AGREEMENT ON THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

17TH MEETING OF THE PARTIES

CANCUN (MEXICO)
20 JUNE 2007

DOCUMENT MOP-17-05

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 December 31, 2006, Costa Rica, Ecuador, El Salvador, the European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States, Vanuatu, and Venezuela have ratified or acceded to the Agreement, and Bolivia and Colombia are applying the AIDCP provisionally. 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 IATTC's 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, which began operations in November 2006 and is administered by the Programa Nacional de Observadores Panameños, PRONAOP); Panama (PRONAOP, which began operations in March 2006), 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 2006, the Ecuadorian program had a goal of sampling approximately one-third of the trips by its fleet, and the Colombian, European Union, Mexican, and Venezuelan programs each had a goal of sampling approximately half of the trips by their respective fleets. However, the program of the European Union was inactive from early 2005 until February 2006. The IATTC program covered the remainder of the trips by these five fleets, plus all trips by vessels of other fleets, except as noted below.

During 2006, observers from the On-Board Observer Program departed on 746 fishing trips (Table 1). In addition, 90 vessels whose last trip of 2005 carried over into 2006 had observers aboard, bringing the total to 836 trips observed in 2006 by the Program. One Panamanian-flag vessel began a trip under the flag of Venezuela, and this trip was sampled by the PNOV. The Program covered vessels operating under the jurisdictions of Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Spain, the United States, Vanuatu, and Venezuela.

In 2006 the Program sampled 100% of trips by vessels covered by the AIDCP, and the IATTC program sampled 63% of all trips.

2.2. Observer training

The following seven observer training courses were held in 2006 .

Dates	Program	Location	Number of trainees
January 25 – February 8	European Union	Tenerife, Spain	18
March 27 –April 12	IATTC	Manta, Ecuador	24
March 20 – April 7	Panama	Panama	4
April 25 – May 10	Panama	Panama	12
June 6-22	Panama	Panama	4
November 6-24	Venezuela	Cumana, Venezuela	10
November 27 – December 15	Panama	Managua, Nicaragua	6

The IATTC training course included 6 trainees from the Ecuadorian national program.

3. DOLPHIN MORTALITY

3.1. Dolphin Mortality Limits (DMLs)

3.1.1. 2006 DMLs

The overall dolphin mortality limit (DML) for the international fleet in 2006 was 5,000 animals, and the unreserved portion of 4,900 was allocated to 103 vessels that requested and were qualified to receive DMLs. The average individual-vessel DML (ADML), based on 103 DML requests, was 47.57. However, three vessels renounced their DMLs before utilizing them. Ten vessels did not utilize their DMLs prior to April 1, but six were allowed to keep them for the remainder of the year under the *force*

majeure exemption allowed by the AIDCP. Exemptions were requested for three of four vessels that had lost their DMLs. These late requests were reviewed by the 15th Meeting of the Parties in June 2006 and redistributions of national DMLs were allowed; a DML of 17 was subsequently allocated to each of the three vessels. A total of 97 vessels utilized their full-year DMLs. In addition, two vessels were allocated DMLs from the Reserve DML Allocation (RDA) of 20. Only one of those DMLs was utilized. There were no second-semester DMLs allocated.

At the end of the first quarter of 2006, the Secretariat sent a letter to one Party, advising that three of its vessels risked exceeding their assigned DMLs if their mortality levels continued to accumulate at their current rates. No vessel exceeded its DML in 2006. The distribution of the mortality caused in 2006 by vessels with DMLs is shown in Figure 1.

3.1.2. 2007 DMLs

One hundred and four eligible vessels requested and received DMLs for 2007 from the unreserved portion (4,900) of the overall fleet mortality limit. The ADML is 47.12. One vessel renounced its DML before utilizing it, and five vessels forfeited their DMLs by not utilizing them prior to April 1. There was one second-semester DML requested, and as of May 17, 2007, there have been two requests and assignments for DMLs from the Reserve DML Allocation.

3.2. Preliminary estimates of the mortality of dolphins in 2006 due to fishing

The preliminary estimate of the incidental mortality of dolphins in the fishery in 2006 is 886 animals (Table 2), a 23.0% decrease over the 1,151 mortalities recorded in 2005. The mortalities for 1979-2006, 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 1990's (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 stocks with the highest levels of relative mortality (0.03%) were the eastern spinner dolphin, the whitebelly spinner dolphin and the northern common dolphin.

The number of sets on dolphin-associated schools of tuna made by vessels over 363 t decreased by 27%, from 12,173 in 2005 to 8,823 in 2006, and this type of set accounted for 36% of the total number of sets made in 2006, compared to 48% in 2005. The average mortality per set remained quite stable (0.09 dolphins in 2005 compared to 0.10 dolphins in 2006). 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 42% in 2006, as compared to 2005. The percentage of the catch of yellowfin taken in sets on dolphins decreased from 68% of the total catch in 2005 to 59% of the catch in 2006, and the average catch of yellowfin per set on dolphins decreased from 14 to 11 metric tons. The mortality of dolphins per metric ton of yellowfin caught increased from 0.0067 in 2005 to 0.0089 in 2006.

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 1986-2006 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 94% in 2006, and the average number of animals left in the net after backdown, which has decreased from 6.0 in 1986 to less than 0.1 in 2006 (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 1998-2006; 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 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 2006, the reporting rate averaged 85% (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 2007 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 2006, the IRP consisted of 20 members: the 14 participating member governments, and six representatives of non-governmental organizations (NGOs), three from environmental organizations and three from the tuna industry.

The IRP held the following meetings during 2006:

Meeting	Venue	Dates
41	Busan, Korea	June 20
42	Del Mar, California, USA	October 25

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 that departed in 2006 with an IDCP observer aboard were issued TTFs.

6. AMENDMENTS AND RESOLUTIONS AFFECTING THE OPERATION OF THE IDCP

During 2006, the AIDCP Parties adopted Resolution A-06-01 on vessel assessments and financing, which establishes the basis for the assessments paid by purse-seine vessels that fish in the EPO. These assessments are the principal source of funding for the operation of the AIDCP.

Also with respect to financing, the Parties agreed that all charges for inactive vessels and fees for late payment will be retained by the Secretariat. (Previously, a portion of all fees received had been paid to the appropriate national programs.) In addition, it was decided that vessels entering the fishery during the course of a year that did not fish in the Agreement Area during the previous year are not required to pay the surcharge for late payment, regardless of their date of entry into the fishery.

During 2006 the Parties also agreed to amend Annex IV.I.8 of the AIDCP to broaden the definition of the uses of DMLs from the Reserve DML Allocation (RDA) to reflect the principal rationale for the use of the RDA in practice, namely, assigning DMLs to vessels that legitimately enter the fishery during the course of the year, but too late to be assigned a DML in acccordance with the usual procedures.

7. OTHER FUNCTIONS PERFORMED BY THE SECRETARIAT

7.1. Dolphin safety panel alignments

During 2006, the IATTC staff conducted alignments of dolphin-safety panels (DSPs) and inspections of dolphin rescue gear aboard 7 vessels, 6 registered in Mexico and one registered in Panama. 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 2006, the following ten training seminars were held, which were attended by 156 fishermen.

Date	Program	Location	Attendees
April 22	Venezuela	Panama	5
May 25	Venezuela	Cumana, Venezuela	3
June 30	IATTC	La Jolla, USA	1
September 8	IATTC	La Union, El Salvador	18
September 27	Venezuela	Cumana, Venezuela	4
December 9	Venezuela	Panama	16
December 12	Mexico	Mazatlan, Mexico	44
December 15	Mexico	Ensenada, Mexico	24
December 18	Mexico	Ensenada, Mexico	29
December 22	Mexico	Ensenada, Mexico	12

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 2006, statements of the first type were issued for 122 fishing trips by vessels of Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, the United States, Vanuatu, and Venezuela. None were issued of the second type.

8. RESEARCH

Figures 4-6 compare the spatial distributions of the fishing effort by vessels carrying observers, in numbers of sets, by type, in 2005 and 2006. The patterns were largely similar between the two years for floating-object sets, more unassociated sets were made west of the Galapagos in 2006 than in 2005, and fewer dolphin sets were made in the offshore areas in 2006 than in previous years.

In collaboration with scientists from several research institutions and national observer programs, the IATTC staff continue 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.

IATTC staff have completed a preliminary analysis of unloadings data collected as part of a NMFS-funded program to monitor additional unloadings of small purse-seine vessels (vessels of less than 363 t fish-carrying capacity). A classification algorithm built on unloadings data from trips of larger vessels was used to screen both the regular and supplemental data of small vessels. This algorithm used information on the lengths of yellowfin in the samples, plus additional data, to predict the set type of sets in the sampled wells. Unusual length samples were identified by comparing predicted and reported set types. Assuming that the fishing dynamics of large vessels are similar to those of small vessels, this analysis demonstrated the feasibility of this approach for identifying unusual length-frequency samples of small vessels that could then be subject to further analysis.

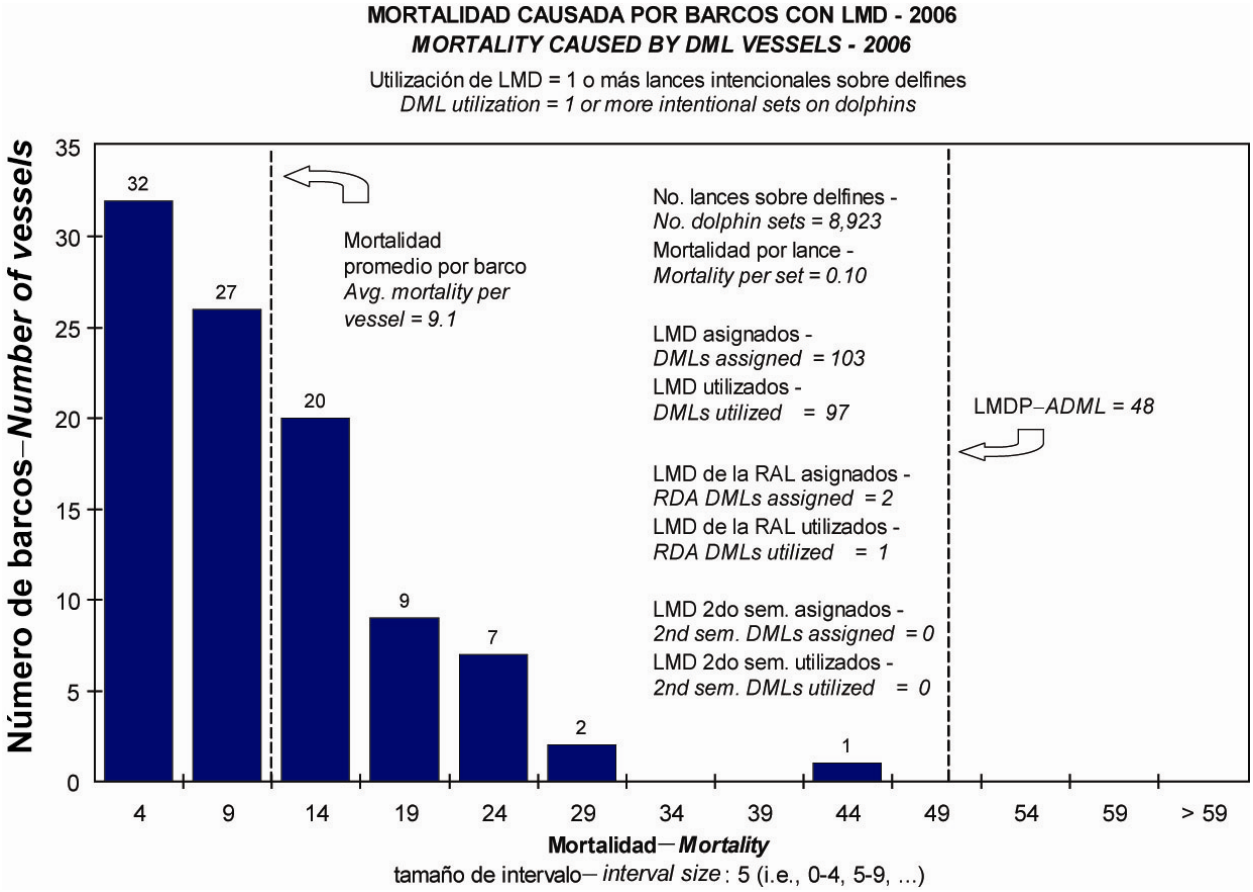

FIGURE 1. Distribution of dolphin mortality caused by vessels with DMLs during 2006.
FIGURA 1. Distribución de la mortalidad de delfines causada por buques con LMD durante 2006.

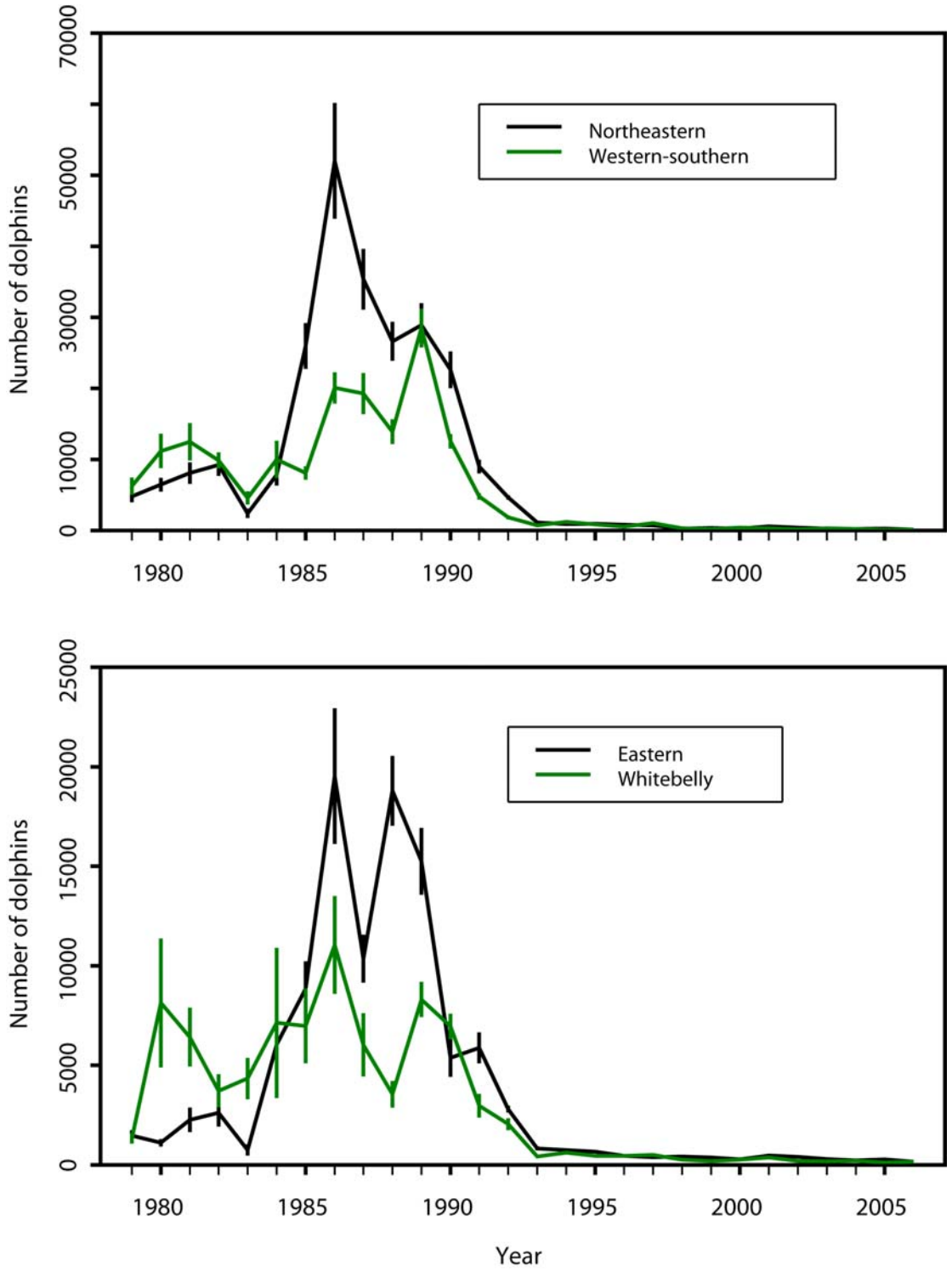

FIGURE 2. Estimated mortalities for the stocks of spotted (upper panel) and spinner (lower panel) dolphins in the eastern Pacific Ocean, 1979-2006. Each vertical line represents one positive and one negative standard error.

FIGURA 2. Mortalidad estimada de las poblaciones de delfines manchados (panel superior) y tornillo (panel inferior) en el Océano Pacífico oriental, 1979-2006. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

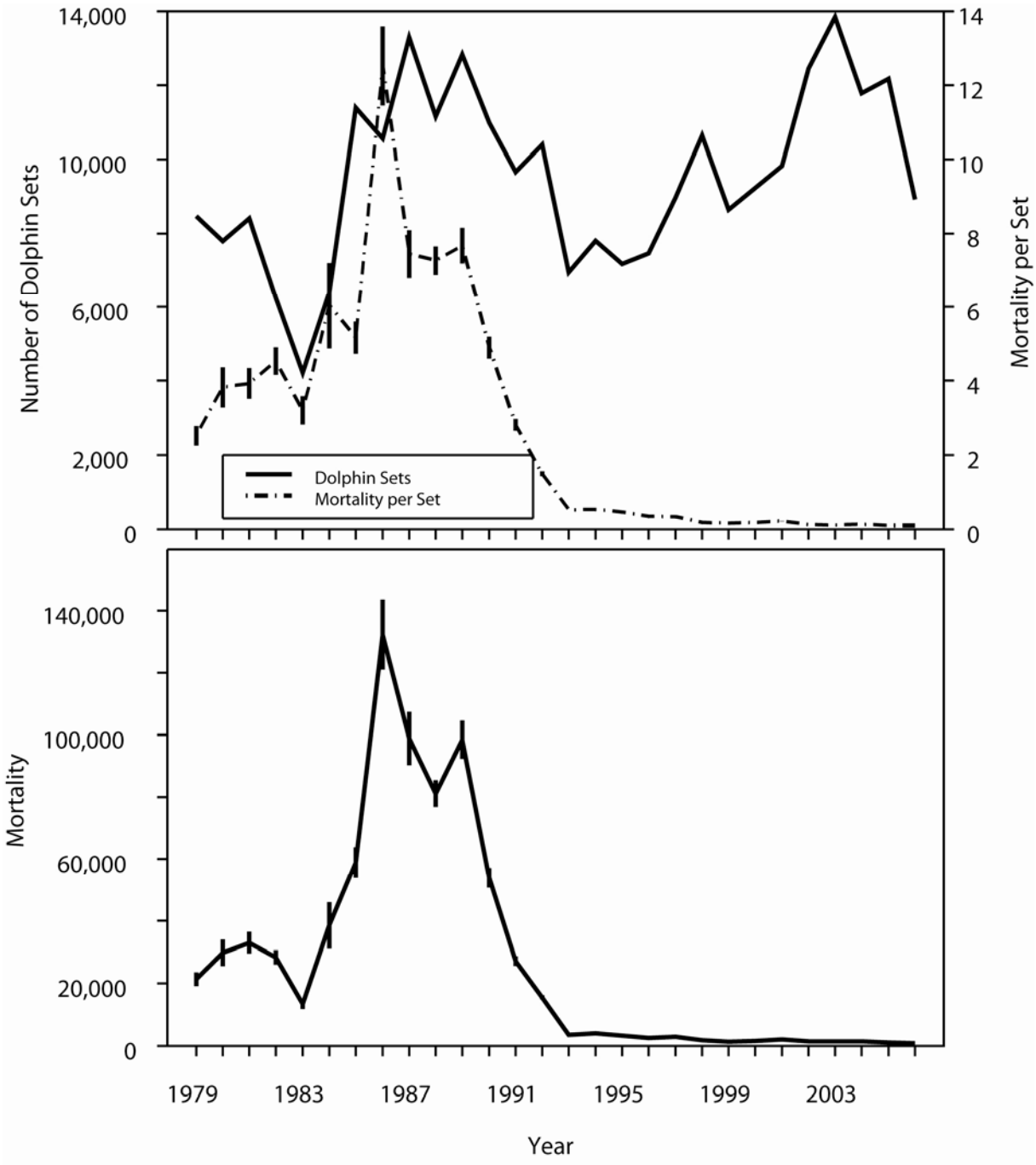

FIGURE 3. Total number of dolphin sets and average mortality per set (upper panel) and estimated total mortality (lower panel) for all dolphins in the EPO, 1979-2006. Each vertical line represents one positive and one negative standard error.

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, 1979-2006. Cada línea vertical representa un error estándar positivo y un error estándar negativo.

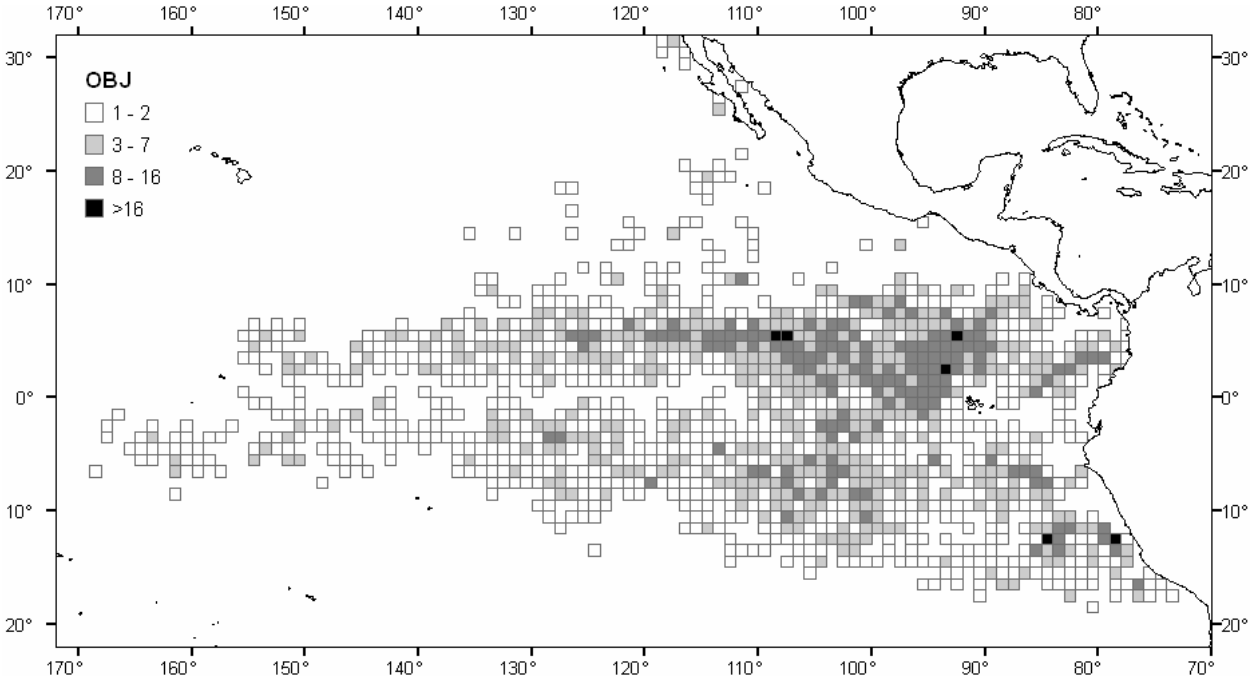

FIGURE 4a. Spatial distribution of sets on tuna associated with floating objects, 2005.
FIGURA 4a. Distribución espacial de los lances sobre atunes asociados con objetos flotantes, 2005.

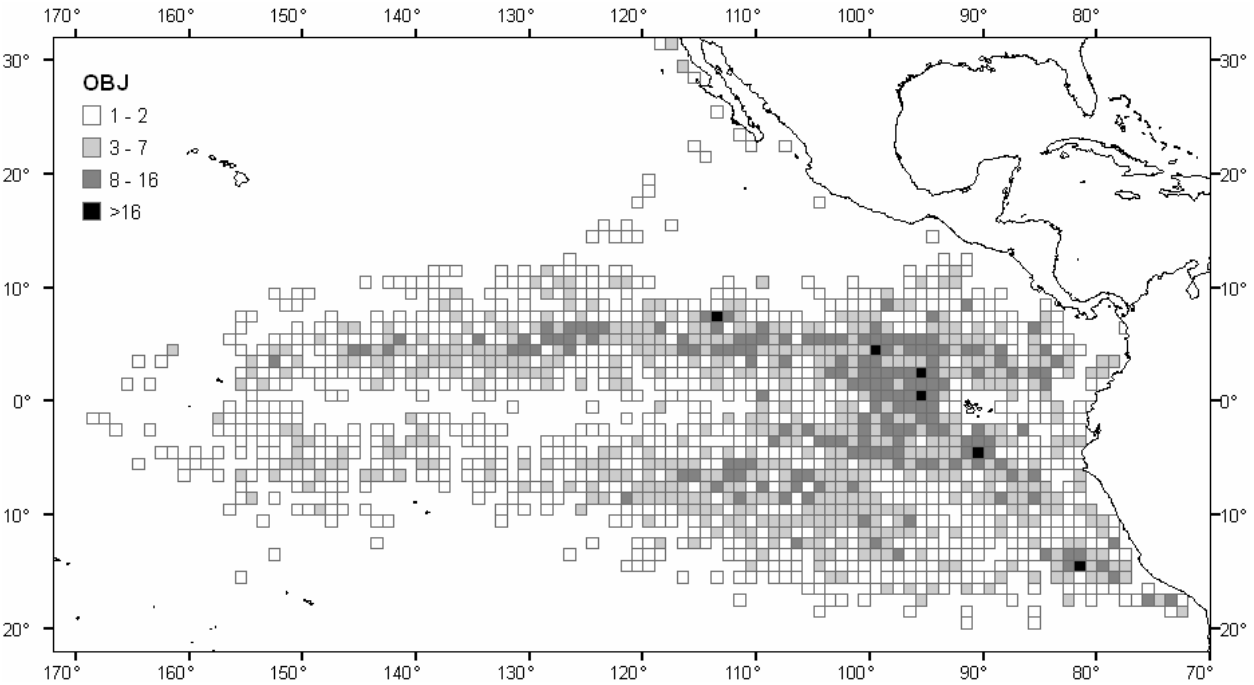

FIGURE 4b. Spatial distribution of sets on tuna associated with floating objects, 2006.
FIGURA 4b. Distribución espacial de los lances sobre atunes asociados con objetos flotantes, 2006.

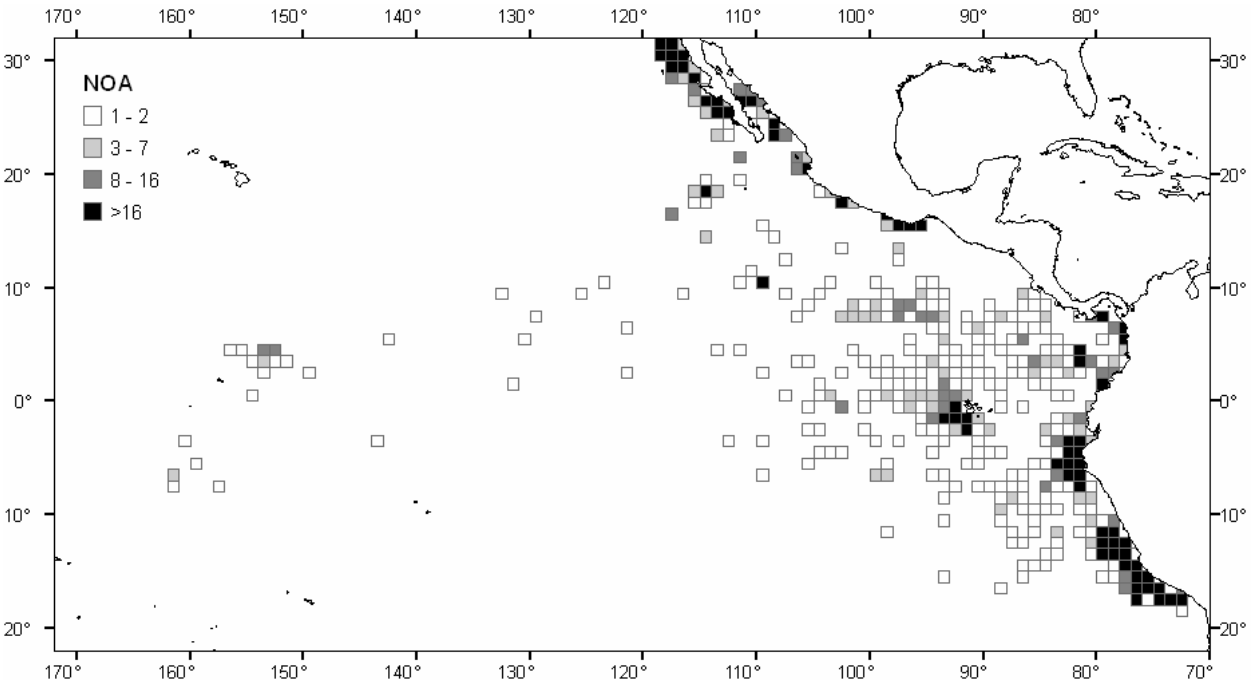

FIGURE 5a. Spatial distribution of sets on unassociated schools of tunas, 2005.
FIGURA 5a. Distribución espacial de lances sobre cardúmenes de atunes no asociados, 2005.

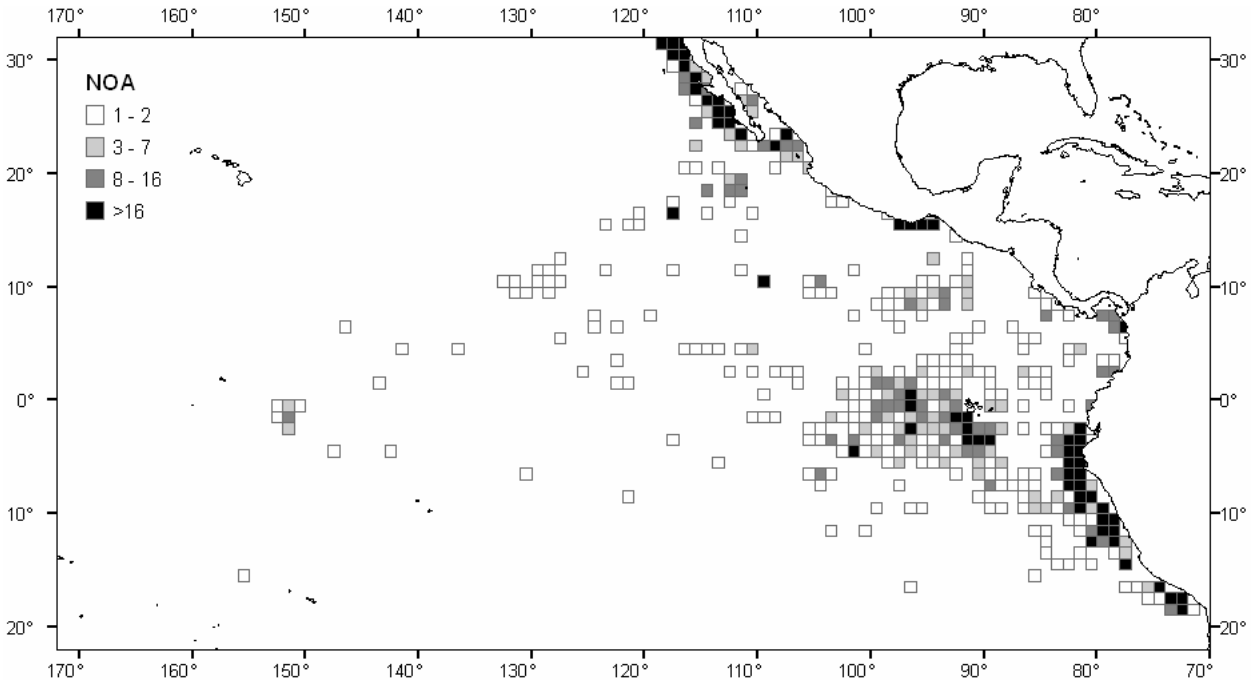

FIGURE 5b. Spatial distribution of sets on unassociated schools of tunas, 2006.
FIGURA 5b. Distribución espacial de lances sobre cardúmenes de atunes no asociados, 2006.

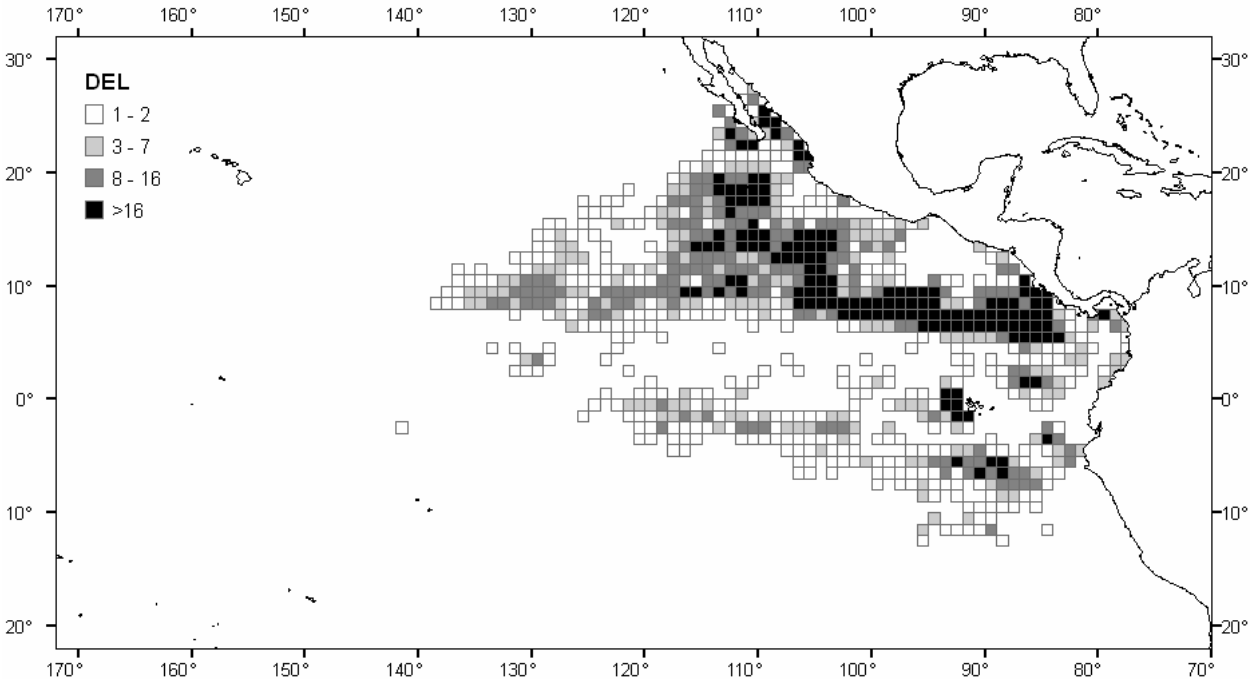

FIGURE 6a. Spatial distribution of sets on tuna associated with dolphins, 2005.
FIGURA 6a. Distribución espacial de los lances sobre atunes asociados con delfines, 2005.

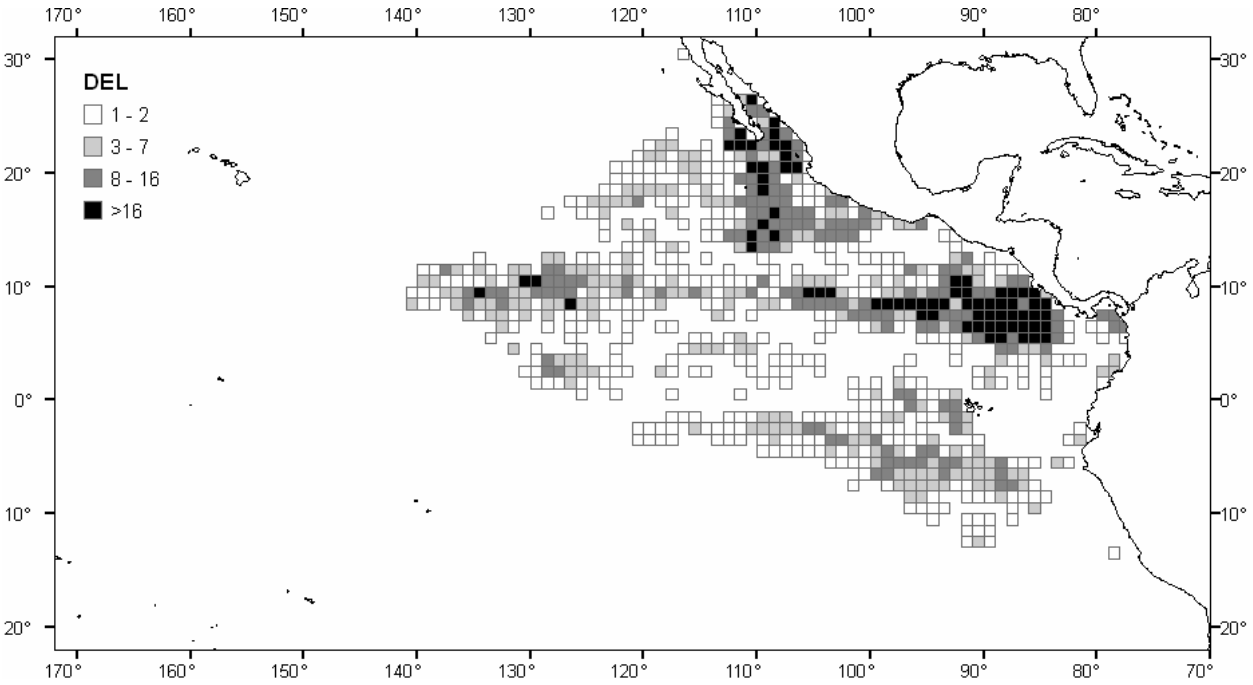

FIGURE 6b. Spatial distribution of sets on tuna associated with dolphins, 2006.
FIGURA 6b. Distribución espacial de los lances sobre atunes asociados con delfines, 2006.

TABLE 1. Sampling coverage by the On-Board Observer Program during 2006.
TABLA 1. Cobertura por el Programa de Observadores a Bordo durante 2006.

Flota nacional		Viajes	Observado por programa:			% observado
			CIAT	Nacional	Total	
National fleet		**Trips**	**Observed by program:**			**% observed**
			IATTC	**National**	**Total**	
Vessels of ≥363 t carrying capacity – Buques de capacidad de acarreo ≥ 363 t						
Colombia	COL	53	25	28	53	100
Ecuador	ECU	288	189	99	288	100
España—Spain	ESP	24	14	10	24	100
Guatemala	GTM	5	5	-	5	100
Honduras	HND	19	19	-	19	100
México	MEX	181	91	90	181	100
Nicaragua	NIC	26	25	1	26	100
Panamá	PAN	122	80	42[1]	122	100
El Salvador	SLV	24	24	-	24	100
USA—EE.UU.	USA	3	3	-	3	100
Vanuatu	VUT	12	12	-	12	100
Venezuela	VEN	79	41	38	79	100
Total[2]		**836**	**528**	**308**	**836**	**100**

[1] During one of these trips, the vessel's change of registration took effect. At departure the vessel was Venezuelan, and thus was sampled by the PNOV; at the end it was Panamanian, and per IATTC policy, the trip is assigned to the vessel's flag at the end of the trip – En uno de estos cinco casos, el cambio de registro tuvo lugar durante un viaje. Al inicio, el buques era de Venezuela, y por lo tanto fue muestreado por el PNOV; al fin era de Panamá, y conforme a las normas de la CIAT, se asigna el viaje al pabellón de fin de viaje

[2] Includes 90 trips that began in late 2005 and ended in 2006 - Incluye 90 viajes iniciados a fines de 2005 y terminados en 2006**.**

TABLE 2. Estimates of mortalities of dolphins in 2006, population abundance, and relative mortality, by stock. Data for 2006 are preliminary.
TABLA 2. Estimaciones de la mortalidad incidental de delfines en 2006, la abundancia de poblaciones, y la mortalidad relativa, por población. Los datos de 2006 son preliminares.

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	144	782,900	0.02
Western/southern—Occidental y sureño	135	892,600	0.02
Spinner dolphin—Delfín tornillo[1]			
Eastern—Oriental	155	592,200	0.03
Whitebelly—Panza blanca	157	617,100	0.03
Common dolphin—Delfín común[2]			
Northern—Norteño	130	449,462	0.03
Central	87	577,048	0.02
Southern—Sureño	38	1,525,207	<0.01
Other dolphins—Otros delfines[3,4]	40	2,802,300	<0.01
Total	**886**		

[1] logistic model for 1986-2003 (IATTC Special Report 14: Appendix 7);
[1] modelo logístico para 1986-2003 (Informe Especial de la CIAT 14: Anexo 7)
[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] pooled for 1986-1990 (Report of the International Whaling Commission, 43: 477-493)
[3] agrupados para 1986-1990 (Informe de la Comisión Ballenera Internacional, 43: 477-493)
[4] "Other dolphins" includes the following species and stocks, whose observed mortalities were as follows: striped dolphins (*Stenella coeruleoalba*), 6; coastal spotted dolphin (*Stenella attenuata*), 3; Central American spinner dolphin (*Stenella longirostris centroamericana*) 6; bottlenose dolphin (*Tursiops truncatus*) 3; shortfin pilot whale (*Globicephala macrorhynchus*), 2; and unidentified dolphins, 20.
[4] "Otros delfines" incluye las siguientes especies y poblaciones, con las mortalidades observadas correspondientes: delfín listado (*Stenella coeruleoalba*) ,6; delfin manchado costero (*Stenella attenuata*), 3; delfin tornillo centroamericano (*Stenella longirostris centroamericana*) 6; tonina (*Tursiops truncatus*) 3; ballena piloto (*Globicephala macrorhynchus*), 2; y delfines no identificados, 20.

TABLE 3. Annual estimates of dolphin mortality, by species and stock, 1979-2006. The data for 2006 are preliminary. The estimates for 1979-1992 are based on a mortality-per-set ratio. The estimates for 1993-1994 are based on the sums of the IATTC species and stock tallies and the total dolphin mortalities recorded by the Mexican program, prorated to species and stock. The mortalities for 1995-2006 represent the sums of the observed species and stock tallies recorded by the programs of the IATTC, Ecuador, Mexico, and Venezuela. Mortalities for 2001-2003 have been adjusted for unobserved trips of Class-6 vessels. The sums of the estimated mortalities for the northeastern and western-southern stocks of offshore spotted dolphins do not necessarily equal those for the previous stocks of northern and southern offshore spotted dolphins because the estimates for the two stock groups are based on different areal strata, and the mortalities per set and the total numbers of sets vary spatially.

TABLA 3. Estimaciones anuales de la mortalidad de delfines, por especie y población, 1979-2006. Los datos de 2006 son preliminares. Las estimaciones de 1979-1992 se basan en una razón de mortalidad por lance. Las estimaciones de 1993-1994 se basan en las sumas de las mortalidades por especie y población registradas por la CIAT y las mortalidades totales registradas por el programa mexicano, prorrateadas a especies y poblaciones. Las mortalidades de 1995-2006 son las sumas de las mortalidades por especie y población registradas por los programas de la CIAT, Ecuador, México, y Venezuela. La mortalidad de 2001-2003 fue ajustada para viajes no observados de buques de Clase 6. Las sumas de las mortalidades estimadas para las poblaciones nororiental y occidental y sureño del delfín manchado de altamar no equivalen necesariamente a las sumas de aquéllas para las antiguas poblaciones de delfín manchado de altamar norteño y sureño porque las estimaciones para los dos grupos de poblaciones se basan en estratos espaciales diferentes, y las mortalidades por lance y el número total de lances varían espacialmente.

	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	1,139	757	821	412	81	230	0	161	3,601
1994	935	1,226	743	619	101	151	0	321	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	101	1,877
1999	358	253	363	192	85	34	1	62	1,348
2000	295	435	275	262	54	223	10	82	1,636
2001	592	311	469	372	94	203	46	44	2,131
2002	442	204	405	186	69	155	4	50	1,515
2003	290	341	289	171	133	140	99	39	1,502
2004	260	256	224	214	156	100	222	37	1,469
2005	273	100	275	115	114	57	154	63	1,151
2006	147	135	155	157	130	87	38	37	886

[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 2004-2006, 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 hay errores estándar para 1995-2000, y 2004-2006, 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
1993	89	52	98	33	27	-	-	29
1994	69	55	84	41	35	8	-	20
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

TABLE 6. Weekly reports of dolphin mortality received, 2006.
TABLA 6. Informes semanales de mortalidad de delfines recibidos, 2006.

Fleet Flota	Program Programa	Weeks Semanas	Reports Informes	% %
COL	IATTC--CIAT	218	195	89
	National--Nacional	191	182	95
ECU	IATTC--CIAT	999	829	83
	National--Nacional	550	415	81
EUR	IATTC--CIAT	74	74	100
	National--Nacional	60	60	100
GTM	IATTC--CIAT	29	24	83
HND	IATTC--CIAT	103	93	90
MEX	IATTC--CIAT	578	500	87
	National--Nacional	592	437	74
NIC	IATTC--CIAT	222	197	89
	National--Nacional	9	9	100
PAN	IATTC--CIAT	493	446	90
	National--Nacional	290	243	84
SLV	IATTC--CIAT	161	155	96
USA	IATTC--CIAT	30	30	100
VEN	IATTC--CIAT	341	300	88
	National--Nacional	290	237	82
VUT	IATTC--CIAT	73	62	85
Total		**5,303**	**4,518**	**85**

TABLE 7. Preliminary reports of the mortalities of dolphins in 2007, to May 25.
TABLA 7. Informes preliminares de las mortalidades de delfines en 2007, hasta el 25 de mayo.

Species and stock Especie y población	Total mortality Mortalidad total	Limit Límite	Used (%) Usado (%)
Offshore spotted dolphin – Delfín manchado de altamar			
Northeastern--Nororiental	77	648	11.9
Western-southern--Occidental-sureño	23	1,145	2.0
Spinner dolphin – Delfín tornillo			
Eastern--Oriental	61	518	11.8
Whitebelly--Panza blanca	41	871	4.7
Common dolphin – Delfín común			
Northern--Norteño	7	562	1.2
Central	36	207	17.4
Southern--Sureño	80	1,845	4.3
Others and unidentified--Otros y no identificados	15		
Total	**340**	**5,000**	**6.8**

TABLE 8. Summary of possible infractions identified by the International Review Panel at its 41st and 42nd meetings.
TABLA 8. Resumen de posibles infracciones identificadas por el Panel Internacional de Revisión en sus reuniones 41ª y 42ª.

INFRACCIONES MAYORES / MAJOR INFRACTIONS:	
Viaje sin observador Trips without an observer	1
Viajes con lances en delfines sin LMD asignado Trips with dolphin sets but no DML assigned	1
Viajes con capitanes no incluidos en la lista del APICD Trips with captains not on the AIDCP list	5
Viajes sin paño de protección de delfines Trips without a dolphin safety panel	5
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)	12
Lances sobre stocks o tipos de manadas prohibidas Sets on banned stocks or school types	0
Lances sin retroceso Sets without a required backdown	3
Lances con embolsamiento o salabardeo de delfines Sets with dolphin sack-up or brail	2
Lances sin evitar herir o matar delfines Sets with unavoided dolphin injury or mortality	0
Total	**29**
OTRAS INFRACCIONES / OTHER INFRACTIONS:	
Viajes sin balsa Trips without a required raft	12
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	17
Viajes sin máscaras de buceo Trips without required facemasks	0
Lances nocturnos (ocurrieron en 11 viajes) Night sets (occurred in 11 trips)	12
Lances sin rescate adicional Sets without required deployment of rescuer	0
Lances sin rescate después del retroceso Sets without continued rescue effort after backdown	1
Viajes con lances sobre delfines antes de la notificación del LMD Trips with dolphin sets before the DML notification	7
Total	**49**
Casos de interferencia al observador **Cases of observer interference**	**6**
Viajes revisados en estas reuniones **Trips reviewed in these meetings**	**773**
Lances sobre delfines revisados en estas reuniones **Dolphin sets reviewed in these meetings**	**9,452**
Lances accidentales revisados en estas reuniones **Accidental sets reviewed in these meetings**	**6**

TABLE 9. Responses for six types of possible infractions identified by the International Review Panel at its 41st and 42nd meetings.
TABLA 9. Respuestas para seis tipos de posibles infracciones identificadas por el Panel Internacional de Revisión en sus reuniones 41ª y 42ª.

	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	5	5	(100%)	0	0	0	0	0	0	-
PAN	1	0	-	1	0	0	0	0	1	(100%)
Total[3]:	**6**	**5**	(83%)	**1**	**0**	**0**	**0**	**0**	**1**	**(17%)**
USO DE EXPLOSIVOS – USE OF EXPLOSIVES										
GTM	2	0	-	2	0	0	0	0	2	(100%)
VEN	10	0	-	10	0	0	0	0	10	(100%)
Total:	**12**	**0**	-	**12**	**0**	**0**	**0**	**0**	**12**	**(100%)**
LANCES NOCTURNOS – NIGHT SETS										
COL	2	0	-	0	2	0	0	0	2	(100%)
GTM	1	0	-	1	0	0	0	0	1	(100%)
PAN	2	1	(50%)	1	0	0	0	0	1	(50%)
VEN	7	0	-	7	0	0	0	0	7	(100%)
Total	**12**	**1**	**(8%)**	**9**	**2**	**0**	**0**	**0**	**11**	**(92%)**
PESCAR SIN OBSERVADOR – FISHING WITHOUT AN OBSERVER										
MEX	1	0	-	1	0	0	0	0	1	(100%)
Total	**1**	**0**	**-**	**1**	**0**	**0**	**0**	**0**	**1**	**(100%)**
PESCAR SOBRE DELFINES SIN LMD – FISHING ON DOLPHINS WITHOUT A DML										
VEN	1	0	-	1	0	0	0	0	1	(100%)
Total	**1**	**0**	**-**	**1**	**0**	**0**	**0**	**0**	**1**	**(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

Appendix A

POSSIBLE INFRACTIONS IDENTIFIED BY THE IRP

Brief descriptions of government actions taken, as reported to the Secretariat by May 16, 2007, 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 (Spain, United States, Guatemala, Honduras, Vanuatu).

Abbreviations: DSP = Dolphin Safety Panel

COLOMBIA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
COL 1	2005-459	2006/06	1) 1 Night set **Action taken:** 1) After investigating, the government decided that no infraction occurred.
COL 2	2006-060	2006/06	1) 1 Trip without a required raft **Action taken:** 1) After investigating, the government decided that no infraction occurred.
COL 3	2006-135	2006/10	1) 1 Night set **Action taken:** 1) After investigating, the government decided that no infraction occurred.

ECUADOR			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
ECU 1	2005-627	2006/06	1) 1 Case of observer interference
	2005-783	2006/06	1) 1 Case of observer interference
ECU 2	2006-216	2006/10	1) 1 Case of observer interference
ECU 3	2005-724	2006/06	1) 1 Case of observer interference
ECU 4	2005-790	2006/06	1) 1 Case of observer interference

MEXICO			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
MEX 1	2006-480	2006/10	1) 1 Trip with captain not on the AIDCP list **Action taken:** 1) The case is subject to administrative litigation.
MEX 2	2005-528	2006/06	1) 1 Set with dolphin sack-up or brail **Action taken:** 1) The case is subject to administrative litigation.
	2005-811	2006/06	1) 1 Set with dolphin sack-up or brail
		2006/06	2) 1 Set without continued rescue after backdown **Action taken:** 1), 2) The case is subject to administrative litigation.
MEX 3	2006-386	2006/10	1) 1 Trip without a dolphin safety panel **Action taken:** 1) After investigating, the government decided that no infraction occurred
MEX 4	2006-145	2006/06	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) After investigating, the government decided that no infraction occurred, but issued a warning to the vessel owner to obtain the required equipment.
	2006-235	2006/06	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) After investigating, the government decided that no infraction occurred, but issued a warning to the vessel owner to obtain the required equipment.
MEX 5	2006-275	2006/10	1) 1 Trip without a dolphin safety panel **Action taken:** 1) The case is subject to administrative litigation.
	2006-427	2006/10	1) 1 Trip without an observer
		2006/10	2) 1 Trip without a dolphin safety panel **Action taken:** 1), 2) The case is subject to administrative litigation.
	2006-494	2006/10	1) 1 Trip without a dolphin safety panel **Action taken:** 1) The case is subject to administrative litigation.

PANAMA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
PAN 1	2006-241	2006/10	1) 1 Trip without a required high intensity floodlight
PAN 2	2005-654	2006/06	1) 1 Trip without a required raft
		2006/06	2) 1 Trip without a required high intensity floodlight
			Action taken: 1), 2) The government is investigating the possible infractions.
	2005-759	2006/06	1) 1 Trip without a required raft
			Action taken: 1) The government is investigating the possible infractions.
	2006-087	2006/06	1) 1 Trip without a required high intensity floodlight
			Action taken: 1) The government is investigating the possible infractions.
	2006-380	2006/10	1) 1 Trip without a required raft
PAN 3	2006-347	2006/10	1) 1 Set without a required backdown
PAN 4	2006-175	2006/10	1) 1 Trip without a required high intensity floodlight
	2006-354	2006/10	1) 1 Trip without a required high intensity floodlight
PAN 5	2006-013	2006/06	1) 1 Case of observer interference
			Action taken: 1) The government is investigating the possible infractions.
PAN 6	2006-413	2006/10	1) 1 Night set
PAN 7	2005-590	2006/06	1) 1 Night set
			Action taken: 1) The government is investigating the possible infractions.
PAN 8	2005-714	2006/06	1) 1 Trip with captain not on the AIDCP list
			Action taken: 1) The government is investigating the possible infractions.
	2006-371	2006/10	1) 1 Trip without a required high intensity floodlight

EL SALVADOR			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
SLV 1	2006-323	2006/10	1) 1 Set without a required backdown
			Action taken: 1) The government decided not to apply a sanction because there was no dolphin mortality. However, a notice was sent to the vessel owner to instruct his fishing captains to comply with all of the AIDCP dolphin rescue methods.
SLV 2	2006-010	2006/06	1) 1 Trip without a required raft
		2006/06	2) 1 Trip without a required high intensity floodlight
			Action taken: 1) Prior to the trip, the government verified that all required dolphin safety gear was onboard, so it was determined that no infraction occurred 2) The vessel has obtained the required equipment, so it was determined that no infraction occurred.
	2006-286	2006/10	1) 1 Trip without a required high intensity floodlight
			Action taken: 1) The vessel has obtained the required equipment, so it was determined that no infraction occurred.
SLV 3	2006-046	2006/06	1) 1 Trip without a required high intensity floodlight
			Action taken: 1) The vessel has obtained the required equipment, so it was determined that no infraction occurred.
	2006-163	2006/10	1) 1 Trip without a required high intensity floodlight
			Action taken: 1) The vessel has obtained the required equipment, so it was determined that no infraction occurred.

VENEZUELA			
Vessel	*IRP recno*	*Review date*	*Identified infractions*
VEN 1	2005-787	2006/06	1) 1 Trip with dolphin sets before the DML notification
			Action taken: 1) The government is investigating the possible infractions.
VEN 2	2005-687	2006/06	1) 1 Trip without a required raft
			Action taken: 1) The government is investigating the possible infractions.
	2006-091	2006/06	1) 1 Trip without a required raft
			Action taken: 1) The government is investigating the possible infractions.
	2006-259	2006/10	1) 1 Trip without a dolphin safety panel
		2006/10	2) 1 Trip without a required raft
			Action taken: 1), 2) The government is investigating the possible infractions.
	2006-455	2006/10	1) 1 Trip without a required raft
			Action taken: 1) The government is investigating the possible infractions.

VEN 3	2006-008	2006/06	1) 1 Trip with dolphin sets before the DML notification **Action taken:** 1) The government is investigating the possible infractions.
VEN 4	2005-812	2006/06 2006/06	1) 1 Set without a required backdown 2) 1 Trip with dolphin sets before the DML notification **Action taken:** 1), 2) The government is investigating the possible infractions.
VEN 5	2005-702	2006/06 2006/06	1) 1 Trip without a required high intensity floodlight 2) 1 Trip with dolphin sets before the DML notification **Action taken:** 1), 2) The government is investigating the possible infractions.
VEN 6	2005-678	2006/06	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.
VEN 7	2006-066	2006/06	1) 1 Trip with captain not on the AIDCP list **Action taken:** 1) The government is investigating the possible infractions.
VEN 8	2006-375	2006/10	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government is investigating the possible infractions.
VEN 9	2005-611	2006/06	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.
	2006-092	2006/06	1) 1 Trip with dolphin sets before the DML notification **Action taken:** 1) The government is investigating the possible infractions.
	2006-399	2006/10	1) 1 Trip with captain not on the AIDCP list **Action taken:** 1) The government is investigating the possible infractions.
VEN 10	2005-819	2006/06	1) 1 Trip with dolphin sets before the DML notification **Action taken:** 1) The government is investigating the possible infractions.
	2006-317	2006/10 2006/10	1) 1 Night set 2) 1 Trip without a required raft **Action taken:** 1), 2) The government is investigating the possible infractions.
	2006-456	2006/10 2006/10	1) 2 Night sets 2) 1 Trip without a required raft **Action taken:** 1), 2) The government is investigating the possible infractions.
VEN 11	2006-260	2006/10	1) 1 Trip without a required raft **Action taken:** 1) The government is investigating the possible infractions.
VEN 12	2005-553	2006/06	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.
	2006-295	2006/10	1) 10 Sets or chases with use of explosives **Action taken:** 1) The government is investigating the possible infractions.
VEN 13	2005-555	2006/06	1) 1 Night set **Action taken:** 1) The government is investigating the possible infractions.
	2006-032	2006/06	1) 1 Trip with dolphin sets before the DML notification **Action taken:** 1) The government is investigating the possible infractions.
VEN 14	2005-693	2006/06	1) 1 Trip without a required high intensity floodlight **Action taken:** 1) The government is investigating the possible infractions.
VEN 15	2006-191	2006/10	1) 1 Trip with dolphin sets but no DML assigned **Action taken:** 1) The government is investigating the possible infractions.

OTHERS

Vessel	*IRP recno*	*Review date*	*Identified infractions*
OTH 1	2006-055	2006/06	1) 1 Trip without a required high intensity floodlight
	2006-180	2006/10	1) 1 Night set
		2006/10	2) 2 Sets or chases with use of explosives
		2006/10	3) 1 Trip without a required high intensity floodlight
			Action taken: 1), 2), 3) The government is investigating the possible infractions.
OTH 2	2006-335	2006/10	1) 1 Trip with captain not on the AIDCP list