AGREEMENT ON THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

24TH MEETING OF THE PARTIES

DEL MAR, CALIFORNIA
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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 caught without losing the tuna proved more difficult, and in the early years of the fishery many dolphins became entangled in the nets and 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 IATTC, environmental organizations, and other interested parties.

The 1992 La Jolla Agreement provided a framework for the international efforts to reduce this mortality, and introduced such novel and effective measures as Dolphin Mortality Limits (DMLs) for individual vessels and 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 this agreement 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; 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 December, 2010, Costa Rica, Ecuador, El Salvador, the European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, the United States, Vanuatu, and Venezuela have ratified or acceded to the Agreement, and Bolivia and Colombia are applying the AIDCP provisionally. On 11 April 2011, the Government of Belize, in accordance with Article XXVI of the AIDCP, deposited its instrument of accession with the Government of the United States of America, the Depositary of the Agreement. The IATTC

provides the Secretariat for the IDCP and its various bodies and coordinates the On-Board Observer Program and the Tuna Tracking and Verification System.

2. The On-Board Observer Program

The AIDCP international observer program and the national observer programs of Colombia (Programa Nacional de Observadores de Colombia, PNOC), Ecuador (Programa Nacional de Observadores Pesqueros 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) constitute the AIDCP On-Board Observer Program. In addition, observers from the international observer program of the Forum Fisheries Agency (FFA) are approved by the Parties to collect information for the On-Board Observer Program on vessels that fish in the Agreement Area without setting on dolphins if the Secretariat determines that the placement of an IDCP observer is not practical. `

2.1. Observer coverage

The AIDCP mandates 100% coverage by observers of fishing trips by purse seiners of carrying capacity greater than 363 metric tons (t) in the Agreement Area. In 2010, the Ecuadorian 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 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 by these five fleets, plus all trips by vessels of other fleets.

During 2010, observers from the On-Board Observer Program departed on 658 fishing trips (Table 1), which included 10 trips by vessels of less than 363 tons capacity required to carry observers during closure periods, as stipulated in item 4 of IATTC Resolution C-09-01. In addition, 48 vessels whose last trip of 2009 carried over into 2010 had observers aboard, bringing the total to 706 trips observed in 2010 by the Program. This does not include 15 observed trips that fished outside the Agreement Area. The Program covered vessels operating under the jurisdictions of Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Spain, Vanuatu, and Venezuela.

In 2010 the Program sampled 100% of trips by large purse-seine vessels, as required by the AIDCP, and the IATTC program sampled 60% of all trips.

2.2. Observer training

The IATTC staff conducted one observer training course for the national program of Ecuador (PROBECUADOR) on November 23- December 9, 2010, with 13 attendees.

3. DOLPHIN MORTALITY

3.1. Dolphin Mortality Limits (DMLs)

3.1.1. 2010 DMLs

The overall dolphin mortality limit (DML) for the international fleet in 2010 was 5,000 animals, and the unreserved portion of 4,900 was allocated to 87 qualified vessels that requested DMLs. The average individual-vessel DML (ADML), based on 100 DML requests, was 56. A total of 81 vessels utilized their full-year DMLs. Ten vessels did not utilize their DMLs prior to 1 April, but five were allowed to keep them for the remainder of the year under the *force majeure* exemption allowed by the AIDCP. Two vessels renounced their DMLs, and three vessels forfeited their DMLs. There were no second-semester DMLs allocated, nor were there assignments from the Reserve DML Allocation. No vessel exceeded its DML in 2010. The distribution of the mortality caused in 2010 by vessels with DMLs is shown in Figure 1.

3.1.2. 2011 DMLs

The Parties requested and received 86 DMLs for 2011 from the unreserved portion (4,900) of the overall fleet mortality limit. The ADML is 56.97. One vessel forfeited its DML by changing its flag to that of a nonParty flag, and two vessels renounced their DMLs. Six vessels were allowed to keep their DMLs for the remainder of the year under the *force majeure* exemption allowed by the AIDCP, but one of those six vessels made dolphin sets prior to the deadline. There was one second-semester DML request, and as of 21 July there have been no requests for DMLs from the Reserve DML Allocation.

3.2. Estimates of the mortality of dolphins in 2010 due to fishing

The estimate of the incidental mortality of dolphins in the fishery in 2010 is 1,170 animals (Table 2), a 5.6% decrease over the 1,239 mortalities recorded in 2009. The mortalities for 1979-2010, 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 show declines since the early 1990s (Figure 2) similar to that for the mortalities of all dolphins combined (Figure 3). Estimates of the abundances of the various stocks of dolphins and the relative mortalities (mortality/abundance) are also shown in Table 2. The stock with the highest level of relative mortality (0.06%) was the eastern spinner dolphin.

The number of sets on dolphin-associated schools of tuna made by vessels over 363 t increased by 7%, from 10,910 in 2009 to 11,646 in 2010, and this type of set accounted for 53% of the total number of sets made in 2010, compared to 49% in 2009. The average mortality per set decreased from 0.11 dolphins in 2009 to 0.10 dolphins in 2010. 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 decreased by 15% in 2010, as compared to 2009. The percentage of the catch of yellowfin taken in sets on dolphins decreased from 78% of the total catch in 2009 to 72% of the catch in 2010, and the average catch of yellowfin per set on dolphins decreased from 16.9 to 13.4 metric tons. The mortality of dolphins per metric ton of yellowfin caught increased from 0.0067 in 2009 to 0.0075 in 2010.

The above figures are based on data from trips covered by observers from all components of the On-Board Observer Program. The comparisons in the next paragraph are based on the IATTC data bases for 1986-2010 only.

The decrease in the mortality per set is the result of actions by the fishermen to better manage the factors that bring about incidental mortalities of dolphins. Indicative of this effort is the number of sets in which no mortalities occurred, which has risen from 38% in 1986 to 93% in 2010, and the average number of animals left in the net after backdown, which has decreased from 6.0 in 1986 to <0.1 in 2010 (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 1998-2010; 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 increases with the number of animals in the encircled herd, in part because the backdown maneuver takes longer to complete when larger herds are encircled. The fishermen can reduce the mortalities per set by encircling schools of fish associated with fewer dolphins.

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 pre-

pare 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 2010, the reporting rate averaged 99% (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 for 2011 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 by 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.

During 2010, the IRP consisted of 20 members: the 14 participating member governments, and 6 representatives of non-governmental organizations (NGOs), 3 from environmental organizations and 3 from the tuna industry.

The IRP held the following meetings during 2010:

Meeting	Venue	Dates
49	Antigua, Guatemala	23 September

The minutes of these meetings are available on the IATTC's website. 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 Form (TTF), completed at sea by observers, identifies the tuna caught as dolphin safe (Form 'A') or non-dolphin safe (Form 'B'); with this document, the dolphin safe status of any tuna caught by a vessel covered by the AIDCP can be determined. Within this framework, administered by the Secretariat, each Party establishes its own tracking and verification program, implemented and operated by a designated national authority, which includes periodic audits and spot checks for caught, landed, and processed tuna products, 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 departed in 2010 with an IDCP observer aboard were issued TTFs.

6. AMENDMENTS AND RESOLUTIONS AFFECTING THE OPERATION OF THE IDCP

For 2010, the Parties: 1) maintained Resolution A-09-01 on vessel assessments and financing to fund the on-board observer program; and 2) decided to dissolve the Joint Working Group on fishing by non-Parties. The IRP will perform the functions of the dissolved working group regarding compliance with the AIDCP.

7. OTHER FUNCTIONS PERFORMED BY THE SECRETARIAT

7.1. Dolphin safety panel alignments

During 2010, the IATTC staff conducted alignments of dolphin-safety panels (DSP) and inspections of dolphin rescue gear aboard two vessels registered in Mexico. A trial set, during which an IATTC technician observes the performance of the net from an inflatable raft during backdown, is made to check the alignment of the DSP. The technician provides his observations, comments, and suggestions to the captain of the vessel, and attempts are made to resolve any problems that may arise. Afterward a report is prepared for the vessel owner or manager. This report contains a summary of the technician's observations and, if necessary, suggestions for improving the vessel's dolphin-safety gear and/or procedures.

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 2010, the following five training seminars were held, which were attended by 159 fishermen.

Date	Program	Location	Attendees
25 June	NMFS	Long Beach, USA	8
8 August	IATTC	Manta, Ecuador	1
18 September	IATTC	Manta, Ecuador	74
21 September	IATTC	Panama City, Panama	24
23 November	Mexico	Mazatlan, Mexico	52

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. There are two types: the first, issued to vessels of Parties to the AIDCP only, 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 2010, statements of the first type were issued for 128 fishing trips by vessels of Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Vanuatu, and Venezuela. None were issued of the second type.

8. RESEARCH

Figures 4-6 compare the spatial distributions fishing effort in the Agreement Area by vessels carrying observers, in numbers of sets, by type, in 2009 and 2010. There were some changes in the pattern of fishing effort for each set type. For dolphin sets, one area (about 0-5°N, 114-135°W) had substantial effort in 2009 but was fished very little in 2010; for floating-object sets, the same occurred in an area about 0-5°S, 88-111°W. For unassociated sets, one area off Peru had substantial effort in 2009 but not in 2010, while

in an area south of the Gulf of Tehuantepec the opposite was the case.

In collaboration with scientists from several research institutions and national observer programs, the IATTC staff continues to work on developing statistical techniques to be used to screen for data quality. These techniques can be applied to past years' data as one of several tools used by the IATTC staff to ensure data quality.

A collaborative study was conducted by scientists from the Mystic Aquarium, NMFS, Marine Mammal Center, IATTC, and Chicago Zoological Society on blood parameters of spotted dolphins sampled during a 2001 study to detect effects of stress due to purse-seine fishing operations. The study successfully provided the first baseline blood-parameter data for this species in the wild; however, blood results consistent with harmful effects of stress were not seen. The sample size was limited, however, and the results could potentially be confounded by other factors.

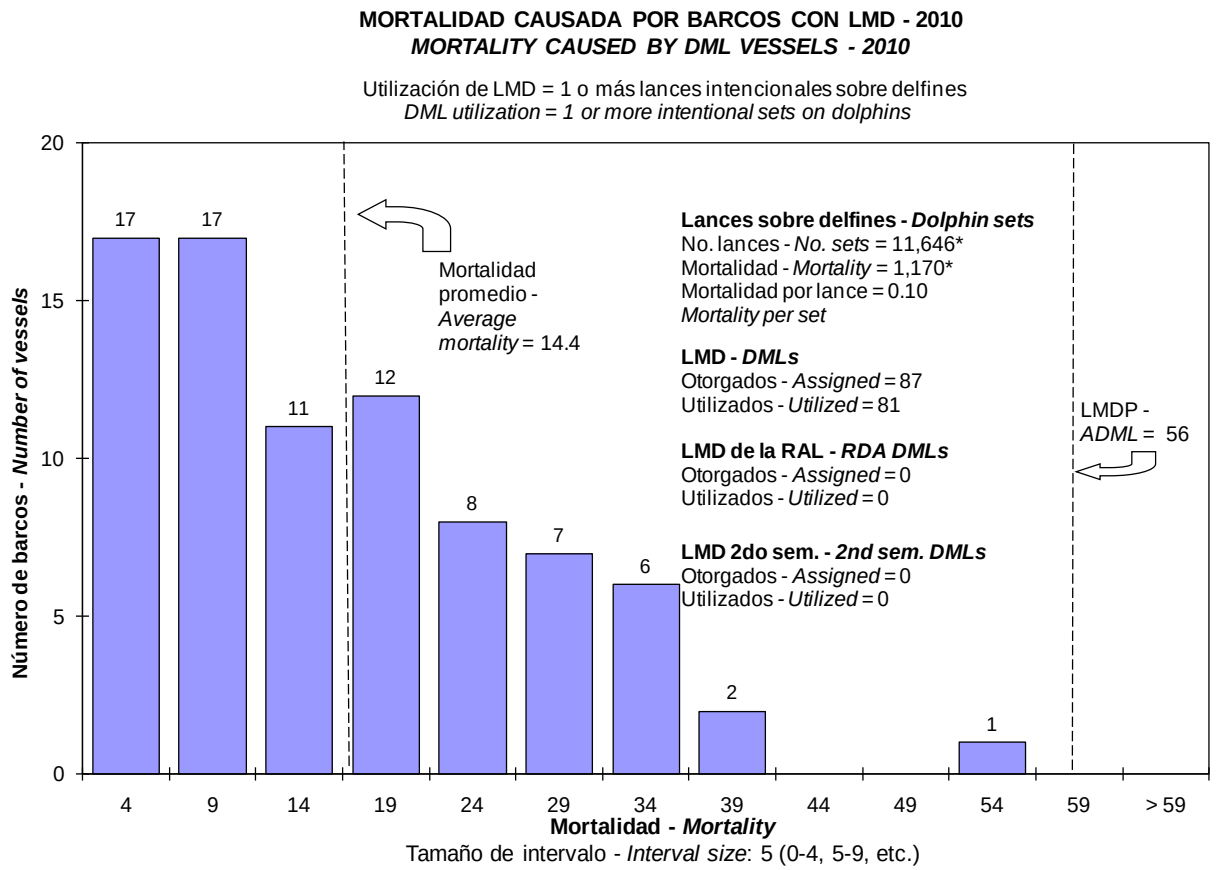

FIGURE 1. Distribution of dolphin mortality caused by vessels with DMLs during 2010.
FIGURA 1. Distribución de la mortalidad de delfines causada por buques con LMD durante 2010.

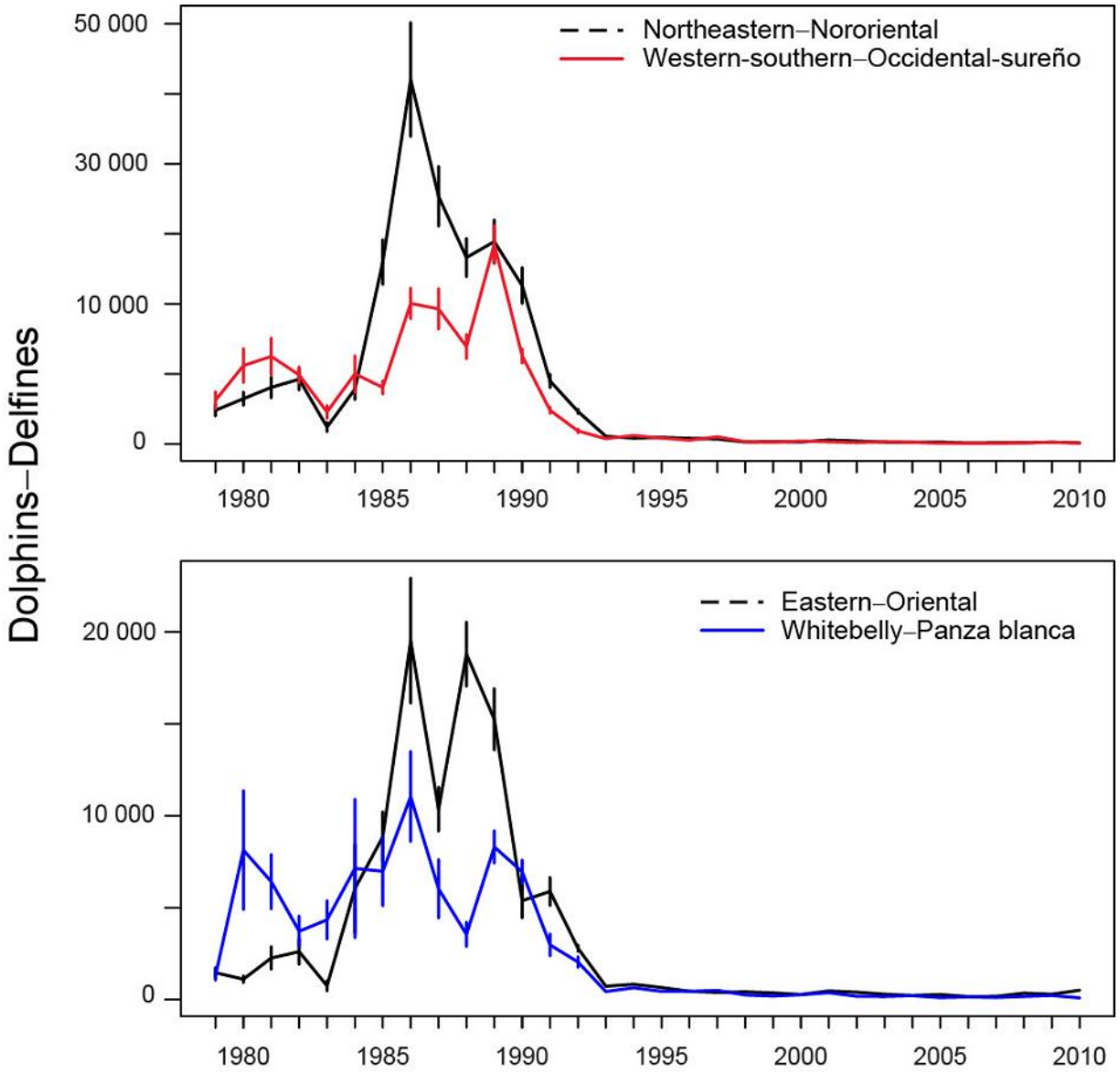

FIGURE 2. Estimated mortalities for the stocks of spotted (upper panel) and spinner (lower panel) dolphins in the eastern Pacific Ocean, 1979-2010. Each vertical line represents one positive and one negative standard error.

FIGURA 2. Mortalidad estimada de las poblaciones de delfines manchados (panel superior) y tornillo (panel inferior) en el Océano Pacífico oriental, 1979-2010. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

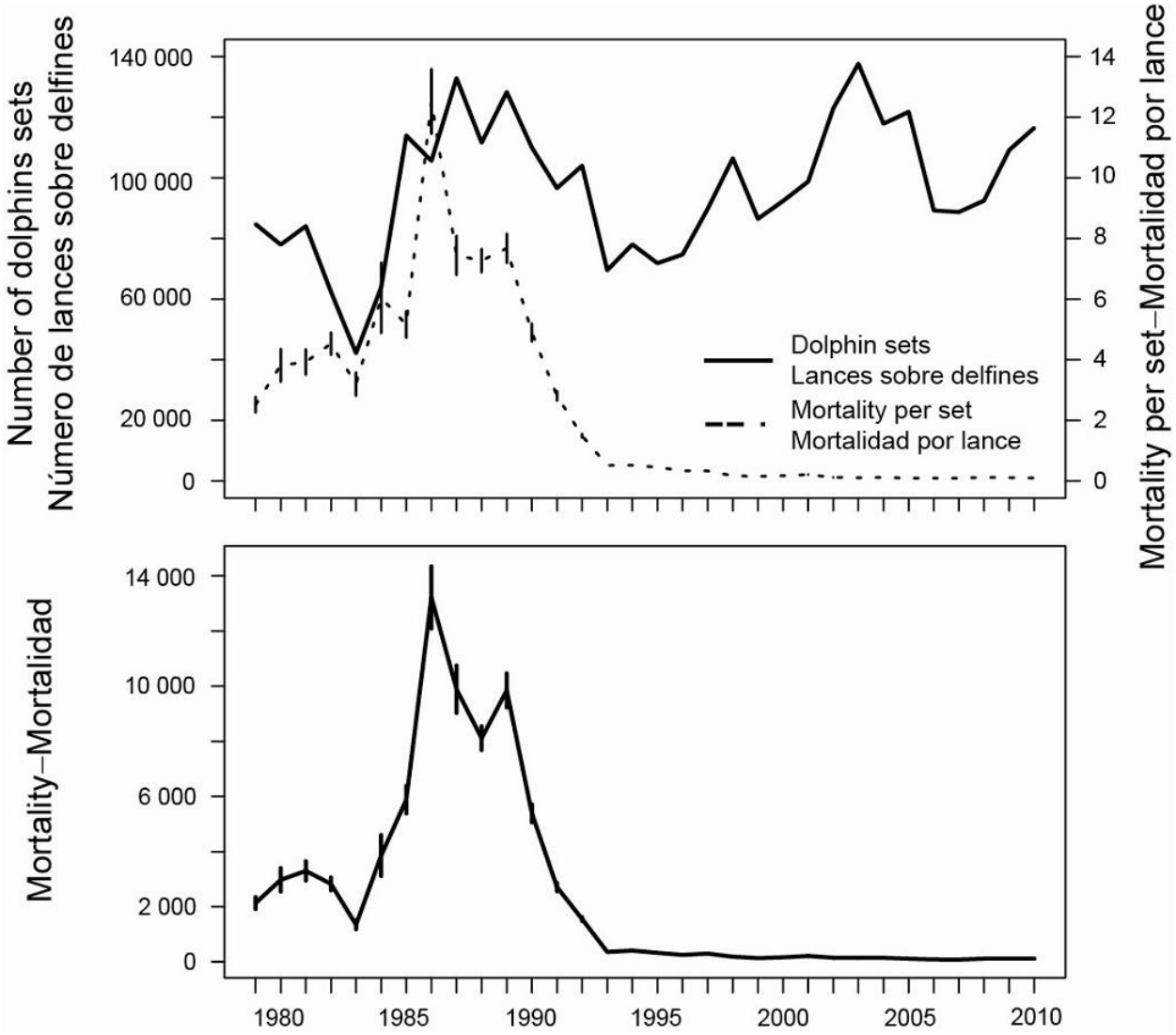

FIGURE 3. Total number of dolphin sets and average mortality per set (upper panel) and estimated total mortality (lower panel) for all dolphins in the EPO, 1979-2010. Each vertical line represents one positive and one negative standard error.

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, 1979-2010. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

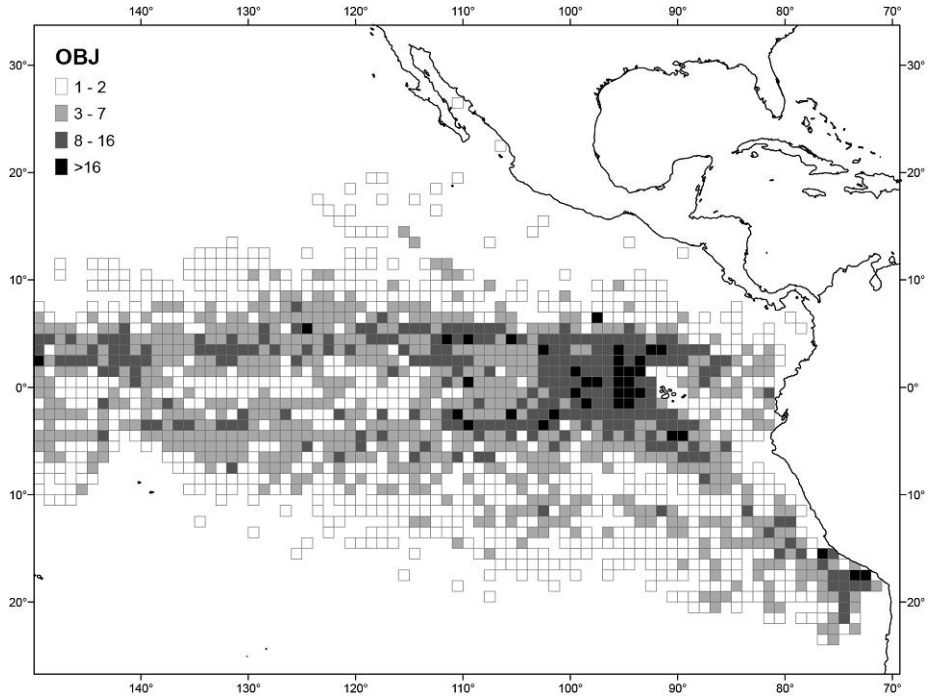

FIGURE 4a. Spatial distribution of sets on tuna associated with floating objects in the Agreement Area, 2009.

FIGURA 4a. Distribución espacial de los lances sobre atunes asociados con objetos flotantes en el Area del Acuerdo, 2009.

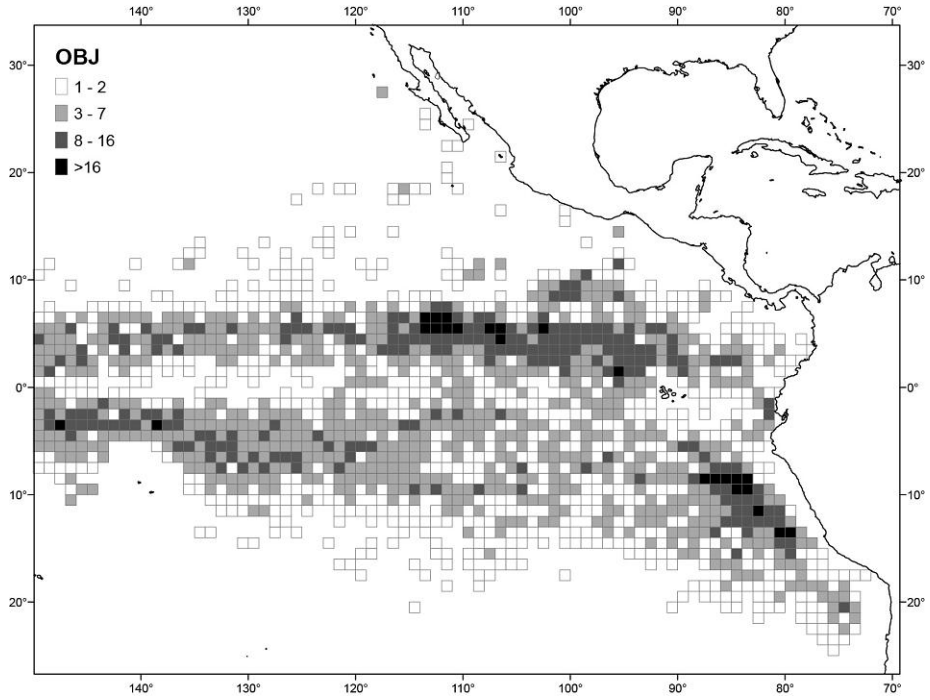

FIGURE 4b. Spatial distribution of sets on tuna associated with floating objects in the Agreement Area, 2010.

FIGURA 4b. Distribución espacial de los lances sobre atunes asociados con objetos flotantes en el Area del Acuerdo, 2010.

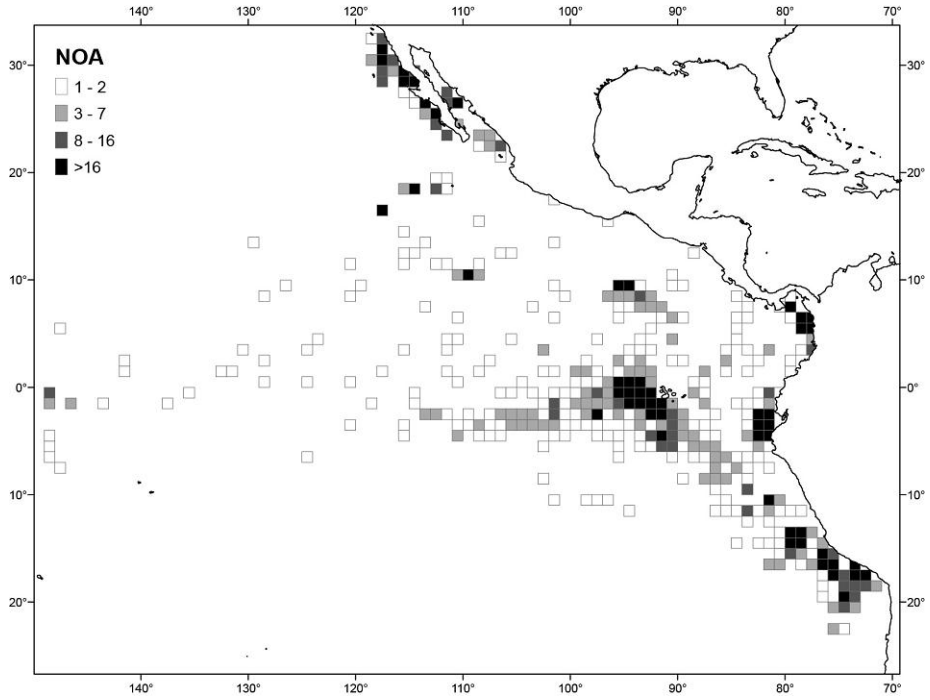

FIGURE 5a. Spatial distribution of sets on unassociated schools of tunas in the Agreement Area, 2009.
FIGURA 5a. Distribución espacial de lances sobre cardúmenes de atunes no asociados en el Area del Acuerdo, 2009.

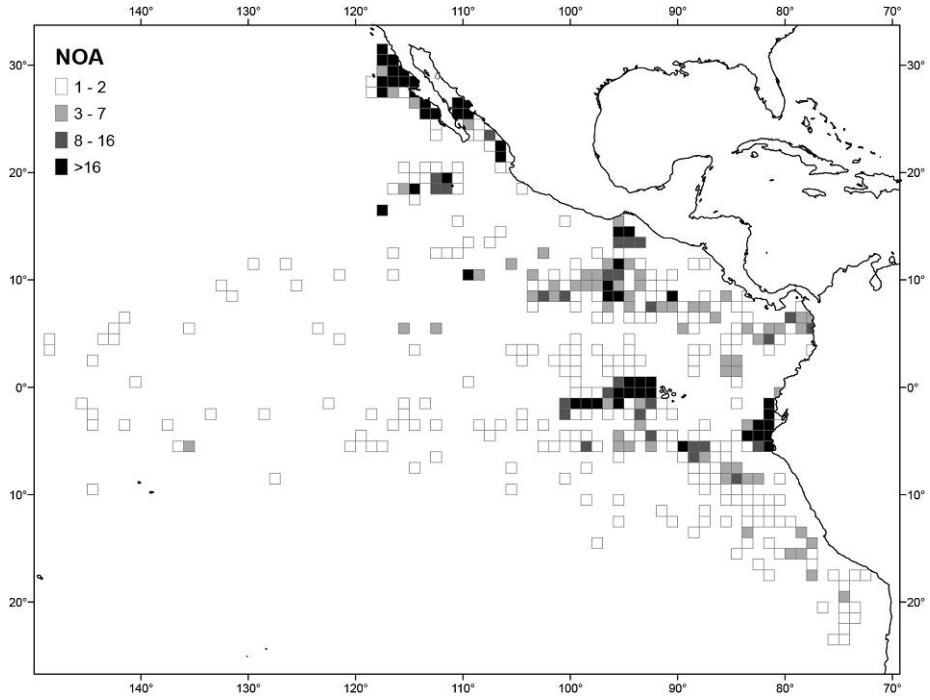

FIGURE 5b. Spatial distribution of sets on unassociated schools of tunas in the Agreement Area, 2010.
FIGURA 5b. Distribución espacial de lances sobre cardúmenes de atunes no asociados en el Area del Acuerdo, 2010.

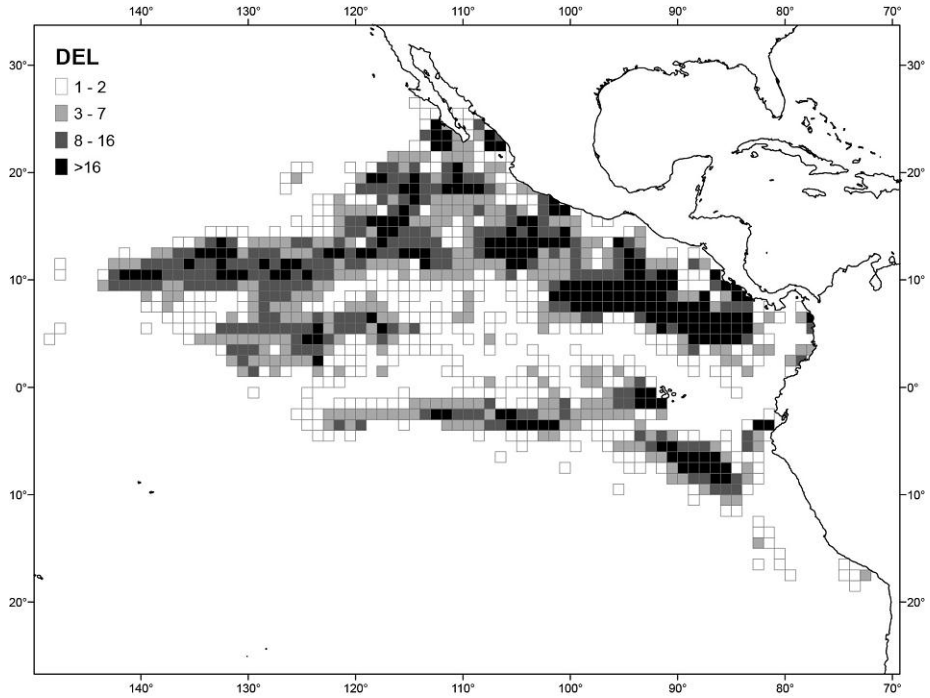

FIGURE 6a. Spatial distribution of sets on tuna associated with dolphins in the Agreement Area, 2009.
FIGURA 6a. Distribución espacial de los lances sobre atunes asociados con delfines en el Area del Acuerdo, 2009.

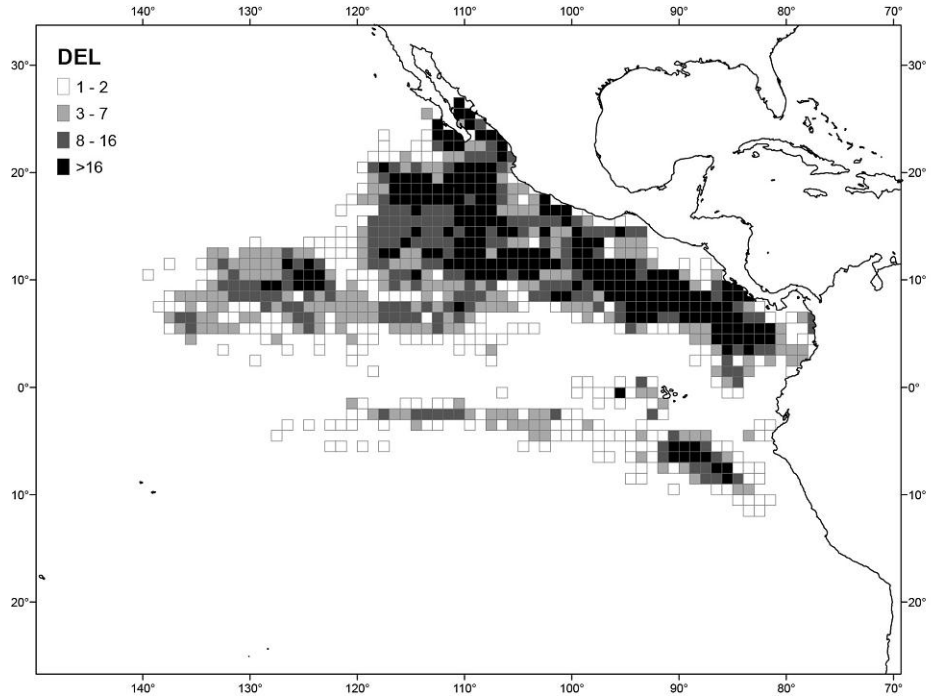

FIGURE 6b. Spatial distribution of sets on tuna associated with dolphins in the Agreement Area, 2010.
FIGURA 6b. Distribución espacial de los lances sobre atunes asociados con delfines en el Area del Acuerdo, 2010.

TABLE 1. Sampling coverage by the On-Board Observer Program during 2010.
TABLA 1. Cobertura por el Programa de Observadores a Bordo durante 2010.

Flota nacional		Viajes	Observado por programa:			% observado
			CIAT	Nacional	Total	
National fleet		Trips	Observed by program:			% observed
			IATTC	National	Total	
Buques de capacidad de acarreo ≥ 363 t – Vessels of ≥363 t carrying capacity[1]						
Colombia	COL	**41**	**20**	**21**	**41**	**100**
Ecuador	ECU	**236**	**160**	**76**	**236**	**100**
España - Spain	ESP	**17**	**8**	**9**	**17**	**100**
Guatemala	GTM	**11**	**11**	**-**	**11**	**100**
Honduras	HND	**6**	**6**	**-**	**6**	**100**
México	MEX	**173**	**89**	**84**	**173**	**100**
Nicaragua	NIC	**22**	**11**	**11**	**22**	**100**
Panamá	PAN	**93**	**45**	**48**	**93**	**100**
El Salvador	SLV	**23**	**23**	**-**	**23**	**100**
Venezuela	VEN	**62**	**33**	**29**	**62**	**100**
Vanuatu	VUT	**12**	**12**	**-**	**12**	**100**
Subtotal[1]		**696**	**418**	**278**	**696**	**100**
Otros buques – Other vessels[2]						
		10	**3**	**7**	**10**	
Total		**706**	**421**	**285**	**706**	

[1]Includes 48 trips that began in 2009 and ended in 2010. Does not include 15 observed trips that fished outside the Agreement Area - Incluye 48 viajes iniciados en 2009 y terminados en 2010**.** No incluye 15 viajes observados en los que se pescó fuera del Área del Acuerdo.

[2]Includes 10 class-4 vessels (182-272 t) required to carry an observer during the closure period for one trip of up to 30 days' duration, as stipulated in paragraph 4 of IATTC Resolution C-09-01 – Incluye 10 buques de clase 4 (182-272 t) obligados a llevar observador durante el período de veda en in viaje de hasta 30 días de duración, conforme a lo estipulado en el párrafo 4 de la Resolución C-09-01 de la CIAT.

TABLE 2. Mortalities of dolphins in 2010, population abundance estimates, and relative mortality, by stock.
TABLA 2. Mortalidad incidental de delfines en 2010, estimaciones de la abundancia de 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	170	911,177	0.02
Western/southern—Occidental y sureño	135	911,830	0.01
Spinner dolphin—Delfín tornillo[1]			
Eastern—Oriental	510	790,613	0.06
Whitebelly—Panza blanca	92	711,883	0.01
Common dolphin—Delfín común[2]			
Northern—Norteño	124	449,462	0.03
Central	116	577,048	0.02
Southern—Sureño	8	1,525,207	<0.01
Other dolphins—Otros delfines[3]	15		
Total	**1,170**		

[1] Logistic model based on 1986-2006 surveys(IATTC SAB-07-05);
[1] Modelo logístico basado en estudios de 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] [3] [3] "Other dolphins" includes the following species and stocks, whose observed mortalities were as follows: striped dolphins (*Stenella coeruleoalba*), 2; Central American spinner dolphin (*Stenella longirostris centroamericana*) 2; false killer whale (*Pseudorca crassidens*) 1; and unidentified dolphins, 10.
[3] "Otros delfines" incluye las siguientes especies y poblaciones, con las mortalidades observadas correspondientes: delfín listado (*Stenella coeruleoalba*), 2; delfin tornillo centroamericano (*Stenella longirostris centroamericana*) 2; orca falsa (*Pseudorca crassidens*) 1; y delfines no identificados, 10.

TABLE 3. Annual estimates of dolphin mortality, by species and stock, 1979-2010. The estimates for 1979-1992 are based on a mortality-per-set ratio. The mortalities for 1993-2010 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, 1979-2010. Las estimaciones de 1979-1992 se basan en una razón de mortalidad por lance. Las mortalidades de 1993-2010 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

[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 1979-1992, and

2001-2003. There are no standard errors for 1993-2000, and 2004-2010, 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 1979-1992, y 2001-2003. No hay errores estándar para 1993-2000, y 2004-2010, 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.
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.

	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	92.5	5.3	2.6	3.9	16.8	<0.1
2010	93.4	5.3	1.5	2.5	16.2	<0.1

TABLE 6. Weekly reports of dolphin mortality received, 2010.
TABLA 6. Informes semanales de mortalidad de delfines recibidos, 2010.

Fleet	Program	Weeks	Reports	%
Flota	**Programa**	**Semanas**	**Informes**	**%**
COL	IATTC – CIAT	183	179	97.8
	National - Nacional	172	161	93.6
ECU	IATTC – CIAT	1,039	1,039	100
	National - Nacional	518	516	99.6
EUR	IATTC – CIAT	69	69	100
	National - Nacional	86	86	100
GTM	IATTC – CIAT	85	83	97.6
HND	IATTC – CIAT	38	38	100
MEX	IATTC – CIAT	589	576	97.8
	National - Nacional	565	555	98.2
NIC	IATTC – CIAT	72	72	100
	National - Nacional	81	81	100
PAN	IATTC – CIAT	361	361	100
	National - Nacional	335	308	91.9
SLV	IATTC – CIAT	152	152	100
VEN	IATTC – CIAT	217	217	100
	National - Nacional	235	234	99.6
VUT	IATTC – CIAT	117	117	100
Total		**4,914**	**4,844**	**98.6**

TABLE 7. Preliminary reports of the mortalities of dolphins in 2011, to August 28.
TABLA 7. Informes preliminares de las mortalidades de delfines en 2011, hasta el 28 de agosto.

Species and stock	Total mortality	Limit	Used (%)
Especie y población	**Mortalidad total**	**Límite**	**Usado (%)**
Offshore spotted dolphin – Delfín manchado de altamar			
Northeastern--Nororiental	166	793	20.9
Western-southern--Occidental-sureño	64	881	7.3
Spinner dolphin – Delfín tornillo			
Eastern--Oriental	267	655	40.8
Whitebelly--Panza blanca	110	666	16.5
Common dolphin – Delfín común			
Northern--Norteño	25	562	4.4
Central	5	207	2.4
Southern--Sureño	4	1,845	0.2
Others and unidentified--Otros y no identificados	39		
Total	**680**	**5,000**	**13.6**

TABLE 8. Summary of possible infractions identified by the International Review Panel at its 49th meeting.
TABLA 8. Resumen de posibles infracciones identificadas por el Panel Internacional de Revisión en su reunion 49ª.

INFRACCIONES MAYORES / MAJOR INFRACTIONS:	
Viaje sin observador Trips without an observer	0
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	1
Viajes sin paño de protección de delfines Trips without a dolphin safety panel	1
Lances intencionales después de alcanzar el LMD Intentional sets made after reaching the DML	0
Lances o cazas con uso de explosivos (ocurrieron en 2 viajes) Sets or chases with use of explosives (occurred in 2 trips)	2
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	**4**
OTRAS INFRACCIONES / OTHER INFRACTIONS:	
Viajes sin balsa Trips without a required raft	5
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	7
Viajes sin máscaras de buceo Trips without required facemasks	0
Lances nocturnos (ocurrieron en 4 viajes) Night sets (occurred in 4 trips)	4
Lances sin rescate adicional Sets without required deployment of rescuer	1
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	3
Total	**20**
Casos de interferencia al observador **Cases of observer interference**	**2**
Buques de menos de clase 6 observados en caza o lance sobre delfines **Vessels smaller than Class 6 observed chasing or setting on dolphins**	**3**
Viajes revisados en esta reunión **Trips reviewed in this meeting**	**624**
Lances sobre delfines revisados en esta reunión **Dolphin sets reviewed in this meeting**	**9,970**
Lances accidentales revisados en esta reunión **Accidental sets reviewed in this meeting**	**2**

TABLE 9. Responses for six types of possible infractions identified by the International Review Panel at its 49th meeting.

TABLA 9. Respuestas para seis tipos de posibles infracciones identificadas por el Panel Internacional de Revisión en su reunion 49ª.

	No. de casos	Sin respuesta		Respuestas					Total	
				Bajo investigación[1]	No hubo infracción	Infracción: sin sanción	Infracción: aviso	Infracción: sanción[2]		
	No. of cases	No response		Responses					Total	
				Under investigation[1]	No infraction	Infraction: no sanction	Infraction: warning	Infraction: sanction[2]		
HOSTIGAMIENTO AL OBSERVADOR – OBSERVER HARASSMENT										
ECU	1	0	-	0	1	0	0	0	1	(100%)
PAN	1	1	(100%)	0	0	0	0	0	0	-
Total[3]:	**2**	**1**	(50%)	**0**	**1**	**0**	**0**	**0**	**1**	**(50%)**
USO DE EXPLOSIVOS – USE OF EXPLOSIVES										
MEX	2	0	-	2	0	0	0	0	2	(100%)
Total:	**2**	**0**	-	**2**	**0**	**0**	**0**	**0**	**2**	**(100%)**
LANCES NOCTURNOS – NIGHT SETS										
PAN	1	1	(100%)	0	0	0	0	0	0	-
VEN	3	0	-	3	0	0	0	0	3	(100%)
Total	**4**	**1**	**(25%)**	**3**	**0**	**0**	**0**	**0**	**3**	**(75%)**
PESCAR SIN OBSERVADOR – FISHING WITHOUT AN OBSERVER										
Ningún caso identificado durante el periodo de este informe										
No identified cases during this report period										
PESCAR SOBRE DELFINES SIN LMD – FISHING ON DOLPHINS WITHOUT A DML[4]										
ECU	2	0	-	0	2	0	0	0	2	(100%)
OTH	1	0	-	0	0	0	0	1	1	(100%)
Total	**3**	**0**	**-**	**0**	**2**	**0**	**0**	**1**	**3**	**(100%)**
LANCES SOBRE DELFINES DESPUES DE ALCANZAR EL LMD-- SETS ON DOLPHINS AFTER REACHING THE DML										
Ningún caso identificado durante el periodo de este informe										
No identified cases during this report period										

[1] Incluye casos sujetos a litigio administrativo – Includes cases subject to administrative litigation

[2] Una sanción fue o será aplicada – Sanction was or will be applied

[3] Se redondean los porcentajes, y no suman necesariamente 100 - Percentages are rounded and may not sum to 100

[4] Buques de menos de clase 6 observados en caza o lance sobre delfines – Vessels smaller than Class 6 observed chasing or setting on dolphins

Appendix A

POSSIBLE INFRACTIONS IDENTIFIED BY THE IRP

Brief descriptions of government actions taken, as reported to the Secretariat by July 19, 2011, are included. If no action is listed for a possible infraction, the Secretariat has not received a response from the government.

Abbreviations: DSP = Dolphin Safety Panel

COLOMBIA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
COL 1	2010-265	2010/09	1) 1 Trip without a required high intensity floodlight

ECUADOR			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
ECU 1	2010-254	2010/09	1) 1 Set without required rescue **Action taken:** 1) A sanction was applied
ECU 2	2010-103	2010/09	1) 1 Case of observer interference **Action taken:** 1) After investigating, the government decided that no infraction occurred.
ECU 3	-	2010/09	1) 1 Fishing on dolphins without a DML assigned **Action taken:** 1) The Party informed the Secretariat that it had initiated the corresponding administrative process and that it had not been able to verify the alleged event with the documentary elements available to the competent authority, and determined that it was not possible to verify the infraction..
ECU 4	-	2010/09	1) 1 Fishing on dolphins without a DML assigned **Action taken:** 1) The Party informed the Secretariat that it had initiated the corresponding administrative process and that it had not been able to verify the alleged event with the documentary elements available to the competent authority, and determined that it was not possible to verify the infraction.

MEXICO			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
MEX 1	2009-576	2010/09	1) 1 Trip without a required high intensity floodlight
MEX 2	2009-620	2010/09	1) 1 Set or chase with use of explosives **Action taken:** 1) The government is investigating the possible infractions.
	2010-351	2010/09	1) 1 Trip without a dolphin safety panel
MEX 3	2010-089	2010/09	1) 1 Trip without a required high intensity floodlight
MEX 4	2009-651	2010/09	1) 1 Set or chase with use of explosives **Action taken:** 1) The government is investigating the possible infractions.
MEX 5	2010-193	2010/09	1) 1 Trip without a required raft
MEX 6	2010-348	2010/09	1) 1 Trip without a required high intensity floodlight

NICARAGUA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
NIC 1	2010-145	2010/09	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government verified that all required dolphin safety gear was onboard, so it was determined that no infraction occurred.
NIC 2	2010-067	2010/09	1) 1 Trip without a required raft **Action taken:** 1) After investigating, the government decided that no infraction occurred.
NIC 3	2009-642	2010/09	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government verified that all required dolphin safety gear was onboard, so it was determined that no infraction occurred.

PANAMA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
PAN 1	2010-001	2010/09	1) 1 Trip with dolphin sets before the DML notification
	2010-292	2010/09	1) 1 Trip without a required raft
PAN 2	2009-657	2010/09	1) 1 Trip with dolphin sets before the DML notification

PAN 3	2009-486	2010/09	1) 1 Trip without a required high intensity floodlight
PAN 4	2009-689	2010/09	1) 1 Trip with dolphin sets before the DML notification
PAN 5	2010-327	2010/09	1) 1 Night set
PAN 6	2010-260	2010/09	1) 1 Case of observer interference

EL SALVADOR

Vessel	*IRP recno*	*Review date*	*Identified infractions*
SLV 1	2010-059	2010/09	1) 1 Trip with captain not on the AIDCP list **Action taken:** 1) After investigating, the government decided that no infraction occurred.

VENEZUELA

Vessel	*IRP recno*	*Review date*	*Identified infractions*
VEN 1	2010-187	2010/09 2010/09	1) 1 Night set 2) 1 Trip without a required raft **Action taken:** 1), 2) The government is investigating the possible infractions.
VEN 2	2010-336	2010/09	1) 1 Trip without a required raft **Action taken:** 1) The government is investigating the possible infractions.
VEN 3	2009-531	2010/09	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.
VEN 4	2010-066	2010/09	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.

OTHERS

Buque	*PIR recno*	*Fecha rev.*	*Infracciones identificadas*
OTH 1	-	2010/09	1) 1 Fishing on dolphins without a DML assigned **Action taken**: 1) The Party informed the Secretariat that an administrative process would be applied, which contemplates suspension of the fishing licence for three months, the application of a fine, and also the requirement that the fishing captain and the vessel captain participate in an AIDCP instructional seminar.