AGREEMENT ON THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

32ND MEETING OF THE PARTIES

LA JOLLA, CALIFORNIA (USA)
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REPORT ON THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

1. INTRODUCTION

In the eastern Pacific Ocean (EPO), schools of yellowfin tuna frequently associate with marine mammals, especially spotted, spinner, and common dolphins. When the purse-seine fishery for tunas in the EPO began around 1960, the fishermen found that their catches of yellowfin in the EPO could be maximized by setting these nets around a herd of dolphins and the associated school of tunas. However, releasing the dolphins while retaining the tuna proved more difficult, and in the early years of the fishery many dolphins died during this process. As techniques and equipment to solve this problem were developed, this mortality fell, gradually at first and dramatically in the 1990s, thanks to the combined efforts of the fishing industry, governments, the Inter-American Tropical Tuna Commission (IATTC), environmental organizations, and other interested parties.

The 1992 La Jolla Agreement provided a framework for international efforts to reduce this mortality, and introduced novel and effective measures as Dolphin Mortality Limits (DMLs) for individual vessels and created the International Review Panel to monitor the performance and compliance of the fishing fleet. The Agreement on the International Dolphin Conservation Program (AIDCP), which built on and formalized the provisions of the La Jolla Agreement, was signed in May 1998 and entered into force in February 1999. The Parties to the AIDCP committed to ensure the sustainability of tuna stocks in the eastern Pacific Ocean and to progressively reduce the incidental dolphin mortalities in the tuna fishery of the eastern Pacific Ocean to levels approaching zero and to avoid, reduce and minimize the incidental catch and the discard of juvenile tuna and the incidental catch of non-target species, taking into consideration the interrelationship among species in the ecosystem.

As of 31 August 2015, Belize, Colombia, Costa Rica, Ecuador, El Salvador, the European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, the United States, and Venezuela have ratified or acceded to the Agreement. Bolivia and Vanuatu are applying the AIDCP provisionally. The IATTC provides the Secretariat for the AIDCP and its various bodies, the On-Board Observer Program, and the Tuna Tracking and Verification System.

2. THE ON-BOARD OBSERVER PROGRAM

The IATTC observer program, along with the national observer programs of Colombia (Programa Nacional de Observadores de Colombia, PNOC), Ecuador (Programa Nacional de Observadores Pesque-ros de Ecuador; PROBECUADOR), the European Union (Programa Nacional de Observadores de Túnidos, Océano Pacífico; PNOT), Mexico (Programa Nacional de Aprovechamiento del Atún y Protección de Delfines; PNAAPD), Nicaragua (Programa Nacional de Observadores de Nicaragua; PRONAON, administered by the Programa Nacional de Observadores Panameños, PRONAOP); Panama (PRONAOP), and Venezuela (Programa Nacional de Observadores de Venezuela; PNOV) compose the AIDCP On-Board Observer Program. Additionally, at its 82nd meeting in July 2011, the IATTC agreed on a Memorandum of Cooperation (MOC) with the Western and Central Pacific Fisheries Commission (WCPFC) for cross-endorsement of observers from the IATTC program and the WCPFC's Regional Observer Program to monitor vessels that fish or transit the high-seas Convention Areas of both organizations.

2.1. Observer coverage

In 2014 the Program placed observers aboard 100% of the trips by purse-seine vessels of carrying capacity greater than 363 metric tons (Class 6) in the Agreement Area, as required by the AIDCP, with the exception of one vessel of a non-Party (Kiribati) that departed from a port in the eastern Pacific Ocean, without an observer, for which the Secretariat has no information other than the departure date, and that it left port with all fishing gear and full crew onboard.

In 2014, the Ecuadorian national program had a goal of sampling approximately one-third of the trips by its fleet, and the Colombian, European Union, Mexican, Nicaraguan, Panamanian, and Venezuelan national programs each had a goal of sampling approximately half of the trips by their respective fleets. The IATTC program covered the remainder of the trips of vessels from these seven fleets, plus all trips by vessels of other fleets, except for the one noted above, for a total of 59% of all trips.

During 2014, AIDCP observers departed on 767 fishing trips made in the Agreement Area by vessels operating under the flags of Colombia, Ecuador, El Salvador, European Union (Spain), Guatemala, Mexico, Nicaragua, Panama, the United States, Vanuatu, and Venezuela (Table 1). Of these, 17 trips were by vessels of less than 363 tons capacity required to carry observers during closure periods, or as required by IATTC Resolution C-12-08, and nine Class-6 vessels were monitored by WCPFC observers cross-endorsed under the MOC. An additional 21 trips were accompanied by AIDCP observers but did not have any fishing activity in the Agreement Area; these trips are not included in Table 1.

2.2. Observer training

The IATTC staff conducted an observer training course from 9 to 26 June in Manta, Ecuador, with three attendees from the Ecuadorian national program and 11 from the IATTC program.

A second observer training course was carried out by the IATTC staff from 10 to 26 November, in Mazatlan, Mexico, for 16 observers from the IATTC program. .

3. DOLPHIN MORTALITY

3.1. Dolphin Mortality Limits (DMLs)

3.1.1. 2014 DMLs

The overall dolphin mortality limit (DML) for the international fleet in 2014 was 5,000 animals, and the unreserved portion of 4,900 was divided by 83 qualified vessels that requested DMLs, but allocated to 84 vessels (see at the end of this section). The average individual-vessel DML (ADML), based on 83 DML requests, was 59. No vessel renounced its DML in 2014.

Eight vessels that did not utilize their DMLs prior to 1 April were allowed to keep them for the remainder of the year under the *force majeure* exemption allowed by the AIDCP, but only four of those utilized them at all. Since no vessel lost or renounced its full-year DML, there were no DMLs available for the

second semester of the year. Four DMLs were allocated from the Reserve DML Allocation (RDA), managed at the discretion of the Director, which was exhausted for the year. Finally, one Party reallocated a portion of the DML of one of its vessels to another of its vessels entering the fishery. No vessel exceeded its DML in 2014. The distribution of dolphin mortalities in the fishery is shown in Figure 1.

3.1.2. 2015 DMLs

The Parties requested 95 full-year DMLs for 2015 from the unreserved portion (4,900) of the overall fleet mortality limit. The type of DML allocated, and their utilization as of 1 October, are as follows:

DML type (Limit per vessel)	Allocated	Utilized	Renounced	Forfeited	Exempted due to *force majeure*
Full-year (51)	95	87	3	4	3[1]
Second-semester (17)	2	0	0	2	Not applicable
RDA	-	-	-	-	-

3.2. Estimates of the mortality of dolphins in 2014 due to fishing

The incidental mortality of dolphins recorded in the fishery in 2014 is 975 animals (Table 2), compared to 801 mortalities recorded in 2013. The mortalities for 1979-2014, by species and stock, are shown in Table 3, and the standard errors of these estimates are shown in Table 4. The mortalities of the principal dolphin species affected by the fishery have declined since the early 1990s (Figures 2 and 3). Estimates of the abundances of the various stocks of dolphins and the relative mortalities (mortality/abundance) are also presented in Table 2.

The number of sets on dolphin-associated schools of tuna made by Class-6 vessels was 11,382 in 2014, compared to 10,736 in 2013, and this type of set accounted for 48% of the total number of sets made in 2014, compared to 47% in 2013. The average mortality per set was 0.086 dolphins in 2014, compared to 0.075 dolphins in 2013. The trends in the numbers of sets on dolphin-associated fish, mortality per set, and total mortality in recent years are shown in Figure 3. The catches of dolphin-associated yellowfin increased by 9% in 2014, as compared to 2013. The percentage of the catch of yellowfin taken in dolphin sets was 76% of the total catch in 2014 compared to 75% in 2013, and the average catch of yellowfin per dolphin set was 15.2 metric tons in 2014, compared to 14.8 metric tons in 2013. The mortality of dolphins per metric ton of yellowfin caught was 0.0056 in 2014, compared to 0.0050 in 2013.

The long-term decrease in the mortality per set is the result of efforts by the fishermen to better manage the factors that bring about incidental mortalities of dolphins. Indicative of this effort is the number of sets without mortalities, which has risen from 38% in 1986 to 95.5% in 2014, and the average number of dolphins left in the net after backdown, which has decreased from 6.0 in 1986 to 0.1 or less since 2001 (Table 5). The factors under the control of the fishermen which are likely to affect the mortality of dolphins per set include the occurrence of malfunctions, especially those which lead to net canopies and net collapses, and the time it takes to complete the backdown maneuver (Table 5). The percentage of sets with major mechanical malfunctions has decreased from an average of approximately 11% during the late 1980s to less than 6% during 1998-2014; in the same period the percentage of sets with net collapses decreased from about 30% to less than 5% on average, and that of net canopies from about 20% to less than 5% on average. Although the chance of dolphin mortality increases with the duration of the backdown maneuver, the average backdown time has changed little since 1986. Also, the mortality of dolphins per set, on average, increases with the size of the dolphin herd encircled, in part because the time needed to complete the backdown maneuver tends to increase with increasing herd size, and longer backdowns cor-

[1] One of the retained DMLs has not been utilized as of 1 October 2015.

relate positively with higher dolphin mortality.

3.3. Reports of dolphin mortality by observers at sea

The AIDCP requires the Parties to establish a system, based on real-time observer reporting, to ensure effective implementation and compliance with per-stock, per-year dolphin mortality caps. Observers prepare weekly reports of dolphin mortality, by stock, which are then transmitted to the Secretariat via e-mail, fax, or radio. In June 2003 the Meeting of the Parties adopted Resolution A-03-02 on at-sea reporting, which makes the vessel personnel responsible for transmitting these reports. During 2014, the reporting rate averaged 99.3% (Table 6).

Since January 1, 2001, the Secretariat has been reporting weekly to the Parties the cumulative mortality for the seven stocks of dolphins most frequently associated with the fishery. The most recent reported mortalities are shown in Table 7.

4. INTERNATIONAL REVIEW PANEL

The International Review Panel (IRP) follows a general procedure for reporting the compliance by vessels with measures established in the framework of the AIDCP for minimizing the mortalities of dolphins during fishing operations to the governments concerned. During each fishing trip, the observer prepares a summary of information pertinent to dolphin mortalities, and this is sent to the government with jurisdiction over the vessel by the Secretariat. Certain possible infractions are automatically reported to the government with jurisdiction over the vessel in question; the IRP reviews the observer data for other cases at its meetings, and any cases identified as possible infractions are likewise reported to the relevant government. The governments report back to the IRP on actions taken regarding these possible infractions.

In 2014, the IRP consisted of 20 members, 16 representing Parties, and four representing non-governmental organizations (NGOs), two from environmental NGOs and two from the tuna industry.

The IRP met in Lima, Peru, on 7 July 2014, in La Jolla, California, USA, on 26 October 2014, and in Guayaquil, Ecuador, on 22 June 2015.

The minutes of IRP meetings are available on the IATTC website, along with the other documents posted for each set of meetings. Tables 8-9 and Appendix A of this report summarize possible infractions identified by the Panel at these meetings and subsequent action taken by the governments.

5. TUNA TRACKING AND VERIFICATION

The System for Tracking and Verifying Tuna, established in accordance with Article V.1.f of the AIDCP, enables “dolphin-safe” tuna, defined as tuna caught in sets without mortality or serious injury of dolphins, to be identified and tracked from the time it is caught through unloading, processing, and sale. The Tuna Tracking Forms (TTFs), completed at sea by observers, designate the tuna caught as dolphin safe (Form ‘A’) or non-dolphin safe (Form ‘B’). This, in turn, allows for the verification of the dolphin-safe status of any tuna caught by a vessel covered by the AIDCP. this framework, administered by the Secretariat, also allows each Party to establish its own tracking and verification program, implemented and operated by a designated national authority. These programs include periodic audits and spot checks for tuna at the points of capture, landing, and processing, and also provide mechanisms for communication and cooperation between and among national authorities, and timely access to relevant data. Each Party is required to provide the Secretariat with a report detailing its tracking and verification program.

All trips by vessels fishing in the Agreement Area that began in 2014 with an IDCP observer aboard were issued TTFs.

6. AMENDMENTS AND RESOLUTIONS AFFECTING THE OPERATION OF THE IDCP

In July 2014, the Parties adopted Resolution A-14-01, which harmonized the AIDCP Agreement Area with the IATTC Convention Area by moving its northern boundary from the 40°N to the50°N parallel and the southern boundary from the 40°S to the 50°S parallel. Resolution A-15-01 amended section 3.6 of

the System for Tracking and Verifying Tuna, thereby changing the timing of requirement for submission of TTFs to the Secretariat. Under the new provisions, the competent national authorities have up to ten days to submit electronic copies of TTFs to the Secretariat, and until the 15th day of the following month to submit the original TTFs in hard copy.

7. OTHER FUNCTIONS PERFORMED BY THE SECRETARIAT

7.1. Dolphin safety panel alignments

During 2014, the IATTC staff conducted two alignments of dolphin-safety panels (DSP) and inspections of dolphin rescue gear aboard purse-seine vessels.

7.2. Training and certification of fishing captains

The IATTC has conducted dolphin mortality reduction seminars for tuna fishermen since 1980. Article V of the AIDCP calls for the establishment, within the framework of the IATTC, of a system of technical training and certification of fishing captains. Under the system, the IATTC staff is responsible for maintaining a list of all captains qualified to fish for tunas associated with dolphins in the EPO. The names of the captains who meet the requirements are to be supplied to the IRP for approval and circulation to the Parties to the AIDCP.

The requirements for new captains are (1) attending a training seminar organized by the IATTC staff or by the pertinent national program in coordination with the IATTC staff, and (2) having practical experience relevant to making sets on tunas associated with dolphins, including a letter of reference from a captain currently on the List, the owner or manager of a vessel with a DML, or a pertinent industry association. These seminars are intended not only for captains, who are directly in charge of fishing operations, but also for other crew members and for administrative personnel responsible for vessel equipment and maintenance. The fishermen and others who attend the seminars are presented with certificates of attendance.

During 2014, three training seminars were held, which were attended by 85 fishermen.

Date	Program	Location	Attendees
10-Jan	PNAAPD (Mexico)	Mazatlan, Mexico	73
12-Aug	IATTC	Manta, Ecuador	5
18-Aug	PNOV (Venezuela)	Cumaná, Venezuela	2

7.3. Statements of Participation

Statements of Participation are issued by the Secretariat on request to vessels that carry observers from the On-Board Observer Program. This statement certifies that the vessel has been participating in the IDCP, and that all its trips have been covered by observers; the second, issued to vessels of non-Parties, certifies only that all the vessel's trips have been covered by observers. During 2014, statements of the first type were issued for 147 fishing trips by vessels of Ecuador, El Salvador, the European Union, Guatemala, Mexico, Nicaragua, Panama, Vanuatu, and Venezuela.

7.4. Informational material on the AIDCP

During its 22nd meeting in June 2015, the Working Group to Promote and Publicize the AIDCP Dolphin Safe Tuna Certification System approved three informational materials for publicizing the AIDCP, and at their 31st meeting in July 2015, the Parties adopted the recommendations of the working group to publish these materials, in order to increase awareness among stakeholders and the general public regarding the AIDCP's achievements in conservation and management, and to highlight the merits of the AIDCP dolphin-safe label.

The products include an informational pamphlet, an education module. and a video, all available on the IATTC website.

Pamphlet	English	http://www.iattc.org/PDFFiles2/AIDCP/AIDCP-Informational-pamphlet-ENG.pdf
	Spanish	http://www.iattc.org/PDFFiles2/AIDCP/APICD-folleto-informativoSPN.pdf
Education module	English	http://www.iattc.org/PDFFiles2/AIDCP/Educational-module-on-the-AIDCP-ENG.pdf
	Spanish	http://www.iattc.org/PDFFiles2/AIDCP/Modulo-educacional-sobre-el-APICD-SPN.pdf
Video	English and Spanish	https://www.iattc.org/AIDCPvideo/

8. RESEARCH

Figures 4-6 compare the spatial distributions of fishing effort in the Agreement Area by vessels carrying observers, in numbers of sets, by type, in 2013 and 2014. The patterns of dolphin sets and floating-object sets were largely similar in both years. For unassociated sets, more sets in the far west of the Agreement Area were observed in 2014 than in 2013.

The staff of the IATTC have been conducting additional research on the reliability of indices of relative abundance of dolphins computed from purse-seine observer data for monitoring dolphin stock status. The stock status of dolphin species in the EPO historically has been monitored using population dynamics modelling, and abundance estimates from these models are used to establish the per-stock per-year dolphin mortality caps for the purse-seine fishery. Population dynamics models require indices of abundance which, for EPO dolphins, have been developed previously from both fishery-dependent and fishery-independent data. Abundance trends were estimated from purse-seine fisheries observer data from the mid-1970s until the late 1990s. However, trend estimation was discontinued in 2000 due to concerns about changes in reporting rates of dolphin herd detections due to the increased use of helicopter and radar search. Between 1979 and 2006, the US National Marine Fisheries Service (NMFS) conducted periodic fishery-independent surveys in the EPO for the purpose of estimating dolphin absolute abundance. At present, as a result of a hiatus in fishery-independent surveys since 2006, purse-seine observer data are the only source of information that might be used to monitor EPO dolphin population status. Analyses of fisheries observer data for 1990-2012 were therefore conducted to review possible methods to deal with time-varying biases in the observer data due to changes in fishing behavior. Preliminary results show that non-random search, as well as selective reporting of dolphin sightings by helicopters and radar, pose serious challenges for trend estimation with these data. At this point, it remains unclear whether indices of relative abundance for dolphins developed from the purse-seine observer data can be used to reliably track the absolute abundance of dolphin populations in the EPO. This paper has been accepted for publication in the journal *Fisheries Research.*

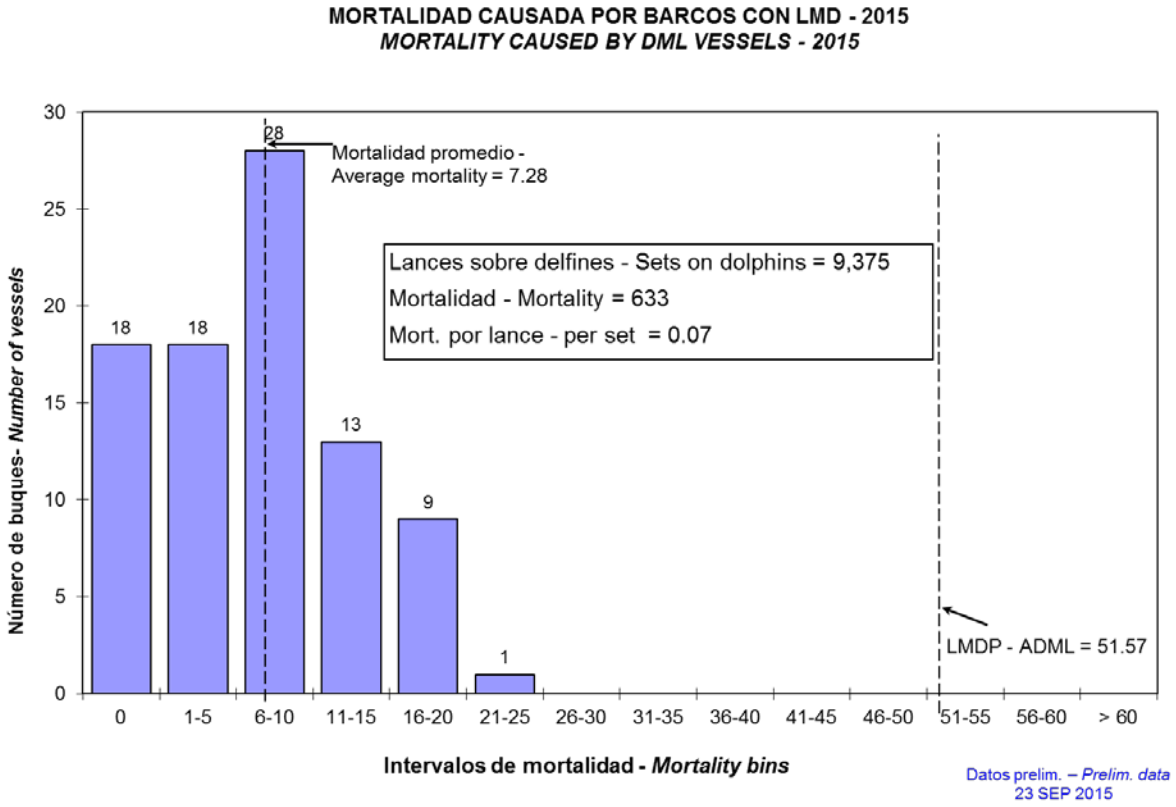

FIGURE 1. Distribution of dolphin mortality caused by vessels with DMLs during 2014.
FIGURA 1. Distribución de la mortalidad de delfines causada por buques con LMD durante 2014.

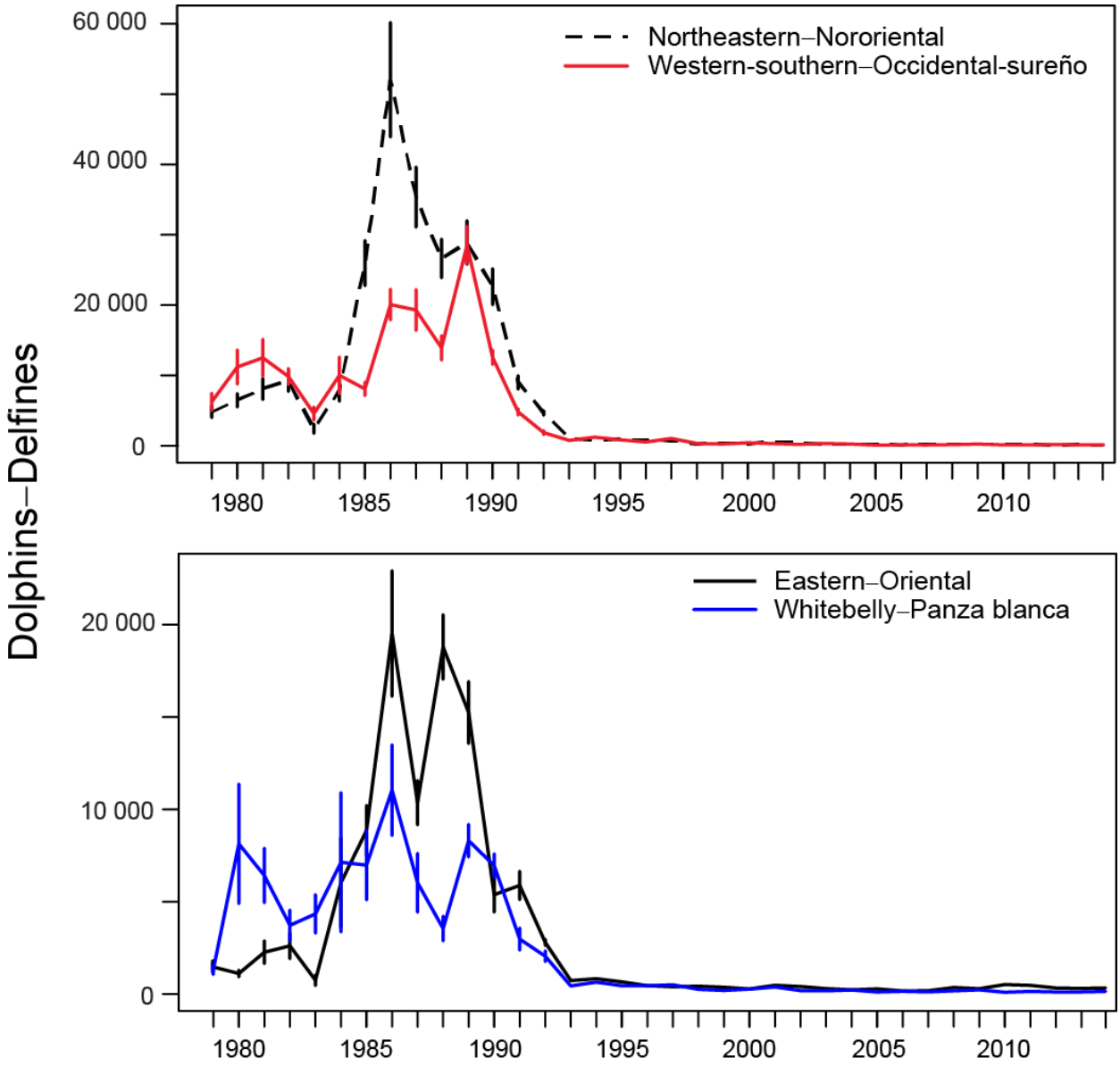

FIGURE 2. Estimated mortalities for the stocks of spotted (upper panel) and spinner (lower panel) dolphins in the eastern Pacific Ocean, 1979-2014. Each vertical line represents one positive and one negative standard error.

FIGURA 2. Mortalidad estimada de las poblaciones de delfines manchados (panel superior) y tornillo (panel inferior) en el Océano Pacífico oriental, 1979-2014. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

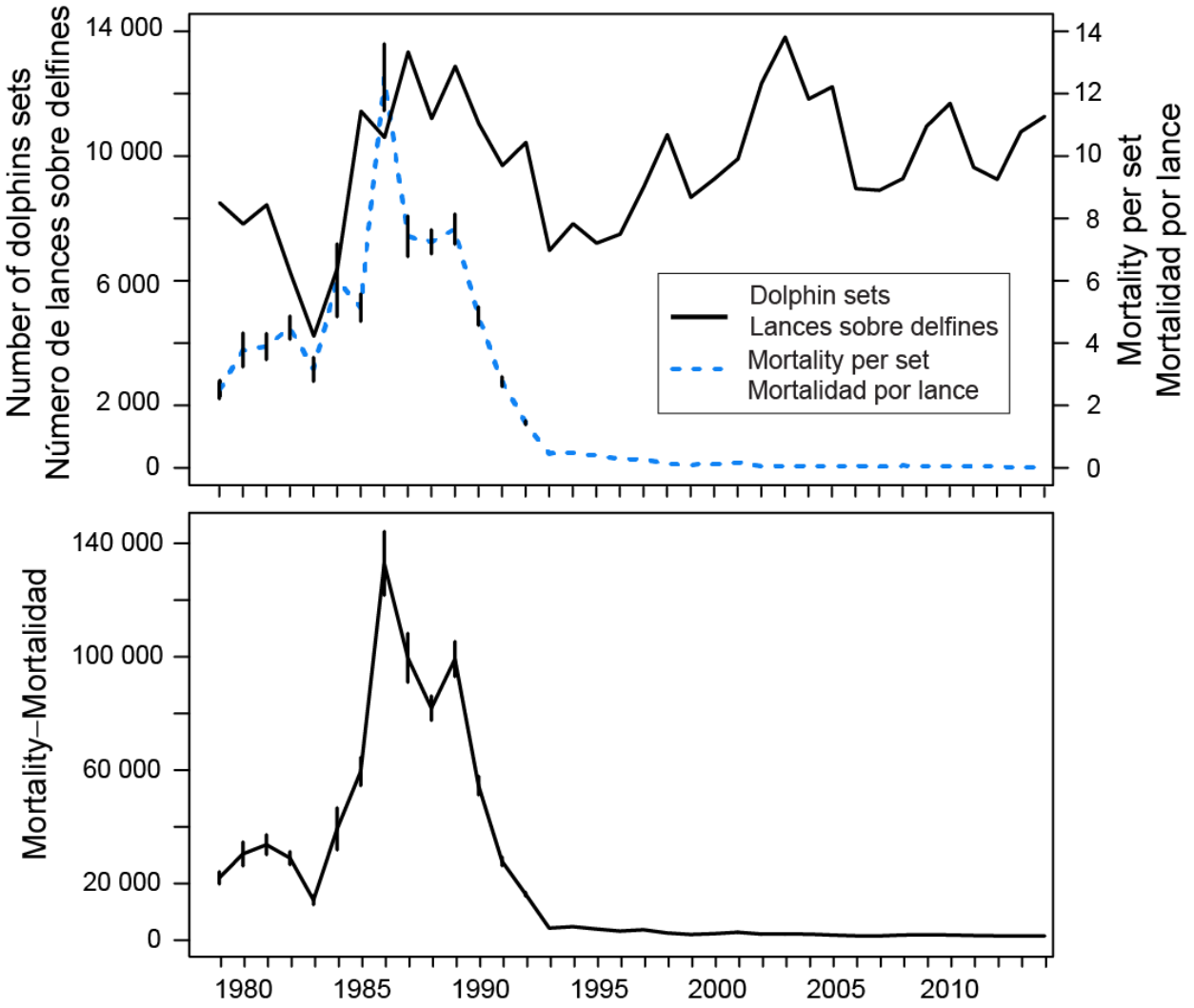

FIGURE 3. Total number of dolphin sets and average mortality per set (upper panel) and estimated total mortality (lower panel) for all dolphins in the EPO, 1979-2014. Each vertical line represents one positive and one negative standard error.

FIGURA 3. Número total de lances sobre delfines y mortalidad media por lance (panel superior) y mortalidad total estimada (panel inferior) para todas especies de delfines en el OPO, 1979-2014. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

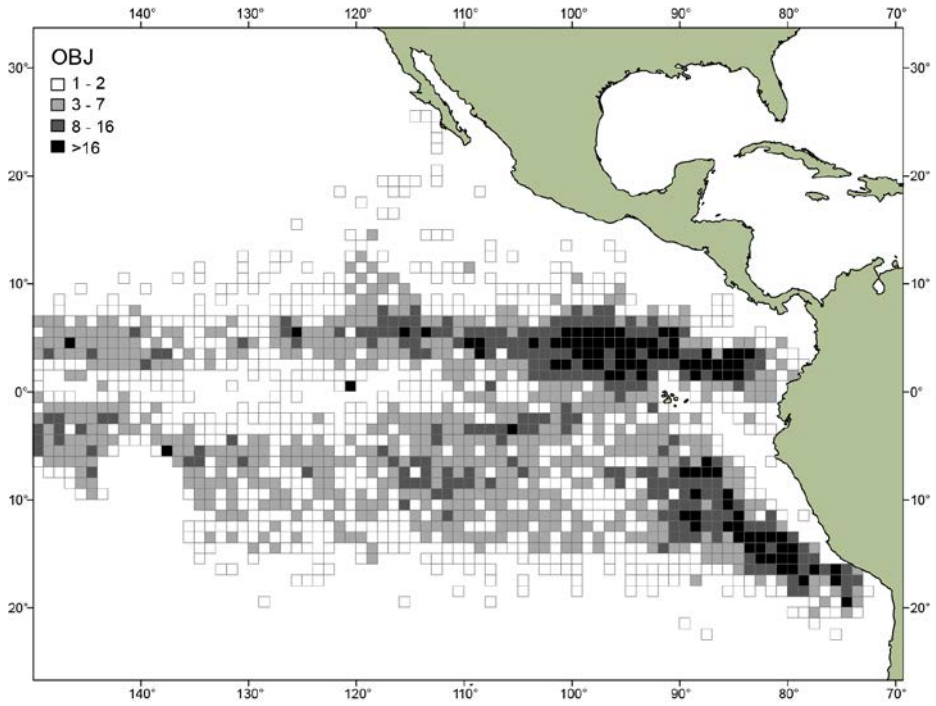

FIGURE 4a. Spatial distribution of sets on tuna associated with floating objects in the Agreement Area, 2013.

FIGURA 4a. Distribución espacial de los lances sobre atunes asociados con objetos flotantes en el Área del Acuerdo, 2013.

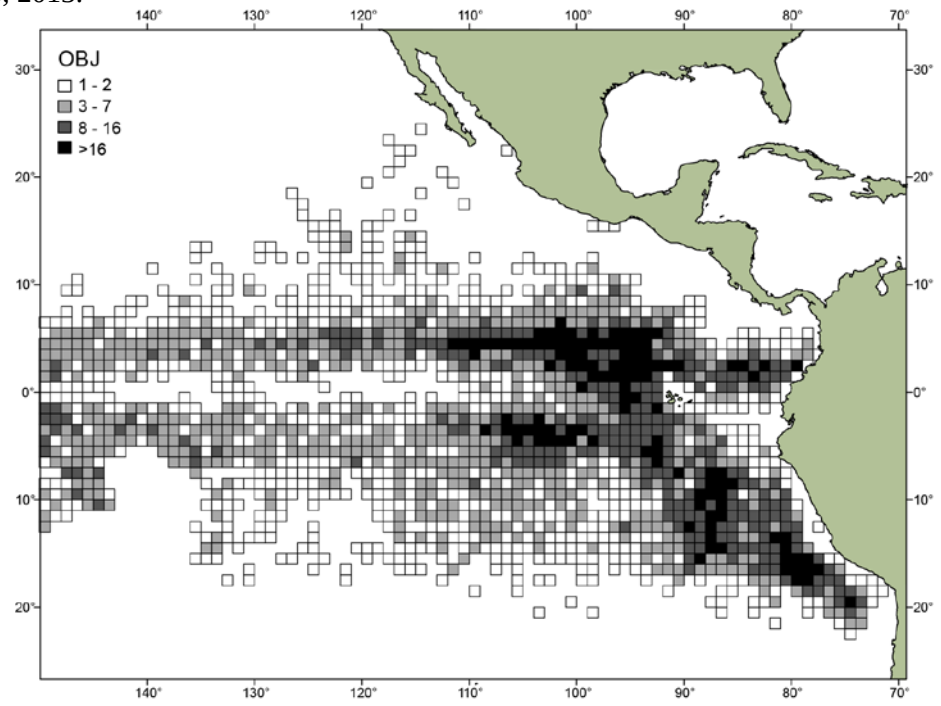

FIGURE 4b. Spatial distribution of sets on tuna associated with floating objects in the Agreement Area, 2014.

FIGURA 4b. Distribución espacial de los lances sobre atunes asociados con objetos flotantes en el Área del Acuerdo, 2014.

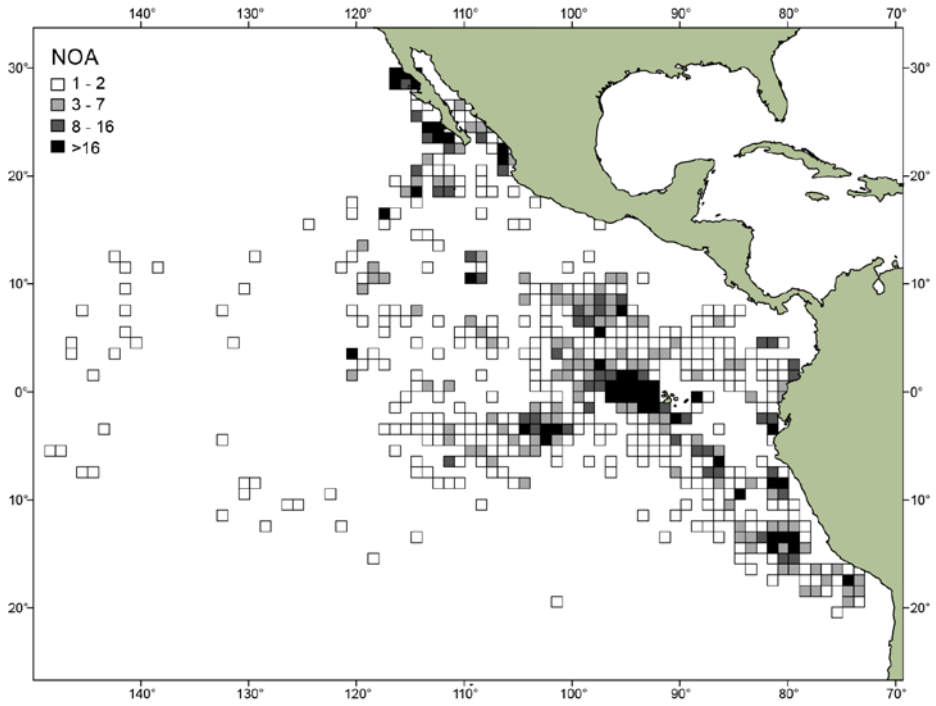

FIGURE 5a. Spatial distribution of sets on unassociated schools of tunas in the Agreement Area, 2013.
FIGURA 5a. Distribución espacial de lances sobre cardúmenes de atunes no asociados en el Área del Acuerdo, 2013.

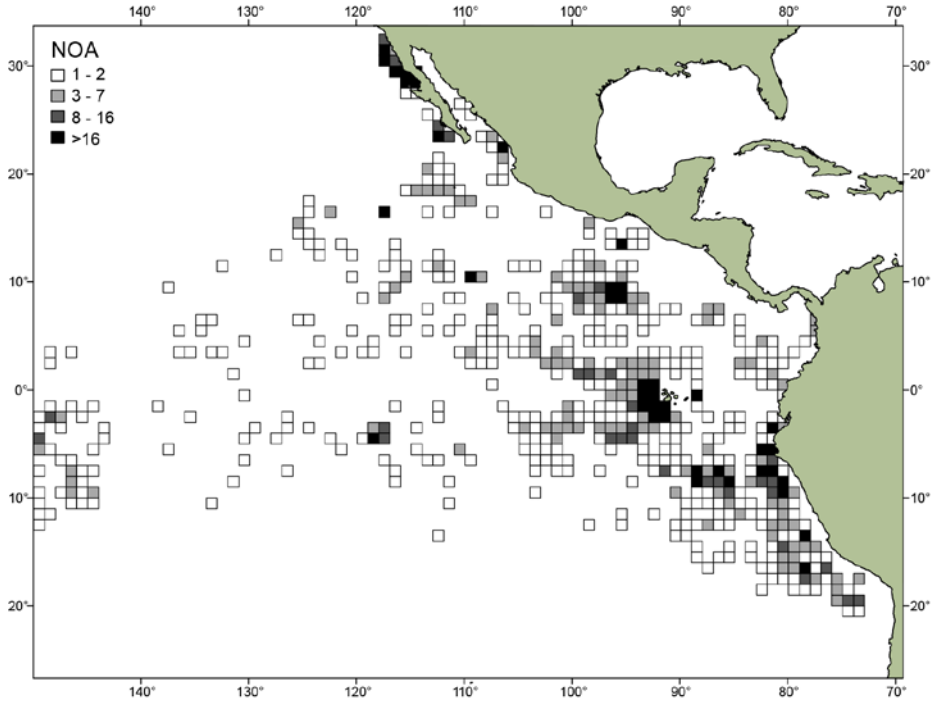

FIGURE 5b. Spatial distribution of sets on unassociated schools of tunas in the Agreement Area, 2014.
FIGURA 5b. Distribución espacial de lances sobre cardúmenes de atunes no asociados en el Área del Acuerdo, 2014.

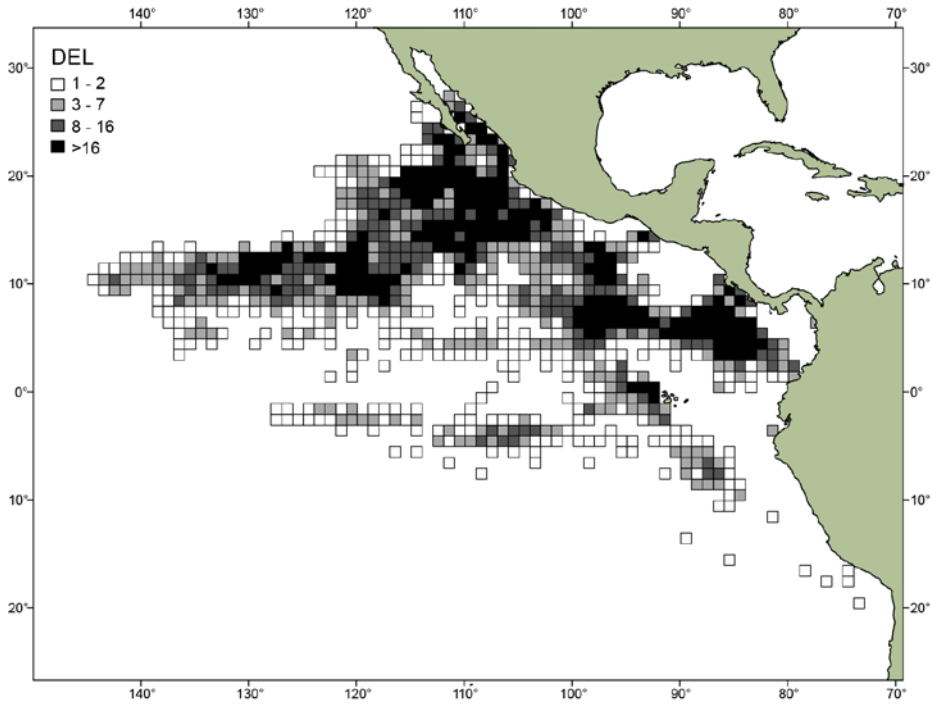

FIGURE 6a. Spatial distribution of sets on tuna associated with dolphins in the Agreement Area, 2013.
FIGURA 6a. Distribución espacial de los lances sobre atunes asociados con delfines en el Área del Acuerdo, 2013.

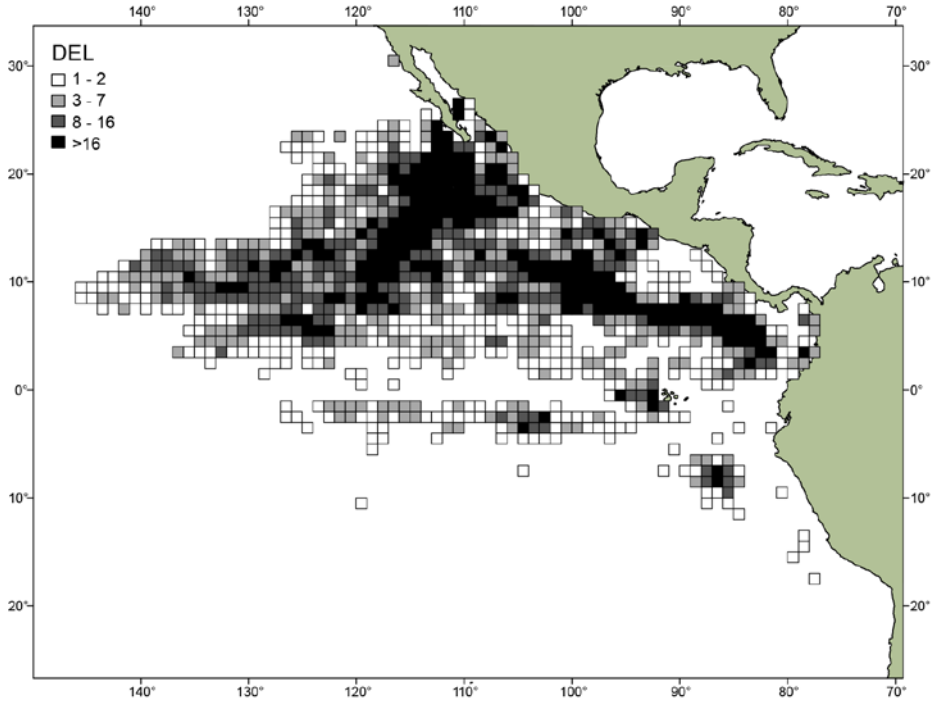

FIGURE 6b. Spatial distribution of sets on tuna associated with dolphins in the Agreement Area, 2014.
FIGURA 6b. Distribución espacial de los lances sobre atunes asociados con delfines en el Área del Acuerdo, 2014.

TABLE 1. Coverage of vessels by the national and IATTC observer programs of trips initiated during 2014 with activity in the Agreement Area.
TABLA 1. Cobertura de buques por los programas de observadores nacionales y de la CIAT de viajes iniciados durante 2014 con actividad en el Área del Acuerdo.

Pabellón-Flag		Viajes-Trips	Nac.-Nat'l.	CIAT-IATTC	% obs.
		Buques de clase 6 - Class-6 vessels			
Colombia	COL	42	21	21	100
Ecuador	ECU	332	113	219	100
EU–UE (España – Spain)	ESP	16	7	9	100
Guatemala	GTM	4	0	4	100
Kiribati	KIR	1	0	0	0
México	MEX	191	94	97	100
Nicaragua	NIC	25	11	14	100
Panamá	PAN	65	31	34	100
Perú	PER	4	0	4	100
El Salvador	SLV	18	3	15	100
United States	USA	4	3	1	100
Venezuela	VEN	49	22	27	100
Subtotal		**751**	**305**[1]	**445**	**99**
		Buques de clase 5 - Class-5 vessels[2]			
Ecuador	ECU	1	-	1	-
		Buques de clase 4 - Class-4 vessels			
Colombia	COL	1	-	1	-
Ecuador	ECU	15	10	5	-
Perú	PER	2	-	2	-
		Todas las clases – All classes			
Total		**768**[3]	**315**	**452**	**99**

[1] Includes 9 trips accompanied by a WCPFC Program observer – Incluye 9 viajes acompañados por un observador de un programa de la WCPFC
[2] The AIDCP requires 100% coverage only on class-6 vessels – El APICD requiere 100% de cobertura solamente para buques de clase 6
[3] Does not include 21 trips with no fishing in the Agreement Area but accompanied by AIDCP observers – No incluye 21 viajes sin pesca en el Area del Acuerdo pero acompañados por observadores del APICD

TABLE 2. Estimates of mortalities of dolphins in 2014, population abundance, and relative mortality, by stock.
TABLA 2. Estimaciones de la mortalidad incidental de delfines en 2014, la abundancia de las poblaciones, y la mortalidad relativa, por población.

Species and stock	Incidental mortality	Population abundance	Relative mortality (%)
Especie y población	**Mortalidad incidental**	**Abundancia de la población**	**Mortalidad relativa (%)**
Offshore spotted dolphin—Delfín manchado de altamar[1]			
Northeastern—Nororiental	181	911,177	0.02
Western/southern—Occidental y sureño	168	911,830	0.02
Spinner dolphin—Delfín tornillo[1]			
Eastern—Oriental	356	790,613	0.05
Whitebelly—Panza blanca	183	711,883	0.03
Common dolphin—Delfín común[2]			
Northern—Norteño	49	449,462	0.01
Central	13	577,048	<0.01
Southern—Sureño	9	1,525,207	<0.01
Other dolphins—Otros delfines[3]	16		
Total	**975**		

[1] Logistic model for 1986-2006 (IATTC SAB-07-05);
[1] Modelo logístico para 1986-2006 (CIAT SAB-07-05)
[2] Weighted averages for 1998-2003 (IATTC Special Report 14: Appendix 5)
[2] Promedios ponderados para 1998-2003 (Informe Especial de la CIAT 14: Anexo 5)
[3] "Other dolphins" includes the following species and stocks, whose observed mortalities were as follows: striped dolphin (*Stenella coeruleoalba*) 2; bottlenose dolphins (*Tursiops truncatus*) 3; rough-toothed dolphin (*Steno bredanensis*) 1; and unidentified dolphins, 10.
[3] "Otros delfines" incluye las siguientes especies y poblaciones, con las mortalidades observadas correspondientes: delfín listado (*Stenella coeruleoalba*) 2; tonina (*Tursiops truncatus*) 3; delfín de dientes rugosos (*Steno bredanensis*) 1; y delfines no identificados, 10.

TABLE 3. Annual estimates of dolphin mortality, by species and stock, 1979-2014. The estimates for 1979-1992 are based on a mortality-per-set ratio. The mortalities for 1993-2014 represent the sums of the observed species and stock tallies recorded by the IATTC and national programs. Mortalities for 2001-2003 have been adjusted for unobserved trips of vessels over 363 t carrying capacity.
TABLA 3. Estimaciones anuales de la mortalidad de delfines, por especie y población, 1979-2014. Las estimaciones de 1979-1992 se basan en una razón de mortalidad por lance. Las mortalidades de 1993-2014 son las sumas de las mortalidades por especie y población registradas por los programas de la CIAT y nacionales. La mortalidad de 2001-2003 fue ajustada para viajes no observados de buques de más de 363 t de capacidad de acarreo.

	Offshore spotted[1]		Spinner		Common			Others	Total
	North-eastern	Western-southern	Eastern	White belly	Northern	Central	Southern		
	Manchado de altamar[1]		Tornillo		Común			Otros	Total
	nor-oriental	Occidental y sureño	Oriental	Panza blanca	Norteño	Central	Sureño		
1979	4,828	6,254	1,460	1,312	4,161	2,342	94	880	21,331
1980	6,468	11,200	1,108	8,132	1,060	963	188	633	29,752
1981	8,096	12,512	2,261	6,412	2,629	372	348	367	32,997
1982	9,254	9,869	2,606	3,716	989	487	28	1,347	28,296
1983	2,430	4,587	745	4,337	845	191	0	353	13,488
1984	7,836	10,018	6,033	7,132	0	7,403	6	156	38,584
1985	25,975	8,089	8,853	6,979	0	6,839	304	1,777	58,816
1986	52,035	20,074	19,526	11,042	13,289	10,884	134	5,185	132,169
1987	35,366	19,298	10,358	6,026	8,216	9,659	6,759	3,200	98,882
1988	26,625	13,916	18,793	3,545	4,829	7,128	4,219	2,074	81,129
1989	28,898	28,530	15,245	8,302	1,066	12,711	576	3,123	98,451
1990	22,616	12,578	5,378	6,952	704	4,053	272	1,321	53,874
1991	9,005	4,821	5,879	2,974	161	3,182	115	990	27,127
1992	4,657	1,874	2,794	2,044	1,773	1,815	64	518	15,539
1993	1,112	773	725	437	139	230	0	185	3,601
1994	847	1,228	828	640	85	170	0	298	4,096
1995	952	859	654	445	9	192	0	163	3,274
1996	818	545	450	447	77	51	30	129	2,547
1997	721	1,044	391	498	9	114	58	170	3,005
1998	298	341	422	249	261	172	33	100	1,876
1999	358	253	363	192	85	34	1	62	1,348
2000	295	435	275	262	54	223	10	82	1,636
2001	592	315	470	374	94	205	46	44	2,140
2002	435	203	403	182	69	155	3	49	1,499
2003	288	335	290	170	133	140	97	39	1,492
2004	261	256	223	214	156	97	225	37	1,469
2005	273	100	275	108	114	57	154	70	1,151
2006	147	135	160	144	129	86	40	45	886
2007	189	116	175	113	55	69	95	26	838
2008	184	167	349	171	104	14	137	43	1,169
2009	266	254	288	222	109	30	49	21	1,239
2010	170	135	510	92	124	116	8	15	1,170
2011	172	124	467	139	35	12	9	28	986
2012	151	187	324	107	49	4	30	18	870
2013	158	145	303	111	69	0	8	7	801
2014	181	168	356	183	49	13	9	16	975

[1] Estimates for offshore spotted dolphins include mortalities of coastal spotted dolphins.
[1] Las estimaciones de delfines manchados de altamar incluyen mortalidades de delfines manchados costeros.

TABLE 4. Standard errors of annual estimates of dolphin species and stock mortality for 1979-1994, and 2001-2003. There are no standard errors for 1995-2000 and after 2004, because the coverage was at or nearly at 100% during those years.
TABLA 4. Errores estándar de las estimaciones anuales de la mortalidad de delfines por especie y población para 1979-1994, y 2001-2003. No se cuenta con errores estándar para 1995-2000 y después de 2004, porque la cobertura fue de 100%, o casi, en esos años.

	Offshore spotted		Spinner		Common			Other
	North-eastern	Western-southern	Eastern	Whitebelly	Northern	Central	Southern	
	Manchado de altamar		Tornillo		Común			Otros
	Nor-oriental	Occidental y sureño	Oriental	Panza blanca	Norteño	Central	Sureño	
1979	817	1,229	276	255	1,432	560	115	204
1980	962	2,430	187	3,239	438	567	140	217
1981	1,508	2,629	616	1,477	645	167	230	76
1982	1,529	1,146	692	831	495	168	16	512
1983	659	928	284	1,043	349	87	-	171
1984	1,493	2,614	2,421	3,773	-	5,093	3	72
1985	3,210	951	1,362	1,882	-	2,776	247	570
1986	8,134	2,187	3,404	2,454	5,107	3,062	111	1,722
1987	4,272	2,899	1,199	1,589	4,954	2,507	3,323	1,140
1988	2,744	1,741	1,749	668	1,020	1,224	1,354	399
1989	3,108	2,675	1,674	883	325	4,168	295	430
1990	2,575	1,015	949	640	192	1,223	95	405
1991	956	454	771	598	57	442	30	182
1992	321	288	168	297	329	157	8	95
2001	3	28	1	6	7	7	-	1
2002	1	2	1	1	1	1	1	1
2003	1	1	1	1	-	1	1	-

TABLE 5. Percentages of sets with no dolphin mortalities, with major gear malfunctions, with net collapses, with net canopies, average times of backdown (in minutes), and average number of live dolphins left in the net at the end of backdown. 1986-2008 data are from trips observed by the IATTC program only; data after 2008 include trips covered by national programs.

TABLA 5. Porcentajes de lances sin mortalidad de delfines, con averías mayores, con colapso de la red, con abultamiento de la red, duración media del retroceso (en minutos), y número medio de delfines en la red después del retroceso. Los datos de 1986-2008 provienen de viajes observados por el programa de la CIAT solamente; los datos posteriores a 2008 incluyen viajes observados por los programas nacionales.

	Sets with zero mortality (%)	**Sets with major malfunctions (%)**	**Sets with net collapse (%)**	**Sets with net canopy (%)**	**Average duration of backdown (minutes)**	**Average number of live dolphins left in net after backdown**
	Lances sin mortalidad (%)	**Lances con averías mayores (%)**	**Lances con colapso de la red (%)**	**Lances con abultamiento de la red (%)**	**Duración media del retroceso (minutos)**	**Número medio de delfines en la red después del retroceso**
1986	38.1	9.5	29.0	22.2	15.3	6.0
1987	46.1	10.9	32.9	18.9	14.6	4.4
1988	45.1	11.6	31.6	22.7	14.3	5.5
1989	44.9	10.3	29.7	18.3	15.1	5.0
1990	54.2	9.8	30.1	16.7	14.3	2.4
1991	61.9	10.6	25.2	13.2	14.2	1.6
1992	73.4	8.9	22.0	7.3	13.0	1.3
1993	84.3	9.4	12.9	5.7	13.2	0.7
1994	83.4	8.2	10.9	6.5	15.1	0.3
1995	85.0	7.7	10.3	6.0	14.0	0.4
1996	87.6	7.1	7.3	4.9	13.6	0.2
1997	87.7	6.6	6.1	4.6	14.3	0.2
1998	90.3	6.3	4.9	3.7	13.2	0.2
1999	91.0	6.6	5.9	4.6	14.0	0.1
2000	90.8	5.6	4.3	5.0	14.9	0.2
2001	91.6	6.5	3.9	4.6	15.6	0.1
2002	93.6	6.0	3.1	3.3	15.0	0.1
2003	93.9	5.2	3.5	3.7	14.5	<0.1
2004	93.8	5.4	3.4	3.4	15.2	<0.1
2005	94.9	5.0	2.6	2.7	14.5	<0.1
2006	93.9	5.7	3.3	3.5	15.8	<0.1
2007	94.2	5.1	1.6	3.4	15.2	<0.1
2008	92.4	4.9	2.9	3.7	16.1	0.1
2009	93.3	5.2	1.8	3.1	16.7	<0.1
2010	94.1	4.7	1.3	2.4	16.2	<0.1
2011	94.0	4.1	1.9	2.1	16.3	<0.1
2012	94.5	4.3	1.9	1.5	16.5	<0.1
2013	95.4	4.2	1.3	1.3	15.4	<0.1
2014	95.5	3.7	1.3	1.3	16.2	<0.1

TABLE 6. Weekly reports of dolphin mortality received, 2014.
TABLA 6. Informes semanales de mortalidad de delfines recibidos, 2014.

	Program	Required	Received	%		Program	Required	Received	%
COL	IATTC	229	229	100	NIC	IATTC	142	142	100
	National	233	233	100		National	100	100	100
ECU	IATTC	1,400	1,398	99	PAN	IATTC	224	224	100
	National	744	713	95		National	217	216	99
EU(ESP)	IATTC	46	46	100	PER	IATTC	11	11	100
	National	41	41	100	SLV	IATTC	105	105	100
GTM	IATTC	38	37	97	VEN	IATTC	5	5	100
MEX	IATTC	687	682	99		National	232	232	100
	National	718	718	100	VUT	IATTC	184	184	100
Total							**5,356**	**5,316**	**99.3**

TABLE 7. Preliminary reports of the mortalities of dolphins in 2015, to 13 September.
TABLA 7. Informes preliminares de las mortalidades de delfines en 2015, hasta el 13 de septiembre.

Species and stock	Total mortality	Limit	Used (%)
Especie y población	**Mortalidad total**	**Límite**	**Usado (%)**
Offshore spotted dolphin – Delfín manchado de altamar			
Northeastern--Nororiental	194	793	24.5
Western-southern--Occidental-sureño	98	881	11.1
Spinner dolphin – Delfín tornillo			
Eastern--Oriental	172	655	26.3
Whitebelly--Panza blanca	100	666	15.0
Common dolphin – Delfín común			
Northern--Norteño	15	562	2.7
Central	28	207	13.5
Southern--Sureño	12	1,845	0. 7
Others and unidentified--Otros y no identificados	12		
Total	**631**	**5,000**	**14.9**

TABLE 8. Summary of possible infractions identified by the International Review Panel at its 55th and 56th meetings, July and October 2014.
TABLA 8. Resumen de posibles infracciones identificadas por el Panel Internacional de Revisión en su 55ª and 56ª reuniones, julio y octubre de 2014.

INFRACCIONES MAYORES / MAJOR INFRACTIONS:	
Viaje sin observador Trips without an observer	3[1]
Viajes con lances en delfines sin LMD asignado Trips with dolphin sets but no DML assigned	0
Viajes con capitanes no incluidos en la lista del APICD Trips with captains not on the AIDCP list	0
Viajes sin paño de protección de delfines Trips without a dolphin safety panel	0
Lances intencionales después de alcanzar el LMD Intentional sets made after reaching the DML	0
Lances o cazas con uso de explosivos Sets or chases with use of explosives	0
Lances sobre stocks o tipos de manadas prohibidas Sets on banned stocks or school types	0
Lances sin retroceso Sets without a required backdown	0
Lances con embolsamiento o salabardeo de delfines Sets with dolphin sack-up or brail	0
Lances sin evitar herir o matar delfines Sets with unavoided dolphin injury or mortality	0
Total	**3**
OTRAS INFRACCIONES / OTHER INFRACTIONS:	
Viajes sin balsa Trips without a required raft	1
Viajes con < 3 lanchas rápidas y/o sin bridas de remolque Trips with < 3 speedboats and/or missing towing bridles	0
Viajes sin reflector de alta intensidad Trips without a required high-intensity floodlight	4
Viajes sin máscaras de buceo Trips without required facemasks	0
Lances nocturnos (ocurrieron en dos viajes) Night sets (occurred in two trips)	0
Lances sin rescate adicional Sets without required deployment of rescuer	0
Lances sin rescate después del retroceso Sets without continued rescue effort after backdown	0
Viajes con lances sobre delfines antes de la notificación del LMD Trips with dolphin sets before the DML notification	0
Total	**5**
Casos de interferencia al observador Cases of observer interference	0
Viajes revisados en estas reuniones	776

[1] Includes one trip by a vessel of a Non-Party to the AIDCP – Incluye un viaje por un buque de una No Parte del APICD.

Trips reviewed at these meetings	
Lances sobre delfines revisados en estas reuniones Dolphin sets reviewed in these meetings	11,803
Lances accidentales revisados en estas reuniones Accidental sets reviewed in these meetings	1

TABLE 9. Responses for six types of possible infractions identified by the International Review Panel at its 55th and 56th meetings.
TABLA 9. Respuestas para seis tipos de posibles infracciones identificadas por el Panel Internacional de Revisión en su 55ª y 56ª reuniones.

	No. de casos	Sin respuesta	Respuestas: Bajo investigación[1]	No hubo infracción	Infracción: sin sanción	Infracción: aviso	Infracción: sanción[2]	Total
	No. of cases	No response	Responses: Under investigation[1]	No infraction	Infraction: no sanction	Infraction: warning	Infraction: sanction[2]	Total
HOSTIGAMIENTO AL OBSERVADOR – OBSERVER HARASSMENT								
Ningún caso identificado durante el periodo de este informe *No identified cases during this report period*								
USO DE EXPLOSIVOS – USE OF EXPLOSIVES								
Ningún caso identificado durante el periodo de este informe *No identified cases during this report period*								
LANCES NOCTURNOS– NIGHT SETS								
Ningún caso identificado durante el periodo de este informe *No identified cases during this report period*								
PESCAR SIN OBSERVADOR – FISHING WITHOUT AN OBSERVER								
ECU	2	0	-	2	0	0	0	2 (100%)
KIR[1]	1	0	-	1	0	0	0	1 (100%)
Total	3	0	-	3	0	0	0	3 (100%)
PESCAR SOBRE DELFINES SIN LMD – FISHING ON DOLPHINS WITHOUT A DML								
Ningún caso identificado durante el periodo de este informe *No identified cases during this report period*								
LANCES SOBRE DELFINES DESPUES DE ALCANZAR EL LMD-- SETS ON DOLPHINS AFTER REACHING DML								
Ningún caso identificado durante el periodo de este informe *No identified cases during this report period*								

[1] Not a Party to the AIDCP – No Parte del APICD

Appendix A.

POSSIBLE INFRACTIONS IDENTIFIED BY THE IRP

Brief descriptions of government actions taken, as reported to the Secretariat by October 2, 2015, are included. If no action is listed for a possible infraction, the Secretariat has not received a response from the government.

The "Others" category includes all fleets with three vessels or less.

Abbreviations: DSP = Dolphin Safety Panel

ECUADOR			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
ECU 1	2014-145	2014/07	1) 1 Trip without an observer **Action taken:** 1) The government is investigating the possible infractions.
ECU 2	2014-004	2014/07	1) 1 Trip without an observer **Action taken:** 1) The government is investigating the possible infractions.

MEXICO			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
MEX 1	2013-551	2014/07	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government decided that no infraction occurred, but issued a warning to the vessel owner. The vessel has now all the required equipment.

NICARAGUA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
NIC 1	2013-730	2014/07	1) 1 Trip without a required raft

PANAMA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
PAN 1	2014-542	2014/10	1) 1 Trip without a required high intensity floodlight

VENEZUELA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
VEN 1	2014-122	2014/07	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government is investigating the possible infractions.
VEN 2	2013-582	2014/07	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government is investigating the possible infractions.

OTHERS			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
KIR 1	2014-323	2014/07	1) 1 Trip without an observer **Action taken:** 1) The government is investigating the possible infractions.