Report to Congress under Section 305 of the Marine Mammal Protection Act (16 U.S.C. 1415)

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EXECUTIVE SUMMARY

Section 305 of the Marine Mammal Protection Act (16 U.S.C. 1415) requires the Secretary of Commerce to submit an annual report to Congress regarding the International Dolphin Conservation Program. Key changes in 2008–2009 include:

- Despite significant reductions in observed dolphin mortality in the Eastern Pacific Ocean (EPO) tuna purse-seine fishery, the populations of several depleted dolphin stocks are not recovering to anticipated levels. Further monitoring cruises, studies on spotted dolphin stock structure, and population models that integrate all available information are necessary to assess recovery of dolphin stocks in the EPO.

- At the Inter-American Tropical Tuna Commission (IATTC) 2009 Meeting of the Parties, Member nations were able to pass a multiyear tuna conservation measure for 2009–2011. This measure implements time-area closures in the EPO for the purse seine fishery and catch limits for the longline fishery. Following several years without a conservation measure, this achievement was very positive.

- The Antigua Convention, a major revision of the original convention establishing the IATTC, will enter into force in August 2010, following accession and ratification by the required number of nations. The U.S. Senate provided advice and consent to ratification of the Antigua Convention, but signature of the instrument of ratification is pending the adoption of implementing legislation. Both the Department of Commerce and the Department of State strongly believe that the United States should enact implementing legislation for the Antigua Convention as a matter of priority so the United States can become a Party to the Convention. Failure by the United States to ratify Antigua in a timely manner will preclude the United States from participating in certain decisions of the Parties. It will also send the wrong message to the international community, as the United States has repeatedly stressed the need for tuna Regional Fisheries Management Organizations such as the IATTC to operate on the basis of a sound mandate that foresees the implementation of modern concepts of fisheries management like those found in the Antigua Convention.

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Appendix 2: Minutes of the 45th Meeting of the International Review Panel held in Panama City, Panama, June 17, 2008

Appendix 3: Minutes of the 46th Meeting of the International Review Panel held in La Jolla, California, November 3, 2008

Appendix 4: Resolutions Adopted by the Inter-American Tropical Tuna Commission during 2008:

a. Resolution on Financing for Fiscal Year 2009 C-08-01, June 2008
b. Resolution on Establishing a Program for Transhipments by Large-Scale Fishing Vessels C-08-02, June 2008
c. Resolution on Implementation Procedures for the Observer Program for At-Sea Transshipments by Large-Scale Tuna Longline Fishing Vessels C-08-03, June 2008

Appendix 5: Measures Adopted by the Parties to the Agreement on the International Dolphin Conservation Program during 2008:

a. Resolution on Vessel Assessments and Financing A-08-01, June 2008

Appendix 6: Resolutions Adopted by the Inter-American Tropical Tuna Commission during 2009:

a. Resolution on a Multiannual Program for the Conservation of Tuna in the Eastern Pacific Ocean 2009–2011 C-09-01, June 2009
b. Resolution on Financing for Fiscal Year 2010 C-09-03, June 2009
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I. Foreword

Section 305 of the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1415) requires the Secretary of Commerce to submit annual reports to Congress. This report updates the 2008 Report to Congress and includes information through June 2009. This report provides information required by 16 U.S.C. 1415, which includes:

> *(1) results of research conducted pursuant to section 304;*
>
> *(2) a description of the status and trends of stocks of tuna;*
>
> *(3) a description of the efforts to assess, avoid, reduce, and minimize the bycatch of juvenile yellowfin tuna and bycatch of nontarget species;*
>
> *(4) a description of the activities of the International Dolphin Conservation Program and of the efforts of the United States in support of the program's goals and objectives, including the protection of dolphin stocks in the eastern tropical Pacific Ocean, and an assessment of the effectiveness of the program;*
>
> *(5) actions taken by the Secretary under section 101(a)(2)(B) and section 101(d);*
>
> *(6) copies of any relevant resolutions and decisions of the Inter-American Tropical Tuna Commission, and any regulations promulgated by the Secretary under this title; and*
>
> *(7) any other information deemed relevant by the Secretary.*

NOAA's National Marine Fisheries Service (NMFS), on behalf of the U.S. Department of Commerce, implements the International Dolphin Conservation Program (IDCP) and other aspects of the U.S. Tuna/Dolphin Program, pursuant to the MMPA (16 U.S.C. 1361 et seq.) and the Dolphin Protection Consumer Information Act (DPCIA) (16 U.S.C. 1385). In addition, NMFS implements resolutions and conservation and management measures of the Inter-American Tropical Tuna Commission (IATTC or Commission) under the Tuna Conventions Act (16 U.S.C. 951 et seq.). NMFS compiled this report using available information from sources required by the statutes above; the most recent information was used (typically 2008 data unless 2009 data were available). To supplement the contents of the report, additional materials on the topics discussed herein are appended to the report, and sources for additional information have been referenced.[1]

NMFS has consulted closely with other nations, the IATTC, the U.S. Department of State (DoS), the tuna industry, and nongovernmental organizations (NGOs) through processes to implement the International Dolphin Conservation Program Act (IDCPA) and the Agreement on the

[1]Additional information about the NMFS Tuna/Dolphin Program is available online at http://www.nmfs.noaa.gov/ia/intlagree/aidcp.htm and http://www.dolphinsafe.gov

International Dolphin Conservation Program (AIDCP, or Agreement). NMFS considered these consultations in preparing this report. In addition, the IATTC Secretariat provided assistance in obtaining information reported in this document. This report was prepared to fulfill each of the seven report requirements listed in 16 U.S.C. 1415.

II. Background on the Eastern Tropical Pacific Ocean Tuna Purse Seine Fishery and the Inter-American Tropical Tuna Commission

The Origins of the Tuna/Dolphin Issue. In the 1950s, fishermen discovered that large, mature yellowfin tuna in the eastern tropical Pacific Ocean (EPO) aggregated beneath schools of certain dolphin stocks. After that discovery, the predominant tuna fishing method in the EPO became encircling schools of dolphins with "purse seine" fishing nets to capture the tuna concentrated below. Hundreds of thousands of dolphins died incidentally in the early years of this fishery. Public concern over high levels of dolphin mortality in the tuna purse seine fishery in the EPO was one of the primary reasons the MMPA was enacted in 1972. Since then, the MMPA has been amended several times to allow for the continued taking of EPO dolphin stocks under a regime of gradually reducing mortality limits so the stocks could recover. United States participation in the EPO tuna fishery has greatly decreased over the years, coming to a virtual standstill by the early 1990s. Meanwhile, foreign participation in the EPO fishery has increased. The IDCP was developed in the early 1990s by the United States and other countries with tuna purse seine vessels operating in the EPO, in conjunction with the IATTC, to address concerns about dolphin mortality. The improved fishing techniques and international cooperation under the IDCP, as well as the MMPA amendments, resulted in greatly reduced dolphin mortality in the tuna purse seine fishery in the EPO (Figure 1). Annual dolphin mortality dropped from over 133,000 in 1986 to approximately 1,171 in 2008, a reduction in reported dolphin mortality of over 99 percent.

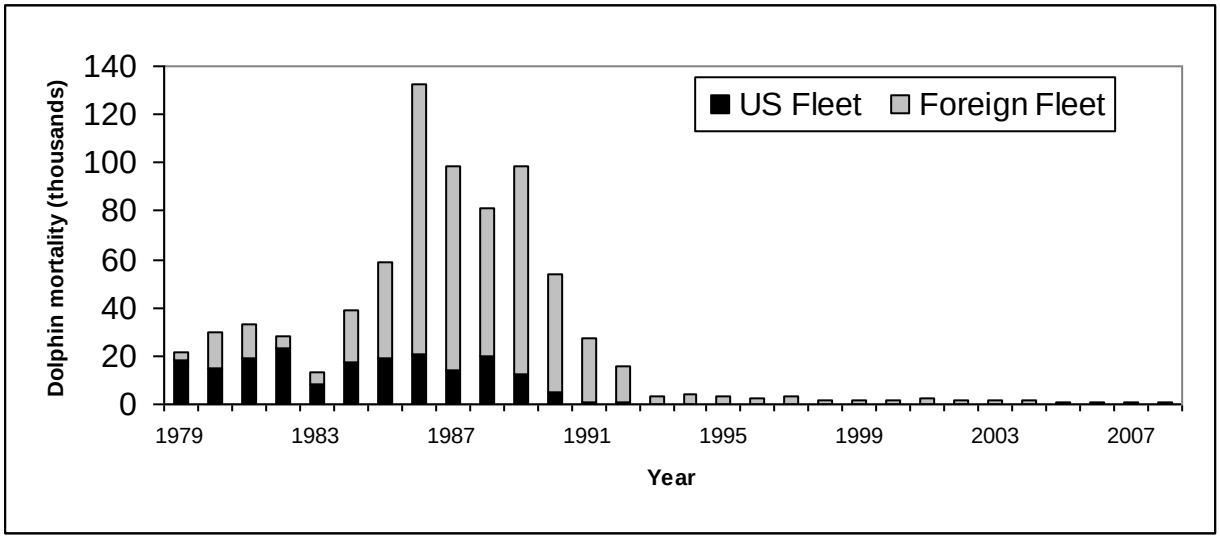

Figure 1. Total annual dolphin mortality in the EPO tuna purse seine fishery, 1979–2008.

The La Jolla Agreement and the Panama Declaration. In fall 1992, many nations participating in the EPO tuna purse seine fishery signed the La Jolla Agreement, which established the IDCP and placed voluntary limits on the annual number of dolphins incidentally killed in the fishery. Under the La Jolla Agreement, the annual dolphin mortality limits would be decreased over 7 years, with an ultimate goal of eliminating dolphin mortality in the fishery. In 1991, the year before the La Jolla Agreement was negotiated, dolphin mortalities totaled 27,127. The goal of the La Jolla Agreement was to reduce dolphin mortalities from 19,500 in 1993 to below 5,000 per year by 1999. In 1993, the first year of the program, reported dolphin mortalities fell to 3,601.

Even with this success, the U.S. market remained closed to tuna caught by countries participating in and operating in accordance with the IDCP, as all tuna harvested with purse seine nets in the EPO was embargoed at the time. In hopes of resolving this issue, in 1995 the United States, nine other nations fishing in the EPO, and five prominent environmental NGOs negotiated the Panama Declaration, which established a framework to increase protection of dolphin populations in the EPO. Under the Panama Declaration, the countries participating in the fishery agreed to negotiate a legally binding agreement (which would become the Agreement on the IDCP) that would build on the success of the La Jolla Agreement and strengthen it in several ways. In addition to strengthening efforts to protect dolphins, the signatories to the Panama Declaration committed themselves to reduce bycatch in commercial fisheries and manage the fishery from an ecosystem perspective. Further, the efforts of the IATTC and the nations that negotiated the Panama Declaration resulted in 100 percent observer coverage for large (defined as having a carrying capacity in excess of 400 short tons, or 362.8 metric tons) tuna purse seine vessels in the EPO by 1995. This level of observer coverage was unprecedented in any other multinational fishery. The nations that signed the Panama Declaration anticipated the United States would amend the MMPA to allow the import of yellowfin tuna into the United States from nations participating in and operating in accordance with the IDCP. In fact, the commitment of the fishing countries to strengthen the La Jolla Agreement as outlined above was predicated on such changes to U.S. law.

Marine Mammal Protection Act Amendments of 1997 and the Agreement on the International Dolphin Conservation Program. In recognition of the success of the IDCP and in response to the Panama Declaration, Congress enacted the IDCPA (Public Law 105-32) in 1997, which amended the MMPA to implement the IDCP and other related matters. Specifically, the amendments (1) allowed for lifting the embargoes for countries fishing in accordance with the IDCP; (2) lifted the ban on the sale of non-dolphin-safe tuna under certain conditions; and (3) allowed for future changes in the definition of dolphin-safe to include tuna caught in accordance with the IDCP, provided no dolphins were killed or seriously injured in catching the tuna. With the amendments in place and in anticipation of a change in the U.S. definition of dolphin-safe, in February 1998 the nations participating in the tuna purse seine fishery in the EPO successfully negotiated the Agreement on the IDCP (AIDCP, or the Agreement), a legally binding international instrument for dolphin conservation and ecosystem management in the tuna purse seine fishery in the EPO. The Agreement built upon previous voluntary dolphin protection commitments adopted by the EPO tuna fishing nations beginning in the early 1990s. It was

designed to strengthen the dolphin protection measures already in place, and afford access to the U.S. tuna market for nations harvesting tuna in the EPO in compliance with those measures. To date, Costa Rica, Ecuador, El Salvador, European Union, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, United States, Vanuatu, and Venezuela have ratified the Agreement. Bolivia and Colombia are applying the Agreement provisionally. The IATTC staff provides Secretariat support to the Agreement and performs other functions set forth in the Agreement or agreed upon pursuant to the Agreement. The Agreement Area comprises the area of the Pacific Ocean bounded by the coastline of North, Central, and South America, and by the 40° N. parallel from the coast of North America to its intersection with the 150° W. meridian, the 150° W. meridian to its intersection with the 40° S. parallel, and the 40° S. parallel to its intersection with the coast of South America.

The Agreement on the International Dolphin Conservation Program. This Agreement is unique—it is the only international agreement for which detailed information on every set of every fishing trip is available and used to monitor compliance with mandatory conservation and management measures. The Agreement includes several features that make it the most closely monitored and most strictly enforced agreement for the conservation of marine resources anywhere in the world, including:

- 100 percent observer coverage on purse seine vessels with carrying capacities greater than 400 short tons (362.8 metric tons, or Class 6);
- review of data from every set by such vessels by IATTC Secretariat staff;
- an International Review Panel (IRP) that identifies possible infractions to the provisions of the Agreement, and where the IRP deems an infraction may have occurred, referral of the incident to the flag state for review and action; and
- the requirement for each flag state to report back to the IRP on the results of its investigation into possible infractions.

The Agreement is widely recognized as a preeminent agreement for the conservation and management of living marine resources in terms of monitoring, enforcement, and transparency. The Agreement requires that the Parties promote transparency in its implementation, including public participation, as appropriate. Participation in the forum in which implementation of the Agreement is monitored is not limited to Parties; industry representatives and NGOs also attend and actively participate in meetings of the Parties to the Agreement and the IRP, providing support to the overall process. The intergovernmental organizations and NGOs are allowed timely access to relevant information, subject to procedural rules on access to such information the Parties may adopt.

The Inter-American Tropical Tuna Commission. The United States is also a member of the IATTC, which was established under the 1949 Convention for the Establishment of an Inter-American Tropical Tuna Commission. The IATTC was established to provide an international arrangement to ensure the effective international conservation and management of highly migratory species of fish in the Convention Area (defined as the waters of the EPO). Since 1998, conservation resolutions implemented within the IATTC have further defined the

Convention Area as the area bounded by the coast of the Americas, the 40° N. and 40° S. parallels, and the 150° W. meridian. The IATTC has maintained a scientific research and fishery monitoring program for many years, and annually assesses the status of tropical tuna stocks in the EPO to determine appropriate harvest limits or other measures to prevent overexploitation of tuna stocks and to promote viable fisheries. Current IATTC membership includes: Colombia, Costa Rica, Ecuador, El Salvador, France, Guatemala, Japan, Republic of Korea, Mexico, Nicaragua, Panama, Peru, Spain, United States, Vanuatu, and Venezuela. Cooperating Non-Parties or Cooperating Fishing Entities include: Belize, Canada, China, Cook Islands, European Union, Chinese Taipei (Taiwan) and Kiribati (added in 2009). At the 80th Meeting of the IATTC in June 2009, Canada applied to be a full Member nation of the IATTC but their application was blocked by a single Party; consequently, Canada remains a Cooperating Non-Party. However, Canada and the European Union will become members of the Commission when the Antigua Convention enters into force in August 2010 (see below). Kiribati applied to be considered a Cooperating Non-Party and the application was approved by the member nations. Cooperating Non-Party or Cooperating Fishing Entity status is reviewed annually by the Commission and may be revoked if the Cooperating Non-Party or Cooperating Fishing Entity has not complied with the relevant criteria.

In 2003, the IATTC adopted a resolution that approved the Antigua Convention, a major revision of the original convention establishing the IATTC. The revisions modernize the Convention, bringing it in line with internationally accepted laws, agreements, and approaches regarding the conservation and management of living marine resources, including a mandate for a more ecosystem-based approach to management in the Pacific Ocean. The IATTC Convention Area is redefined under the Antigua Convention to include the waters of the EPO bounded by the coast of the Americas, the 50° N. and 50° S. parallels, and the 150° W. meridian.

As of June 3, 2009, 11 governments and the European Union have ratified or acceded to the Antigua Convention. The provisions of the Antigua Convention specify that the instrument shall come into force 15 months from the date that the seventh instrument of ratification is deposited by a nation that was Party to the 1949 (IATTC) Convention on the date that the Antigua Convention was opened for signature. The seventh such instrument of ratification was deposited by Costa Rica on May 27, 2009, and the Antigua Convention will therefore enter into force on August 27, 2010. The Senate provided advice and consent to ratification of the Antigua Convention, and signature of the instrument of ratification is pending the adoption of implementing legislation.

The Departments of Commerce and State have been working together to secure U.S. ratification and adoption of implementing legislation, and have encouraged other nations to follow suit. Both the Department of Commerce and the Department of State strongly believe that the United States should enact implementing legislation for the Antigua Convention as a matter of priority so the United States can become a Party to the Convention. The United States worked hard to ensure that Antigua contains modern principles and reflects the duties and responsibilities of nations to cooperate to ensure the sustainable management of shared fisheries resources and the ecosystems on which they depend. Therefore, it is important that we follow through in our

leadership role and ratify Antigua, having worked so hard in its creation and lobbied other nations to ratify it with all due haste.

When the Antigua Convention enters into force, all current IATTC members that have not acceded to Antigua will remain members of the Commission, unless they decide otherwise by notifying the Depositary in writing. However, failure by the United States to ratify Antigua in a timely manner will preclude the United States from participating in certain decisions of the Parties until such time as the United States ratifies Antigua. It will also send the wrong message to the international community, as the United States has repeatedly stressed the need for tuna Regional Fisheries Management Organizations such as the IATTC to operate on the basis of a sound mandate that foresees the implementation of modern concepts of fisheries management like those found in the Antigua Convention.

III. Results of Research Conducted Pursuant to Section 304 of the Marine Mammal Protection Act

Research conducted by the NMFS Southwest Fisheries Science Center (SWFSC) under the IDCPA during 2008 was focused on evaluating line transect methodology and the potential roles of the fishery and ecosystem in the apparent lack of recovery of depleted dolphin stocks in the EPO. This lack of recovery follows a period of significant reductions in observed dolphin mortality in the EPO tuna purse seine fishery. Research activities included: (1) analysis of data collected during the 2007 survey designed to collect fine-scale ecosystem data and assess standard methods for collecting dolphin sighting data; (2) ongoing work on EPO dolphin stock assessments; (3) other data analyses, processing, and publication; and (4) a small purse seine vessel monitoring and observer program via contract.

Analysis of Stenella Abundance Research-Line Transect and Ecosystem Survey Data. In 2007, SWFSC conducted a *Stenella* Abundance Research-Line Transect and Ecosystem (STAR-LITE) cruise to survey marine mammals and their habitat in the EPO. The primary objective of the STAR-LITE cruise was to investigate line transect methods used on surveys in the EPO and to explore fine-scale spatial and temporal variability in the ecosystem using a multidisciplinary approach. The study focused on the two dolphins stocks most affected by the purse seine fishery in the EPO- *Stenella longirostris* and *Stenella attenuata*.

Sailing aboard NOAA Ship *McArthur II*, 29 scientists from five countries participated in the four-leg survey from August to December 2007. During the cruise there were a total of 1,031 cetacean sightings, 266 acoustic detections, and 7,135 seabird sightings. Biopsy samples were collected from 13 individuals of three species (*Pseudorca crassidens*, *Stenella attenuata*, and *Tursiops truncatus*). Environmental data were collected from 140 salinity, temperature depth (CTD) casts, 269 expendable bathythermograph (XBT) drops, 265 bucket samples for surface chlorophyll, 54 bongo net tows, and 53 manta net tows.

Two different cetacean survey methodologies were compared using both empirical data and simulation models and a manuscript will be submitted for publication to the *Journal of Cetacean Research and Management* (Schwarz et al., in prep.). Passing survey mode (when the survey ship does not make any changes in course to approach a sighting of cetaceans) was compared with closing survey mode, when such course changes are made to further investigate the sighting if needed. The results of the analysis indicated that observers are able to identify animals to species less often and that estimates of dolphin group size are lower when surveys are conducted in passing mode (no course changes). However, conducting surveys in closing mode results in lower encounter rates due to the stop-start nature of the survey method. Continuing to explore potential sources of bias in our methods and explicitly accounting for these in our models is critical to refining our models and ultimately improving our approaches to estimating abundance of EPO dolphins and other cetaceans.

This is the 11th year of similar investigations conducted during the past 20 years, with previous cruises in 1986–1990, 1998–2000, 2003, and 2006. Using an ecosystem approach, we conducted research on physical and biological oceanography (dolphin habitat); midtrophic-level fishes and squids (dolphin prey); and seabirds, marine turtles, and other cetaceans (dolphin commensals, competitors, and predators). Data and analyses resulting from STAR surveys form the basis for many international measures adopted to conserve dolphin stocks and manage the tuna purse seine fishery in the EPO.

EPO Dolphin Stock Assessments. During 2008, the SWFSC continued to analyze abundance data for stock assessment research for both depleted and non-depleted dolphin stocks in the EPO. A NOAA Technical Memorandum was published with new estimates of EPO dolphin abundance based on cruises conducted in 2003 and 2006. Gerrodette et al. (2008) reported estimates of abundance for 10 dolphin stocks in the EPO between 1986 and 2006. Revised estimates of abundance for previous years were based on new data on observer school size estimation bias and the addition of unidentified spinner and unidentified common dolphins. The 2006 estimates of abundance for northeastern offshore spotted dolphins were somewhat higher—and for eastern spinner dolphins substantially higher—than estimates from 1998 to 2000. However, interpretation of these results is complicated by uncertainty due both to the size of the EPO study area and movements of spotted dolphins across stock boundaries (i.e., apparent increases in northeastern offshore spotted dolphins may be accounted for by western/southern animals moving into the northeastern stock area). Coefficients of variation and confidence intervals for the 2006 estimates are also larger than for other recent estimates. Further monitoring cruises, studies on spotted dolphin stock structure, and population models that integrate all available information are necessary to assess recovery.

Data Analyses, Processing, and Publication. The SWFSC's investigations of dolphin stocks historically depleted by the EPO tuna purse seine fishery (pantropical spotted dolphins and spinner dolphins) are conducted with an ecosystem approach. In addition to investigating the status and trends of these dolphin stocks, auxiliary projects are conducted to improve our understanding of their surrounding environment. Data analyses, processing, and publications in

2008 included: (1) investigations of dolphin reproductive biology and (2) investigations of the EPO ecosystem and its change over time.

Investigations of Dolphin Reproductive Biology. A doctoral dissertation (Kellar et al., 2008) was completed examining the pregnancy patterns of spotted dolphins in the EPO. One hypothesis for the lack of recovery of the spotted dolphin population in the EPO is that continued chase and encirclement by the tuna fishery negatively affects reproduction. Insufficient life history sampling in this region over the past decade makes traditional estimation of population reproductive rates impossible. The current reproductive patterns of these dolphins were examined using a molecular method to assess pregnancy state from blubber progesterone concentrations in biopsy samples. Blubber progesterone was quantified in 212 biopsies from female offshore spotted dolphins sampled between 1998 and 2003 in the northeastern tropical Pacific. These concentrations were found to be sharply bimodal with no value observed between 49 ng/g and 87 ng/g, a finding consistent with the concentration gap between known pregnant and non-pregnant dolphins. Given that high blubber progesterone ($\geq$ 87 ng/g) indicates pregnancy, we found that 11.8 percent of the biopsied females were pregnant. This is substantially lower than an estimate of the proportion pregnant found in the fishery kill over the same region (22.3 percent) between 1973 and 1992. To try to ascertain the potential cause of this discrepancy, the relationship between pregnancy and fishery exposure was analyzed, and we found that pregnant females were exposed to significantly less fishery activity than non-pregnant ones ($P < 0.046$), suggesting that the fishery has an inhibitive effect on pregnancy. However, there are several caveats to this finding, and how this relationship might explain the discrepancy between these data sets is unclear. We also examined and modeled spatial patterns of reproduction and found that pregnancy was more aggregated than random ($P = 0.020$), with the highest proportion pregnant in the mouth of the Gulf of California, an area with relatively low reported fishery activity. Because this is a first attempt at applying this technique to a wild population, we are careful in the interpretation of the results. However, it appears that it is a promising tool for assessing reproductive rates in populations of free-ranging cetaceans.

Investigations of the EPO Ecosystem and Its Change over Time. During 2008, a study was completed that provides insight into the food web supporting dolphins and tunas in the EPO (Olson et al., in press). The ecosystem approach of STAR 2006 made it possible for collaboration with an international team of researchers supported by the Pelagic Fisheries Research Program, University of Hawaii; the Inter-American Tropical Tuna Commission, La Jolla; CICIMAR-IPN, La Paz, Baja California Sur, Mexico; and others. Zooplankton samples collected by bongo net on board the NOAA Ships *David Starr Jordan* and *McArthur II* in 2006 were utilized for stable isotope analysis of copepods. Simultaneously, yellowfin tuna were sampled on board purse seiners fishing in overlapping areas, encompassing much of the eastern Pacific warm pool and parts of several current systems. The approach was to examine broad-scale spatial relationships among the stable N isotope values of copepods and yellowfin tuna, and to quantify yellowfin trophic status in the food web based on the hypothesis that omnivorous copepods, primary-secondary consumers, represent a proxy for variations in N isotope values at the base of the food web. A significant inshore-offshore, east-to-west gradient in yellowfin

trophic position based on bulk isotopic analysis was corroborated using compound-specific isotope analysis of amino acids conducted on a subset of samples.

A paper on linking climate change to community structure was finished in 2008 and published in 2009 (Vilchis et al., 2009). Vilchis et al. analyzed the composition of larval fish species caught with surface net tows during SWFSC cruises to the eastern Pacific warm pool from 1987 throughout 2000. They found the spatial and temporal variability of larval fish species composition and abundance to be correlated with an east-to-west productivity gradient, and in the most productive regions in the east with El Nino Southern Oscillation (ENSO) warm and cold water events. They hypothesize changes in water column stratification caused by ENSO events either inhibit or facilitate vertical mixing and thus advection of nutrients from the deeper waters to the surface. Finally, they argue that the variability measured in the larval fish species composition and abundance in the eastern Pacific warm pool is a result of these changes in water column stratification and thus productivity.

Port Sampling and Observer Program to Monitor Small Purse Seine Vessels. In January 2006, SWFSC awarded a contract to the IATTC to expand the at-sea observer and in-port sampling programs currently implemented in the EPO tuna purse seine fishery under the Agreement on the International Dolphin Conservation Program (AIDCP). Sampling during 2008 was ongoing: 214 unloadings of Class 4 and 5 vessels were sampled in international ports. A total of 511 unloadings by these international vessels have now been sampled under this program, and sampling will continue in 2009. SWFSC and IATTC staffs are collaborating to analyze tuna species and size composition data along with other catch characteristics to explore the feasibility of using this type of data to determine whether small purse seine vessels have harvested tuna in association with dolphins. The selected approach relies on marked differences in the species and size of tunas generally caught in dolphin sets versus other set types. We then use the length frequency data of vessels carrying onboard observers to build a classification algorithm for predicting the purse seine set type (dolphin sets versus non-dolphin sets) of a length frequency sample collected from a vessel of a size not required to carry observers.

Pending further refinements, this work has several potential applications, including using unusual length frequency data from small vessels to estimate potential unobserved dolphin mortality for inclusion in stock assessments and for consideration in management. A report of this analysis has been prepared and, if requested by the AIDCP Parties, could be published during 2009.

IV. Description of the Status and Trends of Stocks of Tuna

Yellowfin Tuna. The spawning biomass ratio (SBR) (ratio of the spawning biomass to that of the spawning biomass of an unfished population) of yellowfin in the EPO was below the level corresponding to the maximum sustainable yield (MSY) during the lower productivity regime 1975–1983, but above that level for most of the following years, until recently (2003–2008). The SBR at the beginning of 2009 was estimated to be above the level corresponding to MSY, but it

was estimated to be below that corresponding to MSY for 2005–2007. Thus, yellowfin tuna is currently considered not overfished. Recent fishing mortality rates are also close to those corresponding to MSY; depending on which model is used, the stock could be said to be either approaching overfishing or experiencing overfishing. There are uncertainties associated with these results.

Although current estimates for EPO yellowfin tuna stocks are within the management target zones, a low catch per unit effort (CPUE) on fish associated with dolphins and other factors (such as potential increases in effort) cast doubt on an optimistic assessment. The declining number of sets on dolphins, which target larger fish, and increasing numbers of sets associated with floating objects, which typically capture smaller fish, can make the stock appear in better shape than it is. Changes in the size composition of catch are important, and there are concerns that fish aggregating devices (FAD) fishing and coastal seining are harvesting large numbers of fish that have not reached maturity.

Bigeye Tuna. The 2009 stock assessment for bigeye tuna in the EPO estimates the biomass of spawning age bigeye to be at a historic low of an estimated 287,000 t. At the beginning of January 2009, the spawning biomass of adult bigeye tuna was estimated to be 11 percent less than the level corresponding to the spawning biomass at MSY. Recent catches are estimated to have been 19 percent higher than the MSY level. If the fishing mortality is proportional to the fishing effort, and the current pattern of age-specific selectivity is maintained, the current level of fishing effort (2006–2008) needs to be reduced by 19 percent in order to equal the estimates of fishing effort at MSY. Current fishing mortality is well above MSY. Thus, overfishing of bigeye tuna is occurring and the stock is overfished.

Skipjack Tuna. The recruitment of skipjack tuna to the fisheries in the EPO is highly variable. Skipjack tunas are highly fecund. Fishing mortality is estimated to be about the same as or less than the natural mortality. These levels of fishing mortality are supported by estimates from tagging data. Biomass fluctuates in response to variations in both recruitment and exploitation.

Purse-seine catches have been increasing since 1985, and are currently above the upper reference level for this stock. Except for a large peak in 1999, the floating-object fishing efficiency has generally fluctuated around an average since 1990. The unassociated CPUE has been higher than average since about 2003 and was at its highest level in 2008. The standardized effort indicator of exploitation rate has been increasing since about 1991, but declined in recent years. The average weight of skipjack has been declining since 2000, and the 2008 average weight was at the lower reference level. The biomass, recruitment, and exploitation rate have been increasing over the past 20 years. The main concern with skipjack tuna is the constantly increasing exploitation rate. However, models have yet to detect any adverse consequences. The average weight is near its lower reference level, which could be associated with overexploitation, or recent strong recruitment events. In conclusion, overfishing is not occurring on skipjack tuna and the stock is not overfished. The more pressing concern with respect to the purse seine fishery for skipjack tuna is the high incidence of bycatch of juvenile bigeye tuna in some sets.

Conclusion. The United States believes these EPO stocks of tropical tuna should be managed such that their stock levels are capable of supporting their respective MSYs. At present, stock assessment results for yellowfin and skipjack tuna indicate that overfishing is not occurring in these fisheries. Although assessments for yellowfin tuna do not currently indicate that it is overfished, there are indications (e.g., increased purse seine capacity, increasing purse seine fishing efforts, falling recruitment levels, and optimistic spawner–recruit relationship in the stock assessment model) that the stock could quickly fall below levels required for MSY as it did in 2005–2007. The stock may also be experiencing overfishing or approaching overfishing. For the bigeye tuna stock, the assessment results indicate that it is overfished and experiencing overfishing.

The IATTC implemented tuna conservation measures for 2004–2007 (Resolutions C-04-09 and C-06-02). Disappointingly, no tuna conservation measures were agreed upon for 2008 despite the introduction of a draft proposal, willingness to work with other nations, and significant encouragement of the other Parties by the United States. As a result, notwithstanding the urging of IATTC staff backed by the best available science, no multilaterally agreed upon seasonal closures or constraints on effort or catch were in effect for 2008. The position of some IATTC Members at the 2008 Meeting prevented consensus on conservation measures, and placed the credibility of the IATTC as a functioning tuna conservation body in serious jeopardy.

Fortunately, all of the IATTC Member nations were able to come to agreement at the 2009 Meeting of the Parties and adopted Resolution C-09-01, *Resolution on a Multiannual Program for the Conservation of Tuna in the Eastern Pacific Ocean in 2009–2011*. The measure was initially adopted *ad referendum* to allow Colombia to have additional consultations with their government prior to adopting the measure; they adopted the measure and it entered into force on July 15, 2009. This measure implements time-area closures in the EPO for the purse seine fishery and catch limits for the longline fishery. Specifically, the resolution calls for IATTC members and cooperating non-members to prohibit fishing in the Convention Area by all purse seine vessels of greater than 182 metric tons carrying capacity during a closure period of 59 days in 2009, 62 days in 2010, and 73 days in 2011 (the Resolution stipulates that for 2011, the current state of the fishery including the results of the conservation measures and the stock assessments shall be evaluated and the period of duration for the closure may be ratified or adjusted). Purse seine vessels of capacity size 4 (182–272 metric tons carrying capacity) may make a single fishing trip of up to 30 days duration during the closure periods, provided the vessel carries an observer from the AIDCP On-Board Observer Program. To implement the closure period, countries have two different time period options for each applicable year. For 2009, the United States is proposing to implement the closure period from November 21, 2009, to January 18, 2010, for its purse seine fleet. The Resolution also establishes a general closure for purse seine vessels within a specific geographic area defined as the area between 96º and 110º W. longitude and 4º N. and 3º S. longitude from September 29 to October 29 each year.

For the longline fleet, total catch limits were specifically assigned to China, Japan, Korea, and Chinese Taipei for 2009 and 2010, with the limits for 2011 adjusted appropriately based upon the

conservation measures (similar to the purse seine fleet). Other CPCs with longline fisheries, including the United States, are limited to the greater of 500 metric tons or their respective catches of bigeye tuna in 2001. The U.S. 2001 catch of bigeye tuna in longline fisheries in the EPO was only about 150 metric tons; therefore, the U.S. longline catch limit of bigeye tuna in 2009 and 2010 in the EPO is 500 metric tons.

The issue of total capacity of tuna purse-seine vessels in the EPO is also a significant factor in the future outlook for these stocks. The anticipated capacity in 2008 is nearly 230,000 m^3. In 2002, the IATTC adopted a Resolution C-02-03 that set 158,000 m^3 as the target level for the purse-seine fleet, but also allowed the possibility for some developing nations to add longline fishing capacity consistent with national fleet development plans. Recent developments, particularly at the June 2008 and June 2009 Meetings of the IATTC, indicate that some nations are clearly more interested in adding to existing capacity than in meeting the reduction mandate of the Resolution. Other nations have been allotted more capacity than they currently use. Combined with the known elements of unregistered capacity already operating in the EPO, it is evident the IATTC is struggling to address this aspect of sustainable fishing and tuna conservation.

V. Description of the Efforts to Assess, Avoid, Reduce, and Minimize the Bycatch of Juvenile Yellowfin Tuna and Bycatch of Non-Target Species

Reducing the incidental catch of juvenile tuna and non-target species in the EPO tuna fisheries is key to sustaining these stocks. For this reason, bycatch reduction is one of NMFS' primary objectives. NMFS continues to work through the AIDCP and IATTC to develop fishing practices and gears to achieve this goal and incorporate ecosystem considerations into the management of EPO tuna fisheries.

The IATTC member nations have adopted several measures to reduce or mitigate bycatch of juvenile tunas, turtles, and non-target finfish. These measures include:

Juvenile tunas: Resolution C-09-01 renewed an expired requirement from an earlier resolution, C-04-05, *Consolidated Resolution on Bycatch*, and established the following requirements:

(1) Continuation of a program to require all purse seine vessels to retain on board and land all bigeye, skipjack, and yellowfin tuna caught, regardless of size, unless unfit for human consumption. A single exception to this requirement will be the final set of a trip, when there may be insufficient well space remaining to accommodate all the tuna caught in that set. The results of the tuna retention provision, including compliance, will be reviewed at the annual Commission meeting in 2010, at which time the Commission will decide whether to continue it.

(2) Support of studies and research to develop technology for releasing juvenile tunas and research on the application of existing technology for the identification of species and size composition in schools prior to making a set.

Sea turtles

(1) Most recently, Resolution C-07-03, *Resolution to Mitigate the Impact of Tuna Fishing Vessels on Sea Turtles*, was adopted at the June 2007 meeting. Building on previous measures addressing sea turtle conservation, this Resolution requires implementation of the FAO guidelines to reduce bycatch, injury, and mortality, and improve handling procedures. Also, annual reporting to the IATTC on the progress of each Party and Cooperating Non-Party in compliance with the United Nations Food and Agriculture Organization (FAO) guidelines is required. The United States submitted a Report on Sea Turtle Interactions in the U.S. Pacific Longline and Drift Gillnet Fisheries in June 2008, in compliance with this Resolution. The Resolution also requires fishermen to bring aboard, if practicable, any comatose or inactive hard-shell sea turtle as soon as possible and foster recovery, including resuscitation, before returning it to the water. There are also specific provisions for fish aggregating devices (FADs) and longline vessels.

(2) Several countries, including the United States and Japan, have experimented with their longline fleets to modify gear for reducing interactions and mortalities with sea turtles. Some of these experiments have shown that large circle hooks and mackerel or fish-type bait significantly reduce sea turtle interactions. Resolution C-07-03 encourages countries to continue to conduct experiments to determine the effectiveness and feasibility of modifications to fishing practices (including hook and bait type, gear depth, and other fishing practices) to reduce bycatch, injury and mortality of sea birds. These results are to be provided to the IATTC and will be used to influence future conservation measures.

(3) The IATTC Secretariat has developed and maintains a database on all sea turtle sightings, captures, and mortalities reported by observers.

(4) Previously, the IATTC adopted a Resolution on Bycatch in June 2004 (C-04-05) on releasing and handling of sea turtles captured in purse seines, prohibiting disposal of plastic salt bags and other debris at sea, and modifying the design of FADs to reduce turtle entanglement.

(5) In addition, IATTC and NMFS staffs have provided training and equipment for proper handling and release of sea turtles to several Latin American, Asian, and other Pacific countries.

Sea Birds

(1) The IATTC adopted a resolution in June 2005 (C-05-01) directing Parties and Cooperating Non-Parties to inform the Commission of the status of their National Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries. In addition, Parties and Cooperating Non-Parties were encouraged to collect and voluntarily provide to the Commission information on interactions with seabirds to assess the impacts of the incidental catch of seabirds resulting from the activities of all the vessels fishing for tunas and tuna-like species in the EPO. The United States completed the *National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries* in February 2001.

(2) The United States and Spain introduced Proposal IATTC-80-C1-E, *Resolution to Mitigate the Impact on Seabirds of Fishing for Species Covered by the Commission*, at the 2008 and 2009 IATTC Meetings. The text of the proposal was finalized at the 2009 meeting, but Japan signaled that it could not join consensus on any new bycatch measures because, in their opinion, the tuna conservation measure adopted *ad referendum* was not sufficient to ensure the sustainability of EPO tuna stocks. The seabird proposal will be carried over and presented at the 2010 annual meeting.

Sharks

(1) In June 2005 the Parties to the IATTC adopted the Resolution on the Conservation of Sharks Caught in Association with Fisheries in the EPO (C-05-03), which bans shark finning and also aims to improve information about sharks in EPO fisheries. The Shark Resolution mandates much needed shark data collection and assessment programs while encouraging research into shark nursery areas and ways to avoid incidental bycatch of sharks. This resolution—co-sponsored by the United States, the European Union, Japan, and Nicaragua—calls on IATTC members to implement National Plans of Action for Shark Conservation in accordance with the FAO 1999 International Plan of Action for Sharks. The United States completed the *National Plan of Action for the Conservation and Management of Sharks* in February 2001. The United States has provided documentation of full compliance with this resolution to the IATTC and submitted a 2007 report covering the fishing year of January 1–December 31, 2006.

(2) The IATTC has scheduled a shark stock assessment workshop for November 2, 2009, and is working cooperatively with the Western and Central Pacific Fisheries Commission (WCPFC) to provide preliminary advice on the status of sharks and to propose a research plan. A Memorandum of Understanding for the Exchange of Data between these organizations was agreed to at the 2009 IATTC Meeting but still needs to be approved at the 2009 WCPFC Meeting.

Despite the conservation measures adopted, the United States remains concerned about the potential for shark and seabird bycatch in tuna fisheries in the EPO, and will continue to work with the IATTC Secretariat and other Member countries to implement measures to reduce bycatch and bycatch mortality.

Research. NMFS is engaged in several research activities focused on reducing bycatch of dolphins, turtles, and fishes. Specifically, NMFS has several activities underway to address the question of whether or to what extent small purse seine vessels (i.e., 400 short tons or less carrying capacity) set on tuna associated with dolphins. This work is described in greater detail in the section, "Results of Research Conducted Pursuant to Section 304 of the Marine Mammal Protection Act." Additional activities to reduce dolphin bycatch in EPO fisheries are discussed in the following section.

VI. Description of the Activities of the International Dolphin Conservation Program and the Efforts of the United States in Support of the Program's Goals and Objectives, Including the Protection of Dolphin Stocks in the Eastern Tropical Pacific Ocean, and an Assessment of the Effectiveness of the Program

Although the United States now has a much smaller presence in the EPO tuna purse seine fishery, NMFS remains committed to the conservation of the EPO ecosystem and its living marine resources. Because the fishery in the EPO is multinational, it is only through multilateral efforts and cooperation that dolphin populations and the EPO marine ecosystem as a whole will be protected in the long term. Therefore, NMFS fully supports the Agreement and the efforts taken by Parties to eliminate dolphin mortality in the tuna fishery. Even with its successes, more can always be done to improve the Agreement and further strengthen compliance with some of the Agreement's provisions. NMFS recognizes that full implementation of the Agreement is essential to promoting the fastest recovery of depleted dolphin stocks associated with the fishery.

Improving and strengthening the AIDCP remains a priority for the United States. To date, this goal has been advanced in several ways. The United States was the first country to have a national observer program. The Agreement's On-Board Observer Program is modeled after the original U.S. program. NMFS also administers a dolphin research program that monitors dolphin populations in the EPO. The program includes shipboard surveys to assess and monitor dolphin abundance and studies of stress-related effects possibly caused by the chase and capture of dolphins associated with tuna. The United States encourages the Parties to the Agreement to support this program and other research efforts to improve gear, equipment, and fishing techniques on tuna fishing associated with dolphins. The United States successfully encouraged members of the IATTC to adopt a resolution on at-sea reporting, which reiterates the obligation of captains and crews, initially required under a June 2001 resolution, to provide the on-board observer with the necessary equipment to send weekly reports to the IATTC Secretariat. The weekly reports contain important time-sensitive information for the implementation and management of the Agreement, and the monitoring of annual dolphin mortality limits (DMLs) and individual dolphin stock mortality limits (SMLs) to ensure they are not exceeded. (SMLs are global per-stock, per-year mortality caps monitored using observer data.)

A major component of the AIDCP is the assignment of DMLs on a per-vessel basis and observer reporting of dolphin interactions and mortality. DMLs were introduced in the La Jolla Agreement in 1992, and included the establishment of a per-vessel maximum limit consistent with the established overall mortality limit for the international fleet under the Agreement, which is set at 5,000 dolphins per year. In 2008, 100 full-year DMLs, zero second-semester DMLs, and zero DMLs from the Reserve DML Allocation (RDA) were issued. As shown in Table 1, the Parties utilize only a portion of the allowable DMLs each year.

	Overall DML	Full-Year DMLs Allocated	Full-Year DMLs Used	Average DML (ADML)	Total Mortality	Average Mortality Per Set	Overall DML Use
2004	5,000	91	83	54	1,461	0.12	29%
2005	5,000	98	93	50	1,151	0.09	23%
2006	5,000	103	97	47.57	886	0.10	18%
2007	5,000	104	96	47.12	838	0.09	17%
2008	5,000	100	92	49	1,171	0.13	23%

Table 1. Summary of DML Allocation and Use under the Agreement, 2004–2008.

To receive a DML, a qualified applicant vessel must (1) have been certified by relevant national authorities to possess all required dolphin safety gear and equipment (established in Annex VII of the Agreement and verified through an inspection conducted twice each year); (2) have a captain and crew who received approved training on dolphin release and rescue techniques such as avoiding night sets and implementing the "backdown" procedure during sets on schools of dolphin (backdown is performed by shifting the vessel's engines into reverse during net retrieval, resulting in a submerged corkline that allows the dolphins to swim out); (3) have greater than 400 short tons or 362.8 metric tons of carrying capacity; (4) have a qualified captain (determined by the IRP); and (5) not be deemed disqualified pursuant to other provisions of the Agreement. The enforcement of individual vessel DMLs ensures a high level of accountability on the part of the vessel captain and crew. If a vessel reaches or exceeds its DML, the vessel must immediately cease all fishing for tuna in association with dolphins for the remainder of the year. If a vessel exceeds its DML during a given year, it is subject to having the amount of the excess, plus an additional 50 percent of that amount, deducted from its DML over subsequent years, as prescribed by the IRP. The Agreement also requires that no DML be assigned to a vessel that has been determined by the Parties to have engaged in a pattern of violations that diminish the effectiveness of the AIDCP, as confirmed through enforcement actions taken against such vessel by the Party under whose jurisdiction it operates. The phrase "pattern of infractions"[2] was recently defined by the Parties in a resolution developed from language initially proposed by the United States. Under this resolution, a vessel will be considered to have committed a pattern of infractions if any three major infractions are committed or if two cases of fishing without an

[2] Without prejudice to other determinations made by the Parties pursuant to the provisions of Annex IV, Part I, Paragraph 7, a "pattern of infractions" by a vessel shall be defined as one of the following:

a. Any three major infractions committed within two consecutive years during more than one trip, as confirmed by a Party.

b. Any two of the following major infractions committed within two consecutive years during more than one trip, as confirmed by a Party: i. Fishing without an observer; ii. Fishing on dolphins without a DML; iii. Fishing on dolphins after the vessel reaches its DML.

observer; fishing on dolphins without a DML; or fishing on dolphins after the vessel reaches its DML are committed within 2 consecutive years during more than one trip. The United States is certain this resolution will greatly enhance the ability of Parties to understand compliance by individual vessels within their fleets.

The United States has taken the lead in fulfilling the requirements of the Agreement by establishing a program to track and verify tuna harvested by vessels in the Agreement Area. At the suggestion of the United States, the Parties established a working group to develop an international tuna tracking and verification system. The United States was instrumental in developing the international system and led the way in encouraging other Parties to develop their national tuna tracking and verification systems. In 2002, the United States presented its tuna tracking and verification program to the Permanent Working Group on Tuna Tracking. Since then, 13 additional countries have submitted to the IATTC Secretariat national tuna tracking and verification systems considered consistent with the Tuna Tracking and Verification Program. In addition, the Working Group has led the way in developing improvements to the tuna tracking systems adopted by the Parties. For more information, see the section, "Actions Taken Under Section 101(a)(2)(B) – Tuna Tracking and the Dolphin-Safe Label."

The United States continually strives to enhance the success of the Agreement. In February 2003, it proposed a series of measures for strengthening and clarifying existing provisions within the Agreement, as well as enhancing key conservation goals envisioned by the Parties. An amended version of the proposed plan was adopted by the Parties to the Agreement in June 2003. The plan outlined 10 areas to strengthen the Agreement. A description of the accomplishments to date in each of these areas follows:

1. *Establishing the Scientific Advisory Board called for in the Agreement.*

The Scientific Advisory Board (SAB) convened its first meeting in June 2004 in Lima, Peru. As of 2008, the SAB is composed of six members, one of whom represents the United States. The members were nominated by the Agreement's Secretariat and confirmed by the Parties to the Agreement. At its first meeting, the SAB discussed modification of current purse seine technology to reduce dolphin mortality, means of capturing mature yellowfin tuna other than in association with dolphins, calculation standards for the minimum estimated abundance and annual mortality cap for each stock of dolphin, and a potential future workplan. The second meeting of the SAB took place in June 2005 in Lanzarote, Spain. At this meeting, the SAB agreed to reinitiate a sampling program of dolphins incidentally killed in the EPO purse seine fishery for life history studies. The SAB also supported a coastal spotted dolphin survey that would include research on the genetics, abundance, and distribution of coastal spotted dolphins *(Stenella attenuata graffmani)*. The SAB recommended the use of a data screening technique for measuring the performance of captains and vessels, to which the IRP agreed in October 2005. The fifth meeting of the SAB took place in June 2007 in Cancun, Mexico. During this meeting the SAB reviewed its workplan and agreed to maintain it as is without any significant changes. The SAB did not forward any recommendations to the Meeting of the Parties. A sixth meeting of the SAB was held in November 2008 in La Jolla, California. The most notable progress made

by the SAB during this meeting was the recommendation to the AIDCP Parties to incorporate the most recent estimates of abundance for EPO dolphin stocks into the calculation of annual stock mortality limits. Previously, SMLs were based on abundance estimates made for the period 1986–1990. During its 20th meeting in November 2008, the AIDCP Parties adopted the recommendation of the SAB to update SML calculations using the most recent dolphin abundance estimates. The next meeting of the SAB is scheduled for October 2009 in La Jolla, California. Recognizing that the SAB has the lead responsibility for addressing research and science issues within the Agreement, the United States continues to press for frequent SAB meetings to enable the Parties to move forward on these important issues. The SAB has agreed to continue to meet on an annual basis, generally in conjunction with the AIDCP meetings held in June of each year. Should additional meetings be required in the interim, they may be scheduled during the October AIDCP meetings.

2. Noncompliance with prohibitions against intentional sets on dolphins by vessels not covered by the Agreement (i.e., Class 1–5 vessels).

Under the Agreement, small vessels (AIDCP Class 1–5, or less than 400 short tons or 362.8 metric tons carrying capacity) are prohibited from setting on dolphins. For many years, these vessels were not considered powerful enough to chase and set on dolphins. However, some reports suggest that newer small vessels, especially in Classes 4 and 5, are more powerful and may be capable of chasing and encircling dolphins; at least one documented case of this activity has been recorded and was discussed in previous reports on the AIDCP (the Colombian-flagged vessel *El Dorado*). Because these vessels are not currently required to carry observers, monitoring their activity in this regard is problematic because reports of small vessels setting on dolphins are not recorded directly by observers. In addition, noncompliance by small vessels has the potential to compromise the integrity of the current U.S. dolphin-safe labeling standard with respect to small vessels.[3] The United States and the other Parties to the Agreement take seriously allegations of small vessels setting on tuna associated with dolphins. The IRP treats allegations of this type as "Special Cases." This classification ensures the Parties involved complete investigations and provide regular updates to the other Parties. The IRP has struggled to find a balance between cost and effectiveness, as well as space constraints on many small vessels to carry observers. The Secretariat noted that annual fees assessed to vessels to fund the On-Board Observer Program vary according to each vessel's carrying capacity; small vessels are required to pay less than larger ones. However, the costs associated with placing an observer on any vessel is approximately the same, regardless of vessel size. The IRP discussed this issue in an effort to rationalize the additional economic burden vessels of Parties would need to bear, especially in the face of uncertainty as to the frequency of small vessel sets on dolphins.

[3] All yellowfin tuna harvested by small vessels in compliance with the Agreement is currently considered dolphin-safe. This tuna may be imported into the United States if the small vessel is under the jurisdiction of a nation with an affirmative finding or a nation with no purse seine vessels in excess of 400 short tons or 382.8 metric tons carrying capacity. Nations in the latter category are not required to obtain an affirmative finding to import yellowfin tuna harvested in the EPO into the United States.

The United States has taken several steps to lead the AIDCP to address the setting on tuna associated with dolphins by small vessels, to learn the degree to which small vessels may make dolphin sets, and to identify characteristics of vessels that engage in this practice. NMFS staff monitor tuna imports, analyze data, and enter information from the Fisheries Certificate of Origin (FCO, or NOAA Form 370) into a database. These efforts enable expedited electronic document searches. For example, searching and compiling information on tuna shipments from small boats can now be completed in minutes, whereas previously this type of information required a time-consuming, manual document search.

The United States and other Parties believe that the extent of the problem can only be known with certainty if an effort is made to seek out instances of noncompliance. To this end, NMFS awarded a contract to the IATTC using funds from the Foreign Fishing Observer Fund (FFOF) to cover the costs of a catch composition study (tuna caught in association with dolphins are generally post-reproductive, in larger schools, and associated with fewer non-target species) and to expand observer coverage to international Class 4 and 5 vessels. Data is currently being collected under this contract and will be analyzed to determine what information can be obtained about the activities of these vessels.

3. *Statistical significance and cause for differences in various parameters between AIDCP and national observer programs.*

As previously mentioned, the AIDCP is unique in requiring 100 percent observer coverage on large purse seine vessels (carrying capacity greater than 400 short tons). Compliance with the observer requirement is vital for effective implementation of the Agreement. Data collected by observers are essential for monitoring dolphin mortality and compliance with the other provisions of the Agreement. In 2008, observers from the On-Board Observer Program departed on 780 fishing trips, which included seven trips by one vessel of less than 363 t capacity that was required to carry an observer on all trips while being investigated for a potential infraction. In addition, 52 vessels whose last trip of 2007 carried over into 2008 had observers aboard, bringing the total to 832 trips observed by the Program in 2008. Observer coverage was 100 percent for all trips by large purse-seine vessels.

Although observer interference is possible in any fishery, cases reported to the IRP have been rare. Five cases of observer interference were reported in 2008. The number of reported cases has decreased significantly since the beginning of the AIDCP in 2000, when 13 cases were reported. The IRP takes allegations of observer interference very seriously, particularly allegations of bribe attempts and causing or threatening bodily harm. The IRP treats these allegations as “Special Cases,” receiving frequent updates from the Secretariat on the progress of investigations.

The Agreement’s On-Board Observer Program consists of an international program under the direct oversight of the AIDCP/IATTC Secretariat (providing observers for 61 percent of the fishing trips in 2008) and national programs of Colombia, Ecuador, Mexico, Nicaragua, Panama, Venezuela, and the European Union (covering the remaining 39 percent of trips). National

observer programs are subject to the same provisions of the On-Board Observer Program as the AIDCP Observers. Parties are responsible for ensuring that observers from their national observer programs collect information in the same manner as is required for AIDCP observers and to provide to the IATTC Secretariat copies of all raw data collected by observers from their national programs in a timely manner, along with summaries and reports comparable to those provided by AIDCP observers. Due to the importance of observer data in managing the tuna purse seine fishery in the EPO and maintaining the integrity of the Agreement, the Parties are concerned about ensuring that information provided by national observer programs was comparable to information reported by the AIDCP observer program.

At the request of the IRP, the IATTC staff conducted several analyses between AIDCP observer data and national observer program data. Comparisons were provided on seven data fields: (1) percentage of sets, by set type; (2) percentage of trips involving sets on dolphins; (3) average number of days per trip; (4) percentage of intentional dolphin sets with zero mortality; (5) average mortality per dolphin set; (6) average rate of possible observer interference infractions; and (7) average rate of possible procedural infractions (e.g., use of explosives and night sets). The analyses do not indicate significant differences in the various parameters between the AIDCP and national observer programs. The Secretariat also reported that the IATTC has begun an analysis of IATTC observer data to look for instances of unusual patterns of reporting by individual observers. Advanced statistical analyses are being developed to detect observers whose data exhibit patterns of unusual set types, given other data related to the set (including unusually low dolphin mortality in circumstances in which higher mortality would be expected), and unusual patterns of tuna catches and dolphin mortality. This work is in an early stage but, if it is successful, applying this type of analysis to all observers will be more effective than focusing solely on differences among programs.

At the 2009 Meeting of the Parties, the Secretariat also reported on a recent study to analyze the number of years of observer program data that should be used in the statistical tests to compare programs. With too few years included, inherent interannual variability can lead to meaningless results; with too many years, the results may only reflect the changes that have occurred over time, which may have no relevance to recent findings. The results of the statistical simulation show that the variability of the data allows the detection of only large differences between observer programs in any value collected (the example provided was mean mortality per set) although the sensitivity of the analysis increased with the addition of multiple years to the analyses. The Secretariat recommended that their data analysis transition from the current annual comparison exercise (carried out since 2000) to focus instead on improving the quality of data collected by all programs and ensuring standardization of the data collected.

In addition, the United States is working with the AIDCP Parties to ensure continued monitoring of this issue. The IRP agreed to keep this matter as a continuing agenda item to allow systematic monitoring of the observer programs, and to detect and resolve any future inconsistencies. The United States requested that the IATTC Secretariat provide analyses comparing the data collected by the observer programs to the AIDCP Parties on an annual basis. If discrepancies between the national and On-Board observer programs emerge, the United States will work to

secure the full support of the Parties to take additional measures to address this issue. Furthermore, the United States expects observer-by-observer comparisons to further strengthen the Agreement's On-Board Observer Program. Ensuring transparency and consistency among the observer programs is vital to the long-term success of the Agreement and to accurate monitoring of the status and recovery rate of depleted dolphin stocks.

4. *Level of responses to alleged infractions and compliance with real-time reporting.*

The United States monitors the type and frequency of responses provided by other Parties to various alleged infractions through participation in the IRP. The IRP serves many functions, including the identification of possible infractions and then informing each party (via the Secretariat) of possible infractions committed by vessels flying its flag, and then receiving information from that Party on the actions that were taken. In 2008, nine major possible infractions, 18 other possible infractions, and five cases of possible observer interference were reported (out of 9,201 dolphin sets) at the 45th and 46th meetings of the IRP. Therefore, a possible infraction was reported for only 32 of 9,201 sets on dolphins, or 0.03 percent of sets, demonstrating that general compliance with the requirements of the Agreement is quite high. In addition, these numbers represent a decrease in the total number of possible infractions reported and a steady increase in the number of responses by Parties over previous years. The United States is pleased to see that the number of possible infractions continues to decrease, especially with respect to possible major infractions.

The IRP has also been closely following the responses by Parties to possible infractions. The Agreement states that each Party must apply sanctions of sufficient gravity as to be effective in securing compliance with the provisions of the Agreement and to deprive offenders of the benefits accruing from their illegal activities, taking into consideration the recommendations of the IRP. Furthermore, for serious offenses, such sanctions must include refusal, suspension, or withdrawal of the authorization to fish. The Agreement also calls on the Parties to establish incentives for the captains and crews of vessels, with a view to enhancing compliance with the Agreement and its objectives. Despite the low rate of infractions overall, Parties often do not respond to possible infractions referred to them by the IRP and, when a possible infraction is identified through investigation by the Party to be an infraction, sanctions applied in some cases may not be sufficient to deter future infractions by vessels under that Party's authority. To address these issues, a document is presented at each meeting of the IRP containing information on responses by individual Parties to six specific infractions: observer interference, use of explosives, night sets, fishing without an observer, sets on dolphins after reaching the vessel's DML, and setting on dolphins without a DML. A total of 11 possible infractions in three of the six categories were referred to all Parties by the IRP between the June 2008 and October 2008 meetings. There were no cases of fishing without an observer, fishing on dolphins without a DML, or sets on dolphins after reaching the vessel's DML. As of June 2009, in only one of these cases was no response received. In the other 10 cases, nine were currently under investigation by the Parties, and one had already received a sanction.

Unfortunately, it is difficult to quantify whether there has been improvement with respect to the timeliness of sanctions for alleged infractions or whether such sanctions are of a sufficient magnitude to deter future infractions. Generally, the United States works to try to ensure that countries take more stringent actions, including the application of appropriate sanctions, in cases where infractions are confirmed. To be true to both the spirit and the letter of the Agreement, the United States has encouraged the Parties to continue to dedicate themselves to improving the rate and nature of responses to infractions and to increasing their vigilance toward countries and vessels whose actions undermine the Agreement. The United States continues to seek specific information on sanctions imposed for confirmed infractions (e.g., amount of a monetary fine), which would facilitate this level of scrutiny. Currently, the amount of information provided to the Parties in response to alleged infractions varies by Party. The United States remains optimistic that continued efforts will yield favorable results with the other Parties. The United States is also considering entering into bilateral discussions with Parties where necessary in an effort to improve compliance.

With respect to real-time reporting of observer data, the Secretariat continues to provide updated analyses on a Party-by-Party basis. These analyses indicate an average real-time reporting rate of 96.5 percent in 2008, an increase from 90 percent in 2007 and the highest level reported to date. The United States is pleased with the improvements in real-time reporting to date, but will seek continued improvements until compliance reaches 100 percent. Efforts must be made to continue to improve this rate of reporting if Parties are to have continued confidence that SMLs can be monitored and enforced on a near-real-time basis.

5. Evaluating the effectiveness of the guidelines regarding caps on dolphin herd sizes on which sets are made.

In June 2002, the Parties established guidelines to decrease the number of sets on dolphin schools of more than 2,000 animals, reducing the risk of dolphin mortality from such high-risk sets. In October 2003, the IRP discussed an analysis on dolphin school size set limits adopted by the Parties to the Agreement. The Secretariat reported that, in the first 10 months following implementation of the program, sets on schools in excess of 2,000 dolphins were less frequent than before the guidelines were implemented. In 2006, the Secretariat indicated that observed dolphin mortalities in the purse-seine fishery fell below 1,000 individuals for the first time. Data suggest that observed dolphin mortalities in the fishery generally decline year after year, although 2008, with an estimated 1,171 total mortalities, was slightly elevated over the 838 mortalities reported in 2007. The average mortality per set increased slightly from 0.09 dolphins in 2007 to 0.13 dolphins in 2008 (Figure 2). Additionally, the number of sets in which no dolphin mortalities occurred has risen from a historical baseline of 38 percent in 1986 to 92 percent in 2008. The United States is monitoring progress on this issue to ensure that the proper dolphin school size limit is implemented, and has requested an updated analysis of the guidelines' effectiveness for discussion at future meetings.

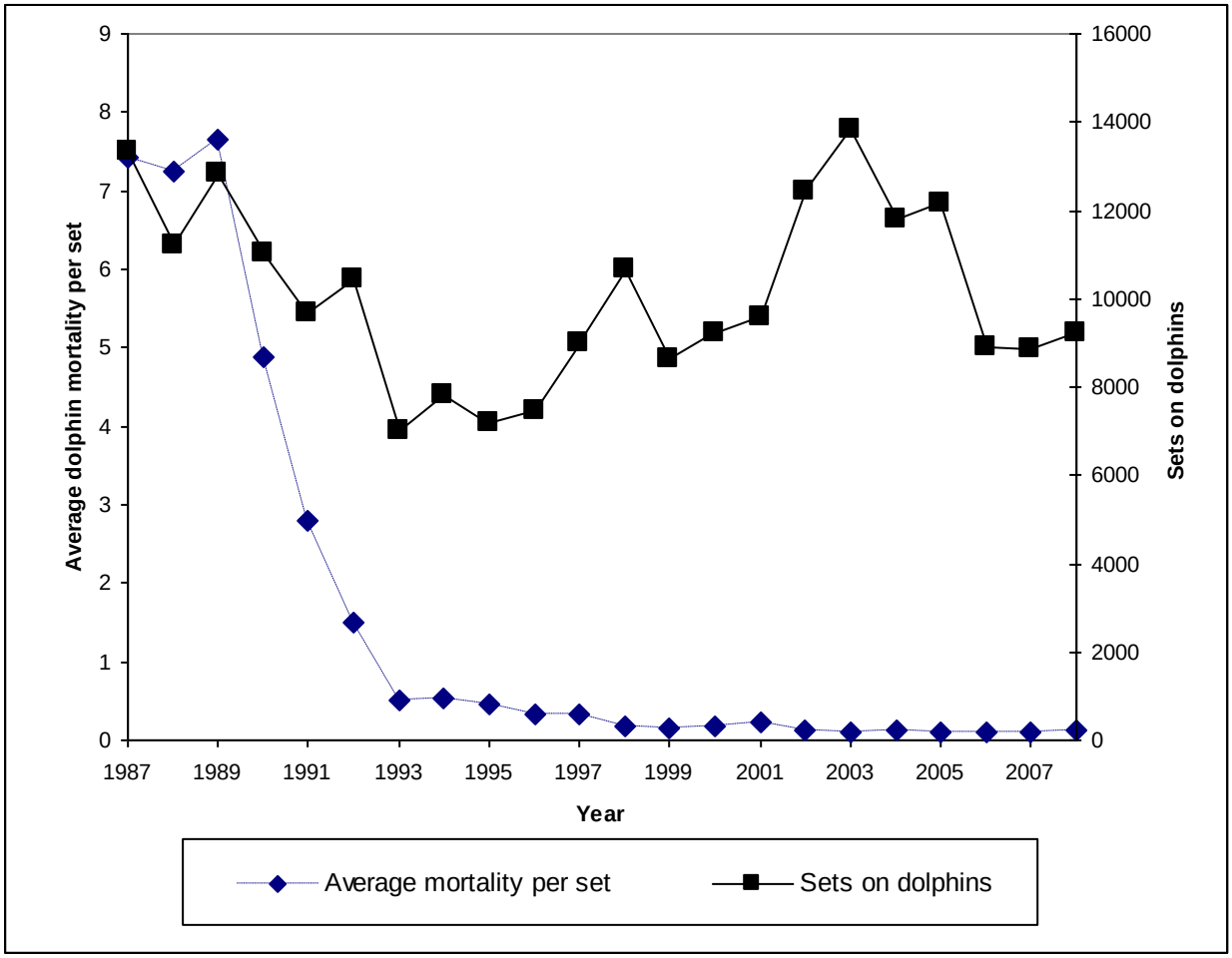

Figure 2. Number of sets on dolphins and average dolphin mortality per set, 1987–2008.

6. *Improving the functioning of the organization.*

The Parties to the Agreement continue to discuss potential actions to improve the functioning of the organization. The Parties have aligned meetings and eliminated unnecessary ones (Annex VII was amended to reduce the minimum number of annual meetings of the IRP from three meetings per year to two meetings per year, partly in recognition of the decreasing number of cases needing IRP review) to reduce budget costs and to maximize participation by all relevant representatives. There was also discussion at the June and October 2008 meetings to further reduce the number of Meetings of the Parties to a single annual October meeting in La Jolla and consolidate some working groups as a way to reduce costs and prevent vessel assessment fees from increasing. It was decided to maintain at least two meetings of the IRP per year, and to continue to have a Meeting of the Parties when the IRP was held in order to deal with any business resulting from the IRP. However, the total duration of the AIDCP meetings each year will be reduced from 5.5 days to 3.5 days. The Secretariat to the Agreement continues to improve on the timely delivery of meeting working papers and reports. Although the operation

of the Agreement is efficient, maximizing efficiency without compromising utility of meetings is a high priority for the United States and other Parties to the Agreement. The United States will continue to seek additional improvements.

In February 2005, the Working Group on Vessel Assessments and Financing met to discuss the current formula for calculating annual vessel assessments (i.e., observer fees) with respect to the Agreement's budget for 2005–2006. The Secretariat indicated that the assessments received are not sufficient to cover the costs of the Agreement. The Secretariat recommended a 13 percent increase in vessel assessments and noted that, in the future, some optional services currently provided by the Secretariat should be covered by vessel owners. These recommendations were made to ensure the current deficit is covered by the end of 2007. In April 2005, an ad hoc Well Volume Review Group met to complete a verification of purse seine vessel well volumes for use in determining vessel assessments. After examining existing documentation for all vessels, two lists were drawn up: vessels whose well volume has been verified, and vessels whose well volume could not be verified and must be forwarded to the Parties for consultation. In October 2005, the first meeting of the Working Group on Vessel Measurement established that changes in well volume measurements, from those verified by the Well Volume Review Group in April 2005, should be accepted as valid new measurements received from a vessel's flag government and verified according to the established procedures. The working group also recommended that vessels with sealed wells be listed on the Regional Vessel Register at their lower capacity but that the capacity both before and after the wells were sealed should be indicated. In June 2008, the Parties agreed to maintain the assessment rate for vessels required by the AIDCP to carry observers at $14.95 per cubic meter of well volume. The assessments for those vessels whose well volume could be verified will pay assessments based on the verified well volume. For vessels whose well volume has not been verified by August 1 of any given year, the vessel assessment rate for the subsequent year will be calculated by applying a factor of 1.4 to convert the carrying capacity (in metric tons) to well volume (in cubic meters).

7. *Transparency in the operation of the AIDCP*.

The Plan of Action to Enhance the Success of the Agreement directs the Secretariat to prepare an annual Executive Report, publicize results of meetings through distribution of a press release, and review the Rules of Confidentiality to strengthen transparency in the operation of the AIDCP. The Parties will examine the Rules of Confidentiality to identify areas where transparency may be increased. Although the United States views the AIDCP as transparent in many respects, there is room for improvement. Therefore, the United States plans to pursue greater flexibility on this issue with the Parties.

One element of transparency in the AIDCP is the report on the IDCP presented to the Parties by the Secretariat at the AIDCP meeting in June 2008. Document MOP-21-05, *Report on the International Dolphin Conservation Program* (Appendix 2), characterized the fishery in 2008, described dolphin mortality with respect to vessel limits, discussed steps taken by the Parties to improve functioning and credibility of the AIDCP, and summarized possible infractions identified by the IRP during 2008.

An important element in the overall transparency of the Agreement involves public participation in the IRP. In addition to representatives from each of the Parties, the IRP is also made up of three representatives of nongovernmental environmental organizations and three representatives from the tuna industry operating under the jurisdiction of any of the Parties. These members are chosen through a specified nomination and election procedure described in the agreement.

8. Efforts to enhance the sustainability of living marine resources, as called for in the Agreement.

The Parties to the Agreement have made significant progress implementing measures to promote the sustainability of living marine resources in the EPO. First, the SAB is engaged in discussions on programs to assess and minimize the bycatch of juvenile tuna and non-target species. NMFS conducted research in 2005 on gear to reduce bycatch of non-target species and methods to locate mature yellowfin tuna not associated with dolphins. NMFS' research in 2005 also focused on the effect of small purse seine vessels on depleted dolphin stocks and EPO ecosystem changes in an effort to better characterize the effect of the fishery on these dolphin stocks. In 2006, NMFS convened a second workshop to address non-dolphin bycatch in the EPO tuna purse seine fishery and conducted a cetacean and ecosystem assessment survey. In 2009, NMFS plans to continue to conduct research to enhance the sustainability of living marine resources in the EPO. Proposed studies include assessments of status and trends; abundance and monitoring of pelagic dolphin populations; cetacean stock structure in EPO pelagic waters; abundance, structure and monitoring of coastal dolphin stocks; EPO ecosystem studies; fishery effects; bycatch reduction; and data management. See also section V of this document, "Description of the Efforts to Assess, Avoid, Reduce and Minimize the Bycatch of Juvenile Yellowfin Tuna and Bycatch of Non-Target Species."

9. Strengthening and promoting the AIDCP.

The Working Group to Promote and Publicize the Agreement's Dolphin-Safe Tuna Certification System was established by the Parties to the Agreement. The Agreement's budget does not support activities developed through this working group; financial support is provided only by those nations that participate in the voluntary AIDCP Dolphin-Safe Certification System and that benefit from promotional activities. The working group met for the first time in February 2003 and has convened seven subsequent meetings. The working group organized several promotional events in coordination with international meetings.

The United States does not participate in the AIDCP Dolphin-Safe Certification System, and continues to play only a limited role in this working group due to the difference between the dolphin-safe labeling standard under the Agreement and the labeling standard under U.S. law. The U.S. labeling standard for dolphin-safe tuna is currently governed by the provisions of subsection (h)(2) of the DPCIA. Under this provision, tuna harvested in the EPO by purse seine vessels with greater than 400 short tons of carrying capacity is deemed dolphin-safe if "no tuna were caught on the trip in which such tuna were harvested using a purse seine net intentionally

deployed on or to encircle dolphins, and no dolphins were killed or seriously injured during the sets in which the tuna were caught." Under the Agreement, tuna caught in sets in which dolphins are not killed or seriously injured is defined as "dolphin-safe." Thus, the United States statutory definition of dolphin-safe is based upon the vessel's entire trip while the AIDCP standard can be applied on a set-by-set basis.

This difference notwithstanding, the United States has continued to promote the success of the AIDCP in helping to reduce dolphin mortality and as a model of international cooperation, both at home and abroad. A project has been launched by NMFS, in conjunction with the Department of State and NOAA's National Ocean Service, to develop a web-based education module that will highlight the accomplishments of the AIDCP and the complexity of international conservation efforts. The goal is to offer learning opportunities, including lesson plans and interactive programs, at a high-school education level. This website will also be a definitive source of information for the general public. It is believed that, in time, this module can be translated and available for effective use by other AIDCP Parties.

The Agreement's System for Tracking and Verifying Tuna requires that the Parties establish and maintain programs to implement the system and ensure that tuna and tuna products receiving the AIDCP dolphin-safe label meet the labeling standards under the Agreement. Several of the activities described in this and other sections of this document strengthen the dolphin-safe label.

10. Efforts to protect and enhance the integrity and credibility of the Agreement's Dolphin-Safe Certification System.

Two measures adopted in 2005 enhance the integrity and credibility of the Dolphin-Safe Certification System and System for Tuna Tracking and Verifying Tuna. First, the Parties amended the Agreement to require a Party to have in place a national plan for tracking and verifying tuna in order for its vessel to be eligible for a DML. Second, the Parties adopted a protocol for which numbers of Tuna Tracking Forms (TTFs) can be made public in cases where tuna was harvested in a manner not in compliance with IATTC resolutions. The Parties agreed to release the name of the flag state of the vessel and the numbers of TTFs for fishing trips conducted in contravention of an IATTC conservation and management resolution. These measures help to provide an important link between the certification of dolphin-safe tuna and other aspects of the AIDCP and IATTC.

VII. Actions Taken by the Secretary under Section 101(a)(2)(B) and Section 101(d) of the Marine Mammal Protection Act

Regulatory Revisions

On January 13, 2009, NMFS published a final rule with revisions to 50 CFR Parts 216 and 300, which are the regulations implementing the AIDCP, Tuna Conventions Act, DPCIA, and resolutions adopted by the IATTC and AIDCP (74 FR 1607). These revisions were necessary to

facilitate management of U.S. vessels authorized to fish for tuna and tuna-like species in the Convention Area and to ensure consistency between U.S. regulations and the resolutions adopted by the IATTC and AIDCP. The revisions require: (1) the collection of a vessel photograph and vessel information from all commercial fishing vessels and commercial passenger fishing vessels (CPFVs) authorized to fish for tuna and tuna-like species in the Convention Area; (2) annual written notification to list a small purse seine vessel as active or inactive; (3) written notification of the intent to transfer a purse seine vessel appearing on the IATTC's Vessel Register to foreign registry and flag; (4) payment of an EPO purse seine vessel operator permit application fee; (5) for vessels authorized to set on dolphins, vessel inspections twice per year and the use of high-intensity floodlights; (6) requests for active status on the IATTC Vessel Register to be treated as frivolous if a purse seine vessel was listed as active but did not fish for tuna at all in the Convention Area; (7) submission of certifications by importers to be within 10 days of importing a shipment into the United States, rather than within 30 days; and (8) electronic submissions of certifications to be in Portable Document Format (PDF). In addition, the revisions allow the removal of vessels from the Vessel Register if the owner lacks valid vessel documentation, or, for tuna purse seine vessels, if the owner has made a frivolous request or has notified NMFS of the intent to transfer the vessel to foreign registry and flag. The revised regulation also includes definitions for tuna species, as well as other non-substantive revisions and updates.

Actions Taken under Section 101(a)(2)(B)

Tuna Tracking and the Dolphin-Safe Label. To implement the dolphin-safe labeling standard, NMFS monitors all tuna caught by U.S. flag vessels or canned by U.S. processors, as well as all frozen and processed tuna and tuna products imported into the United States from other nations. This monitoring program relies on a system of written reports, on-site inspections and audits, and electronic databases to maintain the necessary checks and balances to ensure that tuna sold in the United States, when carrying a dolphin-safe label, is truly dolphin-safe and was caught in full compliance with internationally agreed upon conservation measures. In addition, an FCO must accompany all imports of frozen and/or processed tuna products. The FCO certifies that tuna products entering the United States as dolphin-safe were harvested in a manner consistent with dolphin-safe standards.

Current U.S. law requires tuna labeled as dolphin-safe to meet certain criteria. Nothing prohibits the importation into the United States of tuna that does not meet the dolphin-safe labeling requirements, provided the exporting nation meets certain requirements and has an affirmative finding. Such tuna, however, may not be labeled dolphin-safe. The U.S. tuna canners have instituted a voluntary dolphin-safe tuna campaign whereby they purchase only dolphin-safe tuna for introduction to the U.S. market.

The U.S. Tuna Tracking and Verification Program (TTVP) has a website that provides information related to the dolphin-safe tracking of imported and domestically produced frozen and processed tuna products (see www.DolphinSafe.gov). The website lists retailers, canners, and products that have been part of spot checks and audits. Regulatory information for exporters, trans-shippers, importers, processors, and wholesalers/distributors is also available.

Audits and retail market spot checks are an integral aspect of fulfilling the mandates of the IDCPA. In May 2009, NMFS partnered with volunteers at six Texas schools to conduct a retail market spot check of canned tuna products. All samples were found to consist of tuna caught in compliance with U.S. dolphin-safe label regulations. Additionally, in August 2009, an on-site audit of tuna tracking procedures and internal documentation chains was made at a major U.S. tuna cannery in Santa Fe Springs, California. The traceability of product from receipt to cold storage to production and finished goods is sufficient to meet domestic tuna tracking and verification regulations.

The TTVP has also made valuable contributions the past year in the process to integrate the NMFS import monitoring programs into the Customs and Border Protection's ACE/International Trade Data System (ITDS), as well as providing pertinent background and program information to other U.S. Government agencies involved in Mexico's complaint to the World Trade Organization on dolphin-safe tuna.

Affirmative Finding Process. Section 101(a)(2)(B) of the MMPA specifies the requirements to export yellowfin tuna and yellowfin tuna products harvested with purse seine nets in the EPO to the United States. NMFS is responsible for determining whether nations wishing to export yellowfin tuna and yellowfin tuna products are complying with the tuna and dolphin conservation measures of the IATTC and the Agreement, respectively. The process for monitoring and evaluating compliance of nations participating in this fishery and wishing to export to the U.S. market is a substantial one. To do this, NMFS staff spend a great deal of time discussing issues of compliance with government officials of the Parties to the Agreement, the scientific staff of the IATTC, and others with direct knowledge of country practices in implementing the Agreement. If a nation is determined to be meeting its obligations under the AIDCP and IATTC and meeting the requirements of applicable U.S. regulations, NMFS may issue an "affirmative finding" for that nation, allowing the importation of its tuna, whether it is dolphin-safe tuna or not, into the United States. Without an affirmative finding, importation of yellowfin tuna is prohibited.

When seeking an affirmative finding, a harvesting nation must submit an application and documentary evidence directly to NMFS. Affirmative findings are granted for a period of 5 years, with annual renewals of the status of the nations and their national programs. For the annual reviews, NMFS collects information determining the nation's compliance with the Agreement and standing with the IATTC, based on documentary evidence provided by the harvesting nation, the IATTC Secretariat, and the Department of State. An affirmative finding can be terminated at any time if NMFS determines the requirements for an affirmative finding are no longer being met, or if a nation consistently fails to take proper enforcement actions on violations that diminish the effectiveness of the AIDCP.

Under the Agreement, all Parties are required to apply their national laws and regulations, while taking into consideration the recommendations of the IRP to maintain and enforce the provisions of the IDCP. Violations of national laws and regulations are addressed by the national

authorities. When considering a nation's compliance with the Agreement for an affirmative finding, NMFS monitors violations, including the severity and frequency of the violations as well as the response by the nation to the violation, through information from the IATTC, from meetings of the IRP, and from the nation itself. Before issuing an affirmative finding, NMFS takes into consideration the ability of the nation to monitor and enforce its laws and regulations to uphold the Agreement.

Regardless of whether a nation has submitted an application for an affirmative finding, if it is harvesting yellowfin tuna in the EPO with Class 6 purse seine vessels and has not received an affirmative finding, yellowfin tuna harvested by purse seine in the EPO by that country is prohibited from entering the United States. Embargoes are currently in place for the importation of tuna from Belize, Bolivia, Colombia, Guatemala, Honduras, Nicaragua, Panama, Peru, Vanuatu, and Venezuela. NMFS works with U.S. Customs and Border Protection to ensure that only nations receiving affirmative findings are allowed to import yellowfin tuna harvested in the EPO with purse seine vessels into the United States. NMFS continues to work with nations that have not received affirmative findings to assist them in understanding and addressing all obligations for obtaining an affirmative finding, should they desire to have their tuna imported into the United States.

NMFS' affirmative finding process has been heavily scrutinized. In fact, Mexico's 2000 affirmative finding was the subject of litigation in the U.S. Court of International Trade (CIT). In that case, NMFS' analysis of Mexico's adherence to the AIDCP and the IATTC conservation regime, and the affirmative finding program, strongly prevailed. NMFS' affirmative finding process evaluates the compliance of nations wishing to import into the United States yellowfin tuna harvested by purse seine in the EPO and holds those nations to strict criteria for compliance.

Embargo Status Update. As indicated earlier, affirmative findings must be reviewed annually. Four nations currently have active affirmative findings from the United States: Ecuador, El Salvador, Mexico, and Spain. A new 5-year affirmative finding was issued for El Salvador in 2008 (expiring 2013), which was renewed in 2009 for the year. Ecuador, Mexico, and Spain each have 5-year affirmative findings that were issued in 2005 and will expire in 2010. Each was issued an annual renewal in 2009, and will need to apply for a new affirmative finding next year.

Actions Taken under Section 101(d)

Good Samaritan Exemption. Section 101(d) of the MMPA provides that the take of a marine mammal entangled in fishing gear, does not violate the take prohibitions of the Act, so long as reasonable care is taken to ensure the safe release of the marine mammal and prevent further injury to the animal. Takes of marine mammals that fall under this exemption must be reported to the Secretary of Commerce within 48 hours. In 2008, no known takes fell under this exemption, as none were reported to the Secretary.

VIII. Copies of Relevant Resolutions and Decisions of the Inter-American Tropical Tuna Commission, and Regulations Promulgated by the Secretary

Relevant regulations and resolutions adopted by the IATTC and the Parties to the AIDCP are included as appendices to this report.

IX. Other Information Deemed Relevant by the Secretary

Final Disposition of the Dolphin-Safe Label Litigation

As noted earlier, in 1990 Congress passed the DPCIA which established the U.S. dolphin-safe labeling standard for tuna harvested in the EPO. Under the DPCIA, as amended in 1997 by the IDCPA, tuna may be labeled "dolphin-safe" only if the tuna are harvested on a trip in which no purse seine nets were used to encircle dolphins, and no dolphins were killed or seriously injured during the sets in which tuna is caught. The IDCPA also revised the MMPA and the DPCIA to lift the embargo on yellowfin tuna against countries whose vessels fish in association with dolphins and to lift the ban on the sale of non-dolphin-safe tuna, under certain conditions.

In addition to these changes, the IDCPA also provided for the possibility that the definition of "dolphin-safe" stated above could change to allow tuna caught by the chase and encirclement of dolphins to be considered dolphin-safe as long as there were no observed dolphin mortalities or serious injury, and the fishing was conducted in accordance with the multilateral AIDCP. However, this change to the dolphin-safe label was contingent on the results of research into the effects of chase and encirclement on depleted dolphin stocks and the results of a finding required by the Secretary of Commerce on whether the purse seine industry in the EPO is having a significant adverse impact on depleted dolphin populations.

On December 31, 2002, the Secretary of Commerce, on the basis of this research and other relevant information, made the determination that intentional chase and encirclement of dolphins is not having a significant adverse impact on any depleted dolphin stocks in the EPO. As a result of the finding, the definition of dolphin-safe was changed. However, subsequent to the finding a number of litigants filed a complaint in the U.S. District Court for the Northern District of California challenging the final finding and seeking to enjoin any change to the dolphin-safe labeling standard (*Earth Island Institute v. Evans*). On April 10, 2003, the District Court issued a preliminary injunction temporarily staying the change in the dolphin-safe definition and returning to the previous definition, which requires dolphin-safe tuna be caught without the chase and encirclement of dolphins in the entire trip and without killing or seriously injuring any dolphins in the set in which the tuna was caught. In an August 9, 2004, decision, the District Court determined the finding was contrary to the best available science. Therefore, the District Court set aside the final finding and declared that "dolphin-safe" may be used only on tuna products harvested by large purse seine vessels in the EPO if no tuna were caught on the trip in which such tuna were harvested using a purse seine net intentionally deployed on or to encircle

dolphins, and that no dolphins were killed or seriously injured during the sets in which tuna were caught.

The United States Government appealed the District Court's decision to the 9th Circuit Court of Appeals. The 9th Circuit Court accepted *amici curiae* briefs filed by the Mexican government, industry associations, and the IATTC. On April 27, 2007, the 9th Circuit upheld the District Court's decision with respect to all major issues. The 9th Circuit did not remand this issue to the Secretary for further consideration. As a result, the Secretary may not revisit the Final Finding using updated scientific information. Because the United States Government did not seek rehearing before the 9th Circuit or Supreme Court review, the 9th Circuit decision remains controlling law.

Latin American nations that purse seine for yellowfin tuna in the EPO are affected by this decision. Some of these nations were hoping for a change in the U.S. label standard to provide them greater market share to the U.S. canned tuna market, in particular those that hold an affirmative finding under the MMPA. The 9th Circuit's decision precludes that change. The prospect of increased access to the U.S. market through a change of the label standard has served as a strong incentive for the participating countries to implement this program in an effective and rigorous manner. At the 17th Meeting of the Parties to the AIDCP in June 2007, many Parties expressed frustration over the outcome of the appeal of the dolphin-safe label case to the 9th Circuit Court of Appeals (*Joint Statement of Cancun on the AIDCP*, Appendix 9). Many of the same Parties have expressed similar frustrations in the wake of the U.S. Government's decision against seeking Supreme Court review. In their opinion, the United States is not living up to its commitments under the Panama Declaration. Some indicated that, if the U.S. dolphin-safe label standard remains different than the AIDCP label standard, the Agreement will not survive. In their view, the viability of the Agreement is in question and they assert it cannot continue to stand on conservation benefits alone—the intended market benefits must also be realized. Other Parties expressed a view that the Agreement is still an otherwise useful and a positive instrument, and should therefore be maintained regardless of the label standard in the United States. Many of these views were reiterated by the Parties during the June 2009 AIDCP meeting.

Mexico's WTO Challenge to U.S. Dolphin-Safe Labeling Provisions

On October 24, 2008, Mexico requested formal World Trade Organization (WTO) dispute settlement consultations with the United States concerning U.S. dolphin-safe labeling provisions for tuna and tuna products. Mexico's consultations request states that U.S dolphin-safe labeling provisions "have the effect of prohibiting the labeling of Mexican tuna and tuna products as 'dolphin safe' even when the tuna was harvested by means that comply with the multilaterally agreed standard for 'dolphin safe' established by the [AIDCP]." Mexico alleges that Mexican products are accorded treatment less favorable than like products of national origin and like products originating in any other country and that the provisions have the effect of creating an unnecessary obstacle to trade.

Pursuant to Mexico's request, the United States and Mexico participated in formal consultations on December 17, 2008. These consultations did not resolve the dispute.

On March 24, 2009, the United States Trade Representative (USTR) sent a letter to Mexico to invoke the U.S. right under a provision of the North American Free Trade Agreement (NAFTA) to have the dispute removed from the WTO and considered instead under the NAFTA. For certain standard-related disputes concerning human, animal, or plant life or health or the environment, the NAFTA gives the responding party the right to have the dispute heard solely under the NAFTA.

Despite the U.S. having invoked its right to have the dispute moved from the WTO to the NAFTA, Mexico nonetheless requested and obtained establishment of a WTO dispute settlement panel on April 20, 2009. In its panel request, Mexico alleges that the U.S. dolphin-safe labeling provisions are inconsistent with U.S. obligations under Article 2 of the Technical Barriers to Trade Agreement and Articles I and III of the General Agreement on Tariffs and Trade 1994.

At this juncture, the selection of individuals to serve on the WTO dispute settlement panel has not yet occurred, as both nations continue to explore whether there is a way to resolve the dispute outside of the WTO dispute settlement process. The United States is also continuing to consider its options in response to Mexico's decision to continue its WTO challenge despite the U.S. right to have the matter moved to the NAFTA. If efforts to resolve the dispute outside of WTO litigation fail, the United States is prepared to provide a vigorous defense of the U.S. dolphin-safe labeling provisions before a WTO dispute settlement panel.

X. Conclusions

The AIDCP is a strong, complex, and technical treaty. In following through with the earlier success of the IDCP established by the La Jolla Agreement, the AIDCP has succeeded in reducing dolphin mortalities to a minimal level, even while fishing effort has remained high. This balance has been accomplished by reducing the dolphin mortality per set through the procedures and safeguards required under the program. Even with the continuing success of the Agreement, the United States is continuously seeking ways to improve and strengthen the Agreement to ensure the highest possible level of protection for dolphins during the course of tuna fishing operations. Indeed, the AIDCP has resulted in greatly reduced levels of dolphin mortality while raising awareness for broader ecosystem management in the EPO and the other oceans of the world.

Although the U.S. tuna fishing fleet has had a reduced presence in the EPO in recent years, the United States remains actively involved in the management of the tuna purse seine fishery and the conservation of the living marine resources of the EPO. The United States continues to be the driver in a balanced approach to management of the EPO within the IATTC. Because fisheries in the Pacific Ocean are of a global scale, solutions to fisheries management in the Pacific Ocean must also be on a global and multilateral scale. The United States is committed to addressing the issue of overfishing of bigeye tuna and the impacts of tuna fishing on other tuna

stocks such as yellowfin and skipjack. The IATTC Member nations struggled to reach consensus on tuna conservation measures for several meetings in 2007 and 2008. Fortunately, unanimous consent was obtained at the June 2009 Meeting of the Parties, and a multi-annual tuna conservation measure was passed for 2009–2011. The United States is optimistic that the IATTC Parties in 2010 and 2011 can refocus and act on the many other pertinent issues that remain on the agenda.

Further, through active participation in meetings of the AIDCP, continued monitoring of the EPO dolphin stocks, the affirmative finding process, and the implementation of the U.S. dolphin-safe label, the United States has demonstrated a strong investment in the success of the Agreement. As noted earlier, compliance by vessels with the conservation provisions of the AIDCP is generally quite high. However, there is a need for ongoing vigilance among the nations participating in the AIDCP, and further progress in conserving dolphin populations will require a continued high level of compliance with the conservation measures of the Agreement. One of the strengths of the Agreement is that the Parties have always worked to identify areas where changes would strengthen the Agreement and, when identified, quickly moved to adopt those changes. Over the past few years the United States has moved the Parties to the AIDCP to review the consistency of the AIDCP international observer program and the national observer programs, the setting on dolphins by small vessels, and adequate follow-up to possible infractions reported to the Parties, to name a few. The United States is working with its close partners, including key stakeholders, to present to the Parties ideas for resolving these issues, some of which have come to light as a result of NMFS' recently completed research and IATTC analyses, among other sources. Although substantial progress has been made with respect to the plan of action to strengthen the Agreement, the United States will continue to prioritize these issues in the future.

The United States is anxious to move forward on these matters, and realizes the majority of Parties to the Agreement share a common interest in working to ensure the strongest possible agreement. Although much has already been accomplished by the AIDCP to reduce dolphin mortalities in the EPO, the United States recognizes that more can be done. Incidental mortality of sea turtles, seabirds, sharks, and other non-target species in the tuna purse seine fishery is an issue the United States and the IATTC are taking proactive steps to confront. The United States will continue working with other IATTC members to address protection of these species at future meetings. Through a contract awarded to the IATTC, NMFS began implementing international activities with funding from the Foreign Fishing Observer Fund, which is ongoing. These activities are expected to help define the catch characteristics of Class 1–5 purse seine vessels and to help quantify the extent to which these vessels may be capable of setting on tuna associated with dolphins or actually fishing in this manner. Ongoing research will also help to address the question of whether, or to what extent, small purse seine vessels may be setting on tuna associated with dolphins. Additional research will address the bycatch of juvenile tuna and finfish, methods for capturing large yellowfin tuna not in association with dolphins, coastal spotted dolphin abundance and stock structure, and other activities to provide data with which NMFS will make future management decisions.

The Departments of Commerce and State are concerned that the final disposition of the "dolphin safe" label case (*Earth Island Institute v. Evans*) may weaken the support of other governments for the AIDCP because, for the near term, they have lost the prospect of increased market share in or, in the case of countries that have not yet pursued an affirmative finding under the MMPA, access to U.S. canned tuna markets. At recent Meetings of the Parties, some nations have begun to question the need to maintain 100 percent observer coverage if the products cannot be marketed as "dolphin-safe" in the U.S., and are suggesting that the costs of the program outweigh the benefits for them. Mexico's challenge of the U.S. dolphin-safe labeling standards under the WTO dispute settlement process is further evidence of dissatisfaction with the status quo following the conclusion of the litigation.

Implementation of anything less than 100 percent coverage would represent a significant step backward for the AIDCP, the fate of dolphins in the EPO, and the legitimacy of international conservation efforts as a whole. The United States believes that the viability and continued success of the AIDCP are crucial for the continued recovery of EPO dolphin stocks currently listed as depleted under the Marine Mammal Protection Act. Our challenge as we enter a new era for the tuna-dolphin issue is to maintain the viability of the AIDCP in light of the 9th Circuit's decision. The United States recognizes that progress takes time in international fora, but remains committed to continuing to work within the framework of the AIDCP and IATTC to achieve even greater success at long-term dolphin conservation and recovery, tuna resource management, and ecosystem management in the EPO.

XI. Southwest Fisheries Science Center IDCPA/EPO Related Publications

Olson, R.J., B.N. Popp, B.S. Graham, G.A. López-Ibarra, R. Galván-Magaña, C.E. Lennert-Cody, N. Bocanegra-Castillo, N.J. Wallsgrove, E. Gier, B. Alatorre-Ramírez, L.T. Ballance, and B. Fry. *Submitted.* Food web inferences of stable isotope spatial patterns in copepods and yellowfin tuna in the pelagic eastern Pacific Ocean. Submitted to Progress in Oceanography.

Vilchis, L.I., L.T. Ballance, and W. Watson. 2009. Temporal variability of neustonic ichthyoplankton assemblages of the eastern Pacific warm pool: Can community structure be linked to climate variability? Deep-Sea Research I 56:125-140.

Technical Reports, Administrative Reports, and Working Papers

Archer, F.I., A.E. Henry, and L.T. Ballance. 2008. *Stenella* Abundance Research Line Transect and Ecosystem (STAR-LITE) 2007 Cruise Report. NOAA-TM-NMFS-SWFSC-433. 24 pp.

Gerrodette, T., Watters, G., Perryman, W., and Ballance, L. 2008. Estimates of 2006 dolphin abundance in the eastern tropical Pacific, with revised estimates from 1986-2003. NOAA-TM-NMFS-SWFSC-422. 39 pp.

Kellar, N.M., M.L. Trego, S.J. Chivers, and F.I. Archer. 2008. Pregnancy patters of spotted dolphins in the eastern tropical Pacific determined from hormonal analysis of biopsies and their correlation with the purse-seine tuna fishery. Ph.D. Thesis, University of California, San Diego, La Jolla, CA. 186 pp.

Schwarz, Archer, and Gerrodette. 2009. Comparison of closing and passing mode from a line-transect survey in the eastern tropical Pacific. In preparation.