



The 1998 Agreement on the International Dolphin Conservation Program: Recent Developments in the Tuna-Dolphin Controversy in the Eastern Pacific Ocean

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The problem of incidental dolphin mortality in the eastern Pacific Ocean fisheries for yellowfin tuna is one of the longest running controversies in the modern international law of fisheries. Although initiatives in the last 30 years have been successful in reducing incidental mortality from very high levels to relatively modest levels, most of these have been either unilateral actions, principally by the United States, or voluntary agreements among the states concerned. In 1998, however, these states concluded a binding agreement that formalized and extended the existing voluntary arrangements. This article reviews the developments that led to the adoption of the 1998 agreement, summarizes its provisions, and looks at events since its adoption.

Keywords tuna, dolphin, incidental capture, International Dolphin Conservation Program

Introduction

The so-called tuna-dolphin controversy in the eastern Pacific Ocean (EPO), whereby dolphins that associate with yellowfin tuna are caught incidentally in fishing operations, has been ongoing for more than 40 years. The problem has inspired emotional, heated, and public debate, comparable to that which has raged over whales. Since the U.S. purse seine fishery began in 1959, several million dolphins have been killed, with estimates for annual dolphin deaths running into several hundreds of thousands during the 1960s.¹ Measures taken domestically by the United States in the 1970s and 1980s and subsequent voluntary measures taken at the international level have been successful in reducing dolphin mortality to a mere fraction of the levels of the 1960s. Indeed, the success of these measures has been such that the level of dolphin mortality is no longer an issue of major concern for many, except, perhaps, for those who consider any dolphin mortality to be wrong.

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However, the stability of the voluntary arrangements has been continually under threat because of an uneasy tension among the key players. Thus, on the one hand, the United States has sought to impose its own strict conservation standards on the fishing operations of other states and has utilized various means, including trade restrictions to its important market for yellowfin, to seek international compliance with its standards. On the other hand, the principal fishing states, mainly from Latin America, have sought to maintain viable and efficient yellowfin industries that have not always had the desire or ability to meet these standards. In 1998, however, all of the states concerned adopted the Agreement on the International Dolphin Conservation Program, an international agreement designed to formalize the previous voluntary arrangements and to establish a stable and sustainable regime.² This article will briefly survey the events leading up to the adoption of the 1998 agreement, before reviewing the agreement itself and making a few summary observations about it.³

Background

The problem of incidental dolphin mortality in the EPO occurs because of a close association between yellowfin tuna and dolphins (which appears to be particularly acute in tropical waters such as the EPO) whereby schools of large, mature tuna congregate and shoal beneath schools of dolphins.⁴ The yellowfin tuna in the EPO associates typically with spotted dolphins (*Stenella attenuata*) and, to a lesser extent, common (*Delphinus delphis*) and spinner (*Stenella longirostris*) dolphins, although other species, including striped and bottlenose dolphins, are also taken. It is thought that the reason for this association, at least as regards spotted dolphin, might be a shared or commonly preferred food source,⁵ although the precise reasons are not well understood. Nevertheless, the inevitable result is that the dolphins, which are easily identifiable because they must come to the surface to breathe, are targeted and encircled by vessels using purse seine nets attempting to catch the tuna. Consequently, catching tuna means catching dolphins as well. There are other methods of purse seine fishing that do not involve setting nets on dolphins, such as school fishing, which relies on sightings of tuna schools swimming sufficiently near the surface to be sighted, or log fishing, in which purse seine nets are set around natural logs or other floating objects which, for some unknown reason, attract large numbers of marine species, including tuna. Compared with dolphin fishing, however, the school and log methods are less reliable and tend to result in the capture of predominantly smaller and therefore less valuable tuna and so have never been developed on a significant scale.⁶

Following the development of a dolphin-associated tuna fishery by U.S. purse seiners in 1959, dolphin mortality quickly reached alarming levels. In the first 14 years following the commencement of the fishery, dolphin mortality was estimated to be in the range of 200,000 to 500,000 dolphins a year, or about 5 million in total.⁷ The first significant initiative to address the problem was the Marine Mammal Protection Act (MMPA),⁸ adopted by the United States in 1972, which, although not an international instrument, has had a definitive impact on the development of measures at the international level. The MMPA deals with various matters relating to all species of marine mammals,⁹ although the mortality of dolphins during tuna purse seining operations in the EPO was a major impetus for the passage of the act. Thus, from its inception, one of the goals of the MMPA was to reduce the incidental mortality of dolphins in the EPO tuna fishery to levels approaching zero, principally by establishing, subject to certain limited exceptions, a moratorium on the “taking” of marine mammals,¹⁰ with the term

“take” defined as hunting, harassing, capturing or killing, or attempting to harass, hunt, capture, or kill.¹¹ Incidental capture in commercial fishing operations of species not considered to be endangered was, and continues to be, permitted, subject to the objective of reducing incidental killing and serious injury “to insignificant levels approaching a zero mortality and serious injury rate.”¹² Later amendments to the MMPA, and regulations promulgated under it,¹³ introduced strict measures for dolphin-associated fishing by U.S. vessels. These measures included, *inter alia*, the prohibition of sundown sets (research shows that dolphin mortality increases considerably when nets are set late in the day); requiring the use of the backdown procedure (which consists of putting the vessel in reverse after encircling the dolphins, forcing the corkline to sink, opening up an escape route for dolphins), requiring the use of rescue rafts and other means of hand rescue of dolphins from the net, and introducing a requirement for the carrying of observers on vessels with a capacity of more than 400 short tons.¹⁴

Following the introduction of the MMPA, dolphin mortality caused by U.S. vessels began to fall dramatically. Data collected from 1972 to 1976 resulted in estimates of dolphin mortality of about one-third of the levels estimated for the period prior to 1972, and a similar drop occurred between 1976 and the early 1980s, by which time dolphin mortality caused by U.S. vessels had fallen to well below 20,000 animals in most years.¹⁵ It is not doubted that the provisions of the MMPA contributed significantly in bringing about this reduction.¹⁶ However, an important factor during this period was the decline of the U.S. fleet, which had once dominated the fishery but which accounted for only about one-third of the international fleet for yellowfin tuna by the mid-1980s.¹⁷ The main reasons for this decline appear to have been the transfer of U.S. vessels to the western Pacific,¹⁸ the sale of U.S. vessels to private interests in Latin America, and the construction of new vessels for the expanding Latin American fleets. The vessel transfers to the western Pacific apparently resulted from the increased difficulty in obtaining access to the exclusive economic or fishery zones of the Latin American coastal states and the reduced abundance of yellowfin tuna because of overfishing.¹⁹ There was also considerable speculation that the transfers were due to difficulties in meeting the requirements of the MMPA, although at least one report appears to suggest that this was probably not the case.²⁰

Notwithstanding the reduction in dolphin mortality among U.S. vessels, the growing international fleet began to be a source of increasing concern. These vessels were not subject to the same strict standards as U.S. vessels and, in any case, often did not have the technical capabilities to engage in dolphin-friendly fishing. International efforts, developed through the fisheries body for the region, the Inter-American Tropical Tuna Commission (IATTC),²¹ had not, at this point, had a significant effect in reducing dolphin mortality, which was estimated to be 133,000 dolphins in 1986 and almost 100,000 dolphins in the following year—considerably higher than in the previous 10 years.²² In response, the United States amended the MMPA twice, first in 1984 and then in 1988, a response which was to have significant international consequences. The combined effect of these amendments was to require third states wishing to export tuna to the United States to use standards “comparable” or equivalent to the standards (which in 1988 were considerably strengthened)²³ required of U.S. vessels under the act. This was a two-part test. First, the exporting state had to provide documentary proof that it had a regulatory program governing the taking of marine mammals in the fishery that was comparable to the U.S. program, and second, the average rate of dolphin mortality caused by that state’s vessels had to be comparable to that of the U.S. fleet.²⁴ Any state failing to meet these requirements could be subject to an embargo on the importation of its yellowfin

tuna and yellowfin tuna products to the United States. The 1988 amendments also included secondary, or intermediary, embargoes on states that imported yellowfin tuna or tuna products from states subject to a primary embargo, for failing to insist on the same standards. Further still, all embargoed states that failed to bring the situation into line with the MMPA's provisions within 6 months were subject to certification under the so-called Pelly Amendment.²⁵

Since 1990, largely as a result of litigation in U.S. courts,²⁶ primary and intermediary embargoes on yellowfin tuna and yellowfin products have been imposed on more than 20 states.²⁷ These embargoes were accompanied by changes in U.S. law on the labeling and marketing of tuna, which provided for the use of a "dolphin-safe" label on cans of tuna not caught in association with dolphins.²⁸ Later changes went further and prohibited the sale, purchase, transport, or shipment in the United States of any tuna that was not dolphin-safe after June 1, 1994.²⁹ Neither the embargoes nor the "dolphin-safe" policies were completely successful in eliminating dolphin-associated fishing, at least among the foreign fleet.³⁰ Thus, although they resulted in the relocation or termination of most of the U.S. fleet,³¹ the foreign fleet remained and attempted to develop new markets for their tuna.³² The compatibility of the embargoes with General Agreement on Tariffs and Trade (GATT) commitments was also challenged by Mexico³³ and later by the European Community (EC).³⁴ Although both challenges resulted in decisions against the United States in GATT dispute settlement panels, neither Mexico nor the EC, for different reasons, pursued the matter further within the GATT Council.³⁵

The 1992 La Jolla Agreement and the Declaration of Panama

The effective closure of the U.S. market for yellowfin to vessels operating in the EPO created an uneasy relationship between the United States and the states that continued to maintain socioeconomically important tuna fleets in the region. It appeared, however, that all States were prepared to cooperate in a multilateral arrangement that would both provide for the continuation of a sustainable and commercially viable yellowfin fishing industry and also accommodate U.S. concerns regarding the effects of dolphin-associated fishing. Consequently, in April 1992, meetings were held in La Jolla, California, which led to the adoption of a voluntary agreement, commonly known as the La Jolla Agreement, among the states concerned.³⁶ The La Jolla Agreement established the International Dolphin Conservation Program (IDCP), which sought to reduce the take of dolphins to levels approaching zero and established a schedule of dolphin mortality limits that progressively reduced the limits on the number of dolphins that could be caught each year until 1999, when the number was to be less than 5,000 dolphins.³⁷ The total limits on dolphin mortality were then divided into individual Dolphin Mortality Limits (DMLs) and distributed to the parties to the agreement in proportions relating to the number of vessels wishing to participate in the fishery and meeting certain requirements under their jurisdiction. Vessels were not permitted to exceed the limits set for them, or they would receive correspondingly reduced allocations in subsequent years. In addition, the program required 100% observer coverage of vessels, with at least 50% of the observers for each nation being from the IATTC observer program; set up a review panel (composed of representatives of participating states as well as of environmental and industry groups) to monitor and report on compliance with the limits set; and established a scientific advisory board to assist IATTC in coordinating, facilitating, and guiding research on reducing dolphin mortalities, and in particular to advise on how purse seine technology could be modified to make it less likely to cause dolphin

mortality. Although some concerns were expressed that, due to the voluntary nature of the agreement, compliance was not adequate,³⁸ the operation of the agreement was, in fact, highly successful and exceeded expectations, with the final-year target of less than 5,000 dolphin deaths being achieved in the first year. By 1998, annual dolphin mortality had dropped to below 2,000 (see Table 1).

Despite the adoption of the La Jolla Agreement, the U.S. embargoes continued. This led to increasing frustration among the Latin American states, which threatened withdrawal from the IDCP unless significant changes to U.S. legislation were made. Thus, partly to avert the defections of the dissatisfied Latin American states and partly because of a general desire to further strengthen cooperation on dolphin protection, the interested States came to a compromise in 1995 in the form of the Panama Declaration.³⁹ The basic bargain struck in that declaration was an undertaking on behalf of the United States to modify its legislation regarding the imposition of embargoes and the marketing of dolphin-safe tuna in exchange for the modification and formalization of the La Jolla Agreement as a legally binding instrument.

The response to the Panama Declaration was rather slow at first. Early in 1996, Mexico, under pressure from its tuna fishing industry, again threatened to withdraw from the IDCP unless the United States amended its laws as envisaged in the Panama

Table 1
Annual estimates of dolphin mortality, by species and stock, 1979–1999
(all data for 1999 are preliminary)

Year	Offshore spotted		Spinner		Common			Others	Total
	North-eastern	Western-southern	Eastern	White-belly	Northern	Central	Southern		
1979	4,828	6,254	1,460	1,312	4,161	2,342	94	880	21,331
1980	6,468	11,200	1,108	8,132	1,060	963	188	633	29,752
1981	8,096	12,512	2,261	6,412	2,629	372	348	367	32,997
1982	9,254	9,869	2,606	3,716	989	487	28	1,347	28,296
1983	2,430	4,587	745	4,337	845	191	0	353	13,488
1984	7,836	10,018	6,033	7,132	0	7,403	6	156	38,584
1985	25,975	8,089	8,853	6,979	0	6,839	304	1,777	58,816
1986	52,035	20,074	19,526	11,042	13,289	10,884	134	5,185	132,169
1987	35,366	19,298	10,358	6,026	8,216	9,659	6,759	3,200	98,882
1988	26,625	13,916	18,793	3,545	4,829	7,128	4,219	2,074	81,129
1989	28,898	28,530	15,245	8,302	1,066	12,711	576	3,123	98,451
1990	22,616	12,578	5,378	6,952	704	4,053	272	1,321	53,874
1991	9,005	4,821	5,879	2,974	161	3,182	115	990	27,127
1992	4,657	1,874	2,794	2,044	1,773	1,815	64	518	15,539
1993	1,139	757	821	412	81	230	0	161	3,601
1994	935	1,226	743	619	101	151	0	321	4,096
1995	952	859	654	445	9	192	0	163	3,274
1996	818	545	450	447	77	51	30	129	2,547
1997	721	1,044	391	498	9	114	58	170	3,005
1998	298	341	422	249	261	172	33	101	1,877
1999	358	253	363	192	85	34	1	62	1,348

Source: IATTC.

Declaration. The necessary amendments to the U.S. legislation were eventually adopted in 1997 in the form of the International Dolphin Conservation Program Act.⁴⁰ The act, the key provisions of which were dependent upon the adoption and entering into force of the binding international agreement sought by the United States, expressly stated among its purposes the putting into effect of the Panama Declaration and the elimination of the ban on imports of tuna from those nations that were in compliance with the IDCP.⁴¹ The act did not exactly follow the Panama Declaration, however, because of concerns raised in the U.S. Congress during the passage of the legislation that the use of purse seines to repeatedly chase and encircle dolphins might have physiological stress effects that might impede the ability of depleted dolphin populations to recover. This concern arose from the fact that, despite reduced mortality under the IDCP, the recovery of the dolphin stocks remained slow.⁴² The reasons for this slow recovery are not clear, although it is thought that physiological stress effects caused by the chase and encirclement techniques used in dolphin-associated fishing might be a factor. Accordingly, by way of a compromise in Congress, the act provided that, prior to implementing any change in the dolphin-safe label, the U.S. Secretary of Commerce was to carry out both population abundance surveys of the depleted stocks and research into whether the physiological stress effects of purse seine fishing adversely affected depleted dolphin populations.⁴³ Based on these studies, the Secretary of Commerce was then required to make an initial finding, in March 1999, regarding whether the intentional deployment on or encirclement of dolphins with purse seines was having a significant adverse impact on any depleted stock in the EPO.⁴⁴

Although the International Dolphin Conservation Program Act did not follow precisely the Panama Declaration, it nevertheless provided renewed impetus to the Panama Declaration process. Shortly after its adoption, in October 1997, a special session of the interested states was hosted by IATTC, with further negotiations in 1998. These meetings led eventually to the adoption of a binding international agreement in May 1998, completing, after three difficult years, the process started under the Panama Declaration in 1995.

The 1998 Agreement on the International Dolphin Conservation Program

The Agreement on the International Dolphin Conservation Program was signed in Washington on May 15 and entered into force on February 15, 1999, following ratification by four States, as required: Ecuador, Mexico, Panama, and the United States.⁴⁵ The agreement has subsequently been ratified by five further states: Costa Rica, El Salvador, Honduras, Nicaragua, Peru, and Venezuela. The 1998 agreement is open for accession by those states with a coastline bordering the agreement area, or that are members of IATTC, or whose vessels fish for tuna in the agreement area, or that are otherwise invited to accede to the Agreement on the basis of a decision by the parties.⁴⁶ The agreement also provides for the participation of regional economic integration organizations such as the EC, which may accede if they meet any of the criteria. Although the EC, which has vessels that fish in the region (from France and Spain), has expressed an interest in participating, it has stated that it will not approve the agreement until it has joined IATTC, a process that could take some time.⁴⁷ Nevertheless, in the meantime, it has agreed to apply the agreement provisionally.⁴⁸

The objectives of the 1998 agreement, which are essentially those set out for the original IDCP, are threefold, namely: (1) to progressively reduce incidental dolphin mortalities

in the tuna purse seine fishery to levels approaching zero, through the setting of annual limits; (2) to seek ecologically sound means of capturing large yellowfin tuna not in association with dolphins, with the goal of eliminating dolphin mortality; and (3) to ensure the long-term sustainability of the tuna stocks in the agreement area,⁴⁹ as well as that of the living marine resources related to the fishery, taking into consideration the interrelationship among species in the ecosystem and with special emphasis on, *inter alia*, avoiding, reducing, and minimizing bycatch and discards of juvenile tuna and non-target species.⁵⁰

Article IV of the 1998 agreement lays down a number of general principles that the parties are required to implement within the framework of IATTC, namely: to ensure the conservation of ecosystems and the long-term sustainability of tuna stocks and associated stocks, based on the best scientific evidence available; to apply the precautionary approach;⁵¹ to take measures designed to maintain or restore the biomass of harvested and associated stocks at or above levels capable of producing maximum sustainable yield; to take measures, according to the capacities of the parties, to assess the catch and bycatch of juvenile yellowfin tuna and related stocks; and to establish measures, *inter alia*, to avoid, reduce and minimize the bycatch of juvenile yellowfin tuna and other nontarget species in order to ensure long-term sustainability of all these species, taking into consideration the interrelationships among species in the ecosystem. Article VI elaborates on these requirements by requiring parties to develop and implement measures, again within the framework of IATTC, to ensure the long-term sustainability of living marine resources associated with the purse seine fishery and, specifically, to develop and implement a program for assessing, monitoring, and minimizing bycatch of juvenile tuna and nontarget species; to develop and require the use of selective, environmentally safe, and cost-effective fishing gear and techniques, to the maximum extent practicable; to require vessels to release alive incidentally caught sea turtles and other threatened or endangered species, to the maximum extent practicable; and to request IATTC to initiate investigations to assess whether the fishing capacity of vessels targeting tuna poses a threat to the sustainability of the stocks. It is particularly noteworthy, from these provisions, that the agreement requires parties not only to take measures to reduce incidental dolphin mortality, but also to take measures to protect other species in the ecosystem, including juvenile tuna and sea turtles.

The central provision of the 1998 agreement is Article V, which provides for the continuation, in an extended form, of the IDCP. The agreement essentially continues where the 1992 La Jolla Agreement left off, setting a basic objective of limiting total incidental dolphin mortality in the purse seine tuna fishery to no more than 5,000 individuals annually (the 1998 agreement does not set progressively reducing mortality targets) and using the basic approach of allocating dolphin mortality limits (DMLs) to vessels. The principal difference between the two agreements is that under the new Agreement annual mortality limits are set for each stock, in contrast to the La Jolla system, under which a single DML applied to all stocks combined.⁵² Thus, parties are now required to establish per-stock per-year dolphin mortality caps with the objective of achieving a limit of 0.1% of the minimum estimated abundance of stocks (N_{\min}) from the year 2001 onwards.⁵³ In the interim period, parties are required to establish limits of between 0.1% and 0.2%, which, in any event, must not exceed a total of 5,000 dolphins a year,⁵⁴ and to conduct a scientific review and assessment towards the 2001 objective and to consider recommendations as appropriate.⁵⁵ In recent years, the mortality rates of all dolphin stocks in the EPO have been within at least the 0.2% target rate (and most have been within the 0.1% rate), and there is currently little reason to assume

Table 2

Estimates of population abundance, incidental mortality, and relative mortality in 1996

Stock	Population abundance	Incidental mortality	Relative mortality (%)	
			Estimate	95% confidence interval
Offshore spotted dolphin				
Northeastern	730,900	818	0.11	(0.085, 0.140)
Western-southern	1,298,400	545	0.04	(0.033, 0.059)
Spinner dolphin				
Eastern	631,800	450	0.07	(0.044, 0.108)
Whitebelly	1,019,300	447	0.04	(0.028, 0.058)
Common dolphin				
Northern	476,300	77	0.02	(0.009, 0.035)
Central	406,100	51	0.01	(0.007, 0.025)
Southern	2,21,900	30	<0.01	(0.001, 0.002)
Other dolphins ^a	2,802,300	129	<0.01	(0.004, 0.005)
All	9,576,000	2547	0.03	(0.023, 0.030)

^aIncludes the following species and stocks: striped dolphins (*Stenella coeruleoalba*), bottle-nose dolphins (*Tursiops truncatus*), Central American spinner dolphins (*Stenella longirostris centro-americana*), and unidentified dolphins.

Source: Wade, P. R. and T. Gerrodette, "Estimates of Cetacean Abundance and Distribution in the Eastern Tropical Pacific" (1993), 43 *Report of the International Whaling Commission* 477.

that mortality targets will not continue to be met in the future. However, in the event that annual mortality for a particular stock exceeds the permissible limits (i.e., 0.2% of N_{\min} prior to 2001 or 0.1% from 2001 onwards), all sets on that stock and on any mixed schools containing members of that stock shall cease for that year.⁵⁶ The parties are required to establish a system, based on real-time observer reporting, to ensure the effective implementation of and compliance with the dolphin mortality cap.⁵⁷

As with the 1992 agreement, the principal method by which dolphin mortality is to be regulated is through the annual distribution of DMLs among the parties.⁵⁸ The 1998 agreement sets out in detail the procedures for this distribution, although this is largely based on the procedures established under the original IDCP. In brief, the DMLs are calculated on the basis of the number of vessels under the jurisdiction of each party requesting DMLs. A list of vessels eligible to receive a DML, based on national lists supplied by the parties of vessels over 400 short tons that have requested a DML for the following year, is drawn up by the International Review Panel (IRP).⁵⁹ A vessel will only qualify for inclusion on the IRP list if (a) it is in possession of all of the dolphin safety gear and equipment required in Annex VIII; (b) the captain and crew of the vessel have received approved training in dolphin release and rescue techniques; and (c) the captain is considered qualified due to his or her prior record of performance.⁶⁰ On the other hand, a vessel will not be eligible for a DML if it has been determined by the parties to have engaged in a pattern of violations that diminishes the effectiveness of the IDCP,⁶¹ if it is operating under the jurisdiction of a state that prohibits fishing for dolphin-associated tuna (or of a party that intends to give permits to vessels from such states),⁶² or if it has lost its DML on two previous occasions through nonutilization.⁶³

Once the IRP has determined which vessels are eligible for a DML, the total DML, as determined under the procedure described above, is distributed among the parties in proportion to the number of eligible vessels under its jurisdiction.⁶⁴ This is done by calculating an average DML based on 98% (or such other unreserved portion as the parties may determine) of the total dolphin mortality of the fishery.⁶⁵ The remaining portion (2%, or otherwise) is reserved either for vessels that do not normally fish for tuna in the agreement area but that may, from time to time, desire to participate in the agreement area on a limited basis⁶⁶ and for accidental mortalities caused by vessels that do not have DMLs.⁶⁷

The 1998 agreement requires parties to manage their DMLs in a responsible manner. In particular, parties cannot allocate to their qualified vessels a greater number of DMLs than has been allocated to them under the agreement, and no initial assignment of DMLs to individual vessels may exceed the average DML unless its performance in reducing dolphin mortalities, as measured by the IRP over the two previous years, is better than the average performance of the international fleet as a whole.⁶⁸ Furthermore, if the total mortalities of the fleet of a party meet or exceed the total amount of DML distributed to it, it must implement an immediate cessation of dolphin-associated tuna fishing for its vessels.⁶⁹ A similar requirement exists for individual vessels, which must also immediately cease all dolphin-associated tuna fishing if they meet or exceed the DML allocated to them.⁷⁰ The 1998 agreement, in contrast to the 1992 version, contains a punitive element for vessels exceeding their DML, as the amount of excess plus an additional 50% of that amount will be deducted from DML allocations in subsequent years unless the IRP recommends otherwise.⁷¹

The agreement also provides for the reallocation of DMLs that have either not been used or have been forfeited during a particular year.⁷² This procedure has drawn criticism from some environmental groups, who see it as encouraging dolphin mortality. On the other hand, the recycling of unused DMLs reflects the difficult balance struck in the IDCP between conservation interests and fishing industry interests and discourages the misuse of DML allocations. Furthermore, conservation safeguards are built into the reallocations because an individual vessel would not be entitled to receive an increased DML if (a) it fished without an observer; (b) it set on dolphins without a DML; (c) it set on dolphins after reaching its DML; (d) it knowingly set on a banned dolphin stock; (e) the captain or crew obstructed the observer in the performance of his or her duties; (f) it made a sanctionable night set; or (g) it used explosives during any phase of a fishing operation involving dolphins.⁷³ In any case, a vessel may not receive an adjustment of more than 50% of its original DML unless its performance in successfully reducing dolphin mortalities, as measured by the IRP, is in the "upper" 60% of the performance of the international fleet as a whole.⁷⁴

In addition to the DML system, the 1998 agreement greatly expands other elements of the IDCP, some of which result from measures adopted, or experience gained, under the original program, while others are entirely new elements. The measures include the establishment of a system that provides incentives to vessel captains to continue to reduce incidental dolphin mortality, with the goal of eliminating mortality;⁷⁵ the establishment and implementation of a system for the tracking and verification of tuna harvested with and without mortality or serious injury of dolphins;⁷⁶ the exchange of scientific research data collected by the parties pursuant to the agreement on a full and timely basis;⁷⁷ and the conduct of research for the purpose of seeking ecologically sound means of capturing large yellowfin tuna not in association with dolphins.⁷⁸ Furthermore, all vessels that operate in the agreement area are subject to certain operational requirements

relating to the use of fishing gear and techniques designed, inter alia, to minimize dolphin bycatch and facilitate the immediate release of dolphins caught.⁷⁹ To this end, the agreement also provides for the establishment, within the framework of IATTC, of a system of technical training and certification for fishing captains and crews on the gear and its use, as well as of the techniques for the rescue and safety of dolphins, and the promotion and support, also within the framework of IATTC, of research to improve gear, equipment, and fishing techniques, including those used in the fishery for tuna associated with dolphins.⁸⁰

Parties are under a general obligation to ensure that their vessels comply with the measures in or adopted under the agreement, but the agreement does not otherwise have any provisions on enforcement.⁸¹ The responsibility for determining whether a violation has occurred and, if so, for assessing an appropriate penalty thus remains with the flag state, even though this did not always prove successful under the original program. The agreement does, however, lay down procedures, continued from the original program, for a comprehensive observer program, which are important from the point of view of attaining compliance.⁸² Under the observer program, observers are required on all fishing trips for vessels over 400 tons, with at least 50% of observers being provided by IATTC.⁸³ Annex II lays down the duties, responsibilities, and powers of observers and the duties and responsibilities of captains of fishing vessels, following what may fairly be described as reasonably standard criteria for the use of observers in international fisheries programs.

The 1998 agreement sets out procedures for the settlement of disputes related to its interpretation or application. Given the fact that the old regime was not very stable because of the difficult relationship and different agendas of the United States, on the one hand, and the Latin American states and, to a lesser extent, the EC, on the other, an effective dispute resolution mechanism could be a potentially useful tool. However, the procedures in the agreement are not particularly helpful, as they only envisage cooperative solutions. Thus, parties are required to cooperate in order to prevent disputes and may consult with one or more other parties about any dispute in order "to reach a satisfactory solution . . . as quickly as possible."⁸⁴ If, however, a dispute is not settled through such consultation within a reasonable period, the only further obligation is that the parties in question consult among themselves as soon as possible in order to settle the dispute through any peaceful means they may decide upon in accordance with international law.⁸⁵

It can, perhaps, be regarded as unfortunate that the 1998 agreement does not establish a system for the compulsory settlement of disputes, particularly as such systems (at least as regards disputes relating to high seas fishing) are contained and envisaged in the 1982 UN Law of the Sea Convention⁸⁶ and the 1995 UN Fish Stocks Agreement,⁸⁷ both of which are mentioned in the preamble to the agreement. It is nevertheless possible that those mechanisms may apply to disputes arising under the 1998 agreement, at least as between parties,⁸⁸ as they both require the compulsory settlement of disputes concerning high seas fishing.

Taking the Law of the Sea Convention first: It provides a mechanism whereby disputes that cannot be settled by peaceful means chosen by the parties may be submitted at the request of any disputant to compulsory procedures.⁸⁹ As the International Tribunal for the Law of the Sea has recently demonstrated in the *Southern Bluefin Tuna cases*,⁹⁰ it does not necessarily matter that the particular dispute does not concern the Law of the Sea Convention specifically but, rather, concerns another agreement, if a provision of the Convention is in question. However, the application of the Law of the

Sea Convention compulsory procedures to disputes arising under the 1998 agreement is subject to some important limitations. First, disputes relating to coastal state rights, in particular the sovereign right of the coastal state over the living resources of its exclusive economic zone (EEZ), are excluded from the compulsory dispute settlement mechanisms.⁹¹ Thus, any disputes relating to fishing in the EEZs of coastal states would be excluded. This could be a potentially significant limitation given that much of the catch of yellowfin tuna is taken in such zones,⁹² although given that a complete fishing trip may involve fishing in both zones, even if the catch is ultimately taken from an area within national jurisdiction, the Law of the Sea Convention's provisions may still apply. A more difficult limitation, however, is that although the Convention does lay down a requirement to take into account the effects of fishing on the high seas on species associated with the harvested species,⁹³ it does not lay down detailed provisions in relation to incidental mortality which could be used as a basis for a claim by a state and, in any case, only requires parties to take measures with a view to maintaining or restoring populations of the associated species above levels at which their reproduction may become seriously threatened.⁹⁴ As has been noted, this is no longer an issue as regards dolphins in the yellowfin fisheries.

As regards the Fish Stocks Agreement, slightly more detailed provisions on incidental mortality are set out, which could provide a better basis for a claim. Thus, the 1995 agreement, *inter alia*, expressly requires parties to adopt measures for species belonging to the same ecosystem or dependent on or associated with the target fish stocks, to minimize, *inter alia*, catch of nontarget species, both fish and nonfish species, and to minimize impacts on associated or dependent species, in particular endangered species, through measures including, to the extent practicable, the development and use of selective, environmentally safe, and cost-effective fishing gear and techniques and to protect biodiversity in the marine environment.⁹⁵ Under the 1995 agreement, disputes are to be settled in accordance with the provisions of the Law of the Sea Convention, which apply also, *mutatis mutandis*, to disputes under the former, whether or not the disputing parties are also parties to the Law of the Sea Convention.⁹⁶ The Fish Stocks Agreement also provides a second possibility, however, as, *inter alia*, it applies the Convention provisions to any dispute between parties concerning the interpretation or application of a regional fisheries agreement relating to highly migratory fish stocks to which they are parties.⁹⁷ A potential problem with the Fish Stocks Agreement, however, is that it applies only to straddling and highly migratory *fish* stocks. If the 1998 agreement is to be regarded as an agreement for the protection of dolphins, then it could be argued that it falls outside the scope of the Fish Stocks agreement. However, it is submitted that the 1998 agreement does fall within the Fish Stocks Agreement, and that the latter's dispute settlement provisions will apply as between parties to it when it enters into force.⁹⁸ This is because (1) although called the Agreement on the International Dolphin Conservation Program, it is essentially an agreement regulating the tuna fishing industry and, *a fortiori*, some provisions, such as those on the conservation of juvenile tuna, relate specifically to tuna; and (2) the general principles of conservation in the 1995 agreement, outlined above, clearly encompass aspects dealt with in the 1998 agreement.

The institutional arrangements for the implementation of the 1998 agreement are essentially based on those established by the La Jolla Agreement, although the 1998 agreement puts these arrangements on a more formal footing. The main decision-making body is the Meeting of the Parties, but implementation is also to be achieved through a Scientific Advisory Board and National Scientific Advisory Councils and an IRP. All of these bodies are supported by IATTC, which is expressly designed to have an inte-

gral role in coordinating the implementation of the agreement, including the provision of secretariat functions.⁹⁹

The main functions of the Meetings of the Parties, which are to be held at least once a year, preferably in conjunction with an IATTC meeting,¹⁰⁰ are to consider matters pertaining to the implementation of the 1998 agreement and to make all decisions relevant thereto.¹⁰¹ All decisions taken by the Meeting of the Parties are to be by consensus.¹⁰² Provision is made for the participation in the meetings of observers, including nongovernmental organizations with recognized experience in matters pertaining to the agreement.¹⁰³ The participation of observers in the Meetings of the Parties and other organs of the program is consistent with a general obligation under the agreement to promote transparency in its implementation.¹⁰⁴

The Scientific Advisory Board, which is composed of technical experts, appointed subject to the approval of the parties, is to meet at least once a year with the objective of assisting IATTC in matters regarding research into modifying current purse seine technology to make it less likely to cause dolphin mortality and seeking alternative means of capturing large yellowfin tuna.¹⁰⁵ To this end, the Scientific Board is to review plans, proposals, and research programs of the IATTC; to provide advice to the IATTC concerning the design, facilitation, and guidance of relevant research; and to assist the IATTC in locating sources of funding to conduct such research. Scientific work is also to be carried out at the national level, through the National Scientific Advisory Councils which are, *inter alia*, to advise and recommend to their governments measures and actions that should be undertaken to conserve and manage stocks of living marine resources in the agreement area, to make proposals regarding research needs, and to conduct scientific reviews and assessments regarding progress towards the 2001 mortality rate target.¹⁰⁶ The parties are to ensure that the councils cooperate through regular and timely meetings to take place at least once a year in conjunction with an ordinary Meeting of the Parties.¹⁰⁷

The work of the Scientific Advisory Board under the original arrangement, in conjunction with the IATTC and national scientific agencies, produced some effective results particularly as regards promoting a better understanding of the problems of tuna fishing methods and the factors that cause dolphin mortality.¹⁰⁸ However, little progress has been made in relation to developing alternative fishing methods or gear, which is one of the primary mandates of the board. These alternative methods, such as log or school fishing, have not proved to be economically viable and tend to result in bycatch of many other species and juvenile tuna.¹⁰⁹ The board has nevertheless played an important role in the development of new initiatives to improve fishing technology and techniques, training, and decision making, and its continued operation is an important feature of the 1998 agreement. It is likely, however, that under the new agreement—with dolphin mortality already significantly reduced and under control—the focus of the Scientific Advisory Board will shift somewhat towards related issues, such as the minimization of the incidental capture of other species, such as billfishes, sharks, rays, mahi-mahi, and undersized tuna.¹¹⁰

The IRP is also continued from the 1992 La Jolla Agreement with essentially the same functions.¹¹¹ Thus, the IRP is, *inter alia*, to compile annual lists of the vessels that qualify for DMLs; to analyze reports submitted to it regarding all tuna-fishing trips made by vessels covered by the agreement; to identify possible infractions; to recommend to the Meeting of the Parties pertinent measures for achieving the objectives of the agreement, in particular those related to the use of gear, equipment, and fishing techniques, as well as the adoption of appropriate incentives for captains and crews to

meet the objectives of the agreement; to recommend to the parties ways to progressively reduce incidental dolphin mortality; and to perform other functions as assigned by the Meeting of the Parties.¹¹² The composition of the IRP under the 1998 agreement is slightly different, being composed of representatives of all the parties as well as a limited number of nongovernmental members, being representatives from environmental organizations and from the tuna industry, elected by the parties.¹¹³ In addition, any IATTC member or signatory to the agreement can be represented by an observer.¹¹⁴ Decisions of the IRP are generally adopted by consensus at the IRP meetings,¹¹⁵ although there is a procedure in “cases of urgency” for decisions to be taken by correspondence through a vote of the governmental members.¹¹⁶ In its eight years of operation, the IRP is credited with benefiting all participants, in particular in terms of increased openness and promoting improved cooperation.¹¹⁷

Comments

It is likely that, in the short term at least, the 1998 agreement will not greatly affect current levels of dolphin mortality because, first, it does not in many respects, significantly alter the operation of the IDCP and, second, it does not set any short-term targets for the further reduction of annual mortality.¹¹⁸ That this is so should not be surprising, however, given that from a biological point of view, mortality rates, which are well below even the most conservative general estimates of dolphin recruitment, are no longer a real problem.¹¹⁹ Thus, all of the key elements of the 1992 La Jolla Agreement remain essentially the same in the 1998 agreement, the main differences relate to the introduction of individual stock DMLs; the introduction of punitive reductions in DML allocations following infractions and reflecting developments in instruments such as the UN Fish Stocks Agreement and the FAO Code of Conduct, the introduction of a number of important general management principles, such as, *inter alia*, the requirements to apply the precautionary approach, to minimize bycatch of juvenile tuna and associated species, and to develop and require the use of selective, environmentally safe, and cost-effective fishing gear and techniques.¹²⁰ These latter developments, in particular, widen the scope of the IDCP to include issues such as the bycatch of species other than dolphins in the yellowfin fishery and the stress effects that purse seine fishing techniques may have on dolphins, currently an issue of particular concern for the United States.

It appears that the main significance of the 1998 agreement is the formalization of the IDCP and the conclusion of a negotiated compromise between participating states, designed to ensure the long-term sustainability of the IDCP. Prior to the adoption of the 1998 agreement, the operation of the IDCP was being undermined, to a certain extent, by continued threats from the Latin American states to withdraw, due to objections to the imposition of U.S. standards and the effective closure of the U.S. market for yellowfin tuna. It is clear, therefore, that a key factor in ensuring the desired sustainability is the reopening of the U.S. market to the fishing states, through both relaxation of the embargoes and a redefinition of the “dolphin-safe” label. That was, after all, the basic bargain struck in the Panama Declaration. As was noted above, the means through which the United States was to make this action possible was the 1997 International Dolphin Conservation Program Act, which, *inter alia*, provided for the relaxation of trade embargoes and, subject to initial and final findings of the U.S. Secretary of Commerce that the encirclement of dolphins with purse seines does not have a “significant adverse impact,” a redefinition of the dolphin-safe standard. Under the 1997 act, dolphin-safe catches would be identified by each individual set of the purse seine net and not for an entire

fishing trip as under the old standard. Thus, tuna would be labelled dolphin-safe if it was caught without any dolphin mortality in any particular set. Under the previous standards, all tuna caught using dolphin-associated methods, regardless of whether any dolphins were killed or not, would not be given a dolphin-safe label.

In 1999, following the entry into force of the agreement, the key provisions of the International Dolphin Conservation Program Act became effective and the United States began making preparations for the relaxation of trade embargoes and the redefinition of the dolphin-safe label. The research on the effects of dolphin-associated fishing was carried out and, on April 29, 1999, the National Marine Fisheries Service (NMFS) was able to deliver the results of the initial finding. According to the NMFS, although the rate of recovery of dolphins was slower than expected, there was insufficient evidence that chase and encirclement in the tuna purse seine fishery was having a "significant adverse impact" on depleted dolphin stocks in the EPO.¹²¹ Based on this initial finding, the dolphin-safe label was, as envisaged by the participants in the IDCP, redefined, with effect from February 2, 2000.¹²² However, in a recent case brought against the U.S. Department of Commerce, the North Californian District Court blocked the changes to the dolphin-safe label under the 1997 act.¹²³ According to the District Court, the NMFS had failed to assess whether the proposed labelling change would cause harm to dolphin populations, as required by the act, because it had failed, first, to obtain and consider preliminary data from congressionally mandated stress research projects and, second, to apply the proper legal standard to the scientific information available.¹²⁴ The decision of the Secretary of Commerce, therefore, contradicted the "manifest intent" of Congress that the dolphin-safe label should remain in force and not be changed immediately so that research from stress studies could be used to inform an initial finding as to whether the deployment of purse seine nets was having a significant adverse impact on depleted dolphin stocks.¹²⁵

In finding as it did, the district court rejected the defendants' arguments that the Secretary of Commerce's action should be sustained so as not to impede the new approach of Congress since the Panama Declaration, namely, to seek the removal of trade embargoes and the redefinition of the dolphin-safe standard.¹²⁶ In one respect, this decision is regrettable, particularly since the decision is, in the long term, subject to a final finding of the Secretary of Commerce, to be delivered by December 31, 2002 at the latest, based on completed research.¹²⁷ In the short term, at least, the decision represents a spanner in the works for the progress of the IDCP.¹²⁸ A major component of the bargain struck in the Panama Declaration remains unfulfilled, with the result that the threats to stability that repeatedly dogged the IDCP prior to the 1998 agreement are likely to continue. The decision has already been fiercely criticized by Mexico, which has stated its intention to contest the ruling.¹²⁹

It should be pointed out, however, that the district court ruling does not affect the lifting of embargoes on tuna caught using purse seines. Providing that states are party to the 1998 agreement, implement its provisions properly, and are able to satisfy the other elements required by the United States (that it has implemented a regulatory program governing the incidental taking of marine mammals that is comparable to that of the United States, etc.), then the embargoes will be lifted. However, the number of embargoed nations has increased considerably this year, despite the participation of many of them in the IDCP. Thus, Bolivia, El Salvador, Guatemala, Honduras, and Nicaragua have recently been added to the list of embargoed nations, along with Belize, Colombia, Panama, Vanuatu, and Venezuela, which have been under primary embargoes for some time.¹³⁰ So far only one state, Mexico, has successfully applied for the removal of a

primary embargo against its yellowfin tuna and tuna products.¹³¹ The removal of the embargo became effective on April 12, 2000, although it is subject to review in March 2001. The practical effect of the lifting of the embargo, however, is of course considerably diminished by the maintenance of the old dolphin-safe standard. Intermediary embargoes against Costa Rica, Italy, and Japan, which were introduced in 1992, were removed in August 2000 on the ground that there was insufficient evidence that these states were importing yellowfin tuna products from nations subject to a primary embargo.¹³²

As a result of these developments in the United States, there have been bad results in the implementation of the 1998 agreement. On the one hand, although slower than hoped for, participation in the agreement by the states concerned is adequate: most of the signatories to the Panama Declaration have become parties to the 1998 agreement or have agreed to apply it provisionally, pending completion of internal ratification procedures. The lack of full participation does not appear to have been a significant impediment to the implementation of the IDCP, through IATTC and the institutional mechanisms of the 1998 agreement itself. On the other hand, the inability of the United States to implement changes to its rules on the marketing of dolphin-safe tuna means that an important component of the Panama bargain remains unfulfilled, a situation that may complicate negotiations within the IDCP and hinder the achievement of full participation by concerned Latin American states. Nevertheless, the IDCP continues to be a worthy and effective initiative, which should continue to keep dolphin mortality at low levels in the future. Although it is currently experiencing a few “teething” problems, the parties remain committed to the general objective of progressively reducing incidental dolphin mortalities to levels approaching zero, even if they cannot always agree on the manner by which this is to be achieved.

Notes

1. M. A. Hall, “An Ecological View of the Tuna-Dolphin Problem: Impacts and Trade-offs,” *Reviews in Fish Biology and Fisheries* 8 (1998): 1, 3, and 8–9, and R. Allen, “Dolphins and the Purse Seine Fishery for Yellowfin Tuna,” in *Marine Mammals and Fisheries*, ed. J. R. Beddington, R. J. H. Beverton, and D. M. Lavigne (London: George Allen & Unwin, 1985), 243.

2. Signed in Washington, DC, 15 May 1998, entered into force 15 February 1999 (hereafter the AIDCP or the 1998 agreement). The agreement is reproduced in C. Hedley, *The Internet Guide to International Fisheries Law* (2000), at www.oceanlaw.net/texts/aidcp.htm.

3. For further information on the background to the agreement, see, from among a considerable literature: J. Joseph, “The Tuna-Dolphin Controversy in the Eastern Pacific Ocean: Biological, Economic and Political Impacts,” *Ocean Development and International Law* 25 (1994): 1; Hall, *op. cit.*, n. 1; G. A. Chmael and N. E. Whiteman, “Caught in the Net of Environmental Law and Policy: Moral Outrage versus Cool Analysis in the EPO Tuna-Dolphin Controversy,” *University of Baltimore Journal of Environmental Law* 6 (1998): 163; M. Scott, “The Tuna-Dolphin Controversy,” *Whalewatcher: Journal of the American Cetacean Society* 30 (1996): 16; National Research Council (USA), *Dolphins and the Tuna Industry* (Washington: National Academy Press, 1992); and H. Campbell and D. Squires, “The Role of Research in Fisheries Management: Conserving Dolphins in the Eastern Tropical Pacific and Exploiting Southern Bluefin Tuna in the Southern Ocean,” in *Closing the Loop: From Research on Natural Resources to Policy Change*, Policy Management Report No. 8, ed. S. R. Tabor and D. C. Faber (Maastricht: European Centre for Development Policy Management, 1998).

4. For further information on cetacean-fisheries interactions generally, see S. P. Northridge, *World Review of Interactions between Marine Mammals and Fisheries*, FAO Fisheries Technical Paper No. 251 (Rome: FAO, 1984); and D. L. Alverson, M. H. Freeberg, S. A. Murawski, and

J. G. Pope, *A Global Assessment of Fisheries Bycatch and Discards*, FAO Fisheries Technical Paper No. 339 (Rome: FAO, 1994), 55–57. See also, for a recent examination of the problem in another region, S. J. Bache and N. Evans, “Dolphin, Albatross and Commercial Fishing: Australia’s Response to an Unpalatable Mix,” *Marine Policy* 23 (1999): 259.

5. See A. Wild, “A Review of Biology and Fisheries for Yellowfin Tuna, *Thunnus Albacares*, in the Eastern Pacific Ocean,” in *Interactions of Pacific Tuna Fisheries*, FAO Fisheries Technical Paper No. 336, Volume 2, ed. R. S. Shomura, J. Majkowski, and S. Langi (Rome: FAO, 1994).

6. For a brief overview of the different methods of purse seine fishing, see Hall, *op. cit.*, n. 1, 4–5.

7. Allen, *op. cit.*, n. 1. See further on dolphin mortality during this period, N. C. H. Lo and T. D. Smith, “Incidental Mortality of Dolphins in the Eastern Tropical Pacific, 1959–1972,” *Fishery Bulletin* 84 (1986): 27; and P. R. Wade, “Revised Estimates of Incidental Kill of Dolphins (Delphinidae) by the Purse Seine Tuna Fishery in the Eastern Tropical Pacific, 1959–1972,” *Fishery Bulletin* 93 (1995): 345.

8. 16 USC § 1361–1421.

9. Marine mammals are widely defined in the MMPA to include not only all species of sea otter, sirenian, pinniped and cetacean, but also any mammal which “primarily inhabits the marine environment,” such as the polar bear. *Ibid.*, § 1362(6).

10. *Ibid.*, § 1371.

11. *Ibid.*, § 1362(13).

12. *Ibid.*, § 1371(a)(2).

13. The MMPA was amended, *inter alia*, in 1976, through Public Law 94-265; in 1981, through Public Law 97-58; in 1984, through Public Law 98-364; in 1988, through Public Law 100-711; in 1990, through Public Law 101-627; and in 1994, through Public Law 103-238.

14. MMPA Amendments of 1988, *ibid.*

15. A table giving dolphin mortality statistics for U.S. and foreign fleets between 1971 and 1998 is reproduced in Appendix C of National Marine Fisheries Service, *Marine Mammal Protection Act, Annual Report 1998* (Silver Spring, MD: NMFS, 2000). The report is reproduced on the Internet at: www.nmfs.gov/prot_res/PDF_docs/1998_MMPA_Annual_Report.pdf. See also, E. H. Buck, “Dolphin Protection and Tuna-Seining,” *Congressional Research Service Brief*, 29 August 1997, reproduced on the Internet at www.cnie.org/nle/mar-14.html.

16. Despite these successes, the debate continued during this period between the U.S. Government, the tuna industry and the environmental community as to whether, and if so to what extent, dolphin-associated fishing should be allowed. Much of the debate took place in the courts. See, for example, *Commission for Humane Legislation, Inc. v. Richardson*, 414 F. Supp. 297 (DDC), affirmed, 540 F.2d 1141 (DC Cir. 1976); *American Tuna Boat Association v. Baldrige*, 738 F.2d 1013 (9th Cir. 1984); and *Balelo v. Klutznick*, 519 F. Supp. 573 (SD Cal. 1981), revised, 724 F.2d 753 (9th Cir.), cert. denied, 467 US 1252 (1984).

17. NMFS, *op. cit.*, n. 15.

18. It is not, perhaps, insignificant, however, that there is no great tuna-dolphin interaction in the central and western Pacific.

19. Joseph, *op. cit.*, n. 3, 4.

20. G. T. Sakagawa, “Are US Regulations on Tuna-Dolphin Fishing Driving US Seinners to Foreign Flag Registry?” *North American Journal of Fisheries Management* 11 (1991): 241.

21. The IATTC was established by treaty in 1949 and was the first international arrangement dealing with tuna fisheries. *United Nations Treaty Series* 80:3. Formerly, the Commission was involved in managing yellowfin and other tuna fisheries in the region, but following the extension of fisheries jurisdiction it has played a very limited management role, although it has continued to play an important role in conducting research on tunas in the Eastern Pacific. Its future role and functions are currently being considered.

22. The IATTC established a Tuna-Dolphin Program in 1976 with the objectives of, *inter alia*, estimating the extent of dolphin mortality, assessing the impact of this mortality on the dolphin populations, and conducting research on dolphin behaviour, fishing gear, and fishing

techniques, with a view to maintaining EPO dolphin stocks at or above levels that would assure their survival in perpetuity. However, due, at least in the early stages, to a lack of funding, progress under the program was slow, and it was not until 1986 that all of the tuna fishing States were participating on a scale that made the objectives of the IATTC program possible. The high mortality figures estimated in 1986 are thought partly to reflect the fact that the 1986 estimate was the first reliable estimate. However, other factors were also believed to have contributed to high dolphin mortality in the mid-1980s, including the growth of the yellowfin stock after lower levels of fishing effort during the early 1980s, which meant that the number of large fish that associated with dolphins increased, higher prices were paid for tuna because of the size of available fish and so a number of vessels that had been inactive or had transferred to the western Pacific resumed fishing in the EPO, increasing fishing effort substantially: Joseph, *op. cit.*, n. 3, 5–6.

23. See above, n. 14, and accompanying text.

24. Similar rules still exist under the MMPA, although the requirements are now tied in with compliance with the International Dolphin Conservation Program. MMPA, 16 U.S.C. § 1371(a)(2)(B).

25. Pelly Amendment to the Fisherman's Protective Act, 22 USC § 1978. In broad terms, the Pelly Amendment allows for the U.S. President to authorize trade embargoes against a state where its fishing activities diminish the effectiveness of an international fishery or endangered or threatened species program. For further information on the Pelly Amendment as it has been applied to whales, see T. L. McDorman, "Whales, the US Pelly Amendment and International Trade Law," in *Whaling in the North Atlantic—Economic and Political Perspectives*, ed. G. Pétursdóttir (Reykjavik: University of Iceland, 1997), reproduced on the Internet at www.highnorth.no/Iceland/ic-wh-in.htm.

26. *Earth Island Institute v. Mosbacher*, 746 F. Supp. 964 (N.D. Cal. 1990).

27. Joseph, *op. cit.*, n. 3, 7. For information on the current status of embargoes on yellowfin tuna imports, see *infra* notes 131–132 and accompanying text.

28. After the 1988 MMPA amendments, pressure grew for a consumer boycott of tuna caught in association with dolphins and in April 1990, the three largest tuna processors in the United States responded by announcing that they would no longer purchase such tuna. In response, the U.S. Government enacted legislation that set standards for labelling tuna as "dolphin-safe": Dolphin Protection Consumer Information Act, Title IX of Pub. L. No. 101-627, codified, as amended, at 16 USC § 1385. Under this Act, "dolphin-safe" was defined as a product made from tuna harvested by a fishing vessel that the Secretary of Commerce has determined incapable of deploying its purse seine nets on dolphin, whose owner or manager has a written statement executed by an official of the U.S. Department of Commerce or the IATTC which confirms that there was an approved observer on board the vessel during the entire trip in question, and whose net was not intentionally deployed on or around dolphins: *Ibid.*, § 1385(d)(2).

29. International Dolphin Conservation Act, Pub. L. No. 102-523, codified at 16 USC §§ 952-53, 973r, 1361, 1411-18.

30. See Joseph, *op. cit.*, n. 3, 7.

31. The U.S. fleet in the EPO, which during the 1970s averaged well over 100 vessels annually, has now virtually disappeared. Only a handful of vessels still operate in the region. See NMFS, *op. cit.*, n. 15.

32. The result was a dramatic shift in world trade in tuna, with major shifts to Europe causing falling prices there and elsewhere: *Ibid.*, 7–8.

33. *United States–Mexico, Restrictions on Imports of Tuna*, Report of the GATT Panel, 16 August 1991, reproduced in *International Legal Materials* 30 (1991): 1594. See further, J. P. Trachtman, "GATT Dispute Settlement Panel," *American Journal of International Law* 86 (1992): 142.

34. *United States–European Community, Restrictions on Imports of Tuna*, Report of the GATT Panel, 20 May 1994, reproduced in *International Legal Materials* 33 (1994): 842.

35. See further on this issue generally, McDorman, *op. cit.*, n. 25; T. L. McDorman, "Fisheries Conservation and Management and International Trade Law," in *Developments in International*

Fisheries Law, ed. E. Hey (The Hague: Kluwer Law International, 1999); T. L. McDorman, "Protecting International Marine Living Resources with Trade Embargoes: GATT and International Reaction to US Practices," in High North Alliance, *Additional Essays on Whales and Man* (Tromsø: High North Alliance, 1995), reproduced on the Internet at www.highnorth.no/Library/Trade/GATT_WTO/pr-in-ma.htm; and C. C. Joyner and Z. Tyler, "Marine Conservation versus International Free Trade: Reconciling Dolphins with Tuna and Sea Turtles with Shrimp," *Ocean Development and International Law* 31 (2000): 127.

36. Agreement for the Reduction of Dolphin Mortality in the Eastern Pacific Ocean, *International Legal Materials* 33 (1994): 935. The signatories were Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, Spain, United States, Vanuatu, and Venezuela. Although the instrument was labelled an "Agreement" and does not expressly purport to be voluntary and, although in international law it is possible for signature to bind parties if that was the result intended by signature, it is clear, both from the intentions of the parties and from the absence of provisions on matters such as enforcement and dispute settlement and the absence of formal final provisions on matters such as entry into force, that the agreement was a voluntary one. See further on the 1992 La Jolla Agreement, Joseph, *op. cit.*, n. 3, esp. at 10–15 and 22–24. See also P. Cullet and A. P. Kameri-Mbote, "Dolphin Bycatches in Tuna Fisheries: A Smokescreen Hiding the Real Issues," *Ocean Development and International Law* 27 (1996): 333, esp. at 334–338.

37. The annual limits on incidental dolphin mortality were established as follows: 19,500 in 1993; 15,500 in 1994; 12,000 in 1995; 9,000 in 1996; 7,500 in 1997; 6,500 in 1998; and less than 5,000 in 1999.

38. See Buck, *op. cit.*, n. 15.

39. Reproduced in IATTC, *Minutes of the 30th Intergovernmental Meeting on the Conservation of Tunas and Dolphins in the Eastern Pacific Ocean*, Panama City, Panama, 1995, Appendix 4. The declaration is also reproduced in Hedley, *op. cit.*, n. 2, at www.oceanlaw.net/texts/panama.htm. The signatory states were Belize, Colombia, Costa Rica, Ecuador, France, Honduras, Mexico, Panama, Spain, the United States, Vanuatu, and Venezuela.

40. Pub. L. 105-42, H. R. 408. Amendments were also introduced in the Dolphin-Safe Fishing Act, H. R. 1529.

41. *Ibid.*, sec. 2(a)(1) and (3).

42. Three dolphin stocks continue to be classified as depleted under the MMPA: the Northeastern offshore spotted dolphin, Eastern spinner dolphin, and the coastal spotted dolphin. At the time of listing, the Eastern spotted dolphin was estimated at approximately 44% of its pre-exploitation size and Northeastern offshore spotted dolphin was estimated to be between 19% and 28% of its pre-exploitation size. There is some ambiguity regarding the status of coastal spotted dolphin, although the 1998 estimate was 108,289 animals, well below historical maxima. See T. Gerrodette, *Preliminary Estimates of 1998 Abundance of Four Dolphin Stocks in the Eastern Tropical Pacific*, Southwest Fisheries Science Centre Administrative Report LJ-99-04 (La Jolla: NMFS, 1999); and NMFS, *Fact Sheet on the Status of Depleted Dolphin Stocks in the Eastern Tropical Pacific Ocean*, www.nmfs.gov/prot_res/PDF_docs/depleted_dolphin_stocks.pdf.

43. MMPA, 16 U.S.C. § 1414a.

44. Dolphin Protection Consumer Information Act, 16 U.S.C. § 1385(g)(1). The Secretary is further required to make a final finding on the same question between 31 July 2001 and 31 December 2002, based on the completed stress studies, information obtained under the IDCP, and other relevant information: *Ibid.*, § 1385(g)(2).

45. The Agreement was signed by Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, the United States, and Venezuela.

46. AIDCP, Arts. XXIV–XXVI.

47. The IATTC Convention does not currently provide for participation by regional economic integration organizations. At its 62nd meeting in October 1998, IATTC adopted a resolution that called on parties to consider the adoption of a protocol to the convention which would allow the accession of the EC. As yet, however, no such amendment to the convention has been adopted. Progress appears to be impeded somewhat by discussions about a general renegotiation

of the convention, which would accommodate the EC, in order to reflect developments in international fisheries law in the last decade. See IATTC, *Minutes of the 62nd Meeting*, La Jolla, CA, USA, October 1998, Part 5 and Appendix 5.

48. EC Council Decision 386/99, [1999] *OJL* 147/23. Under Article XXIX of the AIDCP parties can consent to the provisional application of the agreement by so notifying the Depositary in writing. Colombia and Vanuatu have also agreed to apply the AIDCP provisionally.

49. Broadly speaking the AIDCP applies in the same area as the 1992 agreement, i.e., the area commonly known as the eastern tropical Pacific Ocean. See Article III and Annex I of the AIDCP.

50. AIDCP, Art. II and Preamble. The main difference with the 1992 La Jolla Agreement is that in the earlier agreement the third objective was expressed more simply as “maintaining the populations of yellowfin tuna in the EPO at a level which will permit maximum sustained catches year after year.”

51. The AIDCP states that the precautionary approach is to be applied consistently with the FAO Code of Conduct and the UN Fish Stocks Agreement, but does not elaborate specifically how the approach is to be applied to the IDCP. See Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Art. 6 and Annex II, *International Legal Materials* 34 (1995): 542 and FAO Code of Conduct for [Responsible Fisheries](#), Part 7.5, FAO Doc. 95/20/Rev. 1 (1995), reproduced on the FAO Website at www.fao.org/fi/agreem/codecond/codecon.asp.

52. This is an important difference as there is some variation in mortality rates among stocks. The new system should also have the practical effect of keeping total dolphin mortality well within the target rate, as mortality rates for some stocks will inevitably be below the target rate but none will be allowed to be higher.

53. AIDCP, Art. V(2) and Annex III, para. 1. It is perfectly possible, therefore, as environmental groups have been quick to point out, that total dolphin mortality could be allowed to increase under the AIDCP, particularly as dolphin abundance (i.e., N_{\min}) increases. Indeed, based on recent population estimates, which provide a total population estimate of almost 10 million dolphins, permissible dolphin mortality, even at the lower 0.1% mortality rate, would be allowed to reach the 5,000 dolphin mortality cap, which would be well in excess of recent levels of less than 2,000 dolphin deaths annually. Allowing dolphin mortality to increase, however, would be contrary to the central objective of the agreement to progressively reduce incidental dolphin mortalities in the tuna purse seine fishery to levels approaching zero. Table 2 provides recent population estimates.

54. AIDCP, Annex III, para. 1.

55. AIDCP, Annex III, para. 2. The parties are to be supported in this task by National Scientific Advisory Committees. Annex VI, para. 1(d).

56. AIDCP, Annex III, para. 2. The mortality targets of 0.1% and 0.2% are well within levels at which dolphin populations can be sustained. Although no reliable studies of net recruitment exist for any of the stocks in the EPO, scientists estimate generally that the annual net recruitment for dolphin populations is between 2% and 6%. See, for example, IWC, “Report of the Workshop on Mortality of Cetaceans in Passive Fishing Nets and Traps,” reproduced in IWC, *Gillnets and Cetaceans*, Report of the IWC, Special Issue 15 (Cambridge: IWC, 1994).

57. AIDCP, Annex III, para. 4.

58. AIDCP, Art. V(1)(d) and Annex IV.

59. AIDCP, Annex IV, Section I, paras. 1 and 2. The IRP was established under the original agreement to oversee the implementation of the IDCP.

60. AIDCP, Annex IV, Section I, para. 2.

61. AIDCP, Section I, para. 7.

62. AIDCP, Annex IV, Section I, para. 3.

63. AIDCP, Annex IV, Section II. Like the La Jolla Agreement, the 1998 agreement seeks to deter frivolous requests for DMLs. Frivolous requests are viewed as a serious problem by the

IDCP participants, as they decrease the availability of DMLs for vessels that have serious intentions of making sets on dolphin-associated tuna. See IATTC, *39th Intergovernmental Meeting and 1st Meeting of the Parties to the Agreement on the International Dolphin Conservation Program*, Guayaquil, Ecuador, June 1999, Part 7. As under the La Jolla Agreement, any vessel that has been assigned a DML and does not set on dolphins within a certain period (depending on the type of DML), unless as a result of *force majeure* or “extraordinary circumstances,” will lose its DML and may not set on dolphins for the remainder of that year. *Ibid.*, para. 1. The IRP is required to look into other means of discouraging frivolous requests for DMLs. *Ibid.*, para. 2.

64. AIDCP, Annex IV, Section I, para. 5.

65. AIDCP, Annex IV, Section I, para. 4.

66. Such vessels are subject to the eligibility criteria in paragraphs 1 and 2 of Annex IV, Section I and to the operational and training requirements in Annex VIII.

67. The reserve portion is distributed at the discretion of the IATTC Director of Investigations.

68. AIDCP, Annex IV, Section I, para. 8.

69. AIDCP, Section I, para. 9.

70. AIDCP, Annex IV, Section III, para. 7.

71. AIDCP, Annex IV Section III, para. 6.

72. AIDCP, Annex III, Section III.

73. AIDCP, Annex III, Section III, para. 4.

74. AIDCP, Annex III, Section III, para. 3.

75. AIDCP, Art. V(1)(a)

76. AIDCP, Art. V(1)(f) and Annex IX. The agreement does not specify exactly how this is to be done, but sets forth various elements that such a system should contain, including the use of separate wells on board vessels for the storage of dolphin-safe and non-dolphin-safe tuna and improved observer monitoring and documentation.

77. AIDCP, Art. V(1)(g).

78. AIDCP, Art. V(1)(h).

79. AIDCP, Art. V(1)(e) and Annex VIII.

80. AIDCP, Art. V(1)(b) and (c).

81. AIDCP, Art. XVI. Article XXII also sets out a number of measures designed to encourage nonparties to either accede or otherwise comply with the agreement and to encourage parties to cooperate to deter vessels flying the flags of nonparties from carrying out activities that undermine the effectiveness of the agreement.

82. AIDCP, Art. XIII and Annex II.

83. AIDCP, Annex II, para. 2.

84. AIDCP, Art. XX(1).

85. AIDCP, Art. XX(2).

86. United Nations Convention on the Law of the Sea, *International Legal Materials* 23 (1982): 1245. The dispute settlement provisions are contained in Part XV.

87. The dispute settlement provisions of the Fish Stocks Agreement, which are essentially based on those in the LOS Convention, are contained in Part VIII. See *op. cit.* n. 51.

88. This is, of course, a potentially important limitation. As regards the states that are parties to the 1998 agreement or have agreed to apply it provisionally, Colombia, Ecuador, El Salvador, the United States, and Venezuela are not parties to the LOS Convention, while no AIDCP participants have so far ratified the Fish Stocks Agreement, with the sole exception of the United States. For information on the status of the two UN instruments, see the UN website at www.un.org/Depts/los/.

89. LOSC, Part XV, esp. Arts. 297–281, 286–287. See generally on the settlement of disputes under the LOS Convention, B. Sohn, “Settlement of Law of the Sea Disputes,” *International Journal of Marine and Coastal Law* 10 (1995): 205; J. G. Merrills, *International Dispute Settlement*, 3rd ed. (Cambridge: Cambridge University Press, 1998), 170–196; and M. P. Gaertner, “The Dispute Settlement Provisions of the Convention on the Law of the Sea,” *San Diego Law Review* 19 (1982): 577.

90. *Southern Bluefin Tuna cases* (New Zealand v. Japan; Australia v. Japan), reproduced in *International Legal Materials* 38 (1999): 1624; and on the UN website at www.un.org/Depts/los/ITLOS/Order-tuna34.htm. See now, however, the Award of 4 August 2000 of the Annex VII Arbitration panel in the same dispute, reproduced on the World Bank website at www.worldbank.org/icsid/

91. LOSC, Art. 297(3)(a).

92. In recent years, approximately 48% of the total catch of the three main species (yellowfin, skipjack, and bigeye) has been taken from within zones under national jurisdiction and 52% on the high seas. See R. Allen, "International Management of the Tuna Fisheries of the Eastern Pacific Ocean," paper given at the *Conference on the Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*, Centre for Fisheries Economics, Bergen, 19–21 May 1999.

93. LOSC, Art. 119(1)(b).

94. *Ibid.*

95. UN Fish Stocks Agreement, Art. 5(e)-(g).

96. UN Fish Stocks Agreement, Art. 30(1). See further on the dispute settlement provisions in the Agreement, T. L. McDorman, "The Dispute Settlement Regime of the Straddling and Highly Migratory Fish Stocks Convention," *Canadian Yearbook of International Law* 35 (1997): 57.

97. *Ibid.*, Art. 30(2).

98. As of 15 May 2000, the agreement had received 26 ratifications or accessions. It requires 30 to enter into force.

99. AIDCP, Art. XIV.

100. AIDCP, Art. VIII(2).

101. AIDCP, Art. VIII(1).

102. AIDCP, Art. IX.

103. AIDCP, Annex X.

104. AIDCP, Art. XVII.

105. AIDCP, Annex V, para. 1.

106. AIDCP, Art. XI and Annex VI.

107. AIDCP, Art. XI(3).

108. Analyses of data collected under the 1992 agreement identified a series of factors that led to increased dolphin mortality, including environmental factors (e.g., strong subsurface currents), behavioral factors (e.g., variations in reactions of dolphin species to rescue operations), gear factors (e.g., nets not aligned properly, gear malfunctions), and crew factors (e.g., lack of motivation, skills, and poor decision making). See Hall, *op. cit.*, n. 1, 12; and D. Bratten and M. Hall, "Working with Fisheries to Reduce Bycatch: the Tuna-Dolphin Problem in the Eastern Pacific Ocean," *Alaska Sea Grant Report* (1997): 97, 98.

109. In a report in 1992, the National Research Council in the United States noted: "no methods of catching tuna without killing dolphins—currently available or capable of rapid development—are as efficient as current methods of catching large yellowfin tuna in the [EPO]." National Research Council, *op. cit.*, n. 3, 3.

110. M. A. Hall and M. Campa, "Solving the Tuna-Dolphin Problem in the Eastern Pacific Purse Seine Fishery," unpublished draft, 18–19. Possible modifications to fishing techniques that the authors discuss include the introduction of sorting grids on the side of the seine to allow the release of small individuals, partitioning of the catch and the sorting and selection of catch in shallow floating pens, changes in mesh size or type, and the use of acoustic systems to aid decision making. For further information of nondolphin bycatches in the yellowfin fisheries, see Hall, *op. cit.*, n. 1, 20–21.

111. AIDCP, Art. XII. The functions of the Panel are set out in Annex VII of the agreement.

112. AIDCP, Annex VII, para. 1.

113. AIDCP, Annex VII, paras. 2–4. Previously, the composition of the panel was fixed at nine members, five from the participating governments and two each from NGOs and the tuna-fishing industry.

114. AIDCP, para. 10. Nonmembers of IATTC and nonsignatories may also be represented, unless a governmental member of the IRP objects in writing. See para. 10(d).

115. AIDCP, para. 9.

116. *Ibid.*, para. 11. A proposal is considered urgent unless a simple majority of the governmental members objects in writing and the proposal is accepted unless any governmental member objects in writing.

117. Hall and Campa, *op. cit.*, n. 110, 16.

118. It does, of course, retain as an objective the progressive reduction of incidental dolphin mortality to levels approaching zero, although this is essentially a longer-term target, to be attained by scientific and technological improvements.

119. See above, n. 56. The mortalities of all but one stock, northeastern spotted dolphin, have been less than the target of 0.1% of a minimum estimate of the population size of that stock, well within levels at which the dolphin populations can be sustained. See IATTC, *Minutes of the 61st Meeting*, La Jolla, CA, USA, June 1998, Part 6.

120. See Article 5 of the Fish Stocks Agreement and, *inter alia*, Articles IV and VI of the AIDCP. See also, Part 7.2 of the FAO Code of Conduct. The influence of the Fish Stocks Agreement and Code of Conduct can also be seen in other parts of the 1998 agreement, such as in the treatment of nonparties (see Article 33, Fish Stocks Agreement; Part 7.7.5, Code of Conduct; and Article XXII, AIDCP) and in the promotion of transparency in decision-making (see Article 12, Fish Stocks Agreement; Part 7.1.9, Code of Conduct; and Article XVII, AIDCP).

121. *Federal Register* 64 (1999): 24590, reproduced on the Internet at www.nmfs.gov/prot_res/mammals/tunadolph/Initial_Finding.pdf. The NMFS's Report to Congress is reproduced on the NMFS, Southwest Fisheries Science Centre website at swfsc.ucsd.edu/mmd/congress/congress.htm.

122. *Federal Register* 65 (2000): 3.

123. *Brower v. Daley*, Case No. C99-3892 TEH, Order of 11 April 2000, reproduced on the U.S. District Court for the Northern District of California website: www.cand.uscourts.gov. For a commentary, see C. Hedley, "One step back for international cooperation; backwards or forwards for dolphins?," *Journal of Environmental Law* 12 (2000): 361.

124. *Ibid.*, 18.

125. *Ibid.*, 28.

126. In discussing whether Congress had fully followed the approach in the Panama Declaration (on which, see above), the Court stated, *ibid.*, 28–29: "Congress ultimately rejected this approach and instead unanimously decided that, despite the low observed mortality rates, the decision whether to change the label standard should await scientific data from mandated studies on the stress effects, if any, that result from the use of purse seine nets. It is to this Congressional compromise that the Secretary must be held."

127. See n. 44, above.

128. It is possible that such an obstacle would have arisen in any case as, in response to continued consumer pressure, the three largest tuna processing companies in the United States stated that they would not have changed their current usage of the dolphin-safe label no matter what the findings of the Secretary of Commerce. K. O'Connell, "Tuna Dolphin Update," *Whales Alive!*, VIII (1999): elfi.com/csi99204.html.

129. See "US Judge Blocks Weakening of 'Dolphin Safe' Label," *Reuters News Release*, 12 April 2000. Mexico has indicated that it reserves the right to take the issue to the World Trade Organization in the event it is not resolved and has even threatened to withdraw from the 1998 agreement. The Department of Commerce is also seeking to appeal the decision. Consultations have been held between Mexico and the United States, but no solution has yet been found.

130. *Federal Register* 65 (2000): 60,170. An import ban on Spain has also been reported recently, brought about because of a failure of the EC to fully implement the provisions of the AIDCP: Fish Information Service, *News Release*, 11 October 2000.

131. *Federal Register* 65 (2000): 26,585.

132. *Federal Register* 65 (2000): 53,704.