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A Review Of Developments In Ocean And Coastal Law 2003

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DOMESTIC

I. FISHERIES MANAGEMENT

A. Amendment 13 to the Northeast Multi-species Fishery Management Plan in Development

In 2001, a coalition of environmental groups led by the Conservation Law Foundation successfully sued the National Marine Fisheries Service, claiming that managers had failed to prevent overfishing of New England's groundfish. Two years later, as the result of a court order, the New England Fishery Management Council has developed Amendment 13 to the Northeast Multispecies Fishery Management Plan. The Council scheduled public hearings during the fall of 2003 to further develop the amendment, which must be implemented by May 1, 2004.

Amendment 13 is intended to increase fish stocks to healthy levels by 2009 by reducing bycatch and rebuilding overfished stocks, while minimizing the impacts on protected species such as whales and turtles. The amendment covers twelve groundfish species—twenty stocks total—some of which the Council concede are in very good shape. However, two cod stocks, white hake, and several flatfish stocks need biomass increases, and reductions in fishing mortality to reach levels required by the Magnuson-Stevens Act and the ongoing litigation tied to the act.

The amendment proposes a variety of management approaches, including closing some areas to fishing, restricting fishing gear, and limiting the size and number of fish that can be caught. The draft also

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includes an option that would reduce the allowable number of days a person can fish at sea by as much as sixty-five percent. Further, the amendment does not economically impact sectors of the fishing industry evenly, which has raised concern among both fishermen and politicians. U.S. Senator Olympia Snowe (R., Maine) has called for an independent economic analysis of Amendment 13. The amendment plainly states, "[t]here is no single alternative that has the least economic impact on all sectors of the Industry." It's Your Future; Speak Out Now, available at http://www.fishresearch.org/Articles/2003/09/amendment_13_editorial.asp (last visited Oct. 2, 2003); Newly Proposed Quotas, Limits May Ruffle Maine's Fishermen, available at http://pqasb.pqarchiver.com/bangor/409445991.html?did=409445991&FMT=ABS&FMTS=FT&date=Sep+20,+2003&desc=Newly+proposed+quotas,+limits+may+ruffle+Maine% 27s+fishermen (last visited Oct. 3, 2003).

B. Shellfish Beds in Washington Closed Due to "Disturbing" Appearance of Domoic Acid

The appearance of high concentrations of domoic acid in mussels near Port Townsend, WA, has forced the closure of shellfish beds in that area for the first time. The discovery of this marine toxin has alarmed shellfish growers, as domoic acid had been previously unheard of in this region's commercial shellfish species. This is the first time that domoic acid has appeared in Washington's inland waterways, and could significantly impact the state's \$75 million-a-year shellfish harvest.

Domoic acid is a toxin produced by microscopic marine algae that accumulate in shellfish. In high enough concentrations, the acid can poison people who eat the affected clams, oysters, mussels and scallops. Domoic acid can also prove fatal to marine life, as evidenced by the cormorants, pelicans, and sea lions that died as a result of this poisoning in Monterey Bay during the 1990's.

Although the cause of domoic acid outbreaks remains a mystery, scientists are investigating the conditions that have lead to these algae blooms in Washington's inland waterways. Pollution levels could affect the severity of the outbreaks of toxic algae blooms; scientists will be looking into whether the dumping of raw sewage off the coast of Victoria could be a contributing factor. However, domoic acid algae can also be found in relatively pristine waters. Robert McClure, 'Mystery' Marine Toxin Closes Shellfish Beds Near Port Townsend, available at http://www.seattlepi.nwsource.com/local/140404_shellfish19.html (last visited Oct. 7, 2003).

C. Fishery Management Plan for the Dolphin and Wahoo Submitted to the NOAA Fisheries for Review

Currently, neither the dolphin or wahoo stock is overfished, nor are they approaching an overfished condition. However, the South Atlantic Fishery Management Council (SAFMC) is concerned by the increased number of catches for both commercial and recreational fisheries and has developed a precautionary management plan to stabilize the fisheries at their current levels. In this plan, the SAFMC has also attempted to address the social and economic issues in the dolphin and wahoo fisheries along the Atlantic coast from Maine to Florida.

If implemented, the Dolphin and Wahoo Fishery Management Plan would establish numerous harvesting restrictions, including gear prohibitions, no sale provisions for the recreational fishery, commercial trip limits, and minimum size limits for dolphin. The plan would also require owners and operators of commercial and recreational vessels to obtain federal permits from the National Marine Fisheries Service to participate in the fishery and to report all transactions. Further, to ensure that adequate habitat is available to maintain healthy stocks of dolphin and wahoo, the SAFMC would designate specific geographic regions between North Carolina and Florida as "essential fish habitat" or "habitat areas of particular concern." National Marine Fisheries Service, Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic, available at http://www.caldera.sero.nmfs.gov/fishery/newsbull.003/nr03-042.pdf (last visited Oct. 7, 2003).

D. New Baleen Whale Subspecies May Have Been Discovered in North Carolina

On March 13, 2003, a beach comber found a baleen whale stranded on the shores of Carolina Beach near Wilmington, NC. Scientists believe this discovery may be a new subspecies of Bryde's whale, as it appears unique from other Bryde's whales that have been studied. A necropsy (animal autopsy) was conducted and, by analyzing the whale's tissues, scientists concluded that its death was most likely a result of starvation due to line entanglement. Scientists also determined through genetic testing that this was a member of the baleen whale family known as "rorquals," which includes both the humpback and blue whales.

The genetic sequence of the stranded whale was identical to that of a Bryde's whale sampled in 1992 from South Carolina, but was distinct from other Bryde's whale samples from the Pacific and Caribbean. The Bryde's whale has a unique trait of three longitudinal ridges on its head. The

Bryde's whale has twin blowholes and two rows of baleen plates (in place of teeth) with which they dive for up to twenty minutes or more to feed on schools of pelagic fish, such as herring and anchovies. This species is typically found in tropical and subtropical waters.

The Smithsonian Institute has collected the whale's skeleton and their scientists are collaborating with national and international institutions in order to compare this skeleton with historic specimens. The collection of biological data from this whale (and other stranded animals) is made possible with funding from a new federal program, the John H. Prescott Marine Mammal Rescue Assistance Grant, which is implemented by the National Oceanic and Atmospheric Administration (NOAA). NOAA, Scientists Discover Possible New Whale Species, available at http://www.nmfs.noaa.gov/docs/MEMO.pdf (last visited Oct. 3, 2003).

II. PROTECTED AREAS

A. Washington Takes Steps to Protect Marine Life in Puget Sound

In late September 2003, the Washington Public Lands Commission moved a step closer to designating certain areas of Puget Sound as marine protected areas by establishing aquatic reserves in four sensitive areas and by designating two additional areas in Commencement Bay that need special protection.

The Commission, subject to pressure from environmentalists for some time, acknowledged that the protections are necessary to improve the health of the Sound's marine life, which scientists claim is faltering due to the effects of urbanization, pollution and over-fishing. The Commission at first resisted designating aquatic reserve areas in Puget Sound so it could better ascertain the ramifications of the decision. Environmentalists hope that the present move marks the beginning of a larger-scale effort by the state to establish marine protected areas in the Sound.

The aquatic reserves are located at Cherry Point, Fidalgo Bay, Maury Island and Cypress Island. The protections do not affect fishing in the Sound, although they do bar the construction of docks and the laying of underwater cable, as well as other activities that involve building on or over the Sound floor. Robert McClure, State Acts to Protect Marine Life in Several Areas of Puget Sound, SEATTLE POST-INTELLIGENCER, Sept. 26, 2003, at B2.

B. Marine Conservation Activist Wins Sierra Club's Highest Honor

Vivian Newman, 69, of South Thomaston, Maine, received the Sierra Club's prestigious John Muir Award in September 2003, in recognition of a lifetime of conservation achievement. The Award is the highest honor that the Club bestows upon its members. Newman, known for her influential work in arguing for the protection of New England's Georges Banks, has spent the last twenty-four years as a Sierra Club activist. She currently chairs the Sierra Club's national marine wildlife and habitat committee, where she tackles issues involving marine protected areas.

Politically savvy, Newman educated herself in environmental law and policy during the 1980s by making regular appearances at congressional hearings and by spectating environmental cases before the U.S. Supreme Court. In 2002, Newman's work on sustainable fisheries policy influenced the development of a similar policy at the United Nations World Summit on Sustainable Development in Johannesburg, South Africa. Since moving to Maine, Newman has focused on aquaculture. She currently chairs the Sierra Club's Maine chapter coastal marine committee and co-chairs the conservation committee.

The honor places Newman in an elite group of Award recipients that includes the likes of Jacques Cousteau, Ansel Adams and Paul Ehrlich. Born in Baltimore, Maryland, Newman attended Wellesley College and the University of London. Meredith Goad, Club Gives Top Award to Woman From State; The Sierra Club Honors Vivian Newman of South Thomaston for Her Environmental Activism, PORTLAND PRESS HERALD, Sept. 20, 2003, at 1A.

C. Trolling Permitted in Two Florida Marine Protected Areas

The Gulf of Mexico Fishery Management Council voted in July 2003, to allow surface trolling in the areas encompassed by Madison and Swanson, and Steamboat Lumps, two marine protected areas (MPAs) located off the western Florida coast. The vote limits trolling in the MPAs to the months between May and October and prohibits all fishing for the remainder of the year. The decision came amidst significant debate amongst some council members, who argued that trolling in the MPAs would make it more difficult for researchers to accurately evaluate the efficacy of "no-take" restrictions, which completely prohibit fishing. A number of council members also argued that the measure would make it more difficult for enforcement officers to detect illegal fishing.

The Madison and Swanson, and Steamboat Lumps MPAs were established in 2000 to help rebuild depleted gag grouper populations in

west Florida waters. The Marine Reserves established there were set to expire in 2004, but the council voted to extend the reserves into 2010 in order to allow for further research to be conducted by the National Marine Fisheries Service (NMFS) and Florida State University. Under the current scheme, fishermen may troll in the two MPAs, which total an area of 219 nautical miles, for pelagic species including mackerel, cero, dolphin, cobia and little tunny; and for highly migratory species including billfish, swordfish, marlin, shark and tuna. Fishing of all other species is prohibited.

When the two MPAs were originally created in 2000, the council requested that all fishing in the area be prohibited. In response, the Coastal Conservation Association filed a lawsuit against the NMFS to permit trolling, arguing that trolling would not affect the deep water reef fish sought to be protected by the MPAs. The NMFS settled the case by allowing trolling until further studies could be completed. A recently completed study indicates that reef fish, including gag grouper, can be caught using trolling gear. Critics of the study have countered the recent findings by arguing that the researchers did not use typical surface trolling methods. The council decision to partially limit trolling in the area represented a concerted effort to strike a compromise between local commercial fishermen and council members who opposed all fishing in the MPAs. The National Oceanic and Atmospheric Administration proposed the measure in response to pressure from the Coastal Conservation Association to keep the reserves open year-round. Eric Staats, Conservation Groups Angry Over Gulf Marine Reserves Decision, NAPLES DAILY NEWS (July 18, 2003), available at http://www.naplesnews.com/03/07/naples/ d954213a.htm (last visited Sept. 21, 2003); see Gulf of Mexico Fishery Management Council, Council Proposes 6-Year Extension of Madison-Swanson and Steamboat Lumps Reserves, and Allowing Surface Trolling in the Reserves May-October, available at http://www.gulfcouncil.org/ oldstories/2003-07-25-Madison-Swanson%20and%20Steamboat%20 Lumps%20ext.htm (last visited Sept. 21, 2003); see The Ocean Conservancy, Fishery Managers Ignore Scientific and Enforcement Advice-Allow Trolling in Gulf of Mexico Marine Protected Areas, available at http://www.oceanconservancy.org/dynamic/press/releases/archive.htm? id030718 (last visited Sept. 21, 2003).

D. Study Finds High Levels of Toxins Flowing Into Marine Sanctuary

The National Oceanic and Atmospheric Administration (NOAA) Monterey Bay National Marine Sanctuary and the Coastal Watershed Council recently released a report tending to show that high concentrations of pollutants are discharged directly into the Monterey Bay National Marine Sanctuary in California through storm drain runoff. The report, entitled "First Flush," studied the pollutants contained in runoff from the first major rainstorm in the fall of 2002, and shows that accumulated oil, chemicals and litter from streets are finding their way into the Monterey Bay National Marine Sanctuary via storm drains that discharge the runoff directly into the bay.

Of particular significance were the high levels of metal found at many of the test sites. NOAA has monitored test sites in Monterey and Pacific Grove for the past three years and test sites in Capitola and Santa Cruz for the past two years and has found that metal, bacteria and suspended solids concentrations have continued to increase at a majority of the test sites. Among the most problematic of test sites: Soquel Creek in Santa Cruz, which contained lead concentrations of ninety-two micrograms per liter, a level three times the California water quality objective; sites in Pacific Grove and Santa Cruz, which contained copper concentrations of 340 micrograms per liter, a level eleven times the California water quality objective; and a site in Monterey, which had orthophosphate concentrations of 3.15 parts per million, a number twenty times the California action level.

Unlike household sewage, which is typically treated before it is released into coastal waters, storm drains generally discharge untreated runoff directly into the ocean. In order to stem the tide of pollutants into the Monterey Bay area, NOAA is currently working with local agencies to investigate sources of contaminants the agency claims harm early stages of aquatic life in the sanctuary. Researchers believe that the metal contaminants, thought to be from sources such as brake pads, copper piping and pressure treated wood, reduce reproduction capacity and cause developmental deformities and high mortality rates in Monterey Bay aquatic life. According to NOAA, storm drain pollution is one of the largest sources of pollution in the country. Connections: Newsletter of the National Marine Protected Areas Center, available at http://mpa.gov/mpabusiness/mpacenter/connections_may03.pdf (last visited Sept. 22, 2003).

III. ENDANGERED SPECIES

A. Court Rules Deployment of Navy Sonar Violates Endangered Species Act

On August 26, 2003, a federal judge granted a permanent injunction to stop the Navy's plan to deploy a high-intensity sonar system because it violates the Endangered Species Act, the Marine Mammal Protection Act, and the National Environmental Policy Act. The Navy's plan did not adequately assess or take steps to mitigate the risks posed by the system to marine mammals and fish.

The sonar system, called Surveillance Towed Array Sensor System Low Frequency Active Sonar (LFA), uses very loud, low-frequency sound to detect submarines at great distances. Testing off the California coast proved that noise from a single LFA system could be detected across the breadth of the North Pacific Ocean.

In recent years scientists have become increasingly alarmed about undersea noise pollution from high-intensity sonar systems like LFA. These systems have been shown to harm and kill whales and other marine life. The judge noted that whales, porpoises, and fish are particularly endangered by the use of LFA in their marine environment.

In March 2000, multiple whale species were stranded in the Bahamas and the region's entire population of beaked whales disappeared. A federal investigation found testing of a U.S. Navy mid-frequency sonar system to be the cause. In recent months, just after the Navy tested sonar in the Haro Strait, more than a dozen harbor porpoises were discovered dead on a beach near the San Juan Islands.

The judge ordered the Navy to negotiate with the Natural Resources Defense Council (NRDC) and its co-plaintiffs in an effort to reduce the sonar system's potential harm to marine mammals and fish. The two groups reached an agreement that limits use of the sonar system to areas near Asia's eastern seaboard but not along the coastline of that region or during migration periods for certain whales. The purpose of the negotiations was to produce limits on where, when and how the Navy could use LFA for testing and training. The injunction does not prevent the Navy from using LFA during war or heightened security conditions, as determined by the military. Federal Court Restricts Global Deployment of Navy Sonar, available at http://www.enn.com/direct/display-release.asp?objid=D1D1366D000000F73FCB5C2DDC2BA07C (last visited Oct. 13, 2003); Suit Over Injury to Whales Ends in Deal to Limit Navy Sonar Use, available at http://www.nytimes.com/2003/10/14/science/14WHAL.html (last visited Oct.14, 2003).

B. Report Studies Fish and Wildlife Service's Endangered Species Program

On September 29, 2003, the General Accounting Office, the investigative branch of Congress, issued a report reviewing the U.S. Fish and Wildlife Service's endangered species program. House Agriculture Chairman, House Resources Chairman and House Resources Forests Subcommittee Chairman requested that the General Accounting Office

prepare the report. The report showed that, although congressional investigators generally approve of the Service's scientific practices in the endangered species program, there is need for improvement in the decision-making process regarding protection of habitats. In particular, the report acknowledged the need for the Service to develop guidelines for when to require critical habitats. Guidelines are needed to reduce the agency's exposure to lawsuits from environmental groups. The critical habitat program has experienced steady litigation since federal courts ruled against it in two major cases in 1997 and 2001.

In May 2003, the Department of the Interior declared the Endangered Species Act "broken" because the flood of litigation requiring critical habitat designations was draining funding for those designations and undermining endangered species conservation by discouraging the Service's ability to protect new species and recover those already listed under the Act. Budget constraints forced the U.S. Fish and Wildlife Service to ask federal judges and plaintiffs to permit extensions in designating habitats for thirty-two species. Environmentalists argue that the Bush administration engineered a budget crisis to avoid requiring habitat protections. Report Finds Strengths, Weaknesses in Fish and Wildlife Service's Endangered Species Program, available at http://www.enn.com/news/2003-09-30/s_8930.asp (last visited Oct. 13, 2003); Endangered Species Act "Broken"—Flood of Litigation Over Critical Habitat Hinders Species Conservation, available at http://www.doi.gov/news/030528a.htm (last visited Sept. 22, 2003).

C. Mandate for Modified Turtle Excluder Devices to Improve Sea Turtle Protection

In an effort to further preserve the six species of sea turtles in the United States, all protected under the Endangered Species Act, the National Marine Fisheries Service (NMFS) published new rules requiring the modification of turtle excluder devices (TEDs) to include larger holes through which the turtles may escape. TEDs are used to free sea turtles from entrapment in shrimp nets. The new rules apply to TEDs already in use in the Gulf of Mexico and the Atlantic shrimp fishery.

The rules requiring TEDs are necessary because shrimpers often fish where sea turtles feed, causing sea turtles to become trapped in the shrimpers' nets. This endangers the sea turtles because it restricts their ability to swim to the surface for air. If held under the water too long when trapped in the nets, sea turtles drown. Previously, larger sea turtles could not escape the TED openings. As a result, thousands of turtles died each year.

NMFS officials estimate that enlarging TED openings will reduce annual mortalities of leatherback sea turtles from about 2,300 to 80, and loggerhead mortalities will decrease from about 62,000 to 4,000 per year. The four other species protected under the Endangered Species Act, including the Green turtle, the Hawksbill turtle, the Kemp's ridley turtle, and the Olive ridley turtle, will also benefit by being able to escape the shrimp nets faster.

The new rules were effective in the Atlantic as of April 15, 2003, and in the Gulf of Mexico as of August 2003. Larger Openings Mandated for Turtle Excluder Devices, available at http://www.oceana.org/index.cfm? sectionID=4&fuseaction=news.detail&pageID=1012 (last visited Sept. 22, 2003).

D. Smalltooth Sawfish Listed as Endangered Under the Endangered Species Act

On April 1, 2003, the National Marine Fisheries Service listed the smalltooth sawfish as an endangered species under the Endangered Species Act (ESA). The listing marks the first endangered listing for a marine fish in U.S. waters.

The smalltooth sawfish was included on the candidate species list in 1991, removed in 1997, and returned to the list in 1999. In November 1999, the Ocean Conservancy (formerly the Center for Marine Conservation) petitioned the NOAA Fisheries to list the species as endangered under the ESA. NOAA Fisheries performed a status review of the smalltooth sawfish in December 2000, and published a proposed rule to list the U.S. population of this species as endangered on April 16, 2001. Smalltooth sawfish are found in both the Atlantic and Pacific Oceans, but the U.S. population exists only in the Atlantic Ocean. The species once inhabited the shallow coastal waters throughout the Gulf of Mexico from Texas to Florida and along the east coast from Florida to North Carolina. Today, the species is found only in the Florida Keys and Everglades National Park.

The original U.S. population of smalltooth sawfish has declined by an estimated ninety-nine percent. The population decline is attributed to habitat loss and bycatch in various fisheries. Sawfish Granted Endangered Species Act Protection, available at http://www.oceana.org/index.cfm? sectionID=4&fuseaction=news.detail&pageID=1038 (last visited Sept. 22, 2003); Smalltooth Sawfish (Pristis pectinata), available at http://www.nmfs.noaa.gov/prot_res/species/fish/Smalltooth_sawfish.html (last visited Sept. 22, 2003).

IV. CORAL REEFS

A. Concerns Over Reef Destruction Cause Brazil to Downsize Oil Bloc Auction

Brazil's Petroleum Agency removed 162 oil blocs from its annual oil sale only days before the scheduled auction. The move came in response to environmentalists' concerns that oil exploration near the Abrolhos Archipelago would cause irreparable harm in the area.

The six mile archipelago, considered one of the most important coral reefs in South America, is home to all Atlantic Ocean species, and is the only winter migration reproduction point in the South Atlantic for the Humpback whale. Although the archipelago was not actually part of the auction, Brazil's Petroleum Agency wanted an opportunity to assess the possible environmental impacts that oil drilling could have on the Archipelago. Environmental groups recommended such action, arguing that areas removed from the auction were close enough to the southern Brazilian state of Bahia to cause concerns that oil exploration may affect the rare coral formations surrounding the Archipelago.

Oil industry analysts stated that Brazil's move would not change demand for the blocs that Brazil was offering. Analysts point to a crippling tax structure imposed upon private firms, low probability of finding oil reserves and the high cost of drilling into the sediment off of the coast as reasons that many firms do not view the southern Bahia as a favorable location for drilling. Brazil Drops Blocs from Oil Sale to Shield Islands, available at http://www.enn.com/news/2003-08-19/s_7615.asp (last visited Oct. 13, 2003).

B. Conch Reef: A place of Study for Aquanauts and Astronauts

Nearly three and one half miles off the Florida coast, an eighty-five ton scientific laboratory, located sixty-two feet below the surface of the ocean, is nestled in the sand near the Conch Reef. The National Oceanic and Atmospheric Administration laboratory, named Aquarius, is supported by a thirty foot floating buoy which provides power generation, air supply, and telecommunication.

The undersea laboratory is a breakthrough for conducting undersea research, allowing scientists to remain undersea for up to sixteen days. Because Aquarius is pressurized at the same rate as the surrounding water, researchers can spend up to nine hours on the ocean floor, compared to a traditional thirty minute dive from the surface.

NASA has also taken advantage of the unique environment of Aquarius

by sending astronauts to train for prolonged space flights. The pressurized atmosphere, cozy quarters, and the minutiae of daily life has many similarities to living aboard space stations. *U.S. Undersea Lab is at Cutting Edge of Marine Research, available at* http://www.enn.com/news/2003-08-22/s_7744.asp (last visited Oct. 13, 2003).

C. Federal Government Looking into Limiting Fishing off Northwest Coast to Protect Deep-Sea Coral

The National Marine Fisheries Service is preparing to issue an environmental impact statement on trawler fishing off the Washington coast to determine if any new regulations are necessary to prevent trawler fishing in heavy concentrations of deep sea coral reefs. Environmental groups fear that the fishing industry is damaging the recently discovered deep sea structures by dragging heavy equipment along the ocean floor, causing damage to the brittle ecosystem. The damaged coral may take hundreds of years to recover, while simultaneously hampering the commercial fishing industry's future fish catches. Most marine biologists assume that many of the species which are caught commercially rely on the deep sea coral as a breeding ground. If that assumption holds true, continued trawler fishing would directly lead to less fish available in future catches. Scientific studies of deep sea coral are in their infancy off of the northwestern coast of the United States. Groups such as the Ocean Conservancy would like to see regulations to protect the deep sea coral reefs in order to have an opportunity to get more detailed scientific knowledge about the deep sea coral gardens. Deep-Sea Coral Reefs at Risk from Trawlers: States Seek to Limit Commercial Fishing in Coastal Waters, available at http://seattle pi.nwsource.com/national/134585 science12.html (last visited Sept. 22, 2003).

D. Florida Enacts Rules Limiting Where Telecommunication Companies Can Lay Undersea Fiber Optic Cable in Order to Protect Coral Reefs

On August 26, 2003, Florida established rules to restrict where telecommunication companies can lay undersea fiber optic cable in an effort to prevent further destruction of the coral reefs off the Florida coast. The new regulations will prohibit telecommunication companies from laying undersea cables in the Biscayne Bay Aquatic Preserve and the coastal waters of Monroe County, which includes the Florida Keys National Marine Sanctuary and the only U.S. barrier reef. The rules also establish acceptable routes for telecommunication lines, avoiding coral

reefs, while still allowing adequate access to the ocean floor to provide telephone and internet services to Europe, the Caribbean, and Latin America. The telecommunication industry does not believe the measures are necessary, claiming the extent of the damage has been exaggerated. An industry official explained that the amount of damage caused by a loose fiber cable could only range from an index card to a small coffee table.

With the most extensive living coral reefs system in North America residing within its jurisdiction, the Secretary of State's Department of Environmental Protection believes that it is the first state to adopt rules limiting underwater placement of telecommunication lines in order to protect coral reefs from potential damage caused by fiber optic lines. Environmental groups advanced proposals to protect the coral reefs after studies indicated that fiber optic cable lines were causing damage to the fragile marine ecosystems by swaying in rough seas and getting pulled up by anchors. The Federal Communications Commission (FCC) is looking into Florida's rule and could adopt similar measures, which would carry the force of federal law. If the FCC were to enact federal legislation restricting telecommunication installations, coral reefs around Hawaii, the Virgin Islands and Puerto Rico would be freed from having to establish their own local controls. Countries and municipalities from New Zealand and Australia have already contacted Florida officials expressing interest in the new rules. Observers believe that Florida's rules may be a model for other countries to follow, and for some, the new rules bring hope that other undersea installations such as natural gas pipelines will also become more strictly regulated. Florida Approves Coral Reef Telephone Cable Rules, available at http://www.planetark.org/avantgo/dailynewsstory.cfm?news id=22003 (last visited Sept. 20, 2003); Phone Cables Tangled in Florida Coral Reefs Debate, available at http://news.findlaw.com/science/s/200 30827/telecomreeffloridadc.html (last visited Sept. 20, 2003).

INTERNATIONAL

I. FISHERIES MANAGEMENT

A. Senegal Announces Marine Protected Areas

Near the close of the Fifth World Parks Congress, held in Durban, South Africa, in September 2003, Senegalese Minister of Fisheries, Pape Diouf, announced that Senegal has created four marine protected areas in Senegal's coastal zone.

"These marine protected areas will be crucially important for Senegal

to preserve the rich biodiversity of our coastal resources and to protect our fisheries, which are being depleted by excessive fishing," said Minister Diouf, stressing the importance of strong management and enforcement of marine protected areas. The marine protected areas will cover more than 7,500 square kilometers and will protect more than 700 fish species, as well as nesting and feeding areas for five endangered turtle species. The protected areas include habitats such as mangroves, islands and a marine canyon, along with open waters and seafloor.

A critical factor leading to the creation of the marine protected areas was the diminishing catches of fish along Senegal's coast. Quantities of commercially valuable coastal fish have declined to less than twenty percent compared to 1950's rates. "The collapse of Senegal's fisheries would cause dramatic consequences for the people of Senegal and our economy," said Minister Diouf. "[Marine protected areas] are one of the best tools to safeguard Senegal's fisheries for the future of our people...." Senegal Declares Four New Marine Protected Areas, available at http://www.panda.org/news_facts/newsroom/press_releases/news.cfm?uNews ID=8817 (last visited Oct. 13, 2003).

B. CITES Takes Strong Measures to Regulate Trade in Queen Conch Shellfish

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) took steps to protect the queen conch shellfish from overexploitation amid growing evidence that stocks of the shellfish are collapsing throughout the Caribbean.

CITES issued recommendations and a recovery program for the fishery in August 2003. In response, two key Caribbean countries, the Dominican Republic and Honduras, agreed on September 29, 2003, to stop exporting queen conch until further notice. These two countries have also committed themselves to fully implementing CITES' recovery plan.

At the same time, CITES has requested that all member governments of CITES suspend the importation of queen conch from Haiti due to that country's failure to implement the recommended CITES measures in the agreed timeframe.

The queen conch (Strombus gigas) is a sea mollusk whose shell can attain thirty centimeters in length and three kilograms in weight. The mollusk is found throughout the Caribbean, residing in the territorial waters of at least thirty-six countries and dependent territories, ranging from Florida to the northern coast of South America. CITES added the species to its Appendix II in 1992, requiring CITES permits be issued for all exports.

The species is one of the most valuable fisheries in the Caribbean, with an annual wholesale value estimated at sixty million U.S. dollars. However, over the past few decades international demand for the conch meat has grown, and so too have commercial fishery demands. Increased fishing pressure, as well as habitat degradation, are considered the leading causes of the species' population decline and stock collapses. The total annual landings of queen conch meat have fallen from between 6,500-7,300 tons per year between 1993-1998, to 5,500 tons in 1999, 4,500 tons in 2000, and 3,100 tons in 2001. A number of countries, territories and states, including Bermuda, Cuba, Columbia, Florida, Mexico, the Netherlands Antilles, the U.S. Virgin Islands, and Venezuela, have permanently or temporarily closed the fishery. CITES Suspends Trade in Queen Conch Shellfish, available at http://www.cites.org/eng/news/press_release.shtml (last visited Oct. 13, 2003).

C. Iceland Resumes Whale Hunting

On August 18, 2003, Iceland killed its first whale in fourteen years. Iceland stopped whaling in 1989 under international pressure and withdrew from the International Whaling Commission (IWC) in 1992. In October, 2002, Iceland was readmitted to the IWC, but its readmission was made with Iceland asserting a reservation against the global whaling moratorium. The reservation allows Iceland to commence commercial whaling after 2006 and to conduct scientific whaling at an earlier date.

The global moratorium on commercial hunting of whales has been in effect since 1986 because seven of thirteen great whale species are endangered. The moratorium does allow certain exceptions for scientific research and aboriginal subsistence whaling. The exceptions must be approved by the IWC.

Under the scientific research exception to the moratorium, Iceland, like Japan, is claiming that research must be done on the feeding ecology of the whales. The Icelandic government's position is that an estimated 43,000 minke whales are believed to live in Icelandic waters, eating two million tons of fish and krill every year, and that research must be done to study the effects these whales are having on Iceland's fisheries. The government of Iceland plans to kill thirty-eight minke whales this year and a total of 500 whales over the next two years.

The Icelandic Tourist Industry Association is strongly opposed to the government's decision to resume whale hunting. Whale watching is the fastest growing segment of Iceland's tourist industry, with revenues of more than eight million dollars. Forty percent of tourists in Iceland engage in whale watching. Debate rages as to how much harm the resumed hunt

will do to the Icelandic economy.

In September 2003, whalers killed a second minke whale, this time in a whale watching bay. Iceland's Ministry of Fisheries had promised that whalers would avoid whale watching areas, and whale watching operators were disappointed when this promise was broken. A whale watching boat was close to the area when the whale was killed, but was able to steer clear of the spectacle when it was alerted by the International Fund for Animal Welfare (IFAW) who had been tracking the vessel.

Iceland now faces potential trade sanctions from the United States. United States Department of State spokesman Richard Boucher said Iceland's resumed whale hunt would "likely trigger a review by the Department of Commerce of Iceland's lethal scientific whaling process program for possible certification under the Pelly Amendment." Under the Pelly Amendment, certification by the Secretary of Commerce authorizes the president to use his discretion to impose trade sanctions on fisheries products that can be imported into the U.S. from countries that undermine international conservation agreements. Gleb Bryanski, Icelandic Whalers Harpoon First Whale, available at http://www.enn.com/news/2003-08-19/s_7609.asp (last visited Sept. 23, 2003); IFAW Meets With Icelandic Diplomats in Australia in Plea to Stop Whaling, available at http://www.enn.com/direct/display-release.asp?objid=D1D1364B000000 F 76781AEB09C30F56B (last visited Sept. 23, 2003); Iceland Kills Whale in Whale Watching Bay, available at http://www.enn.com/direct/displayrelease.asp?objid=D1D1366D000000F7 AB1151689B74BD99 (last visited Sept. 23, 2003).

D. International Whaling Commission Holds Annual Meeting

The International Whaling Commission (IWC) held its annual meeting in Berlin this past summer from June 16th through the 19th. At the close of the meeting, the fifty-one member organizations appeared deeply divided, with seventeen nations delivering a letter to express their concern and disappointment over the newly passed Berlin Initiative.

The Berlin Initiative, passed by a majority vote, will establish a Conservation Committee that will assess the various threats to whales and prepare and implement future measures for whale protection. At the close of the meeting, seventeen pro-whaling member nations delivered a letter expressing their disappointment over the adoption of the Berlin Initiative. The statement was signed by representatives from Antigua and Barbuda, Benin, Dominica, Gabon, Grenada, Republic of Guinea, Iceland, Japan, Mongolia, Norway, Palau, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Senegal and Solomon Islands.

Passage of the initiative caused Japanese representatives to boycott several IWC sessions during the week. Japan was particularly disappointed with the anti-whaling position of the U.S. delegation. Japan's whaling commissioner, Minoru Morimoto, said:

We are particularly unhappy at the attitude of the U.S. delegation. After receiving their quota for bowhead whales at the special meeting of the commission last October they have resumed an excessively strong position against Japan's reasonable proposal for whaling to satisfy the needs of our coastal communities and our research programs that continue to provide valuable scientific information.

Japan submitted two proposals for permits to hunt whales. The first was for an extension of its continuing whale hunt for the purpose of its scientific program in the Antarctic, and the second was for a long-term research program aimed primarily at understanding the feeding ecology of whales and its effect on living marine resources. The second program proposed the killing of 150 minke whales, fifty Bryde's whales, fifty sei whales, and ten sperm whales in the western North Pacific.

Iceland also proposed a permit for similar feeding ecology research that would allow the nation to kill 100 minke whales, 100 fin whales and fifty sei whales.

Among IWC members, views differ greatly over the value of the scientific research that Japan and Iceland are proposing. In response, IWC issued two resolutions. The first urged countries not to stop or not to commence special permit catches. The second, asked Japan not to continue its special permit catches of Antarctic minke whales.

Japan's other proposals for quotas of 150 Bryde's whales and a further 150 minke whales for its coastal whalers were also both defeated.

Two efforts to establish whale sanctuaries were defeated by prowhaling nations. Australia and New Zealand attempted to establish a whale sanctuary in the South Pacific and failed to win approval by a vote of twenty-four to seventeen. Argentina and Brazil were defeated by a vote of twenty-four to nineteen in their attempt to create a whale sanctuary in the South Atlantic. The opposition was headed by pro-whaling nations Japan, Norway and Iceland and was joined by many Caribbean nations. The International Whaling Commission, Final Press Release 55th Annual Meeting, available at http://www.iwcoffice.org/FinalPressRelease2003. htm (last visited Sept. 22, 2003); Whales Win No Sanctuary from Acrimonious Commission, available at http://ens-news.com/ens/jun2003/2003-06-19-01.asp (last visited Sept. 22, 2003).

E. Australia Aggressively Enforces Chilean Sea Bass Restrictions

On August 29, 2003, Australian fishing authorities apprehended the Uruguayan fishing vessel Viarsa I, which authorities suspected of illegally fishing for Chilean sea bass in Australian waters. The vessel, which the Australians pursued for twenty days across 4,000 nautical miles of the iceberg-riddled southern Indian and Atlantic Oceans, contained eighty-five tons of the heavily regulated sea bass, valued at approximately three million dollars. The Viarsa I's captain and forty crew members were taken to the western Australian city of Fremantle to face formal charges of illegal fishing and trying to evade capture. Penalties may include jail terms of up to one year and fines of up to \$357,500.

The Chilean sea bass, also known as the Patagonian toothfish, is a delicacy in the United States, Japan, and the European Union. The primary harvesters of the fish are Argentina, France, Chile, Australia, South Africa, the United Kingdom, the Republic of Korea, and Uruguay, but high demand has driven the fish to the brink of commercial extinction in most of its territory. Australia has maintained its stock at a commercially viable level through strict regulation, though its waters have been plagued with poachers. The fish has become an exceptionally valuable commodity to poachers, and it is estimated that half of the world's catch is illegally taken.

Until the matter can be readdressed by the international community, Justice Minister Chris Ellison said, "this [pursuit and capture] has sent a very clear message that Australia is determined to crack down on illegal fishing in the southern Ocean." In October 2003, the Australians will bring the issue of Chilean sea bass poaching before an international meeting of fisheries authorities in Hobart, Australia. U.S. Department of Commerce, Chilean Sea Bass Frequently Asked Questions, available at http://www.worldwildlife.org/news/headline.cfm? newsid=556 (last visited Sept. 22, 2003); Australia Says Capture of Pirate Trawler a Warning to All Poachers, available at http://asia.news.yahoo.com/030828/afp/030828 055604asiapacificnews.html (last visited Sept. 22, 2003); Swashbuckling Customs Officials Land a Big Catch, available at http://www.nmfs.noaa.gov/trade/chile.pdf (last visited Sept. 22, 2003).

II. PROTECTED AREAS

A. Indonesia Pledges to Double Size of Marine Protected Areas by 2006

At a recent international marine conservation conference known as "Defying Ocean's End," the Indonesian government announced an

aggressive plan to nearly double the size of Indonesia's marine protected areas by 2006. The conference, held in Mexico, brought together researchers from more than twenty countries, as well as leading international environmental groups, including the World Wildlife Fund, Natural Resources Defense Council, and the World Conservation Union.

With developing a strategy for restoring and maintaining the health of the world's oceans and seas a major goal of the conference, Conservation International's Global Conservation Fund pledged one million dollars to assist the Indonesian government in its expansion plans. If successful, the plan will increase Indonesia's marine protected areas to nearly ten million hectares, covering a portion of what is widely known as the most biodiverse sea and coast on the planet. Protection of the vital resources of Indonesia's ocean and coastline, which forms part of a marine region known as the "Coral Triangle," is considered a major environmental victory.

With a coastline of over 54,000 kilometers, oceanic resources represent a major economic resource for Indonesia, an archipelago of more than 17,000 islands. Indonesia's Minister of Marine Affairs, Dr. Rokhmin Dahuri, hopes this commitment conveys a global statement that economic development and marine conservation can coexist. The Indonesian government has historically committed itself to protecting its rich oceanic resources, but hopes recent environmental policy decisions such as this pledge to expand the country's marine protected areas will bring worldwide recognition for Indonesia's marine conservation efforts. Indonesia Pledges to Double Marine Protected Areas to 10-Million Hectares, available at http://www.conservation.org/xp/news/press_releases/2003/060403.xml (last visited Oct. 13, 2003).

B. World Wildlife Fund Says More Efforts Needed to Protect North East Atlantic and Baltic

The World Wildlife Fund (WWF) lashed out at members of the Oslo-Paris Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR) and the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area (HELCOM) for failing to adequately protect the marine environment of the North East Atlantic and Baltic Sea. Signatories to these two international conventions include the United Kingdom, Denmark, Germany, Norway, Iceland, Belgium, Sweden, Russia, Finland, and others.

The WWF cited continuing threats from shipping accidents and destructive fishing practices as two leading causes of marine devastation. The WWF pointed specifically to the recent sinking of the Chinese ship the Fu Shan Hai, which leaked oil across the southeast coast of Sweden,

considered by experts to be an environmentally sensitive marine region. At the most recent HELCOM-OSPAR Ministerial Conference, Russia opposed a proposal that would establish a Particularly Sensitive Sea Area (PSSA) for the Baltic Sea, despite strong political support from other member states in favor of such an initiative. If enacted, the Baltic PSSA would implement strong measures to protect the marine resources from accidents like the Fu Shan Hai sinking.

The WWF also voiced disapproval over the failure of the Baltic states to form a plan designed to protect local seal populations and the slow progress on the OSPAR mandate to eliminate hazardous materials from marine environments by 2020.

On a positive note, the Conference produced a plan to establish a network of well managed marine protected areas across the Baltic and North East Atlantic regions, with a goal of designating the first sites by 2006 and having the full network in place by 2010. Less Conversation, More Action Needed to Protect North East Atlantic and Baltic, available at http://www.panda.org/news_facts/newsroom/press_releases/news.cfm? uNewsID=7638 (last visited Oct. 13, 2003).

C. Australian Government Unveils Plans to Protect Southeast Oceans

The Australian Minister for the Environment and Heritage unveiled a proposed Southeast Regional Marine Plan in Melbourne on July 19, 2003. Seeking to shift government oversight of Australia's coastal waters and oceans away from a fragmented management scheme, the Australian government has joined with various environmental groups to draft a centralized management plan taking both economic and environmental interests into consideration. A final draft of the plan will likely be released by December of 2003.

If adopted, the Southeast Regional Marine Plan will implement a system of Marine National Parks, managed and enforced through the Australian government's National Oceans Authority. The parks will serve to protect at least twenty to fifty percent of indigenous habitats in the southeast marine region, while operating under strict environmental standards. The proposal currently covers marine regions off the shores of Victoria, Tasmania, eastern South Australia, southern New South Wales, and the Macquarie Islands.

The Australian government has charged the Department of Environment and Heritage with the design process for potential marine protection areas in Southeast Australia. The goal of the Department is to create a structure for marine protection that would prevent the mass devastation of local marine environments, a phenomenon that has stricken poorly managed

fishing regions around the world. Having invested more than fifty million dollars since the 1998 implementation of Australia's Ocean Policy, the most recent proposal evidences Australia's continued commitment to oceanic and marine protection.

Australia's proposed plan will involve input from a variety of governmental interests, including industry, transportation, tourism and environmental groups. As home to an estimated thirty billion dollars per year marine industry, the Australian government has carefully weighed the interests of the marine industry and the socioeconomic impact of any environmental regulatory actions. To date, the fishing industry, environmental groups, and citizens of Southeast Australia have shown overwhelming support for the government's bold initiative. MPAs a Key Part of Draft Regional Marine Plan for SE Australia, available at http://depts. washington.edu/mpanews/MPA45.htm (last visited Sept. 22, 2003); Australia Attempts Sustainable Management of Southeast Oceans, available at http://www.greencrossinternational.net/DigitalForum/digiforum/articles/article2003/australia.html (last visited Sept. 22, 2003).

D. West African Countries Target New 'Regional Strategy for Marine Protected Areas in West Africa'

In an effort to protect depleted West African fisheries and coastal ecosystems, six African countries and fifty international conservation and research organizations agreed at a June 2003 conference in Dakar, Senegal to implement a five-year marine redevelopment and protection plan. The plan will cover an estimated 3,500 kilometers of coastline with a common vision "for achieving sustainable development and biodiversity conservation" along the West African coast. The plan will be implemented over a five-year period at a cost of approximately thirty million EUR.

Ministers of Environment and Fisheries from Senegal, Gambia, Guinea, Guinea-Bissau, Mauritania and Cape Verde approved the "Regional Strategy for Marine Protected Areas in West Africa." The Regional Strategy developed as a response to the increasingly depleted fish spawning areas off the West African coastline, which resulted primarily from excessive overfishing and a lack of consistent government oversight. Previously implemented independent governmental Marine Protected Areas, designed to protect small-scale sections of the West African coastline, had failed to prevent the widespread destruction of vital fish spawning areas. Accordingly, the new Regional Strategy was promulgated in hopes that an inter-governmental effort will better protect the region's biodiversity and valuable resources.

The balance sought by this international cooperative effort is to ensure the protection and replenishment of fisheries at sustainable levels, while simultaneously maintaining the local heritages and economic reliance of coastal communities within the region. Because nearly sixty percent of the twenty-two million citizens of the six African nations reside in close proximity to the coast and rely on fishing for economic and cultural survival, protection of the coastline and sea has become a major priority for the local governments and international organizations.

In addition to the six West African nations, the Regional Strategy was spearheaded by efforts from such groups as the World Conservation Union (IUCN), the World Wide Fund for Nature, Wetlands International, the International Foundation for the Banc d'Arguin (FIBA), United Nations Educational, Scientific and Cultural Organization, and the Subregional Fisheries Commission. Coalition Launches EUR 30 Million Strategy to Protect West Africa's Coasts and Seas, available at http://www.sidsnet.org/latestarc/coastal-newswire/msg00085.html (last visited Sept. 21, 2003).

III. ENDANGERED SPECIES

A. Approval to Harvest Beluga Sturgeon May Lead to the Extinction of the Species

The Convention on International Trade in Endangered Species (CITES) has approved the harvesting of up to 155 tons of beluga sturgeon and an export of nine tons of the caviar that the sturgeon population produces. Beluga sturgeons exist in strongest numbers in the Caspian Sea. The caviar can cost as much as \$3000 a kilogram. CITES believes that sturgeon numbers are rising, from 9.3 million in 2001 to 11.6 million in 2002. CITES bases its claim on calculations that are made by Russian researchers every summer. The Russian researchers use trawl nets and have determined that for every sturgeon caught, either twenty-four or ten are not caught.

However, other groups claim that the increase in the sturgeon population is not as significant. They further argue that any increase in fishing will further decrease the numbers of the fish and lead to the demise of the species. For example, the Wildlife Conservation Society claims that by UN and US standards, for every fish caught only one gets away. According to the group, the sturgeon numbers could be as low as half of a million. "Miscalculation" Could Mean the End of Caviar, available at http://www.newscientist.com/newsprint.jsp?id=ns99994176 (last visited Sept. 19, 2003).

B. Abalone Needs International Assistance Against Poaching

South African Environmental Affairs and Tourism Minister Valli Moosa has announced a draft policy to limit abalone fishing rights to specified zones in order to curb illegal fishing of abalone. Critics say this move would not have been necessary if South Africa had previously listed the abalone species with the Convention on International Trade in Endangered Species (CITES). By listing the abalone with CITES, other countries would have joined in monitoring the trade of abalone. Instead, South Africa will not automatically receive assistance from other countries in fighting illegal poaching.

The abalone is being illegally poached to a great extent and its population is decreasing "at an alarmingly rapid rate." Fishing abalone has proven to be a profitable trade, and it is not likely that even a complete ban on fishing would end the illegal poaching. It is argued that South Africa would benefit from listing the abalone with CITES because it would require assistance of other countries in enforcing the legality of shipments. SA Fails to Keep Poachers from Abalone Species, available at http://allafrica.com/stories/printable/200309170171.html (last visited Sept. 19, 2003).

C. Local Fishermen Join Together to Save Monk Seals And Their Livelihood

Mediterranean monk seals are reported to be one of the rarest animals in the world, with only 500 individuals remaining. The Mediterranean monk seals live in between Turkey, Greece, Morocco, Western Sahara, Mauritania, and the Madeira Islands. Their survival is being threatened by increased fishing by trawlers in the area as well as a loss of habitat from pollution and development.

In particular, boats with large nets (trawlers) that catch anything in their path are responsible for decreasing the amount of available fish for both the monk seals and local fishermen who rely on smaller nets. While trawlers are supposed to fish three miles out, they have moved increasingly close to shore. The decreased amounts of fish available lead to starvation for the monk seals as well as reduced reproductive rates. They also lead to less available fish for local fishermen.

In 1995, local fishermen joined with a Turkish Conservation group (SAD-AFAG) and the World Wildlife Fund (W.F.) to create no-fishing zones around monk seal breeding zones and to keep the trawlers out of the areas closer to shore. Most recently, however, the group has opened a cooperative shop. The cooperative offers a stable income for local fishermen. As the head of SAD-AFAM says, "Aydincik's fishermen—and

other fishermen throughout Turkey—are making this happen. They see that efforts to save the monk seal also directly help them. They have become true guardians of the monk seal." Guardians of the Monk Seals, available at http://www.panda.org/about_wwf/what_we_do/marine/news/news.cffm? NewsID=9607 (last visited Oct. 13, 2003).

D. Pirate Ship Caught; Suspected of Fishing for the Nearly Extinct Patagonian Toothfish

Cooperation between Australian, South African and English authorities led to the capture of a ship after a twenty-one day chase at sea. The ship is suspected to have illegally fished for Patagonian toothfish near Australia's Heard Island, a marine reserve. The Patagonian toothfish (referred to as "white gold") has been in such high demand that it faces commercial extinction in areas around the world. While Australia, South Africa and the United Kingdom have been leaders in trying to fight the trade of illegal fish, pirate ships continue to pose a problem. It is estimated that half of the Patagonian toothfish traded comes from an illegal or unregulated source. Pirate Fishing Vessel Nabbed after High Seas Chase, available at http://www.panda.org/about_wwf/what_we_do/marine/news.cfm?uNewsID=8581 (last visited Oct. 13, 2003).

IV. POLLUTION

A. IMO Adopts Third Tier of Compensation for Oil Pollution Victims

A new protocol was recently adopted by a diplomatic conference held at International Maritime Organization (IMO) Headquarters in London that seeks to supplement the compensation for oil pollution victims currently available under the 1992 Civil Liability and Fund Conventions. The third tier of compensation (the Protocol) is optional and participation is open to all states party to the 1992 Fund Convention.

With this adoption, the IMO has succeeded in substantially enhancing the compensation available under the 1992 Fund Convention, thereby ensuring that, at least for the foreseeable future, victims of oil pollution damage are fully compensated. The compensation will apply to damage in the territory, including the territorial sea of the contracting state.

Contributions to the Fund will be made by any person in a contracting state who, in any calendar year, receives total oil quantities exceeding 150,000 tons. However, in any given contracting state, there is a minimum aggregate of 1,000,000 tons of contributing oil.

The new Fund will come into existence three months after at least eight States who have also received a combined total of 450,000 million tons of contributing oil and have ratified the Protocol. Better Deal for Oil Pollution Victims as IMO Adopts Third Tier of Compensation, available at http://www.imo.org/newsroom/mainframe.asp?topic_id=7588doc_id=2952 (last visited Sept. 22, 2003).

B. Draft of Ballast Water and Sediments Management Set for Adoption in 2004

In July 2003, the Marine Environment Protection Committee (MEPC) agreed upon a final draft of the International Convention for the Control and Management of Ships' Ballast Water and Sediments and agreed upon a diplomatic conference in February 2004 to adopt the draft.

The problem of harmful aquatic animals in ballast water, which was first raised by the International Maritime Organzation (IMO) in 1998 and since addressed by MEPC, is largely due to the increased volume of trade and traffic over the past few decades. An estimated ten billion tons of ballast water are transferred globally each year bringing non-native species into new environments where they can be ecologically harmful.

The proposed adoption uses a two-tiered approach to address the problem. The first tier applies to all ships and includes mandatory requirements for a Ballast Water and Sediments Management Plan, a Ballast Water Record Book and new standards for ballast water and sediment management procedures. This tier would include a phase-in period. The second tier includes special requirements applicable to certain areas in which additional controls may be applied to the uptake or discharge of ballast water. International Convention for the Control and Management of Ships' Ballast Water and Sediments Set for Adoption in 2004, available at http://imo.org/Environment/mainframe.asp?topic_id=5-48 (last visited Sept. 22, 2003).

C. MARPOL Ship Sewage Regulations Enter Into Force September 2003

Annex IV of the International Convention for the Prevention of Pollution from Ships (MARPOL) entered into force on September 27, 2003. Annex IV regulates pollution by sewage discharge from ships. It also prohibits the discharge of sewage into the sea unless a ship has in operation an approved sewage treatment plant, is discharging comminuted and disinfected sewage using an approved system at a distance of more than three nautical miles from the nearest land, or is discharging sewage which

is not comminuted or disinfected at a distance of more than twelve nautical miles from the nearest land. It otherwise requires that ships under Annex IV jurisdiction be equipped with a sewage holding tank and that ports and terminals requiring Annex IV compliance be equipped for the reception of sewage. Annex IV also contains provisions regulating the survey and certification of ship sewage systems, as well as a model International Pollution Prevention Certificate to be issued by national shipping administrations.

MARPOL was adopted in 1973 by the International Maritime Organization to prevent marine pollution by oil (Annex I), chemicals (Annex II), harmful substances in packaged form (Annex III), sewage (Annex IV), and garbage (Annex V). Annexes III, IV, and V are optional to parties who have ratified MARPOL. In March 2000, amidst concerns that Annex IV was not receiving enough ratifications to achieve entry into force, the Marine Environment Protection Committee (MEPC) approved a revised edition of the Annex making it less restrictive. This revised Annex IV could not enter into force until the original was ratified, and is not scheduled for adoption until March 2004. However, MEPC agreed that the provisions of the revised Annex IV shall be implemented upon the entry into force of original Annex IV in order to avoid creating a "dual treaty regime between the existing and revised Annex IV." which ultimately precipitated the ratification of the original, thirty years after its adoption. International Ship Sewage Regulations Enter Into Force, available at http://www.imo.org/Newsroom/mainframe.asp?topic_id=758&doc id=3170 (last visited Sept. 27, 2003).

D. Report Finds POP Levels in Marine Mammals Dangerously High

On September 29, 2003, Oceana released findings of dangerous levels of Polychlorinated Biphenyls (PCBs) in twelve marine species and a population of humans. The report, "Toxic Burden: PCBs in Marine Life," included data from forty different studies. The report found alarmingly high levels of PCBs in marine mammals including Bottlenose, Risso's and Common Dolphins, Killer whales, Harbor, Gray and Mediteranean Monk Seals, Beluga Whales, and a population of humans (members of the Inuit nation native to Greenland who consume significant amounts of seal fat in their diet). One individual Bottlenose dolphin was found with PCB levels in excess of two thousand parts per million (ppm), forty times the concentration which would classify the dolphin as hazardous waste. Average blood levels of PCBs in members of the Inuit cohort were nearly six times higher than in non-indigenous people.

The study urges the United States to fully implement the 2001 Stockholme Convention, which calls for a prohibition of ten persistent organic pollutants (POPs), including PCBs, DDT, and dioxins. These substances, once released, are exceptionally difficult to reclaim, may travel great distances, and due to their long life and solubility characteristics are prone to accumulation in water, soil, sediment, plants and animal tissues where they remain for long periods of time. The U.S. has already banned the ten POPs currently listed by the Convention, but the Bush Administration has been reluctant to adopt a provision of the treaty which could in the future ban other POPs currently in production, or that may be developed. Thirty-seven of the fifty countries necessary for the Convention to enter into force have already ratified the treaty; the Senate Agriculture and House Energy and Commerce committees are currently considering legislation to implement the treaty in the U.S. Report Finds Dangerous Chemical Building Up in Marine Life and Arctic People, available at http://www. oceana.org/index.cfm?sectionID=10&fuseaction=35.detail&press releaseID=120; http://www.oceana.org/uploads/oceana_pop_final.pdf (last visited Oct. 13, 2003).

V. PIRACY

A. International Maritime Bureau Reports That Pirate Attacks Have Tripled Over the Past Decade

On May 1, 2003, the International Maritime Bureau (IMB), the maritime crime prevention division of the International Chamber of Commerce, reported that pirate attacks have tripled over the past ten years. With 103 reported pirate attacks in January through March of this year alone, the total number of attacks from 1993 has already been exceeded. Indonesian waters are still the most dangerous, accounting for over twentyfive percent of this years attacks; Nigeria and India tie for second, each with eight percent. One hundred forty-five seamen have been listed as killed, assaulted, missing or kidnapped as of this quarter's end. The IMB also notes the emergence of new methods and motivations of attacks. Heavily armed hijackers have begun using speed boats to target small oil tankers in the Malacca Straights, posing threats to human life and the environment. The IMB says that these acts closely resemble attacks by Indonesian Aceh rebels, who take and hold hostages for ransom. Captain Pottengal Mukundan, director for the IMB, stated that, "[w]e need to determine if this is an escalation in political piracy. Politically motivated pirates are prepared to take greater risks to further their cause. We have seen the devastation that piracy can cause in other parts of the world.

Whether these attacks are politically motivated or not, the fact that vessels carrying sensitive cargoes are being targeted is a matter of great concern."

In an attempt to curb the trend of increasing maritime violence, Indian courts have extended jurisdiction to crimes committed in international waters. In February, the Indian government prosecuted fourteen Indonesian hijackers of the Japanese vessel Alondra Rainbow, who were convicted and sentenced to seven years hard labor. A Chinese court sentenced the hijackers of the tanker Siam Xanxai to prison terms of ten and fifteen years respectively. Captain Mukundan stated that, "[b]oth the Indian and Chinese authorities should be congratulated for having taken these difficult cases through to prosecution. It is this kind of response that will deter future pirates from this trade." Pirate Attacks Have Tripled in a Decade, IMB Report Finds, available at http://www.iccwbo.org/ccs/news_archives/2003/piracy_ms.asp (last visited Oct. 13, 2003); Pirate Attacks Have Tripled in a Decade, IMB Report Finds, available at http://www.iccwbo.org/home/news_archives/2003/stories/piracy-quarter-1.asp (last visited Oct. 13, 2003).