543	165	18,887	40,297	45,750
1989	952	21	1,852	161	2,986	13,584	8,662	148	19,825	42,219	45,205
1990	1,143	170	2,440	63	3,816	15,465	8,477	465	26,096	50,503	54,319
1991	1,514	834	1,783	6	4,137	16,535	6,269	201	10,792	33,797	37,934
1992	1,635	255	4,515	2	6,407	18,356	13,633	419	16,578	48,986	55,393
1993	1,772	1	4,331	25	6,129	29,371	12,796	2,417	4,087	48,671	54,800
1994	2,356	85	9,581	106	12,128	28,469	26,304	3,553	3,380	61,706	73,834
1995	1,380	465	7,308	102	9,255	31,568	20,596	3,450	1,623	57,237	66,492
1996	1,675	72	8,195	99	10,041	37,708	20,224	13,654	971	72,557	82,598
1997	1,365	59	6,056	1,019	8,499	47,000	32,252	12,618	1,717	93,587	102,086
1998	1,730	81	11,938	1,250	14,999	46,320	22,924	8,136	1,987	79,367	94,366
1999	2,701	227	10,801	3,668	17,397	44,066	50,202	3,052	7,487	104,807	122,204
2000	1,880	86	10,874	1,869	14,709	39,735	21,533	4,371	3,116	68,755	83,464
2001	1,822	157	11,570	1,638	15,187	35,922	29,412	5,168	1,364	71,866	87,053
2002	1,227	381	11,905	2,388	15,901	32,684	48,451	4,418	3,831	89,384	105,285
2003	1,129	59	17,749	2,260	21,197	32,164	36,114	4,137	924	73,339	94,536
2004	854	126	20,162	1,623	22,765	29,321	32,254	2,093	7,354	71,022	93,787
2005	643	66	13,811	1,741	16,261	32,385	16,133	256	1,442	50,216	66,477
2006	3,482	1	18,688	408	22,579	30,788	15,422	243	729	47,182	69,761
2007	2,520	21	18,555	1,415	22,511	29,251	37,768	91	5,023	72,133	94,644
2008	1,085	1,050	16,147	308	18,590	27,390	18,010	1,766	2,618	49,784	68,374
2009	39	2,218	16,265	736	19,258	28,763	31,263	2,900	2,031	64,957	84,215
2010	1,602	-	19,145	753	21,500	26,634	21,801	630	128	49,193	70,693
2011	2,396	-	16,496	517	19,409	33,409	21,801	657	364	56,231	75,640

TABLE A-6b. Annual retained catches of South Pacific albacore by region, in metric tons, compiled from IATTC data (EPO) and SPC data (WCPO). The data for 2010 and 2011 are preliminary.
TABLA A-6b. Capturas retenidas anuales de atún albacora del Pacífico Sur por región, en toneladas métricas, compiladas de datos de la CIAT (OPO) y la SPC (WCPO). Los datos de 2010 y 2011 son preliminares.

ALB (S)	Eastern Pacific Ocean Océano Pacífico oriental				Western and central Pacific Ocean Océano Pacífico occidental y central					Total
	LL	LTL	OTR	Subtotal	LL	LP	LTL	OTR	Subtotal	
1983	5,861	0	2	5,863	18,448	0	744	37	19,229	25,092
1984	4,120	0	24	4,144	16,220	2	2,773	1,565	20,560	24,704
1985	5,955	0	170	6,125	21,183	0	3,253	1,767	26,203	32,328
1986	5,752	74	149	5,975	26,889	0	1,929	1,797	30,615	36,590
1987	8,880	188	3	9,071	13,099	9	1,946	927	15,981	25,052
1988	9,035	1,282	0	10,317	19,253	0	3,014	5,283	27,550	37,867
1989	5,832	593	90	6,515	12,906	0	7,777	21,878	42,561	49,076
1990	5,393	1,336	306	7,035	15,911	245	5,639	7,232	29,027	36,062
1991	6,379	795	170	7,344	19,913	14	7,010	1,319	28,256	35,600
1992	15,445	1,205	18	16,668	16,569	11	5,373	47	22,000	38,668
1993	9,422	35	19	9,476	21,576	74	4,261	51	25,962	35,438
1994	8,034	446	22	8,502	26,964	67	6,718	67	33,816	42,318
1995	4,805	2	15	4,822	25,703	139	7,714	89	33,645	38,467
1996	5,956	94	21	6,071	20,807	30	7,316	135	28,288	34,359
1997	8,313	466	0	8,779	26,344	21	4,213	133	30,711	39,490
1998	10,905	12	0	10,917	33,065	36	6,268	85	39,454	50,371
1999	8,932	81	7	9,020	27,023	138	3,366	67	30,594	39,614
2000	7,783	778	3	8,564	32,859	102	5,677	136	38,774	47,338
2001	17,588	516	5	18,109	35,267	37	4,737	194	40,235	58,344
2002	14,062	131	40	14,233	54,349	18	4,530	110	59,007	73,240
2003	23,772	419	3	24,194	32,579	12	5,565	127	38,283	62,477
2004	17,590	331	0	17,921	39,434	110	4,283	123	43,950	61,871
2005	10,754	181	7	10,942	49,143	29	3,322	130	52,624	63,566
2006	10,246	48	119	10,413	49,097	29	2,836	69	52,031	62,444
2007	8,511	19	87	8,617	47,989	17	1,995	0	50,001	58,618
2008	7,878	0	159	8,037	51,215	12	3,502	0	54,729	62,766
2009	12,148	0	213	12,361	68,532	21	2,031	0	70,584	82,945
2010	12,286	0	246	12,532	74,392	14	2,139	0	76,545	89,077
2011	15,432	0	10	15,442	53,849	21	3,119	223	57,212	72,654

TABLE A-7. Estimated numbers of sets, by set type and vessel capacity category, and estimated retained catches, in metric tons, of yellowfin, skipjack, and bigeye tuna in the EPO, by purse-seine vessels. The data for 2012 are preliminary. The data for yellowfin, skipjack, and bigeye tunas have been adjusted to the species composition estimate and are preliminary.

TABLA A-7. Números estimados de lances, por tipo de lance y categoría de capacidad de buque, y capturas retenidas estimadas, en toneladas métricas, de atunes aleta amarilla, barrilete, y patudo en el OPO. Los datos de 2012 son preliminares. Los datos de los atunes aleta amarilla, barrilete, y patudo fueron ajustados a la estimación de composición por especie, y son preliminares.

	Number of sets—Número de lances			Retained catch—Captura retenida		
	Vessel capacity—Capacidad del buque		Total	YFT	SKJ	BET
	≤363 t	>363 t				
DEL	**Sets on fish associated with dolphins Lances sobre peces asociados con delfines**					
1997	43	8,977	9,020	152,052	8,149	0
1998	0	10,645	10,645	154,200	4,992	6
1999	0	8,648	8,648	143,128	1,705	5
2000	0	9,235	9,235	146,533	540	15
2001	0	9,876	9,876	238,629	1,802	6
2002	0	12,290	12,290	301,099	3,180	2
2003	0	13,760	13,760	265,512	13,332	1
2004	0	11,783	11,783	177,460	10,730	3
2005	0	12,173	12,173	166,211	12,127	2
2006	0	8,923	8,923	91,978	4,787	0
2007	0	8,871	8,871	97,032	3,277	7
2008	0	9,246	9,246	122,105	8,382	5
2009	0	10,910	10,910	178,436	2,719	1
2010	0	11,645	11,645	168,984	1,627	4
2011	0	9,604	9,604	131,485	4,443	2
2012	0	9,220	9,220	124,306	2,242	0
OBJ	**Sets on fish associated with floating objects Lances sobre peces asociados con objetos flotantes**					
1997	1,699	5,610	7,309	30,255	116,802	62,704
1998	1,198	5,465	6,663	26,769	110,335	41,919
1999	630	4,483	5,113	43,341	181,636	49,330
2000	508	3,713	4,221	42,522	121,723	92,966
2001	827	5,674	6,501	67,200	122,363	59,748
2002	867	5,771	6,638	38,057	116,793	55,901
2003	706	5,457	6,163	30,307	181,214	51,296
2004	615	4,986	5,601	28,340	117,212	64,005
2005	639	4,992	5,631	26,126	133,509	66,257
2006	1,158	6,862	8,020	34,313	191,093	82,136
2007	1,384	5,857	7,241	29,619	122,286	62,189
2008	1,819	6,655	8,474	34,819	157,274	73,855
2009	1,821	7,077	8,898	36,136	157,067	75,888
2010	1,788	6,399	8,187	38,113	113,716	57,167
2011	2,529	6,921	9,450	41,127	173,653	56,256
2012	2,953	7,610	10,563	37,529	181,207	67,630

TABLE A-7. (continued)
TABLA A-7 (continuación)

	Number of sets—Número de lances			Retained catch—Captura retenida		
	Vessel capacity—Capacidad del buque		Total	YFT	SKJ	BET
	≤363 t	>363 t				
NOA	**Sets on unassociated schools Lances sobre cardúmenes no asociados**					
1997	5,334	4,680	10,014	62,571	28,505	1,568
1998	5,700	4,607	10,307	72,990	25,304	2,204
1999	5,632	6,139	11,771	95,451	78,224	1,823
2000	5,497	5,472	10,969	64,208	83,384	2,301
2001	4,022	3,024	7,046	78,107	19,000	764
2002	4,938	3,442	8,380	73,130	33,573	1,518
2003	7,274	5,131	12,405	87,460	79,422	1,755
2004	4,969	5,696	10,665	66,757	69,882	1,463
2005	6,109	7,816	13,925	75,764	117,593	1,636
2006	6,189	8,443	14,632	40,340	100,388	1,702
2007	4,845	7,211	12,056	43,365	82,732	1,254
2008	4,771	6,210	10,981	28,133	130,947	1,168
2009	3,308	4,109	7,417	22,200	70,737	910
2010	2,252	3,886	6,138	43,912	31,849	581
2011	2,838	5,182	8,020	29,081	102,305	932
2012	2,881	5,369	8,250	28,003	87,666	968
ALL	**Sets on all types of schools Lances sobre todos tipos de cardumen**					
1997	7,076	19,267	26,343	244,878	153,456	64,272
1998	6,898	20,717	27,615	253,959	140,631	44,129
1999	6,262	19,270	25,532	281,920	261,565	51,158
2000	6,005	18,420	24,425	253,263	205,647	95,282
2001	4,849	18,574	23,423	383,936	143,165	60,518
2002	5,805	21,503	27,308	412,286	153,546	57,421
2003	7,980	24,348	32,328	383,279	273,968	53,052
2004	5,584	22,465	28,049	272,557	197,824	65,471
2005	6,748	24,981	31,729	268,101	263,229	67,895
2006	7,347	24,228	31,575	166,631	296,268	83,838
2007	6,229	21,939	28,168	170,016	208,295	63,450
2008	6,590	22,111	28,701	185,057	296,603	75,028
2009	5,129	22,096	27,225	236,772	230,523	76,799
2010	4,040	21,930	25,970	251,009	147,192	57,752
2011	5,367	21,707	27,074	201,693	280,401	57,190
2012	5,834	22,199	28,033	189,838	271,115	68,598

TABLE A-8. Types of floating objects on which sets were made. The 2012 data are preliminary.
TABLA A-8. Tipos de objetos flotantes sobre los que se hicieron lances. Los datos de 2012 son preliminares.

OBJ	Flotsam Naturales		FADs Plantados		Unknown Desconocido		Total
	No.	%	No.	%	No.	%	
1997	829	14.8	4,728	84.3	53	0.9	5,610
1998	751	13.7	4,612	84.4	102	1.9	5,465
1999	831	18.5	3,632	81.0	20	0.4	4,483
2000	488	13.1	3,187	85.8	38	1.0	3,713
2001	592	10.4	5,058	89.1	24	0.4	5,674
2002	778	13.5	4,966	86.1	27	0.5	5,771
2003	715	13.1	4,722	86.5	20	0.4	5,457
2004	586	11.8	4,370	87.6	30	0.6	4,986
2005	603	12.1	4,281	85.8	108	2.2	4,992
2006	697	10.2	6,123	89.2	42	0.6	6,862
2007	597	10.2	5,188	88.6	72	1.2	5,857
2008	560	8.4	6,070	91.2	25	0.4	6,655
2009	322	4.5	6,728	95.1	27	0.4	7,077
2010	337	5.3	6,038	94.3	24	0.4	6,399
2011	563	8.1	6,342	91.6	16	0.2	6,921
2012	286	3.8	7,317	96.1	7	0.1	7,610

TABLE A-9. Reported nominal longline fishing effort (E; 1000 hooks), and catch (C; metric tons) of yellowfin, skipjack, bigeye, Pacific bluefin, and albacore tunas only, by flag, in the EPO.
TABLA A-9. Esfuerzo de pesca palangrero nominal reportado (E; 1000 anzuelos), y captura (C; toneladas métricas) de atunes aleta amarilla, barrilete, patudo, aleta azul del Pacífico, y albacora solamente, por bandera, en el OPO.

LL	CHN		JPN		KOR		PYF		TWN		USA		OTR[1]
	E	C	E	C	E	C	E	C	E	C	E	C	C
1983	-	-	127,177	69,563	14,680	6,478	-	-	4,850	2,311	-	-	49
1984	-	-	119,628	57,262	11,770	4,490	-	-	3,730	1,734	-	-	-
1985	-	-	106,761	74,347	19,799	10,508	-	-	3,126	1,979	-	-	2
1986	-	-	160,572	111,673	30,778	17,432	-	-	4,874	2,569	-	-	68
1987	-	-	188,386	104,053	36,436	19,405	-	-	12,267	5,335	-	-	273
1988	-	-	182,709	82,384	43,056	10,172	-	-	9,567	4,590	-	-	234
1989	-	-	170,370	84,961	43,365	4,879	-	-	16,360	4,962	-	-	9
1990	-	-	178,414	117,923	47,167	17,415	-	-	12,543	4,755	-	-	-
1991	-	-	200,374	112,337	65,024	24,644	-	-	17,969	5,862	42	12	173
1992	-	-	191,300	93,011	45,634	13,104	199	88	33,025	14,142	325	106	128
1993	-	-	159,956	87,976	46,375	12,843	153	80	18,064	6,566	415	81	227
1994	-	-	163,999	92,606	44,788	13,249	1,373	574	12,588	4,883	303	26	523
1995	-	-	129,599	69,435	54,979	12,778	1,776	559	2,910	1,639	828	179	562
1996	-	-	103,649	52,298	40,290	14,120	2,087	931	5,830	3,554	510	181	184
1997	-	-	96,385	59,325	30,493	16,663	3,464	1,941	8,720	5,673	464	216	752
1998	-	-	106,568	50,167	51,817	15,089	4,724	2,858	10,586	5,039	1,008	405	1,176
1999	-	-	80,950	32,886	54,269	13,295	5,512	4,446	23,247	7,865	1,756	470	1,156
2000	-	-	79,327	45,216	33,585	18,758	8,090	4,382	18,152	7,809	736	204	4,868
2001	13,054	5,162	102,220	54,775	72,261	18,200	7,445	5,086	41,920	20,060	1,438	238	15,614
2002	34,894	10,398	103,912	45,401	96,273	14,370	943	3,238	78,018	31,773	611	138	10,258
2003	43,290	14,548	101,227	36,187	71,006	15,551	11,098	4,101	74,456	28,328	1,313	262	11,595
2004	15,886	4,033	76,828	30,937	55,861	14,540	13,757	3,030	49,979	19,535	1,047	166	9,193
2005	16,895	3,681	65,085	25,712	15,798	12,284	13,356	2,514	38,536	12,229	2,579	557	8,146
2006	588	969	56,525	21,432	*	8,752	11,786	3,220	38,139	12,375	234	121	10,201
2007	12,229	2,624	45,972	20,515	10,548	6,037	9,672	3,753	22,243	9,498	2,686	436	5,901
2008	11,519	2,984	44,555	21,375	3,442	4,256	10,255	3,017	12,544	4,198	6,314	1,369	6,328
2009	10,536	3,435	41,517	21,492	18,364	7,615	10,686	4,032	13,904	6,366	5,145	852	8,340
2010	11,900	3,590	47,807	21,017	51,139	10,477	8,976	3,139	25,223	10,396	8,879	1,480	7,216
2011	37,384	9,983	47,569	17,002	25,323	7,814	*	*	14,722	9,420	7,359	1,218	8,039

[1] Includes the catches of—Incluye las capturas de: BLZ, CHL, COK, CRI, ECU, EU(ESP), GTM, HND, MEX, NIC, PAN, EU(PRT), SLV, VUT

TABLE A-10. Numbers and well volumes, in cubic meters, of purse-seine and pole-and line vessels of the EPO tuna fleet. The data for 2012 are preliminary.
TABLA A-10. Número y volumen de bodega, en metros cúbicos, de buques cerqueros y cañeros de la flota atunera del OPO. Los datos de 2012 son preliminares.

	PS		LP		Total	
	No.	**Vol. (m^3)**	**No.**	**Vol. (m^3)**	**No.**	**Vol. (m^3)**
1983	211	143,859	59	3,829	270	147,688
1984	164	118,964	49	3,499	213	122,463
1985	176	136,845	26	2,595	202	139,440
1986	165	130,530	17	2,066	182	132,596
1987	173	148,713	29	2,383	202	151,096
1988	185	154,845	39	3,352	224	158,197
1989	176	141,956	32	3,181	208	145,137
1990	172	143,877	23	1,975	195	145,852
1991	152	124,062	22	1,997	174	126,059
1992	158	116,619	20	1,807	178	118,426
1993	151	117,593	15	1,550	166	119,143
1994	166	120,726	20	1,726	186	122,452
1995	175	123,798	20	1,784	195	125,582
1996	180	130,774	17	1,646	197	132,420
1997	194	147,926	23	2,127	217	150,053
1998	202	164,956	22	2,216	224	167,172
1999	209	179,999	14	1,642	223	181,641
2000	205	180,679	12	1,220	217	181,899
2001	204	189,088	10	1,259	214	190,347
2002	218	199,870	6	921	224	200,791
2003	214	202,381	3	338	217	202,719
2004	218	206,473	3	338	221	206,811
2005	221	213,144	4	498	225	213,642
2006	225	225,166	4	498	229	225,664
2007	228	225,901	4	380	232	226,281
2008	219	223,804	4	380	223	224,184
2009	217	224,296	4	380	221	224,676
2010	201	209,870	3	255	204	210,125
2011	208	213,237	2	143	210	213,380
2012	211	219,091	3	268	214	219,359

TABLE A-11a. Estimates of the numbers and well volume (cubic meters) of purse-seine (PS) and pole-and-line (LP) vessels that fished in the EPO in 2011, by flag and gear. Each vessel is included in the total for each flag under which it fished during the year, but is included only once in the "Grand total"; therefore the grand total may not equal the sums of the individual flags.

TABLA A-11a. Estimaciones del número y volumen de bodega (metros cúbicos) de buques cerqueros (PS) y cañeros (LP) que pescaron en el OPO en 2011, por bandera y arte de pesca. Se incluye cada buque en los totales de cada bandera bajo la cual pescó durante el año, pero solamente una vez en el "Total general"; por consiguiente, los totales generales no equivalen necesariamente a las sumas de las banderas individuales.

Flag Bandera	Gear Arte	Well volume —Volumen de bodega (m^3)					Total	
		<401	401-800	801-1300	1301-1800	>1800	No.	Vol. (m^3)
		Number—Número						
BOL	PS	1	-	-	-	-	1	222
COL	PS	2	2	7	3	-	14	14,860
ECU	PS	36	28	17	6	9	96	70,014
EU(ESP)	PS	-	-	-	-	4	4	10,116
GTM	PS	-	-	1	1	1	3	4,819
HND	PS	-	1	-	-	-	1	547
MEX	PS	3	3	20	15	-	41	47,274
	LP	2	-	-	-	-	2	143
NIC	PS	-	-	4	3	-	7	9,685
PAN	PS	-	3	7	6	3	19	25,443
SLV	PS	-	-	-	1	3	4	7,892
USA	PS	2	-	2	1	-	5	4,275
VEN	PS	-	-	10	8	-	18	24,007
VUT	PS	-	-	1	2	-	3	3,609
Grand total— Total general	PS	43	37	65	43	20	208	
	LP	2	-	-	-	-	2	
	PS + LP	45	37	65	43	20	210	
		Well volume—Volumen de bodega (m^3)						
Grand total— Total general	PS	10,713	22,109	73,042	64,137	43,236		213,237
	LP	143	-	-	-	-		143
	PS + LP	10,856	22,109	73,042	64,137	43,236		213,380

- : none—ninguno

TABLE A-11b. Estimates of the numbers and well volumes (cubic meters) of purse-seine (PS) and pole-and-line (LP) vessels that fished in the EPO in 2012 by flag and gear. Each vessel is included in the total for each flag under which it fished during the year, but is included only once in the "Grand total"; therefore the grand total may not equal the sums of the individual flags.

TABLA A-11b. Estimaciones del número y volumen de bodega (metros cúbicos) de buques cerqueros (PS) y cañeros (LP) que pescaron en el OPO en 2012, por bandera y arte de pesca. Se incluye cada buque en los totales de cada bandera bajo la cual pescó durante el año, pero solamente una vez en el "Total general"; por consiguiente, los totales generales no equivalen necesariamente a las sumas de las banderas individuales.

Flag Bandera	Gear Arte	Well volume —Volumen de bodega (m^3)					Total	
		<401	401-800	801-1300	1301-1800	>1800	No.	Vol. (m^3)
		Number—Número						
COL	PS	2	2	7	3	-	14	14,860
ECU	PS	36	31	19	6	11	103	79,222
EU(ESP)	PS	-	-	-	-	4	4	10,116
GTM	PS	-	-	-	1	1	2	3,575
MEX	PS	3	4	20	15	-	42	48,054
	LP	3	-	-	-	-	3	268
NIC	PS	-	-	3	4	-	7	9,966
PAN	PS	-	2	4	4	3	13	17,976
PER	PS	1	-	-	-	-	1	299
SLV	PS	-	-	-	1	3	4	7,892
USA	PS	1	-	1	1	1	4	5,009
VEN	PS	-	-	9	8	-	17	22,862
VUT	PS	-	-	-	1	-	1	1,360
Grand total— Total general	PS	43	39	63	44	22	211	
	LP	3	-	-	-	-	3	
	PS + LP	46	39	63	44	22	214	
Well volume—Volumen de bodega (m^3)								
Grand total— Total general	PS	11,365	23,426	70,340	65,534	48,426		219,091
	LP	268	-	-	-	-		268
	PS + LP	11,633	23,426	70,340	65,534	48,426		219,359

- : none—ninguno

TABLE A-12. Minimum, maximum, and average capacity, in thousands of cubic meters, of purse-seine and pole-and-line vessels at sea in the EPO during 2002-2011 and in 2012, by month.
TABLA A-12. Capacidad mínima, máxima, y media, en miles de metros cúbicos, de los buques cerqueros y cañeros en el mar en el OPO durante 2002-2011 y en 2012 por mes.

Month Mes	2002-2011			2012
	Min	Max	Ave.-Prom.	
1	88.6	157.7	124.6	92.8
2	116.0	175.3	150.9	153.6
3	115.1	159.9	141.5	148.6
4	120.5	165.0	148.0	152.7
5	115.8	164.4	144.8	163.1
6	110.7	175.0	149.6	165.2
7	125.7	170.4	155.1	156.7
8	62.2	140.2	108.4	110.6
9	105.5	137.7	120.0	112.2
10	127.5	172.2	156.0	163.7
11	102.9	150.8	130.9	130.0
12	39.1	116.4	69.4	55.4
Ave.-Prom.	102.5	157.1	133.3	133.7