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Of Dolphins and Tuna: The Evolution to an International Agreement

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OF DOLPHINS AND TUNA: THE EVOLUTION TO AN INTERNATIONAL AGREEMENT

Rachel C. Hampton*

I. Introduction

For reasons still unknown to science, certain types of tuna tend to associate with groups of dolphins in the Eastern Tropical Pacific Ocean (ETP). Because dolphins must surface to breathe, the dolphin-tuna association has provided an easy means of finding schools of tuna. In fact, dolphins have been used to catch tuna in the ETP since 1957, when the technology to take advantage of this unique association was first developed.²

Although "purse-seine" technology has proved to be extremely profitable, it has come at a significant cost to dolphin populations. The two types of dolphins most commonly found in association with tuna have been depleted to one-fifth of their prefishery population levels.³ The United States has been a leader in efforts to decrease dolphin mortality in the fishery, beginning with the enactment of the Marine Mammal Protection Act (MMPA) in 1972.⁴ The MMPA has been amended a number of

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^{1.} See National Research Council, Dolphins and the Tuna Industry 45 (1992) [hereinafter NRC].

^{2.} This technology known as purse-seining involves 1) encircling a school of fish with a large net (seine), 2) "pursing" the net (sealing the bottom of the net), and then 3) hauling in the net and fish. For a detailed description of the procedure see NRC, supra note 1 at 34-35.

^{3.} See Tim Gerrodete and Paul R. Wade, Status of Dolphin Stocks Affected by the Tuna Purse-Seine Fishery in the Eastern Tropical Pacific: A 36-Year Summary, Presentation given on 12/16/95 at the 11th Biennial Conference on the Biology of Marine Mammals. Abstract available from authors.

^{4.} Marine Mammal Protection Act, 16 U.S.C. § 1361 (1972) (amended 1997) [hereinafter MMPA].

times over the years, including most recently by the International Dolphin Conservation Program Act (IDCPA) of 1997.⁵ In addition, the U.S. has also been active in developing an international solution to the tuna-dolphin conflict, and the first binding agreement has just been completed.⁶

This essay will first discuss some of the scientific aspects of the debate. It will then review the legal, economic and political history of the tuna-dolphin conflict in the ETP. This background will be used to provide a framework for a discussion of the IDCPA and the recently created "Agreement on the International Dolphin Conservation Program." Although the current regulatory framework is a great improvement over earlier policy, it also relaxes some protections. The critical question today is whether the dolphin populations affected by the tuna industry will continue to receive sufficient protection under this new U.S. regulatory and international regime.

II. THE SCIENCE OF THE TUNA-DOLPHIN CONFLICT

A. What is the Actual Impact of the Tuna Fishery on Dolphin Populations?

There is no doubt that the tuna industry has had a significant adverse impact on dolphin populations in the ETP. Indeed, the two stocks of dolphins that are most frequently found in association with tuna in the ETP, the northeastern spotted dolphin and the eastern spinner dolphin, are listed as depleted under the MMPA.8 These two stocks have been estimated to be at 16% and 20% of their pre-fishery levels, respectively.9

^{5.} The International Dolphin Conservation Program Act of 1997, Pub. L. No. 105-42 (current version at 16 U.S.C. § 1361) [hereinafter IDCPA].

^{6.} See generally Agreement on the International Dolphin Conservation Program, May 21, 1998 [hereinafter International Agreement].

^{7.} See id.

^{8.} See Taking and Importing of Marine Mammals; Listing of the Northeastern Offshore Spotted Dolphin as Depleted, 58 Fed. Reg. 58,285 (1993); Taking and Importing of Marine Mammals; Listing of Eastern Spinner Dolphin as Depleted, 58 Fed. Reg. 45,066 (1993).

^{9.} See Gerrodete and Wade, supra note 3.

Many commentators argue that although the tuna fishing industry has had a significant impact on dolphin populations in the past, the current level of dolphin mortality is low enough to allow the populations to recover. Describe populations argue that because the current level of dolphin kills, or "takings," are lower than the recruitment rate of the dolphin populations, these killings should have no impact on the ability of the populations to grow. This hypothesis remains unsupported, however, because no evidence has been produced to suggest an increase in the depleted populations.

Any discussion of dolphin mortality and abundance levels must be considered within the context in which such estimates are made. Specifically, it has become apparent that past estimates of both dolphin mortality and abundance have underestimated the actual impact of the fishery on dolphin populations.¹² While assessment methods have improved, there are a number of factors that continue to undermine the reliability of these estimates.

First, both abundance and mortality estimates have historically been based on extrapolations from limited sampling.¹³ Estimates of "incidental dolphin mortality" (dolphins killed in tuna fishing operations) have been based on data collected by observers on tuna vessels. For many years these estimates were based on extrapolations from a sampling of vessels, because until 1991 observer coverage did not include 100% of the vessels.¹⁴ Even once "full coverage" was reached, the data has continued to be incomplete; the assumption remains that smaller boats do not set on dolphins, and therefore observers are only placed on ships with a tuna fishing capacity of greater than 400 metric tons.¹⁵

^{10.} See Martin A. Hall, An Ecological View of the Tuna-Dolphin Problem: Impacts and Trade-offs; Reviews in Fish Biology and Fisheries 1, 13 (1998) (unpublished manuscript, available from the Inter-American Tropical Tuna Commission, 8604 La Jolla Shores Dr., La Jolla, CA 92037).

^{11.} Recruitment rate is defined as the reproduction in excess of mortality for a population as a whole. See id. at 14.

^{12.} Nancy Kubasek, et al., Protecting Marine Mammals: Time for a New Approach, 13 UCLA J. ENVT'L L. & POLICY 1, 5 (1994-95).

^{13.} See National Research Council, supra note 1 at 52.

^{14.} Hall, *supra* note 10, at 10.

^{15.} See C. Lennert and M.A. Hall, Incidental Mortality of Dolphins in

Meanwhile, estimates of dolphin abundance have been based on sightings from research vessels and tuna vessels. Again, both approaches are based on extrapolations from a limited sampling and include various biases that must be considered. Specifically, estimates from research vessels are imprecise due to the difficulty of randomly sampling an entire area occupied by dolphins. Tuna vessel data is also skewed because tuna vessels are logically found in areas of high dolphin densities, due to the fact that tuna vessels seek out groups of dolphins upon which to fish. ¹⁶

In addition to the problems associated with extrapolation, underestimates of both abundance and mortality also result from underreporting by observers. First, it is difficult for the observers to spot all the dolphins, alive or dead due to visibility problems created by the sheer expansiveness of the operation, variable weather conditions, and sometimes darkness (especially for sets conducted after sundown).¹⁷ In addition, a more serious source of inaccuracy comes from active deception and harassment of observers by vessel crews. For example, a former observer reported that crew members on boats and rafts would remove the dead animals from nets before the observer could see them.¹⁸ Another commonly reported form of harassment is the throwing of seal bombs near observers in order to frighten them into leaving their post, or worse.¹⁹ In fact, reports of harassment and underreporting by observers in the NMFS program led to a U.S. General Accounting Office investigation of the situation, which led to a temporary increase in enforcement.²⁰ The problem may

the Eastern Pacific Ocean Tuna Fishery in 1996, REP. INT'L. WHALING COMM. (in press). "Although it is not believed that the practice of setting on dolphins by smaller vessels is widespread, it may occur sporadically, in an opportunistic manner."

^{16.} See National Research Council, supra note 1, at 64-5.

^{17.} See Hearings on S.39 Before the Subcomm. on Oceans and Fisheries Comm. on Commerce, Science and Transportation 105th Cong. 2 (1997) (statement of Christopher Croft, President of Environmental Solutions International). Mr. Croft was a NMFS observer for four years.

^{18.} See id.

^{19.} See Alesandro Bonanno and Douglas Constance, Caught in the Net: The Global Tuna Industry, Environmentalism, and the State 182 (1996).

^{20.} In 1987-88, there were eight cases of harassment or interference with fines, while in the previous ten years, there were only two

have been exacerbated on American vessels where the captains have access to the observers' reports, as opposed to foreign ships where observations were made in code.²¹

Finally, another potentially severe source of error in dolphin mortality estimates is due to methodology; observers do not take into account dolphin deaths, which occur after the dolphins are released from the net.²² Although dolphins may be released alive, they are often injured during the chase, encirclement and release, which leave them vulnerable to predator attack and death from their injuries.²³ Also, during the confusion of the chase, calves may be separated from their mothers resulting in death through predator attack or starvation.²⁴ This is compounded by the concern that the stress of being chased and encircled may have long term effects on reproductive potential.²⁵

In fact, Congress was sufficiently worried about these concerns to include provisions for abundance and stress studies in the 1997 amendments to the MMPA, as discussed below.²⁶ It would seem reasonable to wait until these studies have produced results before deciding that dolphins are out of danger, especially considering that there is no evidence of an increase in dolphin populations, which could lead to the conclusion that the populations are recovering.

B. Alternatives to Fishing on Dolphins

Proponents of relaxed dolphin protections argue that setting on dolphins is the only viable method of tuna fishing in the ETP.

cases of fines. Id.

^{21.} See Kubasek, et al., supra note 12, at 6.

^{22.} See id. at 5. Estimates are based on deaths observed at the time of encirclement, before the dolphins are released from the net.

^{23.} See Kubasek, et al., supra note 12, at 5. Indeed, sharks are known to circle tuna nets waiting for the dolphins to be released. Hall, supra note 10, at 17; Trina Bellak, Humane Society of the United States, personal communication, November 5, 1997.

^{24.} See Nathan LaBudde, Dolphins Under Attack in Congress: Behind the 'Dolphin Death' Bill, 11 (1) EARTH ISLAND J. 6, 7 (Wtr. 1995-6).

^{25.} See id.; Tim Gerrodete, National Marine Fisheries Service, personal communication.

^{26.} See discussion of IDCPA in Part IX, infra.

While it may be the most profitable method, it is certainly not the only viable alternative. Indeed, the fishery could continue to be very profitable through the combined use of line fishing, school and log fishing, and through the increased use of sonar and other detection devices.

1. Line Fishing

Purse-seine fishing was not introduced into the tuna fishery until 1957.²⁷ Until that time, tuna was caught using poles and lines with live bait. Purse-seine technology almost entirely replaced this traditional method for a number of reasons. First, pole and line fishing relies on fish caught along the coasts for live bait, thereby restricting the geographic range of the fishery.²⁸ This restriction became particularly important in the 1970's when a number of countries expanded their exclusive economic zones to 200 miles, thereby excluding many fishermen from coastal fishing grounds.²⁹ Second, bait fishing tends to be more labor intensive than purse-seine fishing, which relies more heavily on capital.³⁰ Third, bait fishing has also traditionally had lower catch rates than purse-seine fishing.³¹ Nevertheless, there are still pole and line boats fishing economically in the ETP.³²

A variation of bait fishing, which is still used quite profitably today, is that of longline fishing. Longline fishing uses baited hooks attached to long fishing lines that are suspended at different depths depending on the preferred catch size. Although catch rates are lower than for purse-seine vessels, the longline industry remains viable because the fish caught tend to be larger and can be sold in fresh fish markets at higher prices than that

^{27.} See Joseph, infra note 35, at 1.

^{28.} See Hall, supra note 10, at 5.

^{29.} Bonanno and Constance, *supra* note 19, at 134-35. Specifically, the countries expanding their EEZs included: Costa Rica (1975), Mexico (1976), Columbia (1978), Guatemala (1976), and Honduras (1980).

^{30.} See id. at 120; Croft, supra note 17, at 5. Croft argues that the tuna industry has become overcapitalized and that an increased reliance on traditional fishing methods would result in increased jobs.

^{31.} Hall, *supra* note 10, at 5.

^{32.} See id. at 6.

received for canned fish.³³ Some have argued that the expansion of this market may be limited somewhat by the demand for fresh fish. It is difficult, however, to predict what would be profitable in the absence of dolphin sets.

2. School and Log Fishing

The two most commonly used alternatives to setting on dolphins are "log fishing" and "school fishing." Both approaches use the same purse-seine technology as used in setting on dolphins.³⁴ Log fishing takes advantage of the fact that tuna tend to aggregate under logs and other floating objects.³⁵ School fishing consists of setting on free swimming schools of tuna.³⁶

Like line fishing, there are some aspects of log and school fishing that can make these methods less competitive than setting on dolphins. First, floating objects tend to attract skipjack tuna which sell for less than yellowfin, the type of tuna found associated with dolphins. The abundance of skipjack tuna is also more variable which makes log fishing less predictable.³⁷ This is not a problem in school fishing, however, because free-swimming schools consist mostly of yellowfin tuna. Second, like bait fishing, most log and school fishing takes place in coastal areas within exclusive economic zones, which limits the geographic range of the fishery.³⁸ Finally, the fish caught in log and school fishing

^{33.} See id.; NRC, supra note 1, at 37.

^{34.} See description of purse-seining process, supra note 2.

^{35.} See James Joseph, The Tuna-Dolphin Controversy in the Eastern Pacific Ocean: Biological, Economic and Political Impacts, 25 Ocean Devel. And Int'l L. 1, 21 (1994). Tuna fishers have taken advantage of this association for decades. In fact, floating objects, both naturally occurring and artificial, are placed in the water to attract tuna. These objects are referred to as Fish-Aggregating Devices (FADs). See National Research Council, supra note 1, at 93.

^{36.} See National Research Council, supra note 1, at 37. Free-swimming schools of tuna are detected by noting irregularities on the water's surface: schools moving close to the surface of the water disturb the surface which appears as though the water is "boiling" or disturbed by a breeze, or may appear as a "black spot" from above. The presence of birds may also indicate the presence of tuna.

^{37.} Joseph, supra note 35, at 20.

^{38.} See id.

tend to be smaller than those caught in dolphin sets, which limit their profitability.³⁹

Despite these apparent disadvantages when compared to setting on dolphins, both log and school fishing are commonly used methods in the ETP tuna fishery, comprising approximately 50 percent of the total fishing effort.⁴⁰ Thus the conclusion arises that these are profitable alternatives to setting on dolphins. In fact, the biggest concern with these alternatives is not profitability, but rather their potential impact on non-target species, as discussed below in Part II.C.

3. Detection Devices

Much recent technology has been developed to detect schools of tuna. For example, sonar has been successfully used in the western Pacific tuna fishery and other fisheries. Sonar has been avoided in the ETP fishery because dolphins are able to detect it and move away bringing with them the tuna.⁴¹ To provide an alternative to setting on dolphins, however, sonar technology should focus on those tuna not associated with dolphins.⁴² One potential drawback of such an alternative is that while it may be

^{39.} See id. at 19-20. Generally, only larger tuna are found associated with dolphins; while smaller tuna are generally found "associated with floating objects or in free-swimming schools."

^{40.} The Provisions of the International Dolphin Conservation Act, How it is Affecting Dolphin Mortality, and What Measures Can be Effected to Keep the Mortality to a Minimum, Hearings Before the Subcomm. on Fisheries, Wildlife and Oceans of the Committee on Resources, House of Representatives, 104th Cong., 1st & 2nd Sess. at 316 (1995) (statement of Dr. Elizabeth Edwards, Leader, Dolphin-Safe Research Program, NMFS) [hereinafter Hearings]. "Under current yellowfin fishing effort patterns, . . . about 50% of effort is on dolphins and 25% each on school and log sets" See id.

^{41.} See National Research Council, supra note 1, at 91.

^{42.} The National Research Council report suggests that this technology could continue to focus on tuna associated with dolphins by using a frequency to which dolphins do not respond. Once the dolphin/tuna group is found, the fishers could wait until the fish move away from the dolphins to set on them. See National Research Council, supra note 1, at 91. However, the report fails to mention why this separation approach is not already used in the fishery.

helpful in finding schools of smaller tuna which are known to associate in free-swimming groups, it is "not yet known whether mature, deep-swimming yellowfin ever form schools without dolphin escorts." Therefore, it may not be possible to use such technology to find large yellowfin tuna. Nevertheless, sonar research still warrants investigation, and there are also a number of other sensing technologies that should continue to be explored.⁴⁴

C. The Bycatch Issue

Proponents of efforts to lessen dolphin protections argue that log and school fishing, the main alternatives to fishing on dolphins may actually be worse than dolphin sets because they result in higher levels of bycatch⁴⁵ of other marine species and juvenile tuna. Indeed, studies conducted by the National Marine Fishery Service and the IATTC suggest a trend in which overall bycatch is lowest for dolphin sets, moderately low for school sets, and high for log sets. 46 One reason for the relatively high level of bycatch in log fishing is that floating objects tend to attract a number of marine species in addition to tuna, all of which are encompassed in the purse-seine net during tuna fishing operations. In addition to the potential damage done to other marine species, there is concern that an increased reliance on school and log fishing would result in a decrease in tuna population levels. Both log and school fishing tend to catch smaller tuna, some of which are thrown overboard because they are too small to be marketable. Since many of these smaller tuna have not yet reached sexual maturity, their premature death may decrease

^{43.} See Betsy Carpenter, What Price Dolphin? Scientists are Reckoning the True cost of Sparing an Endangered Mammal, U.S. NEWS & WORLD REP., June 13, 1994 at 71.

^{44.} For a description of various potential technologies, see National Research Council, supra note 1, at 91-2.

^{45. &}quot;Bycatch" refers to species that are caught and discarded because of lack of economic value. This may include juvenile tuna that are too small to be worth bringing in for sale.

^{46.} See Edwards, supra note 40, at 318; see also Hall, supra note 10, at 18-9.

tuna recruitment, and hence affect future tuna yields.⁴⁷

Although the bycatch problem warrants attention, there is evidence that it is not as concerning as some would suggest and that opponents of dolphin protections are using it as a red herring. For example, there are a number of arguments to dispute the contention that log and school fishing would result in a reduction in tuna populations. First, some have argued that the reproductive rate for tuna is so high that the removal of some juveniles is unlikely to have much effect on the overall recruitment rate of the species.⁴⁸ Second, there is no evidence to support the idea that there would be a large increase in log or school sets. In fact, IATTC data shows that the number of log and school sets has actually decreased over the past 20 years despite a decline in the number of dolphins sets in that same period.⁴⁹ Finally, the bycatch of juvenile tuna can easily be reduced through area and time restrictions on log sets, a common control measure used in other fisheries.⁵⁰

Interestingly, although both log and school fishing have been used in the tuna industry for decades, the IATTC did not ad-

^{47.} See Edwards, supra note 40, at 318. (stating "If all current fishing effort is redirected from dolphin sets to log sets yellowfin discard rate is estimated to increase by a factor of about 3.5, generating a combined effect of discard and changes in yield per recruit that results in an estimated 30-50% reduction in yield.")

^{48. &}quot;[I]t has not been shown, for the levels of population abundance observed in the fishery, that there is any measurable relation between the size of the spawning stock and recruitment, so it is not possible to say that recruitment will be affected or, if it is, to what extent." See Joseph, supra note 35, at 20. NOAA has been cited as stating that the level of bycatch of juvenile tuna is not "excessive" when compared with the annual recruitment rate of tuna. See Earth Island Institute, ETP Bycatch Issue Misused By Opponents of Dolphin-Safe Fishing, November 13, 1995 (available from Earth Island Institute, 300 Broadway, Suite 28, San Francisco, CA 94133) [hereinafter EII Bycatch Factsheet].

^{49.} See Bycatch in the ETP, Ocean Alert, Wtr/Spr 1997. Based on IATTC data, log and school sets have decreased by 48.3% and 22.6%, respectively over the past 20 years, while dolphin sets have decreased by 23.2% in that same time period.

^{50.} See Humane Society of the United States (HSUS), Fact Sheet on the Tuna/Dolphin [hereinafter Humane Society Factsheet].

dress the non-dolphin bycatch issue until the early 1990's;⁵¹ and this issue did not make it into the political agenda until the Panama Declaration of 1995.52 It has been known for some time that tuna fishing involves bycatch of non-target species. The lack of attention to the bycatch issue is therefore significant in terms of judging the sincerity of the current concern, because it suggests that the industry has given little or no thought as to how to minimize this bycatch. The success the industry has had in reducing dolphin bycatch over the past 20 years suggests that similar advances could be made with non-dolphin bycatch if industry and scientists addressed the issue. Rather than working to decrease bycatch, there is evidence that tuna fishers actually increase the bycatch rate by keeping marine animals that could easily be released alive, such as sea turtles and sharks.⁵³ This issue was finally addressed in the Agreement on the International Dolphin Conservation Program, discussed below, which includes a provision requiring the live release of sea turtles.⁵⁴

Another crucial point in the bycatch debate is that it is misleading to compare dolphin bycatch with other bycatch based solely on the number of animals caught. Other factors such as the reproductive potential, as well as the status of the population of various species must be considered. In the case of the tuna fishery bycatch, the fish species caught have a reproductive po-

^{51.} Mark Palmer, Earth Island Institute, personal communication, November 9, 1997.

^{52.} See Declaration of Panama (October 4, 1995) (unpublished, available from the Inter-American Tropical Tuna Commission, 8604 La Jolla Shores Drive, La Jolla, CA 92037).

^{53.} See Trina Bellak, Humane Society of the United States, personal communication, November 5, 1997; see also Croft, supra note 17, at 8. Unlike many of the fish bycatch which die while being sorted on the boat, sea turtles and sharks can easily be released alive. Instead, the sea turtles are kept and eaten and the shark fins are kept for sale to restaurants.

^{54.} See International Agreement, supra note 6, at art. VI. Specifically, the agreement states that the parties must "require that their vessels operating in the Agreement area release alive incidentally caught sea turtles and other threatened or endangered species, to the maximum extent practicable."

tential thousands of times that of dolphins.⁵⁵ Moreover, the populations of the fish bycatch are healthy and stable, whereas the dolphin populations are less than 1/5 their pre-fish levels and are listed as depleted under the MMPA.⁵⁶ Unfortunately, these factors are never mentioned in the statistical comparisons of bycatch, which misrepresents the problem and unfairly skews the debate over alternative fishing methods.

In summary, there are viable alternatives to setting on dolphins. While the bycatch issue deserves scrutiny, it must be considered within the context of the entire fishery. The real issue is that the tuna industry has yet to discover any single method that is as profitable as setting on dolphins. This is, however, very different from the conclusion that the industry would not be profitable without dolphin sets. The critical question becomes, then, to what extent should concerns of profit trump conservation of a highly depleted species.

III. THE EVOLUTION OF THE MARINE MAMMAL PROTECTION ACT, 1972-1990

The original Marine Mammal Protection Act was passed in 1972, and has continued to evolve over the years in response to changes in political and economic conditions. The current debate over the IDCPA is best understood within the context of this evolution.

A. The American Fishery

The essential feature of the MMPA is a moratorium on the taking of marine mammals.⁵⁷ The prohibition is subject to a number of exceptions, including a provision that allows permits to be issued for the incidental taking of marine mammals during commercial fishing operations.⁵⁸ Such an exception is theoretically

^{55.} See Croft, supra note 17, at 9; Dr. Tim Gerrodete, NMFS, personal communication, November 17, 1997.

^{56.} See Gerrodete and Wade, supra note 3.

^{57.} See MMPA, supra note 4, at §101a. The "taking" of a marine mammal is defined broadly to include actual or intended harassing, hunting, capturing, or killing of marine mammals. Id. at § 3 (13).

^{58.} See id. at § 101(a)(2). Exceptions are also allowed for scientific

limited by the goal that "the incidental kill or incidental serious injury of marine mammals permitted in the course of commercial fishing operations be reduced to *insignificant levels approaching a zero mortality and serious injury rate*..."⁵⁹ Nevertheless, the National Marine Fishery Service (NMFS) originally issued a general permit to the American Tunaboat Association (ATA) for the incidental takings of dolphins for a limitless number of kills.⁶⁰

Environmentalists, greatly alarmed by the unfettered continuation of dolphin mortality in the tuna industry, brought suit in 1976 against the National Marine Fishery Service (NMFS) for failure to uphold the MMPA.61 The court agreed that the ATA permit was in violation of the mandates of the Act, but allowed the permit to remain in place for a few months to avoid grinding the fishery to a halt.⁶² The NMFS responded by establishing a quota of 78,000 dolphin kills for 1976. The industry reached this quota by October of that year, causing the NMFS to forbid setting on dolphins for the remainder of the year. In 1977, a new quota of 59,000 kills per year was established for the ATA fishery;63 this quota was subsequently reduced to 31,150 in 1979 and to 20,500 in 1980. In 1980 the Reagan administration extended this quota of 20,500 indefinitely.⁶⁴ The quota system was formally recognized in the 1981 amendments to the MMPA, which required the fisheries to adhere to quotas set by the NMFS.65 On the other hand, the 1981 amendments weakened the MMPA by redefining the zero mortality goals to mean simply that the industry use the "best marine mammal safety techniques and equipment . . . economically and technologically practicable."66

research, public display, and subsistence fishing by Alaskan Natives. MMPA § 101.

^{59.} *Id.* at §101(a)(2) (emphasis added).

^{60.} See Susan C. Alker, Comment The Marine Mammal Protection Act: Refocusing the Approach to Conservation, 44 UCLA L. Rev. 527, 536 (1996).

^{61.} See Committee for Humane Legislation, Inc. v. Richardson, 540 F.2d 1141 (D.C. Cir. 1976).

^{62.} See Akler, supra note 60, at 537; see also Bonanno Constance, supra note 19, at 129.

^{63.} See Akler, supra note 60, at 537, n.46.

^{64.} See Bonanno Constance, supra note 19, at 129.

^{65.} See Akler, supra note 60, at 538.

^{66.} See Marine Mammal Protection Act Amendments of 1981, Pub.

This amendment responded to the concerns of tuna fishers that a goal of zero mortality might be interpreted literally.⁶⁷

B. The International Fishery

1. Changes in the Composition of the Tuna Fishery

The international tuna market was far from static with the restrictions imposed on the U.S. domestic fleet by the MMPA. In 1960, the U.S. comprised 85% of the tuna fleet in the ETP.⁶⁸ In 1984, this number dropped to 35%,⁶⁹ slowly dropping to approximately 11% by 1991.⁷⁰ This essentially shifted the bulk of the dolphin mortality in the tuna fishery to the growing number of foreign fleets. In 1972, when the MMPA was first passed, the U.S. was responsible for 85% of the dolphin kills in the ETP; by 1989 the percentage had fallen to 20%.⁷¹

These numbers do not indicate an actual U.S. withdrawal from the tuna industry. Instead, most of the U.S. vessels either reflagged⁷² or moved to the Western Tropical Pacific (WTP), where dolphins and tuna are not found in association.⁷³ The movement

L. No. 97-58 § 101(1)(A), 95 Stat. 979, 980 (codified at 16 U.S.C. § 1371(a)(2) (1994)).

^{67.} See Alker, supra note 60, at 538.

^{68.} See Joseph, supra note 35, at 4.

^{69.} See id.

^{70.} See NRC, supra note 1, at 4. In 1991 alone the U.S. fleet in the ETP dropped from thirty to nine vessels. The U.S. tuna company ban of tuna caught with dolphins in 1990 likely precipitated this. By 1992 only six vessels remained, four of which set on dolphins. These vessels exported their catch to Italy. See Bonanno Constance, supra note 19, at 176.

^{71.} See Paul J. Yechout, In the Wake of Tuna II: New Possibilities for GATT-Compliant Environmental Standards, 5 MINN. J. GLOBAL TRADE 247, 251 n.29 (1996).

^{72. &}quot;'Reflagging,' also known as 'adopting a flag of convenience' is the practice of registering and operating a vessel under the flag of another nation." LouAnna C. Perkins, *International Dolphin Conservation Under U.S. Law: Does Might Make Right*?, 1 OCEAN & COASTAL L.J. 213, 218 n.19 (1995). Between 1979 and 1989, two-thirds of the U.S. fleet reflagged. *See* Kubasek, et al., *supra* note 12, at 7.

^{73.} See Diana Hurwitz, Fishing for Compromises through NAFTA and Environmental Dispute-Settlement: The Tuna-Dolphin Controversy, 35 NATURAL RESOURCES J. 501, 513 (1995).

resulted from a variety of factors, which had put U.S. fishers at a competitive disadvantage with foreign fleets. First, the MMPA initially focused almost exclusively on the U.S. fleet.⁷⁴ Coupled with a drop in the price of tuna in the early 80's,⁷⁵ this made it almost impossible to remain competitive under the U.S. flag. The situation was exacerbated by the fact that many U.S. ships lost their contracts with U.S. tuna companies who now found it more profitable to buy tuna off the international market.⁷⁶

Around the same time, many of the ETP countries extended their exclusive economic zones ("EEZs") from three to twelve mile zones, to 200 mile zones, thereby effectively excluding the U.S. from much of the tuna fishery. Although the U.S. initially refused to recognize jurisdiction over migratory species beyond 12 miles, it did pursue negotiations with Costa Rica and Mexico to try and establish an equitable agreement over the allocation of tuna resources. These negotiations failed and Mexico increasingly seized U.S. boats for fishing in their EEZ. The seizure of fifteen American tuna vessels in 1980 led to the U.S. embargo on Mexican tuna imports under the Magnuson Fishery Conservation and Management Act of 1973.

^{74.} See Yechout, supra note 71, at 251. For example, the U.S. has been subject to strict gear and fishing practice requirements, dolphin-kill quotas, and 100% observer coverage. Although the U.S. has attempted to impose similar restrictions on foreign fleets, these provisions often trailed the U.S. requirements, and have only applied to imports. See Perkins, supra note 72, at 218.

^{75.} This price drop seemed to have resulted from both the global recession in the early 80's and an increase in number of vessels participating in the fishery. See Bonanno and Constance, supra note 19, at 149-50; see also Perkins, supra note 72, at 217 n.16.

^{76.} Historically, many U.S. vessels had either been owned by, or had contracts with U.S. tuna companies. As global tuna prices fell, many of these companies chose to buy tuna on the international market rather than maintaining their American fleets and contracts. See Perkins, supra note 72, at 217.

^{77.} See supra note 29.

^{78.} See Bonnano Constance, supra note 19, at 137.

^{79.} See id. at 135.

^{80.} See id. at 137.

2. Regulatory Changes to Address the Growing Foreign Role in Dolphin Mortality

The major shift in the composition of the tuna industry had significant impacts on the United States' ability to influence dolphin conservation in the ETP. It was no longer possible to reduce dolphin kills simply by focusing on the U.S. domestic fleet. Although the initial MMPA did address dolphin mortality caused by foreign fleets, its impact was limited. Specifically, the 1972 Act provided for an import ban on all commercial fish whose harvest had resulted in the incidental taking of marine mammals in excess of U.S. standards.⁸¹ The restriction was not quantitative, however, but merely required the foreign nations to prove they were using equipment and procedures which met U.S. standards.

As it became clear that foreign fleets were responsible for a growing share of the dolphin mortality in the ETP, pressure rose to place more stringent requirements on foreign governments. The 1984 amendments strengthened the above comparability standard. Now foreign governments not only had to provide evidence that they had adopted regulations governing incidental takings that were comparable to those of the U.S., but they also had to prove that the average rate of incidental dolphin kills was comparable to the U.S. rate. 82 These provisions were to be implemented and enforced by the National Marine Fishery Service (NMFS). Interim regulations, however, were not published until four years later in 1988, and these regulations gave foreign nations until 1991 to comply.83 The inaction of the NMFS, along with continued evidence of dolphin mortality in foreign fishing operations, prompted Congress to strengthen the comparability standards even further in 1988.84

The 1988 amendments required that in order for a foreign nation to meet the comparability requirements they had to show that: (1) the incidental dolphin kill rate was no more than two times that of the U.S. rate in 1989 and no more than 1.25 the

^{81. 16} U.S.C. § 1371(a) (2) (1985).

^{82.} See 16 U.S.C. § 1371(a)(2)(B) (1988).

^{83.} See Maureen Dolan-Pearson, Note, Pulling Purse Strings to Eliminate Purse Seiners: United States Protection of Dolphins Through International Trade Sanctions, 42 DEPAUL L. REV. 1085, 1108 (1993).

^{84.} See Perkins, supra note 72, at 226.

U.S. rate for 1990 and after; (2) the percentage of annual takings for eastern spinner dolphins and coastal spotted dolphins did not exceed 15 and 2 percent respectively; and (3) all tuna fishing operations were monitored to the same extent as in the U.S. by a qualified observer program such as that of the Inter-American Tropical Tuna Commission (IATTC). 85 The 1988 amendments also provided for embargoes against intermediary nations. 6 Under this provision, an intermediary nation was only allowed access to the U.S. markets if it was able to show that it had prohibited the importation of tuna from countries embargoed by the U.S. 87 The 1988 amendments also required the Secretary of Commerce to pass specific performance standards and gear requirements for U.S. tuna ships. 88

3. Enforcement of the new regulations

Despite the new mandate of the 1988 amendments, the NMFS still failed to make any comparability findings for foreign nations and made no restrictions on tuna imports.⁸⁹ This took place despite solid evidence that foreign fleets had dolphin mortality

^{85.} See Marine Mammal Protection Act Amendments of 1988, Pub. L. No. 100-711, § 4(a), 102 Stat. 4755 (codified as amended 16 U.S.C. § 1371(a)) [hereinafter, 1988 amendments]. The Inter-American Tropical Tuna Commission was created in 1949. It has become the focal point of international efforts to address dolphin mortality in the tuna fishery. See discussion of the IATTC, infra at Part VI.A.

^{86.} An intermediary nation is one that imported tuna from a tuna fishing nation and then exported that same tuna to a third country.

^{87.} See 1988 Amendments, supra note 85, at §4(a).

^{88.} Id. at §§ 5(d), 4(d). The regulations are found at 50 C.F.R. §216.24 (1992). These measures included a ban on sundown sets (sets which occur after sundown have higher dolphin mortality); a requirement to use the "backdown" procedure for dolphin release from the nets; a prohibition on the use of more dangerous explosives (Class C), and the use of the medina panel (a fine mesh used to reduce the chances of the dolphins getting caught and injured in the net). See Raul Pedrozo, The International Dolphin Conservation Act of 1992: Unreasonable Extension of U.S. Jurisdiction in the Eastern Tropical Pacific Ocean Fishery, 7 Tulane Envi'l L. J. 77, 90 n. 73 (1993).

^{89.} See Perkins, supra note 72, at 228.

rates two to four times that of the U.S. fleet. 90 Such inaction outraged many environmentalists. In June of 1990, the Earth Island Institute, a nonprofit environmental organization, brought suit to require the NMFS to enforce the MMPA embargo provision based on the dolphin mortality rates for 1989. 91 The government responded that the NMFS was not mandated to impose an embargo until it had made the requisite findings of comparability. Although the NMFS had already received the necessary data, it argued that it would take months to reach a comparability finding. The court disagreed with the government's interpretation of the Act, and ordered that an interim embargo be imposed until the NMFS had made positive comparability findings.

In response to this court order, tuna import embargoes were imposed on Mexico, Panama, Venezuela, Ecuador, and Vanuatu on September 7, 1990.92 Despite the government's protests that it would take months to complete analysis of the takings data, it was able to do so in one day and subsequently lifted the ban against all of the embargoed countries except Panama. The NMFS lifted the ban against Mexico despite the fact that Mexico had "exceeded the limits for both total dolphins killed and percentage of eastern spinner dolphins killed for 1989."93 The NMFS based the decision on its own regulations, which allowed reconsideration of an embargo based on the first six months of takings data for the following year. Since Mexico had not exceeded the dolphin mortality limits for the first six months of 1990, the NMFS decided to lift the embargo. In response, the Earth Island Institute applied for a temporary restraining order on tuna imports from Mexico arguing that the plain language of the MMPA required that comparability findings be based on data for a full year. The court agreed and reinstated the embargo against Mexico.94 As a result of this case, the U.S. imposed em-

^{90.} See Kubasek et al., supra note 12, at 10. Some have argued that this inaction stemmed from the NMFS's conflicting mandates to both protect marine mammals and promote commercial fisheries. See id.

^{91.} Earth Island Inst. v. Mosbacher, 746 F. Supp. 964 (N.D. Cal. 1990), aff'd, 929 F.2d 1449 (9th Cir. 1991).

^{92.} See Hurwitz, supra note 73, at 506.

^{93.} See Earth Island Inst. v. Mosbacher, 929 F.2d at 1451.

^{94.} See id. The government also argued that the regulations should

bargoes on the importation of tuna from Mexico, Venezuela, and Vanuatu. 95

As the heat was put on the foreign fleets, one might have thought that many would have followed the example of the U.S. vessels and moved to the WTP. There are a number of factors, however, which make such a move difficult. First, it is expensive to retrofit a vessel for the type of tuna fishing done in the WTP. Second, for countries along the eastern coast, fishing in the WTP has the added expenses of transshipment fees and extra fueling costs. Finally, access to fishing grounds in the WTP is more limited than in the ETP because much of the fishery is found within the EEZs of Pacific Island nations. This access limitation has not been as much of a problem for the U.S. because of its initial refusal to recognize the right of coastal nations to control migratory species, and the later agreements between the U.S. and the Pacific Island governments.

be upheld on public policy grounds as it would act as an incentive for foreign countries to meet the MMPA standards. The court dismissed this argument because, if anything, the regulation encouraged abuse by allowing foreign nations to avoid embargoes despite exceeding the mortality limits. The court also rebuffed the NMFS as being somewhat hypocritical:

The agency's contention that it seeks only to provide additional incentives consistent with Congress' intent is further belied by the agency's own record of non-enforcement of congressional directives during the years which preceded the 1988 amendments. *Id.* at 1453.

- 95. See Dolan-Pearson, supra note 83, at 1109.
- 96. Moving to the WTP fishery may require "a vessel to refit with a new mile-long net, a larger hydraulic system and power block assembly, and new sonars to detect the tuna." See Pedrozo, supra note 88, at 115. Some have estimated that such a retrofit can cost \$1 million per vessel. See Bonanno Constance, supra note 19, at 204.
- 97. See Pedrozo, supra note 88, at 115. The U.S. had the advantage of being able to bring its catch to Puerto Rico for processing.
 - 98. See Bonanno Constance, supra note 19, at 205.
- 99. The U.S. did not recognize such a right until 1992. Furthermore, the U.S. provided compensation for U.S. fishers whose vessels had been seized by coastal nations for illegal fishing (Fishers' Protective Act of 1954, 22 U.S.C. § 1971-76 (1988)). See Perkins, supra note 72, at 219 n.20.
 - 100. Two agreements were created in 1987, which allowed U.S.

4. Consumer Power

Environmental organizations, such as the Earth Island Institute soon realized that attempting to change behavior through regulation was not enough to put a stop to dolphin mortality in the ETP. Although the U.S. share of the tuna fleet had decreased, the U.S. share of the market remained strong.¹⁰¹ Therefore, attention was turned to harnessing this consumer power to influence fishing practices.

This strategy took two main forms. One was the imposition of embargoes by the U.S. government, as discussed above. The other was a public awareness campaign spearheaded by the Earth Island Institute. The most influential form of this campaign was a consumer boycott of Starkist, the largest American tuna company. The boycott was propelled into the public limelight in March of 1988 when an undercover video of dolphin kills on a tuna vessel was aired on CBS, ABC and CNN. ¹⁰² In April of 1990, an agreement was reached with Star-Kist, in which the company agreed to ban all tuna caught with dolphins, or any tuna caught without an official observer on board. ¹⁰³ Star-Kist also agreed to support pending legislation on dolphin-safe labeling. ¹⁰⁴ The two

fisherman access to the tuna within the Pacific Island countries' EEZs in exchange for license fees and yearly economic assistance payments. Certain Pacific Island States - Unites States: Treaty on Fisheries, Apr. 2, 1987, 26 I.L.M. 1084 (1987) (Agreement Between United States (AID) and South Pacific Forum Fisheries Agency (FAA) on Economic Development Assistance, Apr. 2, 1987, 26 I.L.M. 1091 (1987)). These agreements were implemented through the South Pacific Tuna Act of 1988, 16 U.S.C. § 973 (1988) and the Foreign Assistance Act of 1961, 22 U.S.C. § 151 (1988). See Perkins, supra note 72, at 219 n.20.

- 101. In 1992 the U.S. consumed 31% of the total tuna catch. See Bonanno Constance, supra note 19, at 164.
- 102. This videotape was provided by Sam LeBudde, an environmentalist associated with EII. LeBudde went undercover on a Panamanian tuna vessel for four months and was able to videotape five hours of graphic footage documenting massive dolphin kills. See K. Patrick Conner, The Conversion of Starkist, SAN FRANCISCO CHRONICLE, June 17, 1990.
- 103. Jerry Moss, an American businessman who managed to gain access to the CEO of Star-Kist, brokered this agreement. See id.
- 104. See K. Patric Conner, The Conversion of Starkist, SAN FRANCISCO CHRONICLE, June 17, 1990.

other major tuna companies in the U.S., Bumble Bee and Chicken of the Sea, as well as a number of foreign processors, quickly joined the ban.¹⁰⁵ This closed at least 80 percent of the U.S. market to tuna caught using dolphins.¹⁰⁶

This ban was further strengthened in 1991, with the adoption of the Dolphin Protection Consumer Information Act (DPCIA) which regulated the labeling of tuna. ¹⁰⁷ In order to be labeled as "dolphin safe," tuna harvested in the ETP had to come with verification from the captain of the vessel that dolphins were not intentionally encircled. The tuna also had to be accompanied by verification, by the Secretary of Commerce or a representative of the Inter-American Tropical Tuna Commission (IATTC) that an approved observer was on board when the tuna was caught.

5. The Inter-American Tropical Tuna Commission

In addition to the American efforts, the IATTC has played an important role in the tuna-dolphin conflict on the international level. All recent attempts to negotiate an international agreement on the tuna-dolphin issue have been coordinated through the IATTC. The IATTC was formed in 1949, as a bilateral fishing treaty between the U.S. and Costa Rica. Over the years, a number of other countries have joined and there are currently 10 member countries. Many find it disturbing that Mexico, which controls a substantial share of the ETP tuna fishery and has been active in the tuna-dolphin political scene, is not currently a

^{105.} See Pedrozo, supra note 88, at 91.

^{106.} Starkist, Bumble Bee, and Chicken of the Sea alone comprised 80% of the U.S. market. See Bonanno Constance, supra note 19, at 172.

^{107. 16} U.S.C. § 1385 (amended by the International Dolphin Conservation Program Act of 1997).

^{108.} Convention for the Establishment of an Inter-American Tropical Tuna Commission, (date signed, May 31, 1949 - Mar. 3, 1950), U.S., Costa Rica, 1 U.S.T. 230.

^{109.} Current members include: Costa Rica, Ecuador, El Salvador, France, Japan, Nicaragua, Panama, U.S.A., Vanuatu, and Venezuela. A list of the current members was obtained directly from the Inter-American Tropical Tuna Commission, 8604 La Jolla Shores Drive, La Jolla, CA 92037.

member.110

Some have questioned the objectivity of this organization, since one of its major goals is to maximize tuna yield in the ETP.¹¹¹ Indeed, it was not until 1976 (almost 30 years after the organization was created) that the member nations of the IATTC agreed to formally address the growing problem of dolphin mortality in the ETP tuna fishery. At that time, the following goals were agreed upon: "(1) to maintain a high level of tuna production, and also (2) to maintain [dolphin] stocks at or above levels that assure their survival in perpetuity, (3) with every reasonable effort being made to avoid needless or senseless killing of [dolphins]."¹¹²

To this end, in 1979 the IATTC began a voluntary observer program for international vessels as an analogue to the U.S. observer program run by the NMFS.¹¹³ Initial observer rates were quite low, and it was not until 1991 that 100 percent coverage was reached.¹¹⁴ Once the observer program reached sufficient levels to allow for reliable estimates of dolphin mortality, it was discovered that the problem was much worse than had been previously estimated. "The total dolphin mortality in the fishery in 1986, the first year in which all national fleets took part in the program, was estimated by the IATTC staff to be 133,000 dolphins [This] estimate was about three times the annual levels estimated for the previous 10 years."¹¹⁵

The IATTC has continued to play an active role in the tunadolphin conflict over the years, including conducting research on the health of various tuna stocks and on the impact of the fishery on non-target species, including dolphins.¹¹⁶ The IATTC

^{110.} Mexico was a member from 1964-78. Ecuador (1961-68) and Canada (1968-84) were also members at one time. See Perkins, supra note 72, at 233 n.86.

^{111.} See Joseph, supra note 35, at 4.

^{112.} Summary Minutes of the 33rd Meeting of the Inter-American Tropical Tuna Commission, Managua, Nicaragua, October 11-14, 1976.

^{113.} See Joseph, supra note 35, at 5.

^{114.} See Pedrozo, supra note 88, at 96.

^{115.} Joseph, *supra* note 35, at 6. Joseph suggests that this increased estimate may have been due in part to increased fishing, but was also probably a result of inaccurate estimates in the past. *Id*.

^{116.} The IATTC publishes an annual report that summarizes these

has also provided a convenient international forum for the negotiation of multilateral agreements on the tuna-dolphin issue, as discussed in Parts VIII and IX below.

IV. THE FIRST GATT PANEL DECISION

The U.S. attempt to reduce foreign dolphin kills through the use of embargoes and labeling requirements had a significant impact on foreign fleets, especially Mexico, which had one of the largest fleets in the ETP. It is not surprising, therefore, that Mexico and others challenged these restrictions.

The first significant challenge to U.S. dolphin protection efforts came in 1991 when Mexico claimed that the U.S. embargo of Mexican tuna under the MMPA violated the General Agreement on Tariffs and Trade (GATT).¹¹⁷ Mexico initially attempted to negotiate with the U.S. under the GATT consultation process.¹¹⁸ When these negotiations failed to achieve a compromise,

studies. See e.g., Annual Report of the Inter-American Tropical Tuna Commission 1995, La Jolla, California, 1997. This is the most recent report available. It can be obtained directly from the IATTC at 8604 La Jolla Shores Drive, La Jolla, CA 92037.

117. General Agreement on Tariffs and Trade: Dispute Settlement Panel Report on United States Restriction on Imports of Tuna, 30 I.L.M. 1594 (1991) [hereinafter "Tuna I"]. The GATT was enacted in 1947 with 23 original members. The GATT emerged from negotiations between the United States and its allies shortly after World War II. While these negotiations failed to achieve their primary goal of creating an International Trade Organization, the associated provisions on tariffs were enacted as the General Agreement on Tariffs and Trade. There are now over 100 members (called "contracting parties") to the GATT. A nation gains membership to GATT in one of three ways: original membership in the agreement; accession under Article XXXIII of GATT which requires approval of ²/₃ of the existing contracting parties; or sponsorship of a newly independent country by its "former parent country" under Article XXVI. See Dolan-Pearson, supra note 83, at 1090-91.

118. Consultation was requested on November 5, 1990. Article XXII of the GATT allows contracting parties to initiate negotiations ("consultation") with other members regarding alleged violations of the agreement. General Agreement on Tariffs and Trade, opened for signature Oct. 30, 1947, 55 U.N.T.S. 187 [hereinafter GATT]; See Allison Raina Ferrante, The Dolphin/Tuna Controversy and Environmental Issues:

Mexico requested that a GATT panel be formed.¹¹⁹ As discussed below, the Panel concluded that both the primary embargo against tuna from Mexico, and the embargo against various intermediary nations, was in violation of the GATT. The Panel did, however, uphold the DPFCIA.

A. Primary Embargoes

First, the panel considered whether the primary embargo imposed under the MMPA on Mexico was consistent with Article III of the GATT. Article III allows internal regulations on imported products as long as equal treatment is given to domestic and imported goods. This is commonly referred to as the "national treatment principal." The Panel concluded that Article III only allowed restrictions on products, not production processes. ¹²⁰ Therefore, because the tuna itself was unaffected by the fishing method used, the panel found that the embargo on tuna caught by setting on dolphins was not the type of regulation provided

Will the World Trade Organization's "Arbitration Court" and the International Court of Justice's Chamber for Environmental Matters Assist the United States and the World in Furthering Environmental Goals?, 5 J. Transnat'l L. & Pol'y 279, 283 (1996).

119. Tuna I, supra note 117, at 1598. Article XXIII of GATT provides for a panel consisting of three representatives from member nations to be formed to investigate conflicts under GATT. Based on this investigation, the panel will make a recommendation to the disputing parties. If the conflict remains unresolved, the panel may submit its report to all of the contracting parties for a vote. A unanimous vote is required for adoption of the report. If the party found to be in violation of the report does not change its behavior, the Contracting Parties may vote (again by consensus) to allow retaliatory trade sanctions to be imposed against the offending party. See Ferrante, supra note 118, at 285; Steve Charnovitz, Dolphins and Tuna: An Analysis of the Second GATT Panel Report, 24 Envt'l. L. Rep. 10567, 10568 (1994).

120. In reaching this conclusion, the Panel seemed to rely exclusively on the fact that the text of Article III, and two previous Panel reports interpreting this provision used the term "products," not "processes." Tuna I, supra note 117, at 1617-18. However, in neither of the panel reports discussed, was the distinction between products and processes discussed. See Stanley M. Spracker & David C. Lundsgaard, Dolphins and Tuna: Renewed Attention on the Future of Free Trade and Protection of the Environment, 18 COLUM. J. ENVT'L. L. 385, 395 (1993).

for in Article III.121

The Panel concluded that the embargo failed to meet the requirements of Article III, and next considered the application of Article XI, which forbids quantitative restrictions on imports.¹²² The embargo on Yellowfin tuna from Mexico quite clearly violated this provision.¹²³

Finally, the Panel considered the exceptions to the GATT provisions found in Article XX of the GATT. Article XX provides in relevant part:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures . . .

- (b) necessary to protect human, animal or plant life or health . . .
- (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption ¹²⁴

The Panel found that the MMPA embargoes could not be exempted under Article XX(b) because the provision could not be used to protect measures applied extrajurisdictionally. The Panel did not base this conclusion on the language of the provision since they readily admitted that the text itself did not limit

^{121.} Tuna I, *supra* note 117, at 1617-18.

^{122.} Article XI reads in relevant part: "No prohibitions or restrictions . . . whether made effective through quotas, import or export licenses or other measure, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party."

^{123.} Tuna I, supra note 117, at 1618.

^{124.} GATT, supra note 118, art. XX.

^{125. &}quot;Extrajurisdictionally" refers to measures designed to protect life "outside the jurisdiction of the contracting party taking [the measure] . . . " Tuna I, *supra* note 117, at 1619. It is important to note, however, that a later GATT panel came to the opposite conclusion. *See* General Agreement on Tariffs and Trade: Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna, 33 I.L.M. 839 (1994) [hereinafter Tuna II].

the protections under XX(b) to any particular jurisdiction.¹²⁶ Instead, the Panel chose to look at other factors such as the drafting history of the provision and the implications of extrajurisdictional application. First, the Panel concluded that the drafters were primarily concerned with "the use of sanitary measures to safeguard life or health of humans, animals or plants within the jurisdiction of the importing country." Second, the Panel warned of the dangers attached to allowing one country to impose its environmental standards on all other countries.

The Panel then went on to find that even if Article XX(b) did allow extrajurisdictional measures, the embargo would still fail to meet the requirement that the measure be "necessary." This conclusion appeared to be based on a strict test of necessity established in a previous panel report. First, the Panel concluded that the U.S. had failed to exhaust all GATT-consistent alternatives, such as the possibility of developing an international agreement on dolphin conservation. Pext, it decided that because the foreign quotas based on changing U.S. takings of dolphins made the law too unpredictable, it could not be considered "necessary." 130

^{126.} Tuna I, supra note 117, at 1620.

^{127.} Id. [emphasis added] See also Stephen Fleischer, The Mexico-U.S. Tuna/Dolphin Dispute in GATT: Exploring the Use of Trade Restrictions to Enforce Environmental Standards, 3 Transnat'l L. & Contemp. Probs. 515, 530 (1993) ("The drafting history and scholarly interpretation support the position that Article XX(b) is limited to 'sanitary' measures.")

^{128.} Tuna I, supra note 117, at 1620. This Panel defined "necessary" to require that "(1) no reasonably available alternative measure consistent with GATT exists, and (2) that the measure taken be the least trade restrictive of all available alternatives." Fleischer, supra note 127, at 531.

^{129.} This does not take into account the fact that the U.S. has been a leader in the quest for an international solution to the tunadolphin conflict. For example, the U.S. was an original signatory to the IATTC and has been its primary source of funding. Moreover, the U.S. attempted to create an international agreement on dolphin protection through the International Convention for the Regulation of Whaling during the 1970s and actively participated in the La Jolla agreement (the negotiations took place concurrently with the Panel investigation). Charnovitz, *supra* note 119, at 10571.

^{130.} Tuna I, supra note 117, at 1620.

Having found Article XX(b) inapplicable, the Panel next considered Article XX(g). Again it concluded that XX(g) could not be used to protect extrajurisdictional measures based on the following reasoning. Article XX(g) specifies measures "rendering effective restrictions on domestic production or consumption." A previous Panel had determined that "a measure could only be considered to have been taken 'in conjunction with' production restrictions 'if it was *primarily aimed* at rendering effective these restrictions.' "132 Therefore, the Panel concluded that "[t]his suggests that Article XX(g) was intended to permit contracting parties to take trade measures primarily aimed at rendering effective restrictions on production or consumption within their jurisdiction." 133

The Panel went further to conclude that even if XX(g) could be applied extrajurisdictionally, the MMPA embargo could not meet the test laid out in the previous panel, that the measure be "primarily aimed" at the conservation goals. Here the reasoning was nearly identical to the necessity standard used for Article XX(b). Because the quotas applied to foreign vessels were constantly changing based on U.S. dolphin kills, the Panel determined that the law was too unpredictable to be considered "primarily aimed at the conservation of dolphins." 134

B. Secondary Embargoes

After the lengthy analysis of the primary embargoes, the Panel was able to quickly dispense with the secondary embargoes at issue. First, for the same reasons discussed above, the Panel found that Article III of the GATT was inapplicable; Article XI was violated, and Articles XX(b) and XX(g) could not protect these extrajurisdictional measures. ¹³⁵

The only new analysis involved the possible application of Article XX(d), which allows measures "necessary to secure compliance with laws or regulations, which are not inconsistent with the provisions of [GATT]." The U.S. argued that the secondary

^{131.} Id.

^{132.} Id. at 1620-21.

^{133.} *Id.* at 1621 (emphasis added).

^{134.} *Id*.

^{135.} Id.

^{136.} Id. at 1622.

embargo was essential to avoid contravention of the primary embargo. The Panel held, however, that because the primary embargo was found to be in violation of GATT, Article XX(d) could not save the secondary embargo.¹³⁷

C. Dolphin Protection Consumer Information Act (DPCIA)

Finally, the Panel considered the labeling provisions of the DPCIA. The relevant GATT provision here was Article I, the "most-favored nation principle." Article I provides that: "any advantage, favor, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties." ¹³⁸

Mexico argued that it is was discriminated against because it fished in the ETP rather than other fishing areas. The Panel concluded that the label does not in any way restrict a country's access to the U.S. market, and that because the ETP is the only ocean where dolphins associate with tuna, it is not unfair to require the labeling requirements in the ETP only. Finally, within the ETP, the labeling requirements applied equally to all fishers and therefore did not discriminate against Mexico or any other country fishing in the ETP. Therefore, the labeling provisions of the DPCIA were found to be consistent with Article I of the GATT.

In conclusion, Mexico was the clear winner in the first GATT panel decisions as the MMPA embargo against Mexico was found to be in violation of the GATT. However, Mexico never submitted this finding to a full vote of the GATT Contracting Parties.¹³⁹ Therefore, the report is not binding and Mexico was not authorized to take retaliatory trade measures against the U.S.

^{137.} Id.

^{138.} GATT, *supra* note 118, art. I.

^{139.} Pedrozo, supra note 88, at 94.

V. IN THE AFTERMATH OF THE FIRST GATT DECISION

A. IDCA 1992

Mexico appeared to have forgone adoption of the Tuna I panel decision in order to maintain good standing in the negotiations over the North American Free Trade Agreement (NAFTA).¹⁴⁰ To further mitigate against negative reactions to the panel findings, Mexico developed a ten-point program of dolphin protection. Mexico also placed a number of full-page ads in *The New York Times* assuring the American public of Mexico's commitment to dolphin conservation.¹⁴¹

The Bush Administration promised to lobby Congress to lift the MMPA import ban, both in exchange for these Mexican concessions following the GATT panel report, 142 and to help secure the success of the 1992 La Jolla Agreement, an international agreement regarding the tuna fishery in the ETP. 143 Many members of Congress, however, were infuriated by the GATT report and strongly opposed efforts to weaken dolphin protections under the MMPA. 144

Two proposals came before Congress for the MMPA amendments. The Breaux Bill would have implemented the La Jolla Agreement, and would have allowed consideration of a moratorium on fishing on dolphins upon the recommendation of a "competent regional organization," such as the IATTC. The Bill would also have provided for embargoes to be imposed on countries failing to meet their commitments under the international agreement.¹⁴⁵

The Breaux Bill was rejected in favor of the International

^{140.} Bonanno and Constance, supra note 19, at 198.

^{141.} Id.

^{142.} Id. at 197-98.

^{143.} Charnovitz, supra note 119, at 10571. For a discussion of the La Jolla Agreement, see infra Part VIII.A.

^{144.} Representative Barbara Boxer, a leader in the Congressional effort to protect dolphins, and the author of the DPCIA, wrote a letter to President Bush and the U.S. Trade Representative vowing to oppose any attempt to repeal the laws found inconsistent with GATT. The letter was co-signed by sixty-two members of Congress. See Yechout, supra note 71, at 258.

^{145.} Perkins *supra* note 72, at 236-37.

Dolphin Conservation Act (IDCA) of 1992.¹⁴⁶ The IDCA promised to lift the tuna ban for any country that agreed to a five-year moratorium on setting on dolphins.¹⁴⁷ The moratorium was to begin March 1, 1994.¹⁴⁸ In order to lift the tuna ban, the participating country would also have had to agree to carry observers on their tuna vessels and to reduce their dolphin mortality each year in 1992 and 1993.¹⁴⁹ If a country was found to be in non-compliance with the moratorium to which it agreed, the ban on tuna imports would have been reinstated against that country.¹⁵⁰ If that country failed to come into compliance within 60 days, the U.S. President was required to ban 40 percent of total fish imports from that country.¹⁵¹

The IDCA also set additional limits on U.S. takings of dolphins. Total dolphin mortality was limited to 1000 for 1992, and 800 for the period from January 1, 1993 to the beginning of the moratorium on March 1, 1994. The general permit was to expire on March 1, 1994. If, however, no major purse seining country agreed to the moratorium, the U.S. fishers could continue setting on dolphins, but the annual dolphin mortality rate was to be reduced by "statistically significant amounts each year to levels approaching zero by December 31, 1999." ¹⁵³

Although Mexico and Venezuela had initially committed to the

^{146.} The International Dolphin Conservation Act of 1992, H.R.Rep.No.746(I), 102nd Cong., 2nd Sess. 1992, U.S.C.C.A.N. 2919, P.L. 102-523 (codified at 16 U.S.C. § 1411) (amended by the International Dolphin Conservation Program of 1997) [hereinafter IDCA].

^{147.} Id. at § 305(a)(1).

^{148.} *Id.* at § 302(b)(1).

^{149.} *Id.* at § 305(a)(2).

^{150.} *Id.* at § 305(b)(1)(B).

^{151.} *Id.* at § 305(b)(2)(A)(i).

^{152.} *Id.* at § 306(a)(i).

^{153.} Id. at §306(a) (4) (B). On February 4, 1994, when it became clear that no country was going to agree to the moratorium, the NMFS banned all purse seine fishing in the U.S. for the remainder of the year because the dolphin mortality rate was rapidly approaching the total kills for the previous year. This decision was quickly challenged by the American Tuna Boat Association, but was upheld as a valid application of the IDCA. See American Tuna Boat Ass'n v. Brown, 67 F.3d 1404 (9th Cir. 1995).

moratorium idea,¹⁵⁴ no country ever entered into a moratorium agreement with the U.S. Therefore, the embargoes remained in place. Regardless of the failure of the moratorium provision, the IDCA did effectively ban the importation or sale, as of June 1, 1994, of any tuna that was not "dolphin safe." Prior to this, the dolphin safe standard was used only for labeling, not as a requirement for sale. ¹⁵⁶

The legislative history shows that Congress was concerned with trying to bring the MMPA into compliance with the GATT. The fact that "the IDCA determines compliance using a ship-by-ship rather than a country-by-country basis," was a major step towards this goal.¹⁵⁷ Some argue, however, that the IDCA still failed to meet the GATT guidelines because the import ban had not been lifted and the U.S. still had the option to impose unilateral trade sanctions.¹⁵⁸

B. Intermediary Embargo

In 1992, the Earth Island Institute (EII) again brought suit to force the NMFS to actively enforce the MMPA embargo provisions.¹⁵⁹ This time, the focus was on imports of tuna from intermediary nations.¹⁶⁰ The court agreed that the NMFS had not acted consistently with the MMPA requirements. First, the court

^{154.} IDCA, supra note 146.

^{155.} IDCA, supra note 146, at § 307(a)(i).

^{156.} Hon. R. Kenton Musgrave & Garland Stephens, *The GATT-Tuna Dolphin Dispute: An Update*, 33 NAT. RESOURCES J. 957 (1993).

^{157.} Yechout, supra note 71, at 260.

^{158.} Id. at 261; Musgrave and Stephens, supra note 156, at 971; Dolan-Pearson, supra note 83, at 1123.

^{159.} Earth Island Inst. v. Mosbacher, 785 F. Supp. 826 (N.D. Cal. 1992), rev'd 28 F.3d 76 (9th Cir. 1994). The decision was reversed based on jurisdictional grounds. The Ninth Circuit held that the District Court lacked jurisdiction to hear the case because the court of international trade has exclusive jurisdiction over laws providing for "embargoes or other quantitative restrictions on the importation of merchandise for reasons other than the protection of the public's health or safety." 28 U.S.C. § 1581(i)(3).

^{160.} The 1988 amendments to the MMPA provided for such embargoes. See discussion of 1988 amendments, *supra* note 85 and accompanying text.

held that the statute required that *all* intermediary nations submit proof of their import policies, not just those suspected of tuna laundering, as had been the policy of the NMFS.¹⁶¹ Second, the court found that it was not enough for these nations to show that they had not imported embargoed tuna. Rather, they had to show that they had laws or regulations in place against such importation.¹⁶²

In order to comply with the court's ruling the NMFS greatly expanded the list of intermediary nations subject to the secondary embargo. The Bush administration strongly opposed the court's interpretation of the secondary embargo and quickly passed interim regulations, which required only that the intermediary nation prove that it had not imported banned tuna within the past six months. These regulations subsequently made their way into the MMPA in the 1992 amendments to the Act. As a result, the NMFS removed a number of nations from the secondary embargo. The countries that remained subject to the intermediary embargo included: Costa Rica, Italy, Japan, and Spain. 167

VI. THE SECOND GATT CHALLENGE

The U.S. enforcement of the MMPA embargo against intermediary nations led to another challenge to the MMPA in front of a GATT panel in July 1992.¹⁶⁸ This time it was the European Eco-

^{161.} At the time of the suit, NMFS only required proof from Costa Rica, France, Italy, Japan, and Panama. *See* Tuna II, *supra* note 125, at 849.

^{162.} Perkins, *supra* note 72, at 230.

^{163.} This expansion took place in February 1992. The list of intermediary nations now include: Canada, Columbia, Costa Rica, Ecuador, France, Great Britain, Indonesia, Italy, Japan, Malaysia, Panama, the Marshall Islands, the Netherlands, Antilles, Singapore, South Korea, Spain, Taiwan, Thailand, Trinidad and Tobago, and Venezuela. *Tuna II, supra* note 125, at 849.

^{164.} Bonanno and Constance, supra note 19, at 202.

^{165. 56} Fed. Reg. 41,701.

^{166.} Tuna II, supra note 125, at 849.

^{167.} Id. at 850.

^{168.} See Tuna II, supra note 125. Although the Tuna I panel had found the intermediary embargo in violation of the GATT, the deci-

nomic Community (EEC) and the Netherlands that brought the challenge. These countries asked the Panel to find that the intermediary embargo on tuna was in violation of GATT. Indeed, the Panel did reach such a conclusion, but based on slightly different reasoning from the first Panel's findings.

The Panel's analysis with regard to Articles III and XI of the GATT was essentially the same as in *Tuna I*. First, they found Article III inapplicable due to the product/process distinction discussed above. Second, the intermediary embargo was held to violate the Article XI prohibition on quantitative import restrictions.

The Panel then turned to exceptions found in Article XX, where the analysis from the first Panel diverges. ¹⁶⁹ The most significant difference between the first and second Panel decisions is that the second Panel held that Articles XX(b) and XX(g) could apply to measures applied extrajurisdictionally. They based this conclusion on the following factors. First, nothing in the text of Article XX would suggest a territorial limitation on the measures involved. Second, two previous GATT panels had found Article XX(g) to apply to migratory fish without reference to where it was caught. Third, other provisions of GATT applied extrajurisdictionally, such as Article XX(e) regarding the products of prison labor. Finally, the Panel found support in the fact that as a general principal of international law, states are not barred

sion had never become binding because it was never formally adopted by the GATT Contracting Parties.

169. The Panel used the following three step approach to the application of Article XX(g). First, it considered whether the policy upon which the embargo was based fell within the range of policies intended to conserve an exhaustible natural resource. Second, it considered whether the embargo was related to the conservation of exhaustible natural resources, and whether it was made effective in conjunction with restrictions on domestic production or consumption. Tuna II, supra note 125, at 867. Third, the Panel considered the consistency of the embargo with the preamble to Article XX which required that the measure not be a "means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade." Tuna II, supra note 125, Art. XX. While this may be a good approach to the issue, the actual analysis did not appear to differ in substance from that used in Tuna I.

from "regulating the conduct of their nationals with respect to persons, animals, plants and natural resources outside of their territory." ¹⁷⁰

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While this battle was won, the war was still lost, as the Panel once again found that the intermediary ban failed the requirements of both XX(b) and XX(g). Again, the reasoning was quite similar to that used in *Tuna I*. In their analysis, the Panel used narrow interpretations for both XX(b) and XX(g). In the case of XX(b), they relied on a previous panel report that interpreted the term "necessary" to mean that one must choose "among the measures reasonably available to it, that which entails the least degree of inconsistency with other GATT provisions." They then concluded that "measures taken so as to force other countries to change their policies, and that were effective only if such changes occurred, could not be considered 'necessary' for the protection of animal life or health in the sense of Article XX(b)." 172

For Article XX(g) the court used the same linguistic interpretation as that found in *Tuna I*. The term "relating to" was read to actually mean "primarily aimed at" the conservation of an exhaustible resource.¹⁷³ With this interpretation in mind, the Panel came to essentially the same conclusion as they had for Article XX(b), that a measure intended to bring about change in the policies of another country cannot be "primarily aimed at" the conservation of an exhaustible resource.¹⁷⁴

VII. UNILATERAL VS. MULTILATERAL ACTION

It is clear that in the end both GATT panels, through slightly different paths, reached the same conclusion with regard to the

^{170.} Tuna II, supra note 125, at 892.

^{171.} Id. at 897 (quoting General Agreement on Tariffs and Trade: Report of Panel on United States - Section 337 of the Tariff Act of 1930 adopted November 7, 1989 Para. 5.26).

^{172.} Id. at 898.

^{173.} *Id.* at 893. Again, this was based on a previous panel's interpretation. General Agreement on Tariffs and Trade: Report of the Panel in Canada - Measures effecting the exports of unprocessed herring and salmon, adopted March 22, 1988 (para. 4.6).

^{174.} See id. at 893-94.

MMPA embargo provisions. The first Panel concluded that measures to conserve natural resources or animal health could not be applied extrajurisdictionally under Article XX, and that even if it could, it was too unpredictable a standard to be considered "necessary" in the case of Article XX(b) or "primarily aimed at" for Article XX(g). While the second panel concluded that the measures could be applied extrajurisdictionally, it determined that the embargo was not "necessary" for or "primarily aimed at" the conservation goals because it required that other nations change their policies.

Although the two Panels reached their conclusions based on slightly different reasoning, the core concern behind both decisions appeared the same: the unilateral nature of the U.S. actions. This was of concern both because of its inconsistency with the cooperative nature of the GATT, and because of the potential for the U.S. to abuse its economic position in the international community and market. The *Tuna I* panel made the following slippery slope argument:

[E]ach contracting party could unilaterally determine the life or health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations.¹⁷⁵

Although the second GATT Panel concluded that Article XX could apply to extrajurisdictional action, the Panel expressed very similar concerns to those voiced by the first Panel:

If Article XX were interpreted to permit contracting parties to take trade measures so as to force other contracting parties to change their policies within their jurisdiction, including their conservation policies, the balance of rights and obligations among contracting parties, in particular the right of access to markets, would be seriously imparted. Under such an interpretation the General Agreement could no longer serve as a multilateral framework for trade among contracting parties.¹⁷⁶

^{175.} Tuna I, supra note 117, at 1620.

^{176.} Tuna II, supra note 125, at 94.

Indeed, there are many factors weighing against unilateral action. First, there is concern that protectionist goals may be forwarded behind the facade of environmental protection. In the case of the tuna embargoes under the MMPA, there is, in fact, some evidence that the U.S. was concerned about the competitive advantage that was developing in the foreign tuna fleets.¹⁷⁷ And of course there is no doubt that the U.S. tuna industry supported the embargoes on foreign tuna fleets.¹⁷⁸ At the same time however, there was great concern from a conservationist perspective over the level of dolphin mortality caused by the foreign fleets, which was a motivating factor in strengthening the MMPA with regard to foreign fleets. In addition, as of 1995, the U.S. continued to import over 66% of its tuna, which is "hardly a monopoly for domestic harvesters."179 Moreover, the NMFS and President Bush consistently resisted imposing embargoes under the Act, until being forced to do so by a conservationist group, the Earth Island Institute. 180 In the end, it seems obvious that the primary goal behind the embargoes was to protect dolphins, not U.S. fishers.

Another common argument against unilateral action is that it is not as effective as multilateral agreements, because other countries can simply seek alternative markets for their products.¹⁸¹

^{177. &}quot;Legislative history reveals that in strengthening the import prohibition provisions of the MMPA, Congress was motivated in part by a concern that, faced with weaker regulations, the foreign fleet was enjoying an unfair competitive advantage relative to the U.S. fleet." Fleischer, *supra* note 127, at 536.

^{178.} At the 1995 hearings discussing the IDCA, the American Tunaboat Owners Coalition testified that: "Our tuna fishers have always supported the MMPA embargo provisions because they were intended to force all countries to fish under standards comparable to those applicable to the U.S. fleet." Hearings, *supra* note 40, at 91.

^{179.} Hurwitz, *supra* note 73, at 522 citing NANCY BORKSTAID & IVAR STRAND, FREE TRADE & GLOBAL RESOURCES: THE CASE OF PROTECTED MARINE SPECIES 8; Inter-America Development Bank and United Nations Econ. Comm. for Latin American & the Caribbean Working Paper, No. 49, 1993.

^{180.} See supra Section III.B.3. See also Dolan-Pearson, supra note 83, at 1118.

^{181.} See Fleischer supra note 127, at 540 (citing Michael T. Parsons, The Marine Mammal Protection Act: Working Toward an Effective International Solution to the Dolphin Problem, 4 TRANSNAT'L LAW 673, 675 (1981).

This argument was made frequently by opponents of the MMPA tuna embargoes. Undoubtedly, the effectiveness of an embargo will depend greatly on the opportunity for alternative markets. However, in the case of tuna embargoes, the U.S. still constitutes a sufficient share of the market to make an embargo an effective tool.

There is also an ethical argument that one country should not be able to impose its conservation standards on other countries, because different countries will have different views of proper level of conservation.¹⁸² The problem with this argument is that impacts on the environment may affect people around the world, not just in the territory in which it occurs. This is particularly true of global resources, such as fisheries. Dolphins are not found within the borders of any one country, but roam in what continues to be considered the global commons — the sea. Indeed, dolphin mortality due to tuna fishing is a classic example of the tragedy of the commons, as each country has incentive to use the dolphins because if they don't, another country will.

Although multilateral agreements may be the ideal solution, there were many justifications for the use of unilateral action by the U.S. in the case of the tuna-dolphin conflict. The principal reason being that there was insufficient commitment in the international community to address the problem of dolphin mortality. If the U.S. had not intervened, it is quite likely that those dolphins associated with tuna would be extinct today, 183 especially since the dolphins are now listed as depleted despite the U.S. efforts. Second, without the threat of embargoes, it seems unlikely that there would have been sufficient motivation to create an international agreement on the issue.

Although the U.S. may have been justified in using a unilateral approach in the early years, most would probably agree that the time is now ripe for a multilateral agreement. Although the GATT panel decisions in *Tuna I* and *Tuna II* were never enforced through a vote of the GATT contracting parties, they likely encouraged the United States' efforts to create multilateral international agreements, as discussed below.

^{182.} See, e.g., Spracker and Lundsgaard, supra note 120, at 411.

^{183. &}quot;Those whose most pressing concern is the present mortality rate among dolphins will understandably be unwilling to wait for the conclusion of the often ponderous process of international negotiation." *Id.* at 413.

VIII. INITIAL STEPS TOWARD A MULTILATERAL INTERNATIONAL SOLUTION: THE LA JOLLA AGREEMENT AND THE DECLARATION OF PANAMA

The U.S. was an early and active participant in efforts to create an international agreement on dolphin conservation. It was a signatory to the La Jolla Agreement signed in June of 1992,¹⁸⁴ and then subsequently of the Declaration of Panama signed in October 4, 1995.¹⁸⁵ The parties to the Declaration of Panama agreed to commit to a binding international agreement implementing the La Jolla Agreement on the condition that the United States modify the Marine Mammal Protection Act.¹⁸⁶ Such an agreement was recently negotiated at La Jolla.¹⁸⁷ This section will outline the La Jolla Agreement and the Declaration of Panama. The Agreement on the International Dolphin Conservation Program will be discussed in Section IX, infra.

A. La Jolla Agreement

The La Jolla Agreement was coordinated by the Inter-American Tropical Tuna Commission in June of 1992 and was signed by Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, Spain, the United States, Vanuatu, and Venezuela. It was itself based on an earlier IATTC resolution involving Mexico, Spain, and Venezuela. The purpose of the La Jolla Agreement is to:

adopt a multilateral program with the objectives of (1) progressively reducing dolphin mortality in the eastern Pacific Ocean (EPO) fishery to levels approaching zero through the setting of annual limits and (2) with a goal of eliminating dolphin mor-

^{184.} Agreement for the Reduction of Dolphin Mortality in the Eastern Pacific Ocean (EPO), June 1992, Colombia - Costa Rica - Ecuador - France - Japan - Mexico - Nicaragua - Panama - Spain - United States - Vanuatu - Venezuela, 33 I.L.M. 936 (1994) [hereinafter La Jolla Agreement].

^{185.} Declaration of Panama, supra note 52.

^{186.} Id. at 1.

^{187.} International Agreement, supra note 6.

^{188.} La Jolla Agreement, supra note 184, at 940.

^{189.} Dolphin Conservation Program adopted at a special meeting of the IATTC, April 1992, La Jolla, California.

tality in this fishery, seeking ecologically sound means of capturing large yellowfin tunas not in association with dolphins while maintaining the populations of yellowfin tuna in the EPO at a level which will permit maximum sustained catches year after year ¹⁹⁰

The Agreement established a yearly limit on dolphin mortality for the EPO fishery as follows:

Limit	Percentage of best estimate of current populations of spotted, spinner, and common dolphins
19,500	0.30
15,500	0.24
12,000	0.19
9,000	0.14
7,500	0.11
6,500	0.10
< 5,000	$< 0.08^{191}$
	19,500 15,500 12,000 9,000 7,500 6,500

These annual limits were to be allocated among the fishing vessels of the participating countries in the form of Dolphin Mortality Limits (DMLs). A vessel would be required to stop setting on dolphins once its DML is reached. If a vessel exceeded its DML it would receive a proportionately reduced DML for the following year. Is a captain intentionally set on dolphins after meeting limits, he or she would be subject to fines and a suspension of his or her license. Is Agreement also requires that observers be present on all vessels of carrying capacity greater than 400 short tons. Fifty percent of those observers would have to be from the IATTC observer program.

^{190.} La Jolla Agreement, supra note 184, at 938.

^{191.} Id.

^{192.} Id.

^{193.} Id. at 939.

^{194.} Intergovernmental Plenary Meeting on the Conservation of Tuna and Dolphins in the Eastern Pacific Ocean, p. 8, June 1993; Port Vila, Vanuatu.

^{195.} La Jolla Agreement, supra note 184, at 939.

The Agreement also mandated the formation of a Review Panel composed of five or more representatives of participating governments, two representatives of the tuna-fishing industry, two representatives of environmental organizations, and an IATTC representative. The main functions of the Panel were to assign individual DMLs; report on compliance with the program; and make "recommendations" to the participating governments regarding training for fishing captains, appropriate fishing equipment, and sanctions for violations. 197

The La Jolla Agreement also established a Scientific Advisory Board to "assist the Director [of IATTC] in matters regarding research to (a) modify current purse-seine technology to make it less likely to cause dolphin mortality and (b) seek alternative means of capturing large yellowfin tuna." The Director chose the board members from the "international community of scientists, fishing gear experts, the fishing industry, and environmentalists." 199

Finally, the Agreement proposed that dolphin sets on particular stocks be banned if the total mortality for that stock exceeded two percent of its estimated abundance. The length of the ban would depend on the extent to which the mortality has exceeded two percent of the abundance.²⁰⁰

While the La Jolla Agreement established a fairly comprehensive approach to addressing dolphin mortality in the ETP tuna fishery, it was not a binding agreement. Nevertheless, it has provided a useful framework for subsequent negotiations and was adopted in large part by the Agreement on the International Dolphin Conservation Program, as discussed in Part IX.

^{196.} Id. at 941. Only the governmental representatives are allowed to vote.

^{197.} The Panel met eight times between 1992 and 1995. Agreement for the Conservation of Dolphins; Summary Documentation of Decisions and Recommendations of the Inter-American Tropical Tuna Commission, Intergovernmental Plenary, and International Review Panel, April 1992 - January 1995.

^{198.} La Jolla Agreement, supra note 184, at 942.

^{199.} Id.

^{200.} Id. at 941.

B. The Declaration of Panama

The Declaration of Panama was signed on October 4, 1995 by Belize, Colombia, Costa Rica, Ecuador, France, Honduras, Mexico, Panama, Spain, the U.S., Vanuatu, and Venezuela.²⁰¹ It affirmed the goals the La Jolla Agreement, and stated an intention to formalize that agreement through a binding international agreement, contingent upon changes in the U.S. law. These proposed changes included the following: 1) lifting the primary and secondary embargoes against any country which is in compliance with the La Jolla Agreement and the Declarations of Panama; 2) opening the tuna market to all IATTC members; and 3) changing the dolphin safe label to include all tuna caught without the observed dolphin mortality.

The Panama Declaration contains a few other additions and changes in the La Jolla Agreement to be included in the binding international agreement. For example, the issue of bycatch is raised for the first time,²⁰² for which the Declaration states a goal to assess and reduce such bycatch.²⁰³

Another significant change made between the La Jolla Agreement and the Panama Declaration is the establishment of mortality limits based on dolphin stocks²⁰⁴ rather than total dolphin populations. Specifically, the Declaration established "a per-stock per-year cap of 0.2% of the Minimum Estimated Abundance (Nmin)" of each stock until 2001, at which point the cap would be reduced to 0.1% Nmin, with the total annual mortality never to exceed 5000 individuals. Likewise, fishing would be stopped based on the limits for particular stocks, rather than based on the entire dolphin population, as established in the La Jolla Agreement.

^{201.} Declaration of Panama, supra note 52.

^{202.} See discussion of bycatch, supra Part II.C.

^{203.} Declaration of Panama, supra note 52.

^{204.} Dolphin stocks are "geographical sub-units that can be identified by morphological or other characteristics. These sub-units with a limited degree of mixing . . . are used as the units of management on the grounds that there is genetic diversity in the units that must be conserved, and that their population dynamics could differ." See Hall, supra note 10, at 5-6.

Finally, the Declaration introduces the idea of National Scientific Advisory Committees (NATSACs). These would be groups of experts within each participating country, which would make recommendations to their governments on research needs and measures to help "conserve and manage the stocks of living marine resources of the EPO." ²⁰⁵

Again, the Declaration of Panama was not a binding agreement, but it successfully added to the framework established in the La Jolla Agreement and continued the trend toward establishing a multilateral solution to the tuna-dolphin conflict.

IX. AGREEMENT ON THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

On June 24, 1998, the parties involved in the ETP tuna fishery successfully completed their first binding international agreement, called the Agreement on the International Dolphin Conservation Program.²⁰⁶ This section will discuss the content of this Agreement and its possible implications for dolphin conservation.

A. The Overall Objectives of the Agreement

The overall objectives of the final Agreement are basically identical to those established in the La Jolla Agreement and the Declaration of Panama. These objectives are: 1) to progressively reduce incidental dolphin mortality to levels approaching zero; 2) to "seek ecologically sound means of capturing large yellowfin tunas not in association with dolphins"; and 3) to reduce the bycatch of juvenile tuna and other marine species.²⁰⁷ An earlier draft also included the following objective suggested by the Latin

^{205.} Declaration of Panama, *supra* note 52, at 1. "EPO" stands for Eastern Pacific Ocean and refers to the same area as the "ETP," as used in this article.

^{206.} International Agreement, *supra* note 6. The countries participating in the negotiations included: Belize, Chile, Colombia, Costa Rica, Ecuador, El Salvador, France, Guatemala, Honduras, Japan, Mexico, Netherlands Antilles, Nicaragua, Panama, Spain, the United States, Vanuatu, Venezuela, and the European Community.

^{207.} International Agreement, supra note 6, Article II.

American Delegation: "to promote the use of the tuna stocks in the Agreement Area, ensuring their long-term sustainability . . ." This fourth objective was removed from the final draft.

Although the overall objectives of the Agreement appear to be geared towards reducing dolphin mortality, the Agreement also makes clear that the Parties were not willing to commit to a 'dolphin-free' tuna industry. This is indicated, for example, by the following statement found in the Preamble:

Convinced that scientific evidence demonstrates that the technique of fishing for tuna in association with dolphins, in compliance with the regulations and procedures established under the La Jolla Agreement and reflected in the Declaration of Panama, has provided an effective method for the protection of dolphins and rational use of tuna resources in the eastern Pacific Ocean;²⁰⁹

Interestingly, this language is actually more moderate than that originally proposed by the Latin American Delegation in an earlier draft.²¹⁰ Specifically, the original language read:

Convinced that scientific evidence demonstrates that the technique of fishing for tuna in association with dolphins, in compliance with regulations and procedures established under the La Jolla Agreement and the Declaration of Panama, is the *most effective method* for the protection and rational use of tuna resources within the ETP ²¹¹

Fortunately, this language was removed, for it would have established a clear preference for setting on dolphins over other fishing alternatives. Even with the modified language in the final agreement, however, the intention to continue to use dolphins in tuna fishing is clear.

It was also important to the Latin American Delegation to include a statement against unilateral action in this arena. As a result, the preamble includes the following statement: "Reaffirming that multilateral cooperation constitutes the most effective means

^{208.} Agreement on the International Dolphin Conservation Program, draft November 7, 1997 [hereinafter, Draft International Agreement].

^{209.} International Agreement, *supra* note 6, Preamble (emphasis added).

^{210.} Draft International Agreement, supra note 208.

^{211.} Id. Preamble (emphasis added).

for achieving the objectives of conservation and sustainable use of living marine resources."²¹² Again, this was modified from an earlier draft, which continued with: "and that unilateral measures implemented mainly for environmental purposes are inconsistent with international law and are unsuitable."²¹³ This final statement in the earlier draft was problematic based on its potential influence on other environmental issues. However, the compromise language seems fair because it states a preference for multilateral action without explicitly condemning all unilateral actions used for environmental goals.

B. The Nuts and Bolts of the Agreement

The final Agreement adopts and expands on many of the features introduced in the La Jolla Agreement and the Declaration of Panama. The basic elements of the Agreement are: i) a per year, per stock dolphin mortality limit;²¹⁴ ii) an on-board observer program for all vessels above 400 short tons, and a prohibition on setting on dolphins by smaller vessels;²¹⁵ iii) operational requirements for all vessels with a carrying capacity of 400 short tons or more; iv) a provision for establishing Dolphin Mortality Limits (DMLs) for individual vessels to be administered by an International Review Panel;²¹⁶ v) the establishment of a Scientific Advisory Board,²¹⁷ and National Scientific Advisory Committees,²¹⁸ vi) measures to address the bycatch problem;²¹⁹ and vi) a self-enforced compliance program.²²⁰ Each of these provisions is discussed below.

1. Per Year, Per Stock Mortality Cap

The Agreement adopted the per-year, per-stock mortality limits established in the Panama Declaration. That is a limit of between

^{212.} International Agreement, supra note 6, at Preamble.

^{213.} Draft International Agreement, supra note 208, at Preamble.

^{214.} See International Agreement, supra note 6, at art. V, annex III.

^{215.} See id. at art. XIII, annex II.

^{216.} See id. art. V, annexes III and IV.

^{217.} See id. at art. X, annex V.

^{218.} See id. at art. XI, annex VI.

^{219.} See id. at art. VI.

^{220.} See id. at art. XVI.

.2 and .1% of the Minimum Estimated Abundance (Nmin) until the year 2001, at which point the limit will be .1% of the Nmin.²²¹ However, the total annual mortality is never to exceed 5000 dolphins. As was established in the Panama Declaration, if the per stock limits are exceeded, then all sets on that stock must cease for the remainder of the year. The quota is to be allocated among the Parties to the Agreement through per-vessel Dolphin Mortality Limits as discussed below.²²²

2. On-Board Observer Program

As with much of the Agreement, the basic framework for the observer program is based on the La Jolla Agreement. Each vessel of carrying capacity greater than 400 short tons must carry an observer during each fishing trip in the ETP. Fifty percent of the observers are to come from the IATTC observer program, and the remainder may come from a Party's national observer program. The Parties must ensure that their observers collect information in the same manner as required for IATTC observers and that they provide all raw data to the IATTC. The national observer program may raise concern because, as mentioned above, the incentive to "underestimate" dolphin kills is great and a national observer may be more inclined to succumb to such pressure.

In all other respects, however, the observer program seems fairly well balanced. There are protections for both the fishers and the observers. The observer is required to make all information gathered available to the captain. The captain is given an opportunity to provide comments in the final report of the observer's trip. In addition, the observer must keep all gathered information confidential. The observers must also comply with the laws of the Party with jurisdiction over the vessel. They must also comply with the rules on the vessel, as long as they do not interfere with their duties. On the other hand, the Agreement also specifies that all observers must be allowed access to relevant personnel and gear, permitted on deck during dolphin sets, and

^{221.} See id. at annex III.

^{222.} See, infra, Section IX.B.4.

^{223.} See id. at annex II.

provided adequate accommodations. In addition, the Parties are required to ensure that observers are not intimidated or bribed by the captain or crew.²²⁴

3. Operation Requirements for Vessels Large Enough to Set on Dolphins

The Agreement establishes a set of requirements for vessels fishing in the Agreement area that have a carrying capacity of greater than 400 short tons.²²⁵ Equipment requirements include: 1) a dolphin safety panel (DSP)²²⁶ on the purse seine net; 2) "at least three operable speedboats;" 3) "an operable raft suitable for the observation and rescue of dolphins;" 4) "at least two operable facemasks suitable for underwater observation;" and 5) "an operable long-range floodlight." This equipment is used to aid in the safe release of dolphins encircled by the purse seine net.

The Agreement also establishes behavioral requirements, such as: requiring each vessel to release dolphins prior to hauling in the catch, through a procedure known as "backdown," and by physically removing individual dolphins from the net; requiring completion of all backdown procedures within 30 minutes of sundown; and prohibiting the use of explosives "during any phase of a fishing operation involving dolphins." Many of these behavioral and equipment restrictions have been required of the U.S. fleet for years and have proven to be effective in reducing dolphin mortality.

4. Dolphin Mortality Limits (DMLs)

The concept of assigning Dolphin Mortality Limits (DMLs) to individual vessels was first introduced in the La Jolla Agreement.²²⁸ The International Agreement adopted this concept and

^{224.} See id.

^{225.} See id. at annex VIII.

^{226.} A dolphin safety panel consists of finely woven netting around the top edge of the net where the dolphins are generally released. This reduces the risk of the dolphins getting caught in the net.

^{227.} International Agreement, supra note 6, annex VIII.

^{228.} La Jolla Agreement, supra note 184.

established a general framework for the creation and implementation of DMLs.²²⁹ The process is to be coordinated by the International Review Panel (IRP) which is composed of representatives of the Parties ("government members"), three representatives of environmental NGOs, and three representatives of the tuna industry.²³⁰ However, only the governmental members have voting authority.²³¹

Although the DML concept seems to be an equitable way of addressing the allocation of permitted dolphin kills, there are a number of troubling aspects of the program, as established in the Agreement. First, although the process is ostensibly organized on an international level, much of the information relied upon is based on reports from individual Parties. On the one hand it is good to provide each Party with sufficient control over the process. For example, each Party must supply the IRP with a list of vessels requesting a DML for the upcoming year. The IRP will then compile a list of "qualified vessels eligible to receive a DML."232 The criteria used to make this determination rely heavily on information provided by the Parties. Specifically, two of the factors considered in determining the eligibility of a vessel are 1) that it is "certified by the relevant national authorities to be in possession of all of the dolphin safety gear and equipment" required by the Agreement; and 2) that it has a captain and crew that has received "approved training courses in dolphin release and rescue techniques comparable to a standard established by the Meeting of the Parties."233 It is difficult to know the accuracy with which this information will be reported to the IRP, since the incentive to withhold negative information is likely to be high due to the benefits of setting on dolphins and the disparity in the ethical view of dolphin conservation among the parties. The Agreement does not appear to provide a mechanism for verifying this information.

Another problematic aspect of the DML program is that individual vessels are essentially penalized for not setting on dol-

^{229.} See International Agreement, supra note 6, at annex IV.

^{230.} See id. at annex VII.

^{231.} See id.

^{232.} See id.

^{233.} Id. at annex VI. (emphasis added)

phins. Specifically, the Agreement provides that any vessel that has not set on dolphins by April 1st of the year for which it has received a DML will lose its quota for that year. Moreover, any vessel which loses its DML "on two consecutive occasions shall not be eligible to receive a DML for the following year."²³⁴ The intent of this provision is to "deter frivolous request for DMLs."²³⁵ Whether or not this should be a goal of the program is in itself debatable. Nevertheless, the effect will clearly be to *encourage* dolphin sets. Not only is each vessel encouraged to use its DML, but also any DMLs that are not used by April 1st are redistributed among the parties to be used by other vessels.²³⁶ The end result will be to increase the likelihood that the maximum numbers of dolphins are killed each year, rather than to minimize the numbers, as is the stated goal of the Agreement.

There are provisions, which penalize those who exceed their DML for the year. Any vessel that exceeds its DML for the year is barred from further dolphin sets for that year, and its DML in subsequent years will be reduced in proportion to its excess.²³⁷ In addition, if the total DML for a Party's fleet has been exceeded, all vessels in that fleet must stop setting on dolphins for the remainder of the year.²³⁸ Unfortunately, these provisions are weakened by the ability of the IRP to redistribute unused DMLs to the Parties, as discussed above, and the ability of individual Parties to adjust the DMLs of its vessels upward and downward during the course of the year.²³⁹

5. Establishment of the Science Advisory Board and National Scientific Advisory Committees

The purpose of the Science Advisory Board (SAB) and its counterparts in each country, the National Scientific Advisory Committees (NATSACs) is essentially to pursue scientific research on the conservation issues in the ETP tuna fishery. This is

^{234.} Id. at annex IV, part II.

^{235.} *Id*.

^{236.} See id. at annex IV, part III.

^{237.} See id.

^{238.} See id.

^{239.} See id.

a critical element of the Agreement — to continue to research both the problem and potential solutions.

The goals of the SAB are to "modify current purse-seine technology to make it less likely to cause dolphin mortality and seek alternative means of capturing large yellowfin tuna."²⁴⁰ The SAB is to be composed of up to ten members "selected from the international community of scientists, fishing gear experts, the fishing industry, and environmentalists."²⁴¹

The purpose of the NATSACs appears to be to keep well informed so as to advise their respective governments on measures to be taken to "conserve and manage stocks of living marine resources in the Agreement Area."²⁴² The Agreement encourages the free exchange of information between the NATSACs to better protect the resources.

6. Measures to Reduce Bycatch

The provision addressing bycatch establishes a rather broad and vague program for bycatch management. This is probably due to the uncertainty that surrounds the bycatch issue, as discussed in Part II.C. The Parties are required to develop a program to reduce bycatch in the tuna fishery, to "develop and require the use of selective, environmentally safe and cost-effective fishing gear and techniques," and to require the live release of sea turtles and "other threatened or endangered species to the maximum extent practicable." This last requirement is a victory for environmentalists who have argued that much of the supposed bycatch problem stems from the fact that the fishers fail to release the bycatch, preferring instead to make turtle soup. On the whole, this provision is probably as specific as it could be considering the current lack of scientific certainty on the issue.

^{240.} Id. at annex V.

^{241.} Id.

^{242.} Id. at annex VI.

^{243.} Id. at art. VI.

7. Enforcement

Perhaps the single most concerning aspect of the Agreement is the lack of enforcement on the international level. Enforcement of the Agreement provisions is delegated completely to each participating government for its own fleet.²⁴⁴ This includes creating an on-board observer program and an "annual certification and inspection program" to ensure that its vessels comply with the equipment requirements. In addition, all sanctions are determined and applied by a Party to its own vessels. Interestingly, an Annex in an earlier draft of the Agreement, which outlined a list of suggested sanctions, has been removed,²⁴⁵ and the parties are free to impose whatever sanctions they deem appropriate. The only oversight involved seems to be a provision requiring that the parties inform the International Review Panel of any enforcement actions taken.²⁴⁶ Considering the lack of incentive to punish one's own fleet, and the history of unchecked dolphin mortality in the fishery, this self-enforcement mechanism appears too weak to achieve effective compliance.

X. THE INTERNATIONAL DOLPHIN CONSERVATION PROGRAM ACT OF 1997

As indicated above, the parties involved in the ETP tuna fishery conditioned participation in a binding international agreement on changes in the MMPA.²⁴⁷ The U.S. obliged the parties involved by creating the International Dolphin Conservation and Protection Act ("IDCPA"), an act that amended the MMPA.²⁴⁸

The creation of the IDCPA re-opened the U.S. tuna market to all exporting nations that: (1) are members of the IATTC or have initiated steps to become members; and (2) are in compliance with the requirements of the International Dolphin Conservation Program (IDCP).²⁴⁹ The IDCP is defined in the Act as

^{244.} See id. at art. XVI.

^{245.} See Draft International Agreement, supra note 208, at annex XII.

^{246.} International Agreement, supra note 6, art. XVI, para. 5.

^{247.} See Declaration of Panama, supra Part VIII.B, at 47.

^{248.} See IDCPA, supra note 5 (codified at 16 U.S.C.A. § 1361).

^{249.} See 16 U.S.C.A. § 1371.

"the international program established by the agreement signed in La Jolla, California, in June, 1992, as formalized, modified, and enhanced in accordance with the Declaration of Panama." As discussed, this international program was formalized into a binding international agreement called the "Agreement on the International Dolphin Conservation Program," in June of 1998. Therefore, the MMPA now requires compliance with the IDCP, in order to gain access to the U.S. tuna markets.

The U.S. retains the right to issue regulations implementing the IDCP,²⁵² however, much of the control and oversight of dolphin protection is effectively shifted to the ETP fishing community, due to the self-enforcement mechanism established by the International Agreement.²⁵³ Because proving that a country is non-compliant will be difficult, the United States' ability to impose import restrictions on countries suspected of causing excessive dolphin kills may be limited.

Moreover, the IDCPA significantly weakens the labeling requirements standard of the Dolphin Protection Consumer Information Act. In order to label tuna products "dolphin-safe", all the law now requires is proof that no dolphins were "killed or seriously injured in the sets or other gear deployments in which the tuna were caught."²⁵⁴ It does not require any proof that the tuna were caught without setting on dolphins.

The original legislative proposal would have implemented this new labeling standard immediately. However, this change will not be effective until the Secretary of Commerce makes a determination that the encirclement of dolphins adversely impacts dolphin populations. An initial determination is required by March 31, 1999 and a final determination by December 31, 2002.²⁵⁵ If the Secretary determines that the encirclement of dolphins has a negative effect on dolphin stocks, the labeling standard will not

^{250.} See 16 U.S.C.A. § 1362(28).

^{251.} See International Agreement, supra Part IX, at 49.

^{252. 16} U.S.C. § 1413 (1994 & Supp. III 1997).

^{253.} See International Agreement, supra Part IX, at 49.

^{254. 16} U.S.C. § 1385(d)(3)(C)(a)(i) (1994 & Supp. III 1997) (certification must be provided by an observer approved by the IDCP).

^{255.} See 16 U.S.C. § 1385(g).

change.256

The Secretary's determination is to be based primarily on research to be conducted by the National Marine Fisheries Service (NMFS). Two main areas of research will form the basis for the decision. First, the NMFS will conduct abundance surveys of dolphin populations in 1998, 1999 and 2000.²⁵⁷ Second, the NMFS will conduct a series of studies to determine the stress effects²⁵⁸ of encirclement on dolphins.²⁵⁹

While the proposed research may provide new insight into the effects of purse-seine tuna fishing on dolphin populations, there will be insufficient evidence by the initial determination date in 1999 to make a conclusive decision regarding the labeling change. Researchers at the NMFS assert that the only components of the research that can be completed by 1999 are the abundance surveys and the literature search. Moreover, it is unlikely that these studies will show a significant change in population size in the near future, and will therefore be inconclusive. Nevertheless, the burden of proof will be on the NMFS to

^{256.} This is not clear in the statute, but appears to be the understanding of everyone involved.

^{257.} See 16 U.S.C. § 1414(a) (2) (1994 & Supp. III 1997). The last abundance study was conducted between 1986-90 (Elizabeth Edwards, NMFS, personal communication Jan. 26, 1997).

^{258.} See supra Part II.A., at 7 (discussion of delayed effects).

^{259. 16} U.S.C. § 1414(a) (3) (1994 & Supp. III 1997). These studies require the NMFS to conduct a review of stress-related research. See § 1414(a) (3) (A). NMFS will collect and analyze necropsy samples from killed dolphins over the next three years (conduct autopsies). See id. Additionally, they will review historical data on dolphins for signs of stress caused by the fishery. See §1414(a) (3) (B). This data will include numerical and biological data archived at the SW Fishery Center, a part of the NMFS. (Elizabeth Edwards, NMFS, personal communication, Jan. 26, 1997). Finally, NMFS will conduct a chase and recapture experiment to investigate the immediate and mid-term physiological stress responses in live dolphins. See § 1414(a) (3) (C).

^{260.} Elizabeth Edwards, NMFS, personal communication (Jan. 26, 1997).

^{261.} This is due to a combination of factors. First, dolphins are long-lived and have a very low reproductive potential. Under natural conditions, dolphins are believed to be able to increase in population size by about 2-6% per year (this is referred to as a recruitment rate.

show an adverse impact on dolphin populations, and absent such a showing, the label change will be implemented.

XI. CONCLUSION

The long and embattled history of dolphin conservation efforts in the ETP has not been without progress. Indeed, dolphin mortality has decreased dramatically since the MMPA was first introduced over 25 years ago. As of 1996, incidental mortality decreased to 2,500 dolphins,²⁶² as compared to around 550,000 in the late 1950s.²⁶³ In many ways the IDCPA and the International Agreement provide a good framework for continued reduction in dolphin mortality in the ETP. They establish equipment and behavior requirements for tuna vessels, provide a comprehensive observer program, and establish a framework for continued research on dolphin protection. Most importantly, they establish limits on dolphin mortality below the annual recruitment rate of the species, which many believe will allow the populations an opportunity to recover and grow.

However, several aspects of the IDCPA and the International Agreement may reduce protections for dolphins. First, the definition of the dolphin-safe label has been significantly weakened by the IDCPA. The old definition of "dolphin-safe" only applied to tuna caught without any use of dolphins. Now, consumers will be buying "dolphin-safe" tuna products that may very well have resulted in serious injury or long-term reproductive damage to dolphins. Although this change is contingent on NMFS studies of abundance and stress effects, the burden is on the NMFS to

which is the number of dolphins added to the population less those that died that year). See National Research Council, supra note 1, at 70. However, until about 1993, the number of dolphins killed by tuna fishing was large enough to eliminate any potential increase in the population. Therefore, even if the kill rate in recent years has been below the recruitment rate for the population, the potential increase is so small it is unlikely to be detected. Moreover, due to the difficulty of making accurate estimates of abundance, any population changes that were detected would probably fail to be statistically significant. Elizabeth Edwards, NMFS, personal communication, Jan. 26, 1997.

^{262.} See Hall, supra note 10, at 5.

^{263.} See Joseph, supra note 35, at 3.

prove that encirclement adversely effects dolphin populations, without such proof, the label change will be implemented. As indicated, overcoming this burden will be difficult given the time constraint.

Second, because the International Agreement relies primarily on self-monitoring and reporting by each fishing nation, effective enforcement will be difficult to ascertain. Presently, no other country has demonstrated the same level of commitment to dolphin protection as the U.S. In fact, many of the ETP tuna fishing countries have actively fought conservation efforts. Therefore, insufficient oversight by the U.S. and the international community may very well undermine the overall effectiveness of the Agreement.

Third, despite this weak enforcement mechanism, the U.S. has opened its market to all tuna fishing nations who are "complying" with the International Agreement. Because a country's compliance with the Agreement is determined primarily by its own reports, unless the U.S. can prove that a country is violating the International Agreement, it will not be able to impose import restrictions. In other words, the U.S. may be effectively relinquishing its most powerful tool in dolphin conservation efforts: the right to impose import bans on countries causing excessive damage to dolphin populations.

Thus, the question remains, why has the U.S. made such concessions to the other tuna fishing countries? And were they necessary? The answers seem to depend upon the following four factors. First, Congress was pressured into bringing the MMPA into compliance with the GATT. Although the GATT panel decisions on the tuna-dolphin issue were never formally adopted, they stood as looming threats and that probably undermined the U.S. position on trade issues. It can be argued, however, that the IDCPA brought the MMPA into compliance with the GATT simply by replacing the comparability requirement with an annual limit on dolphin mortality applied to the entire fishing community. In addition, the International Agreement establishes a DML program, which issues quotas on a vessel-by-vessel basis rather than by country, which should avoid claims of unfair restrictions against particular countries. These changes alone would have allowed the MMPA to be consistent with the GATT based on the exceptions for environmental protection found in Article XX.

This is especially true since the second GATT panel held that these restrictions could be applied extrajurisdictionally. In addition, it is unlikely that the GATT was a motivating factor in changing the dolphin safe label, as the *Tuna I* panel had explicitly upheld the Dolphin Protection Consumer Information Act.

A second rationale for these changes was that if the U.S. did not compromise, the foreign ETP tuna fleets would simply abandon dolphin conservation efforts altogether and seek alternative markets for their tuna. However, although the U.S. may now comprise a smaller share of the tuna market than before, a number of tuna companies, processors and import associations around the world have agreed to adhere to the original "dolphin safe" standard. In fact, the Earth Island Institute claims that 90 percent of the international market is currently "dolphin-safe." It is hard to know how long these agreements will last, especially now that the U.S. has officially recognized a new definition of "dolphin-safe." One is still left to wonder why Mexico and others have consistently fought dolphin protections if they could have simply shifted to other markets.

Third, it can be argued that Congress and U.S. negotiators for the International Agreement willingly relaxed dolphin protections because of their belief that dolphins are basically out of danger. This belief is based on assertions that dolphin mortality levels are now low enough to allow dolphin populations to recover. However, there are two major flaws in this reasoning. First, as discussed in Part II.A., a number of factors limit the reliability of dolphin mortality and abundance estimates. Second, there is

^{264. &}quot;Rather than altering behavior, more stringent restrictions could cause foreign fleets to search for markets elsewhere. Not only would such action raise prices for domestic consumers, but it would also have a detrimental impact on dolphin populations because foreign fleets would lack incentive to employ dolphin-saving techniques." See Fleischer, supra note 127, at 540 (footnotes omitted).

^{265.} The Earth Island Institute has arranged many of these agreements and is currently working to have Starkist and the other major tuna companies renew their 1990 pledge to buy only dolphin safe tuna products (as originally defined). See Dolphin Death Act Dead, but Safe-Tuna Label Still in Danger, EARTH ISLAND 25 (1997).

^{266.} Mark Palmer, Earth Island Institute, personal communication (Nov. 19, 1997). See also Humane Society Factsheet, supra note 50, at 13.

no evidence of any actual increase in depleted dolphin population levels.

Probably the most compelling reason for the U.S. concessions was a desire to further negotiations of a binding international agreement on this issue. It is difficult to determine, however, whether an agreement could have been reached without some of the more troubling changes, such as weakening the standard for dolphin-safe labels and the abdication of enforcement to other ETP tuna fishing nations. In the end, it seems that the U.S. may have relaxed its stance on dolphin protection too much in an effort to appease foreign tuna nations and perhaps the international community. The U.S. could have simply lifted the comparability requirement and shifted some, but not all oversight and management to the IATTC and the participating fishing nations; and prohibited any alteration of the dolphin-safe label, until sufficient information on dolphin abundance and stress effects is collected. Although the recently created International Agreement provides a solid framework for dolphin conservation in many ways, it may very well be undermined by a lack of enforcement and by the pressure to maximize the use of DMLs. Only time will tell, but undoubtedly active monitoring by the U.S. and environmental NGOs will prove invaluable in the effective implementation of this Agreement.

Finally, a topic carefully avoided in the tuna-dolphin debate is the ethics of exploiting dolphins. A strong argument can be made that chasing, trapping, and killing dolphins in order to catch tuna is an unethical use of animals, especially in light of the various alternative methods available. Should dolphins continue to be exploited simply because they provide the most profitable form of tuna fishing? Should dolphins be killed for profit alone? This author argues that they should not and that the U.S. may have compromised too much too soon in this latest chapter of the tuna-dolphin conflict.