

# Animal Salvage: Cost-Effective Methods for the Preservation of Marine Life

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## Introduction

The idea of animal salvage, the saving of wild animals in distress at sea, is not an existing legal concept. On land, animal rescue leagues for domesticated animals exist all over the U.S.<sup>1</sup> At sea, some organizations dedicate their time and expenses to the protection, and sometimes rescue, of marine life.<sup>2</sup> As one might imagine, however, preventing a whale from beaching itself can be a much more arduous and costly task than rescuing a stray dog or cat.<sup>3</sup> Simply put, marine animal rescue is hard work, and current legislation does little to encourage it.

On the contrary, maritime salvage law protects humankind and its material interests.<sup>4</sup> Traditional marine salvage has been divided into three types: life salvage, property salvage, and treasure salvage.<sup>5</sup> The three types of salvage have varying degrees of financial, cultural, and philanthropic value, representing a communal effort to aid *humanity* at need. Conversely, what is in place to help marine *animals* in need of rescue? Certainly, one could argue that rescuing domesticated animals from a sinking vessel constitutes property salvage, thus warranting some

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<sup>1</sup> See Geoffrey L. Handy, *Handling Animal Collectors, Part 2: Managing a Large-Scale Animal Rescue Operation*, 17 SHELTER SENSE 3 (July 1994).

<sup>2</sup> One such organization is the Whale Rescue Team, a network of volunteers who rescue whales, dolphins, sea lions, seals, and sea birds. WHALE RESCUE TEAM, *The Whale Rescue Team*, <http://www.whalerescueteam.org/> (last visited Apr. 3, 2006). The organization has saved thousands of animals since its creation in 1984. *Id.*

<sup>3</sup> One rescue group, British Divers Marine Life Rescue, accrued £300 worth of parking tickets when they left their vehicles parked at meters as they rushed into the Thames River to prevent a whale from beaching itself. BBC News, *Whale Rescuers' £300 Parking Bill*, <http://news.bbc.co.uk/1/hi/england/london/4638790.stm> (last visited Apr. 3, 2006). Fortunately, the Westminster Council stated that it would waive these fines. *Id.*

<sup>4</sup> See *R.M.S. Titanic, Inc. v. Wrecked & Abandoned Vessel*, 435 F.3d 521, 535 (4th Cir. 2006) (“The ancient salvage law that has continued to this day was applied to protect the property and lives relating to ships in distress.”).

<sup>5</sup> Liza J. Bowman, *Oceans Apart Over Sunken Ships: Is the Underwater Cultural Heritage Convention Really Wrecking Admiralty Law?*, 42 OSGOODE HALL L.J. 1, 3-4 (2004).

sort of compensation.<sup>6</sup> However, no incentives exist to encourage the rescue of a pod of dolphins from beaching themselves,<sup>7</sup> a seal or sea turtle caught in discarded fishing line,<sup>8</sup> or a whale that errantly travels inland up a river?<sup>9</sup>

Of course, rewarding salvors for rescuing wild animals at sea is an entirely biocentric ideal.<sup>10</sup> In theory, it's as cute as a dolphin, but who would pay such a reward? Where would the money come from? No legislator seeking reelection would ever advocate such a noble, yet seemingly impractical, solution to the new dangers facing marine life. Many bumper stickers and, in Florida, license plates<sup>11</sup> advocate saving the whales, dolphins, manatees, sea turtles – the list goes on. Perhaps it is the size of the medium, but these forums of environmental activism never address the real issue – *how* can we protect marine life?

This author, too, would like to offer greater protections to the dwellers of the world's largest aquariums, the oceans. Instead of preaching, however, this article offers workable solutions to lessen animal casualties at sea, where costs are minimal, methods are feasible, and benefits are immeasurable. Not everyone is as heroic (or stupid) as Crocodile Hunter Steve

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<sup>6</sup> See, e.g., *The Dalzellea v. Cent. Union Stockyards Co.*, 12 F. Supp. 179 (S.D.N.Y. 1935) (salvor rescued sheep and cattle off a cattledraft and was awarded salvage). Animals on land are often treated as property. See, e.g., *Anzalone v. Kragness*, 826 N.E.2d 472, 476-77 (Ill. App. Ct. 2005). Compensation may be provided for the loss of a domesticated animal: "Property may have a value for which a recovery may be had if it is destroyed... This principle of law has been applied in actions to recover for the destruction of a dog. The true rule being that the owner of a dog wrongfully killed is not circumscribed in his proof to its market value, for, if it has no market value, he may prove its special value to him by showing its qualities, characteristics and pedigree, and may offer the opinions of witnesses who are familiar with such qualities." *McCallister v. Sappingfield*, 144 P. 432, 427 (Or. 1914).

<sup>7</sup> See NRDC, *Protecting Whales from Dangerous Sonar: Following an Historic Victory, NRDC Steps up to the Campaign at Home and Abroad to Regulate Active Sonar Systems that Harm Marine Mammals*, <http://www.nrdc.org/wildlife/marine/sonar.asp> (last visited Jan. 23, 2006).

<sup>8</sup> See NOAA, *Free Floating Fishing Nets Kill Marine Mammals, Turtles, and Sea Birds: NOAA Scientists Battle Ocean 'Ghostnets' Using Remote Sensing Technology*, <http://www.noanews.noaa.gov/stories2005/s2429.htm> (last visited Apr. 3, 2006).

<sup>9</sup> See Jonathan Wald, Jim Bouldon, & Katie Turner, *Whale Dies During Thames Rescue*, <http://www.cnn.com/2006/WORLD/europe/01/21/britain.whale/> (last visited Jan. 28, 2006).

<sup>10</sup> ROBERT V. PERCIVAL, ET. AL., *ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY* 10 (4th ed. 2003).

<sup>11</sup> MyFlorida.com, *Other Florida License Plates*, <http://www.hsmv.state.fl.us/html/all-h.pdf> (last visited Jan. 29, 2006). Examples of Florida license plates expressing environmental concern include such phrases as: "Protect Wild Dolphins"; "Protect Florida Whales"; "Save the Manatee"; "Conserve Wildlife"; and "Helping Sea Turtles Survive." *Id.*

Irwin, who leaps into shark-infested waters to untangle the hungry predators from the very nets employed to prevent them from snacking on unsuspecting swimmers.<sup>12</sup> We may not be able to compensate rescuers for such interspecies acts of kindness. However, we can compensate or give other incentive for animal-friendly and environmentally safe use of our waterways. And where that fails, we can punish those that act with reckless disregard for our oceans and its inhabitants.

With an emphasis on marine mammals, this article will explore incentives for animal protection and prohibitions placed upon humankind in its efforts to traverse U.S. and International waters. Part I will discuss traditional notions of salvage, particularly life salvage, correlating this body of law to the author's notion of animal salvage. Part II will look at various existing harms facing marine life and growing dangers that lurk within technological advancement. Part III will analyze the domestic laws in place for the protection of marine life and their shortcomings. Specifically, this author will explore the various provisions of the Marine Mammal Protection Act and touch upon other legislation impacting marine mammals. This section will also briefly address what the international community has done in its attempts to care for aquatic creatures. Finally, Part IV will offer solutions for ensuring greater animal safety, protecting marine life from its most dangerous predator – humankind.<sup>13</sup>

As a doctrine, animal salvage may currently be idealistic fiction, but with little legislative effort, it could be made reality. Maritime legislation promoting animal safety and, conversely, legislation deterring harmful maritime behavior can have significant impact towards restoring endangered marine life and preventing other species from making that list. In essence,

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<sup>12</sup> *The Crocodile Hunter* (Animal Planet).

<sup>13</sup> See generally ThinkQuest.org, *Humans as a Non-native Species*, [http://library.thinkquest.org/03oct/00946/text\\_only/t\\_human.htm](http://library.thinkquest.org/03oct/00946/text_only/t_human.htm) (last visited Feb. 24, 2006).

legislation and its enforcement can be used to prevent animal deaths or, stated another way, to save animal lives. Perhaps animal salvage is not so far-fetched after all.

### **I. Property Salvage . . . Life Salvage . . . Is Animal Salvage Next in the Legal Evolutionary Chain?**

The concept of marine salvage is a unique, yet perplexing, facet of American maritime law. The rescue of property (be it vessel or cargo), life, or treasure lost or in danger of being lost at sea is the focal point of salvage law, and what is being rescued can have great impact on the salvor's rights and entitlements.<sup>14</sup> Unlike rescuing property on land, property rescue at sea is compensable, and often lucrative, venture.<sup>15</sup> Salvors of property are entitled to a reward from the owner, giving rise to a maritime lien.<sup>16</sup> Conversely, salvors of life receive no such reward.<sup>17</sup> Nevertheless, this article will show that despite the absurd situation that is current maritime salvage law, existing legislation of another nature, with minor adjustment, could easily make animal salvage a desirable reality.

Two unimpressive statutes make up the corpus of American life salvage.<sup>18</sup> The first, the Salvage Act, provides:

- (a) A master or individual in charge of a vessel shall render assistance to any individual found at sea in danger of being lost, so far as the master or individual in charge can do so without serious danger to the master's or individual's vessel or individuals on board.
- (b) A master or individual violating this section shall be fined not more than \$1,000, imprisoned for not more than 2 years, or both.<sup>19</sup>

The meager penalties violators face under the Salvage Act pale in comparison to the likely consequence of their neglectful behavior – the loss of human life.

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<sup>14</sup> Bowman, *supra* note 5, at 3-4.

<sup>15</sup> Jance R. Hawkins, *Reconsidering the Maritime Laws of Finds and Salvage: A Free Market Alternative*, 30 GEO. WASH. J. INT'L L. & ECON. 75, 86 (1996).

<sup>16</sup> John Alan Cohen, *An Examination of Archeological Ethics and the Repatriation Movement Respecting Cultural Property*, 27 ENVIRONS ENV'T'L L. & POL'Y J. 349, 367 (2004).

<sup>17</sup> *Roane v. Greenwich Swim Comm.*, 330 F. Supp. 2d 306, 314 (S.D.N.Y. 2004).

<sup>18</sup> 46 U.S.C. § 2303-04 (2000).

<sup>19</sup> *Id.* at § 2304(a)-(b).

The second statute, the Standby Act, outlines the obligations of the shipmaster whose vessel collides with another's at sea:

- (a) The master or individual in charge of a vessel involved in a marine casualty shall -
  - (1) render necessary assistance to each individual affected to save that affected individual from danger caused by the marine casualty, so far as the master or individual in charge can do so without serious danger to the master's or individual's vessel or to individuals on board; and
  - (2) give the master's or individual's name and address and identification of the vessel to the master or individual in charge of any other vessel involved in the casualty, to any individual injured, and to the owner of any property damaged.
- (b) An individual violating this section or a regulation prescribed under this section shall be fined not more than \$1,000 or imprisoned for not more than two years. The vessel also is liable in rem to the United States Government for the fine.
- (c) An individual complying with subsection (a) of this section or gratuitously and in good faith rendering assistance at the scene of a marine casualty without objection by an individual assisted, is not liable for damages as a result of rendering assistance or for an act or omission in providing or arranging salvage, towage, medical treatment, or other assistance when the individual acts as an ordinary, reasonable, and prudent individual would have acted under the circumstances.<sup>20</sup>

Similar in its terms and penalty provisions to those of the Salvage Act, the Standby Act further defines a shipmaster's standard of care pertaining to lives in peril at sea.<sup>21</sup> The act, however, only pertains to shipmasters of the colliding vessels.<sup>22</sup>

Combined, the two statutes state a clear duty to rescue lives in distress at sea.<sup>23</sup>

Unfortunately, insufficient penalty provisions and under-enforced prohibitions fail to impose significant legal ramifications on the negligent passer-by vessel.<sup>24</sup>

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<sup>20</sup> *Id.* at § 2303.

<sup>21</sup> *Id.* at § 2303(c).

<sup>22</sup> *Berg v. Chevron U.S.A., Inc.*, 759 F.2d 1425 (9th Cir. 1985).

<sup>23</sup> 46 U.S.C. § 2303-04.

<sup>24</sup> See Patrick J. Long, Comment, *The Good Samaritan and Admiralty: A Parable of a Statute Lost at Sea*, 48 BUFF. L. REV. 591, 624 (2000) ("Moreover, despite the [Salvage Act's] lack of ambiguity, courts have proved very reluctant to impose this duty on masters or their owners. It has not been amended since its passage in 1912. Scholars rarely examine it, and it is not enforced.").

The tendency against rewarding life salvage, however, is not without its exceptions. First, when one rescues lives at the same time another is rescuing property, the former is entitled to part of the property salvage award.<sup>25</sup> Obviously, if the life salvor also simultaneously salvages property, he or she will also be entitled to a salvage award.<sup>26</sup> Finally, under certain circumstances, life salvors may be entitled to restitution.<sup>27</sup>

In summation, courts seem curiously reluctant to award life salvors. They are more apt to award rescuers of animal cargo (i.e. somebody's property) than they would be to award rescuers of human life.<sup>28</sup> At least, however, there is an undeniable duty, per the Salvage Act, to save human life in distress at sea.<sup>29</sup> Conversely, neither a duty to rescue marine life nor a reward for it exists. It seems logical not to reward animal salvage if we do not reward life salvage. However, it would be far more logical to reward both. Ironically, humans create the need for maritime animal rescue through their national security interests and commercial exploitation of the world's oceans and waterways.<sup>30</sup> So if we create the problem, shouldn't we have a duty to fix it?

Certainly, without a chance for reward, many sailors would ignore an incapacitated animal in need of human assistance. Even if the federal government created an agency to pay

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<sup>25</sup> Donald R. O'May, *Admiralty Law Institute: Symposium on American and International Maritime Law: Comparative Aspects of Current Importance: Lloyd's Form and the Montreal Convention*, 57 TUL. L. REV. 1412, 1435-36 (1983).

<sup>26</sup> Suzanne M. Burstein, Comment, *Saving Steel over Souls: The Human Cost of U.S. Salvage Law*, 27 TUL. MAR. L.J. 307, 312-13 (2002); see also 46 U.S.C. Appx § 729 (2000) ("Salvors of human life, who have taken part in the services rendered on the occasion of the accident giving rise to salvage, are entitled to a fair share of the payment awarded to the salvor for salvaging the vessel or other property or preventing or minimizing damage to the environment.").

<sup>27</sup> See *The Peninsular & Oriental Steam Navigation Co. v. Overseas Oil Carriers, Inc.*, 553 F.2d 830 (2d Cir. 1977) (life salvors awarded restitution for the costs of fuel expended under a theory of quasi-contract). This case was most recently followed by the Southern District of New York in *In re Complaint of Ta Chi Navigation Corp. v. S.S. Larry L*, 583 F. Supp. 1322 (S.D.N.Y. 1984).

<sup>28</sup> See *The Dalzellea*, 12 F. Supp. 179 (S.D.N.Y. 1935) (salvor rescued livestock and was awarded salvage).

<sup>29</sup> 46 U.S.C. § 2304(a)-(b).

<sup>30</sup> For example, the largest single cause of manatee deaths (approximately twenty-five percent) is from watercraft collision. J. B. Ruhl, *State and Local Government Vicarious Liability Under the Sea*, 16 NAT. RESOURCES & ENV'T 70, 70 (2001).

animal salvage awards or an international organization set aside funds for maritime animal rescue, the funds would likely be awarded to the same people causing the problems. Would we reward a fisherman for saving a dolphin caught in his or her own fishing net? Should that same fisherman have a legal duty to save the dolphin? Regardless of how one answers these questions, animal salvage under traditional maritime salvage doctrine, on the surface, seems impractical or non-feasible. However, animal salvage may be a rather simple concept to interpolate into current environmental legislation. Further, broad alternatives to animal salvage can be designed to produce the same effect – the conservation of marine life.

## **II. Animal Deaths – A By-Product of Scientific and Commercial Growth?**

To propose solutions for the reduction of marine animal deaths, one must first understand the causes. Marine life faces numerous hazards – some old, some new – in today’s oceans. Some harms, such as ghostnets,<sup>31</sup> accumulate in the oceans with every fishing harvest.<sup>32</sup> Other harms, such as sonar, deserve more consideration as scientific research and advancement eliminates causation issues in proving the connection between whale deaths and the technology’s use.<sup>33</sup> Further, old dangers, such as pollution, take new form when new products, by-products, chemicals, and waste are dumped into the sea.<sup>34</sup> Finally, perhaps the greatest danger to marine life is more direct in form – animals killed by careless commercial, industrial, and recreational practices<sup>35</sup> or slaughtered by poachers and hunters for purely material gain.<sup>36</sup>

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<sup>31</sup> A ghostnet is a derelict fishing net left to drift aimlessly in the ocean. Eric J. Fjelstad, *The Ghosts of Fishing Nets Past: A Proposal for Regulating Derelict Synthetic Fishing Nets*, 63 WASH L. REV. 677, 677 (1988).

<sup>32</sup> *Id.* Research shows that the number of ghostnets in our oceans is increasing. *Id.*

<sup>33</sup> See John Ingham, *Are Navy Sonars Killing Whales?*, DAILY EXPRESS, Jan. 23, 2006, at 1.

<sup>34</sup> See generally Galileo.org, *The Blue Planet: Our Water World*, <http://www.galileo.org/schools/crowther/science/blueplanet/ocean.html> (last visited Feb. 26, 2006).

<sup>35</sup> WhalesOnLine.net, *Noise Pollution*, <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html> (last visited Feb. 21, 2006).

<sup>36</sup> *Id.*

## A. SONAR – Source Of Naval Animal Reduction?

In January of 2006, a northern bottlenose whale<sup>37</sup> made headlines as it swam far up the Thames River into central London.<sup>38</sup> Millions of people followed the whale's ultimately tragic plight, impacting many whose everyday thoughts generally do not turn towards marine life.<sup>39</sup> After a couple of days of struggling to find the Atlantic Ocean and a failed rescue attempt, the whale died from dehydration and muscle and kidney damage.<sup>40</sup>

The question became: what caused this whale to swim hundreds of miles off-course from its normal migratory waters, a deviation that would lead to its unfortunate death?<sup>41</sup> Many theories were proposed, with sonar foremost amongst them.<sup>42</sup> In all likelihood, sonar was not responsible for this particular whale's death.<sup>43</sup> So why do so many point to sonar each time a whale becomes stranded? The unfortunate reason is that sonar has and continues to cause unnecessary and substantial death amongst the cetacean community.<sup>44</sup>

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<sup>37</sup> Not to be confused with the well-known and popular bottlenose dolphin, the northern bottlenose whale is a deep-diving species of beaked whales approximately six to ten meters long and weighing up to seven tons. *Id.*

<sup>38</sup> See Ingham, *supra* note 33, at 1.

<sup>39</sup> *Id.*

<sup>40</sup> James Owen, *London Whale Died of Dehydration, Autopsy Shows*, NAT'L GEOGRAPHIC NEWS, Jan. 25, 2006, available at [http://news.nationalgeographic.com/news/2006/01/0125\\_060125\\_london\\_whale.html](http://news.nationalgeographic.com/news/2006/01/0125_060125_london_whale.html). Cetaceans subsist on water obtained from their food. *Id.* Having been unable to find its normal food source, deepwater squid, the whale became dehydrated and died. *Id.*

<sup>41</sup> See Ingham, *supra* note 33, at 1.

<sup>42</sup> *Id.* Some scientists theorize that strong sunshine disrupts the earth's magnetic field, disturbing a whale's system of echo-location. *Id.* Others suggest that a sick whale or dolphin can lead its pod into shallow waters much like lemmings following each other off a cliff. *Id.* Still others argue that noise levels, caused by oil exploration and international trade directly within migration routes, causes confusion amongst nearby whale and dolphin populations. *Id.*

<sup>43</sup> Owen, *supra* note 40, at [http://news.nationalgeographic.com/news/2006/01/0125\\_060125\\_london\\_whale.html](http://news.nationalgeographic.com/news/2006/01/0125_060125_london_whale.html).

<sup>44</sup> See NRDC, *Whales in Danger: Military Sonar Threatens Whales Around the World*, <http://www.savebiogems.org/whales/> (last visited Feb. 8, 2006). "A cetacean is any of the members of the Order Cetacea," an animal kingdom classification that consists of whales, porpoises, and dolphins. HEBRIDEAN WHALE & DOLPHIN TRUST, *What Is a Cetacean?*, [http://www.whaledolphintrust.co.uk/whales\\_dolphins/what-is-a-cetacean.asp](http://www.whaledolphintrust.co.uk/whales_dolphins/what-is-a-cetacean.asp) (last visited Apr. 3, 2006).

For example, on March 15, 2000, seventeen cetaceans representing three different species stranded themselves along the coastline of the Bahamas.<sup>45</sup> At the time, the U.S. Navy was employing mid-range frequency sonar technology in the area.<sup>46</sup> Acting quite reasonably and responsibly, the Navy investigated the strandings, finding the animals suffered damage consistent with acoustic trauma.<sup>47</sup> The Navy's own report concluded that they had, in fact, caused the whales to beach themselves.<sup>48</sup>

Our legislative response to these and similar findings<sup>49</sup> and the Navy's continued and inadequately restricted use may not be as reasonable or responsible.<sup>50</sup> Overwhelming evidence links sonar to numerous whale strandings in recent years.<sup>51</sup> Further, with regards to the 2005 beaching of 37 whales on the Carolina coastline, a Navy investigator changed her original report to eliminate all references linking sonar to the disaster.<sup>52</sup> It took a court order to reveal this cover-up, evincing the Navy's reluctance to sacrifice certain practices for the benefit of marine mammals.<sup>53</sup> However, "[d]espite the broad scientific consensus that military active sonar kills whales, the use of this deadly sonar in the world's oceans is spreading."<sup>54</sup>

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<sup>45</sup> Natalie Barefoot-Watambwa, *Who Is Encroaching Whom? The Balance Between Our Naval Security Needs and the Environment: The 2004 RRPI Provisions as a Response to Encroachment Concerns*, 59 U. MIAMI L. REV. 577, 580 (2005).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.* (citing NAT'L OCEANIC & ATMOSPHERIC ADMIN. & DEP'T OF THE NAVY, *Joint Interim Report: Bahamas Marine Mammal Stranding Event of 15-16 March 2000*, at 13 (2001)).

<sup>48</sup> *Id.*

<sup>49</sup> Recent amendments to the MMPA that concern the Navy's sonar use were included in the National Defense Authorization Act for Fiscal Year 2004. Joshua D. Hodes, *2004 Legislative Review*, 11 Animal L. 325, 327 (2005). "[T]he modifications to the MMPA resulted in three distinct changes to the law. First, the definition of harassment was altered for military readiness activities. Second, there is an exemption clause for actions deemed necessary for national defense. Finally, there were modifications made to the issuance of small take permits for military readiness purposes." *Id.* at 330.

<sup>50</sup> See NRDC, *supra* note 7, at <http://www.nrdc.org/wildlife/marine/sonar.asp>.

<sup>51</sup> *Id.*

<sup>52</sup> Marc Kaufman, *Sonar Tie Excised from Report on Stranded Whales*, PITTSBURGH POST-GAZETTE, Jan. 22, 2006, at A16.

<sup>53</sup> *Id.*

<sup>54</sup> NRDC, *supra* note 7, at <http://www.nrdc.org/wildlife/marine/sonar.asp>.

There are generally two methods of using sonar, “active” and “passive.”<sup>55</sup> Active sonar is the transmission of a signal that will then reflect off underwater objects.<sup>56</sup> Passive sonar is simply to listen for sounds emitting from ships or submarines as they reflect off nearby objects.<sup>57</sup> Given the considerably high decibel level of active sonar, its harmful effects on marine life are immeasurable in comparison to the benign effects of passive sonar.<sup>58</sup>

Scientists theorize that active sonar affects cetaceans in one of two ways:

The first theory is that the whales’ sensitive sonar detectors are directly damaged by the strong acoustic waves from the high-intensity sonar, causing pain and disorientation which drives the whales to strand themselves on the beach. This theory explains the ruptures and hemorrhaging found in some of the whale and dolphin victims. The second theory is that the exposure to the loud sonar noise causes the whales to become disoriented and confused, compelling them to the surface too quickly which causes decompression sickness otherwise known as “the bends” to SCUBA divers.<sup>59</sup>

Whichever the reason, the result is the same – cetaceans die. Further, an Australian study has shown that fish exposed to similar frequency levels as those employed by the U.S. Navy suffer internal injuries, hemorrhaging, and death.<sup>60</sup>

Admittedly, our need for national security is of high importance, and military sonar helps protect our territorial waters from enemy submarines.<sup>61</sup> “Antisubmarine warfare is a critical part

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<sup>55</sup> *The Marine Mammal Protection Act and Surveillance Towed Array Sensor System Low Frequency Active Sonar: Hearings Before the Subcomm. on Fisheries, Conservation, Wildlife and Oceans of the House Comm. on Resources*, 107th Cong. 2 (2001) [hereinafter *House Comm.on Resources Hearings*].

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> See NRDC, *supra* note 7, at <http://www.nrdc.org/wildlife/marine/sonar.asp>. “Military active sonar works like a floodlight, emitting sound waves that sweep across tens or even hundreds of miles of ocean, revealing objects in their path. But that kind of power requires the use of extremely loud sound. Each loudspeaker in the LFA system’s wide array, for example, can generate 215 decibels’ worth - sound as intense as that produced by a twin-engine fighter jet at takeoff. Some mid-frequency sonar systems can put out over 235 decibels, as loud as a Saturn V rocket at launch. Even 100 miles from the LFA system, sound levels can approach 160 decibels, well beyond the Navy’s own safety limits for humans.” *Id.*

<sup>59</sup> Barefoot-Watambwa, *supra* note 45, at 584.

<sup>60</sup> *Id.*

<sup>61</sup> Paul C. Kiamos, *National Security and Wildlife Protection: Maintaining an Effective Balance*, 8 ENVTL. LAW. 457, 482 (2002).

of Navy missions,”<sup>62</sup> and enemy diesel submarines cannot be detected by passive sonar only.<sup>63</sup>

But what trade-offs to marine life are necessary to perpetuate our national security? How many cetaceans need to die to keep our waters safe from a potential submarine threat? Perhaps a balance of competing national security and environmental interests can be struck.

## **B. Ghostnets – Invisible Death**

According to the National Oceanic and Atmospheric Administration (NOAA), an agency of the U.S. Department of Commerce, lost or abandoned fishing nets infest huge swaths of the Pacific Ocean.<sup>64</sup> In a 2005 research study, scientists were amazed by just how many of these nets were found.<sup>65</sup> Since these nets and net fragments are synthetic, they continue to kill marine life indefinitely; “the marine environment cannot break down the plastic fibers.”<sup>66</sup> Even the fishing industry has openly recognized the problem.<sup>67</sup> Responsible fishermen, on an individualized basis, take voluntary measures in limiting the amount of discarded netting they produce.<sup>68</sup>

“Concentrated in relatively small areas of ocean by winds and currents, ghostnets present a hazard to wildlife, entangling marine mammals, turtles and sea birds [in] a largely unseen form of environmental pollution.”<sup>69</sup> For example, in the last decade, divers untangled 170 endangered Hawaiian monk seals caught in ghostnets.<sup>70</sup> Endangered species of sea turtles also fall victim to

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<sup>62</sup> *Id.* (citing *House Comm.on Resources Hearings*, *supra* note 55, at 2 (statement of Vice Admiral Dennis McGinn)).

<sup>63</sup> Kaufman, *supra* note 52, at A16.

<sup>64</sup> NOAA, *Catching Ghostnets*, <http://www.etl.noaa.gov/about/highlights/050403/> (last visited Feb. 20, 2006).

<sup>65</sup> *Id.* The bottom-line result of the study was best expressed by one researcher when he remarked, “There is a lot more trash out there than I expected.” *Id.* These researchers were aware of the ghostnet problem prior to conducting the study but were amazed by the extent of the problem. *Id.*

<sup>66</sup> Fjelstad, *supra* note 31, at 677.

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> NOAA, *supra* note 8, at <http://www.noaanews.noaa.gov/stories2005/s2429.htm>.

<sup>70</sup> Robert R. Britt, *Ocean Loaded with Deadly ‘Ghostnets’*, LIVESCIENCE, May 2, 2005, *available at* [http://www.livescience.com/environment/050502\\_ghost\\_nets.html](http://www.livescience.com/environment/050502_ghost_nets.html).

ghostnets at alarming levels.<sup>71</sup> These creatures rely on natural floating masses for food and shelter, and their physical characteristics make them prone to entanglement.<sup>72</sup> Other documented species susceptible to ghostnet entanglement include: various whale and dolphin species, stellar sea lions, manatees, several seal species, and numerous species of waterfowl and fish.<sup>73</sup>

Removing ghostnets is both time-consuming and costly.<sup>74</sup> As many ghostnets tend to catch on coral reefs, damaging the fragile reef ecosystem, divers literally have to cut the net free from the reef with a knife.<sup>75</sup> Bit by bit, the ghostnet is then loaded onto inflatable boats and taken away.<sup>76</sup> Perhaps a more cost-efficient and practical solution would be to focus on regulating the polluting source rather than the clean-up process.

In addition to ghostnets, active fishing nets entangle and kill small cetaceans.<sup>77</sup> For example, the vaquita, a small species of porpoise living primarily in the Gulf of California, is being killed off at a rate of thirty to forty animals per year by Mexican shrimp trawlers and gillnets.<sup>78</sup> In the Gulf of Maine, harbor porpoises die by the thousands each year, caught in fishing nets.<sup>79</sup> Larger cetaceans are not exempt from the death toll; each year, the Department of Fisheries receives reports of humpback, minke, and blue whales entangled by fishing gear.<sup>80</sup>

Commercial fishing is the livelihood of a large percentage of the world's coastal populations.<sup>81</sup> It would be absurd to advocate the end of all fishing in order to protect marine

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<sup>71</sup> Fjelstad, *supra* note 31, at 680.

<sup>72</sup> *Id.* Unlike cetaceans and seals, the turtle's well-defined flippers can more easily become entangled in ghostnets. *Id.*

<sup>73</sup> *Id.* at 680-81.

<sup>74</sup> Britt, *supra* note 70, at [http://www.livescience.com/environment/050502\\_ghost\\_nets.html](http://www.livescience.com/environment/050502_ghost_nets.html).

<sup>75</sup> *Id.*

<sup>76</sup> *Id.*

<sup>77</sup> WhalesOnLine.net, *supra* note 35, at <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html>.

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> See GREENPEACE, *Greenpeace Fisheries Campaign: Challenging the Global Grab for Declining Fish Stocks*, <http://archive.greenpeace.org/comms/fish/index.html> (last visited Feb. 25, 2006). "Scientists acknowledge that the biggest single threat to marine biodiversity today is overfishing." *Id.*

mammals. However, much like the conflict between national security and environmental concerns, a balance between commercial interests and the protection of marine life must be obtained before there is nothing left to balance.

### **C. Additional Man-Made Dangers Killing Marine Life**

Ghostnets and sonar are not the only dangers that humankind's invasion of the marine ecosystem has imposed upon animal life. This section will explore more neglectful, and sometimes sinister, human actions resulting in marine mammal depletion. From various forms of pollution to harmful boating practices and senseless animal slaughter, marine mammals face a diversity of needless risks in their everyday lives.

#### **1. Turn Down the Volume and Lessen Marine Mammal Casualties**

Noise pollution impacts cetaceans in much the same manner as sonar.<sup>82</sup> In addition to the noisy maritime activities of the shipping, mining, and fisheries industries,<sup>83</sup> as well as the military activity of the world's naval forces, the petroleum industry uses a tool harmlessly referred to as an airgun.<sup>84</sup> But this tool is far from harmless; the airgun emits "tens of thousands of high-decibel explosive impulses in order to gather geologic profiles from seabed rock structure."<sup>85</sup> Use of the airgun repeatedly sends an extremely loud acoustic pulse through the water.<sup>86</sup> Much like sonar, the pulses from an airgun can damage the auditory systems and other organs of cetaceans or disorient the creatures, often leading to beaching or deviation from their migration routes and feeding grounds.<sup>87</sup>

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<sup>82</sup> WhalesOnLine.net, *supra* note 35, at <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html>.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> FLORIDA PIRG, *Save Our Shores*, <http://floridapirg.org/FL.asp?id2=9946&id3=FL&> (last visited Feb. 23, 2006).

<sup>86</sup> *Id.* "Airgun arrays produce sound at frequencies that are especially concentrated in the range from 20 to 150 Hz, which is within the auditory range of many marine species, including large whales." *Id.*

<sup>87</sup> *Id.* Further, "[d]amage to the auditory organs of at least some species of fish exposed to airguns does not appear to repair itself. Since fish rely on their ability to hear to find mates, locate prey, and avoid predators, their survival is seriously compromised by airgun damage." *Id.*

## 2. Bad Boating and Shipping Practices Cause Needless Death

Another cause of marine mammal death is the irresponsible or uninformed boater.<sup>88</sup> For example, the largest single source of manatee deaths in Florida waters is from watercraft collisions.<sup>89</sup> Recreational motorboats cause a large number of these collisions.<sup>90</sup> This poses a difficult dilemma – who exactly should be responsible for implementing and enforcing motorboat speed limits and zones for usage?<sup>91</sup> Tankers shipping goods or constructing oil rigs traverse through the migratory waters of many a finned, flippered, and fluked friend.<sup>92</sup> Unfortunately, this problem cannot be solved by simply placing a sign in the middle of marine life habitats or migration routes that says, “Please Drive Slowly. We Love Our Marine Life.”<sup>93</sup>

## 3. The Ever-Present Problem of Pollution

Pollution is an on-going and increasing problem in our oceans.<sup>94</sup> Oil spills can have deadly impacts on marine life, as evidenced by the *Exxon Valdez* incident.<sup>95</sup> That incident was particularly detrimental because on the coast of Alaska and in other colder areas, oil takes longer

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<sup>88</sup> Sharon Young, *Urban Marine Mammals*, THE HUMANE SOCIETY OF THE U.S., [http://www.hsus.org/marine\\_mammals/a\\_closer\\_look\\_at\\_marine\\_mammals/urban\\_marine\\_mammals/](http://www.hsus.org/marine_mammals/a_closer_look_at_marine_mammals/urban_marine_mammals/) (last visited Feb. 25, 2006) (Dolphins along the eastern seaboard from New Jersey to Florida “are vulnerable to collisions with fast-moving pleasure and sport-fishing boats.”).

<sup>89</sup> Ruhl, *supra* note 30, at 70.

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> See LIVING OCEANS SOCIETY, *What We Need to Protect*, <http://www.livingoceans.org/oilgas/protect.shtml> (last visited Feb. 11, 2006).

<sup>93</sup> This quote is intended to parody traffic signs that state “Please Drive Slowly. We Love Our Children.” Although the author’s sense of humor may be lacking, the sign itself, in shallow water, may be a partial solution. While jet-skiing in Daytona, Florida, the author was forbidden from crossing a certain point by a warning sign posted in the bay. Conversely, while jet-skiing in Cancun, Mexico, the author was permitted to run over all marine life he could find. Although given the side of the shark net he was on, larger marine life was not welcome near his jet ski.

<sup>94</sup> Galileo.org, *supra* note 34, at <http://www.galileo.org/schools/crowther/science/blueplanet/ocean.html>

<sup>95</sup> Nancy Y. Davis, *The Exxon Valdez Oil Spill, Alaska*,

<http://www.unu.edu/unupress/unupbooks/uu211e/uu211e01.htm> (last visited Feb. 11, 2006). “Thereafter, marine life began to incur severe losses. Years later, damage assessment continues and the total impacts are not fully known. One of the 51 loss studies that were undertaken shortly after the accident reported that the number of seabirds killed ranged from ‘260,000 to 580,000, with a best approximation of between 350,000 and 390,000.’ Other summary data estimated that perhaps 300,000 seabirds and up to 5,500 sea otters had been killed. The sea otter, in particular, became a focus of worldwide environmental and media concern. By 28 March, bird and otter rescue centres had opened. Restoration of 193 otters cost about \$80,000 each.” *Id.* (citations omitted).

to breakdown and can get trapped in the ice, making clean up more difficult.<sup>96</sup> Additionally, toxic contaminants, such as mirex and PCBs, often from unknown sources, can impact marine mammals much in the same manner that contaminants in our drinking water can affect us.<sup>97</sup> Impacts on mammals can be severe because “they bio-accumulate many of the toxic chemicals in their bodies, resulting in the release of more concentrated doses further along the food chain when they are preyed or scavenged upon.”<sup>98</sup> Finally, ocean dumping continues to take the lives of many marine animals.<sup>99</sup> According to the House Merchant Marine and Fisheries Committee, “the most pervasive ‘threat to marine mammals is the degradation of the environment upon which they depend.’”<sup>100</sup> A wide variety of materials are intentionally or negligently dumped into the oceans.<sup>101</sup> Much of the debris can have detrimental impacts on marine life, be it in the form of asphyxiation, strangulation, entanglement, contamination, or a host of other potential hazards.<sup>102</sup>

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<sup>96</sup> SaveArcticRefuge.org, *Save the Arctic!: Marine Mammal Impacts*, <http://www.savearcticrefuge.org/sections/species/marine.html> (last visited Feb. 12, 2006).

<sup>97</sup> WhalesOnLine.net, *supra* note 35, at <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html>. “[P]ollution in the St. Lawrence affects both the immune and reproductive systems of belugas. Necropsies were performed on a total of 73 beluga carcasses between 1982 and 1996; 29 of these had tumours, of which 14 were cancerous.” *Id.*

<sup>98</sup> SaveArcticRefuge.org, *supra* note 96, at <http://www.savearcticrefuge.org/sections/species/marine.html>. “The two processes that cause these higher risks toward the top of the food chain are bioaccumulation and biomagnification. The U.S. Environmental Protection Agency defines ‘bioaccumulation’ as ‘the uptake and retention of a substance by an aquatic organism from its surrounding media and food.’ ‘Biomagnification’ is defined as ‘the transfer and step-wise increase in bioaccumulation of a chemical in organisms through successive trophic levels.’” Robert I. Fassbender, *Reducing Great Lakes Toxics: Can We Do More for Less Through Wastewater Effluent Trading?*, 1 WIS. ENVTL. L.J. 57, 58 n.1 (1994) (citing Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20,802-21,047).

<sup>99</sup> See WhalesOnLine.net, *supra* note 35, at <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html>.

<sup>100</sup> Donald C. Baur, *Reconciling Polar Bear Protection Under United States Laws and the International Agreement for the Conservation of Polar Bears*, 2 ANIMAL L. 9, 12 (1996) (citing H.R. Rep. No. 707, 92d Cong., 1st Sess. 14 (1971), reprinted in 1972 U.S.C.C.A.N. 4144, 4150).

<sup>101</sup> Robin Kundis Craig, *Protecting International Marine Biodiversity: International Treaties and National Systems of Marine Protected Areas*, 20 J. LAND USE & ENVTL. L. 333, 347 (2005).

<sup>102</sup> *Id.* One example tells of a killer whale that recently starved to death after a fisherman’s berley bag caught in its throat. See New Zealand Government, *NZ’s Marine Mammals Worse Off than Realized*, Nov. 5, 2003, available at <http://www.scoop.co.nz/stories/PA0311?S00077.htm> (last visited Feb. 7, 2006).

#### 4. Wasteful Slaughter for Material Gain

The killing of marine life is a consequence of all the afore-mentioned dangers. However, there is one peril having a far more sinister intent – hunting. The killing of animals for food is an arguably necessary part of survival, and it is not the type of hunting with which your author is herein concerned. However, marine mammals are being slaughtered by the thousands for more reprehensible motives.<sup>103</sup> For example, the Canadian government is allowing the slaughter of 975,000 harp seals between 2003 and 2006.<sup>104</sup> Although some of these seals will be sold for their meat and oil (depending upon the hunter), their greatest value commercially is in their pelts.<sup>105</sup> Canada has outlawed the killing of whitecoats (harp seals less than two weeks old), but once the seals are older than two weeks and have brown fur, they are considered fair game.<sup>106</sup> Hunters use either a club or “hakupik” to bludgeon or hook the infant seals.<sup>107</sup> The Canadian seal hunt has enraged many, promulgating several U.S. Senators to urge President Bush to pressure Canada into prohibiting the hunt.<sup>108</sup>

Additionally, whaling is still a prevalent commercial industry for some countries.<sup>109</sup> Since an international ban on commercial whaling went into effect in 1986, approximately 25,000 whales have been killed by the combined efforts of Japan, Norway, and Iceland.<sup>110</sup> Conversely, the U.S. professes to be an “anti-whaling nation.”<sup>111</sup> Although the U.S. may have fewer commercial whalers in its contiguous waters, the nation has killed far too many cetaceans

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<sup>103</sup> See SAVE THE WHALES, *Save the Seals*, <http://www.savethewhales.org/alert.html> (last visited Feb. 11, 2006).

<sup>104</sup> *Id.*

<sup>105</sup> WhalesOnLine.net, *supra* note 35, at <http://www.baleinesendirect.net/eng/FSC.html?sct=2&pag=2-3-3.html>.

<sup>106</sup> *Id.*

<sup>107</sup> SAVE THE WHALES, *supra* note 103, at <http://www.savethewhales.org/alert.html>.

<sup>108</sup> IPR, *Collins Urges Bush to Pressure Canada to Ban Seal Hunting*, MAGIC CITY MORNING STAR, Nov. 24, 2004, available at [http://magic-city-news.com/article\\_2506.shtml](http://magic-city-news.com/article_2506.shtml).

<sup>109</sup> SAVE THE WHALES, *supra* note 103, at <http://www.savethewhales.org/alert.html>. Japan, Norway, and Iceland presently hunt and kill whales in numbers violating the International Whaling Commission’s moratorium on commercial whaling. *Id.*

<sup>110</sup> ANIMAL WELFARE INST., *Animals in the Ocean: Marine Mammals*, <http://www.awionline.org/whales/index.htm> (last visited on Feb. 10, 2006).

<sup>111</sup> SAVE THE WHALES, *supra* note 103, at <http://www.savethewhales.org/alert.html>.

with sonar and other maritime practices that leave the animals to rot in open water or on sandy beaches.<sup>112</sup> Additionally, the U.S. has been battling with the issue of whether to allow the Makah, a Native American tribe living on the Olympic Peninsula of Washington state, to resume traditional hunting of gray whales.<sup>113</sup> In May of 1999, the Makah did hunt and kill a grey whale, but instead of using their traditional harpoons, the Makah blew a hole in the whale with a .50-caliber antitank rifle.<sup>114</sup>

Knowing the dangers marine mammals face is the first step in redressing the practices that cause needless death. Although the harms to marine life may be diverse, all-encompassing regulation may still be one way to reduce risks to marine life, effectively providing for animal conservation. Everything is a cost-benefit analysis; today, the costs exacted from our oceans' inhabitants are far too high, even when balanced against commercial and naval interests and resource development. Once our marine species are gone, like the dinosaurs, they are gone forever.

### **III. Current Legislation and Regulation – What We Are Doing to Protect Marine Life**

Before analyzing what the U.S. should be doing to protect marine life, one must understand what the U.S. has already done. In some ways, discussed below, the U.S. has made great strides towards the ideal of animal salvage. However, one thing remains certain – with all these new, continuing, and increasing risks to marine life, the U.S. has not done enough.

The subsections that follow survey the domestic legislation in place for the protection of marine mammals. Section A discusses the Marine Mammal Protection Act,<sup>115</sup> which is

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<sup>112</sup> See *Cetacean Cmty. v. Bush*, 386 F.3d 1169 (9th Cir. 2004); *NRDC v. Evans*, 279 F. Supp. 2d 1129 (N.D. Cal. 2003).

<sup>113</sup> See *Anderson v. Evans*, 371 F.3d 475 (9th Cir. 2002).

<sup>114</sup> ROBERT V. PERCIVAL, ET. AL., *supra* note 10, at 23 (citing M. Satchell, *A Whale of a Protest: Animal-Rights Activists Hope to Keep an Indian Tribe from Bringing Home the Blubber*, U.S. NEWS & WORLD REP., Oct. 5, 1998, at 38).

<sup>115</sup> 16 U.S.C. §§ 1361 et seq. (2000).

undoubtedly the controlling legislation behind marine mammal conservation. Next, Section B analyzes the several statutes that affect ocean water quality. Section C outlines a number of less crucial statutes impacting marine mammal conservation, such as the Endangered Species Act<sup>116</sup> and the Animal Welfare Act.<sup>117</sup> Finally, Section D takes a brief look at some international regimes currently in place.

#### **A. Marine Mammal Protection Act of 1972**

In 1972, Congress passed the Marine Mammal Protection Act (MMPA).<sup>118</sup> In doing so, Congress recognized the value of marine mammals to the health and stabilization of the marine ecosystem.<sup>119</sup> The MMPA includes “those animals physically structured to survive in the marine environment, including sea otters, whales, dolphins, and manatees, or those animals, such as polar bears, which primarily inhabit the marine environment.”<sup>120</sup> The Act’s objectives are outlined in 16 U.S.C. §§ 1361(1)-(2):

- (1) certain species and population stocks of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities;
- (2) such species and population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, and, consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population. Further measures should be immediately taken to replenish any species or population stock which has already diminished below that population. In particular, efforts should be made to protect essential habitats, including the rookeries, mating grounds, and

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<sup>116</sup> 16 U.S.C. § 1531 et seq. (2000).

<sup>117</sup> 7 U.S.C. § 2131 et seq. (2000).

<sup>118</sup> 16 U.S.C. §§ 1361 et seq.

<sup>119</sup> *Id.* at § 1361(6). “[M]arine mammals have proven themselves to be resources of great international significance, esthetic and recreational as well as economic, and it is the sense of the Congress that they should be protected and encouraged to develop to the greatest extent feasible commensurate with sound policies of resource management and that the primary objective of their management should be to maintain the health and stability of the marine ecosystem. Whenever consistent with this primary objective, it should be the goal to obtain an optimum sustainable population keeping in mind the carrying capacity of the habitat.” *Id.*

<sup>120</sup> Barefoot-Watambwa, *supra* note 45, at 585.

areas of similar significance for each species of marine mammal from the adverse effect of man's actions;<sup>121</sup>

Essentially, the MMPA is broadly designed to do just as its title suggests.<sup>122</sup> However, jurisprudence and legislation have severely limited the scope of the MMPA, leaving an act with once great prospect to die like the beached whales it fails to protect.

With the counsel of the Marine Mammals Commission, both the Secretary of Commerce and the Secretary of the Interior implement the MMPA.<sup>123</sup> The National Marine Fisheries Service (NMFS), together with the NOAA, are responsible for applying the MMPA to cetaceans and seals, while the Fish and Wildlife Service of the Department of the Interior handles all other marine mammals.<sup>124</sup> The Act is primarily enforced through one provision.<sup>125</sup> 16 U.S.C. § 1372(a)(1) states that it is unlawful “for any person subject to the jurisdiction of the United States or any vessel or other conveyance subject to the jurisdiction of the United States to take any marine mammal on the high seas.”<sup>126</sup> More clearly stated, the MMPA “prohibits, *with certain exceptions*, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.”<sup>127</sup> A

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<sup>121</sup> 16 U.S.C. §§ 1361(1)-(2).

<sup>122</sup> Barefoot-Watambwa, *supra* note 45, at 586.

<sup>123</sup> 16 U.S.C. §§ 1362(12)(A)-(B); Kiamos, *supra* note 61, at 465.

<sup>124</sup> Kiamos, *supra* note 61, at 465-66 (citing 16 U.S.C §§ 1362(12)(A)(i)-(ii)).

<sup>125</sup> 16 U.S.C. § 1372(a)(1).

<sup>126</sup> *Id.* “The term ‘waters under the jurisdiction of the United States’ means (A) the territorial sea of the United States; (B) the waters included within a zone, contiguous to the territorial sea of the United States, of which the inner boundary is a line coterminous with the seaward boundary of each coastal State, and the other boundary is a line drawn in such a manner that each point on it is 200 nautical miles from the baseline from which the territorial sea is measured; and (C) the areas referred to as eastern special areas in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990; in particular, those areas east of the maritime boundary, as defined in that Agreement, that lie within 200 nautical miles of the baselines from which the breadth of the territorial sea of Russia is measured but beyond 200 nautical miles of the baselines from which the breadth of the territorial sea of the United States is measured, except that this subparagraph shall not apply before the date on which the Agreement between the United States and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990, enters into force for the United States.” *Id.* at § 1362(15)(A)-(C).

<sup>127</sup> NOAA FISHERIES: OFFICE OF PROTECTED RESOURCES, *Marine Mammal Protection Act of 1972*, <http://www.nmfs.noaa.gov/pr/laws/mmpa.htm> (last visited Feb. 20, 2006) (emphasis added).

“take” of marine mammals, as defined by the Act, means “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”<sup>128</sup>

The MMPA punishes both intentional and negligent takings, with the former potentially incurring criminal liability.<sup>129</sup> However, its penalties leave something to be desired. A defendant may be civilly liable for up to \$10,000 for a taking, although this penalty may be remitted or mitigated for good cause shown.<sup>130</sup> Criminally, a defendant faces up to a year in jail and double the maximum fine for civil infractions.<sup>131</sup> It should be noted, however, that these are maximum penalties;<sup>132</sup> likely, defendants will walk away with a slap on the wrist or a slightly lighter wallet.<sup>133</sup>

However, the “certain exceptions” alluded to above are many and broadly construed. These statutory exceptions include: Alaskan Native Americans, Aleuts, and Eskimos in their takings for subsistence purposes or for the creation and sale of authentic native handicraft and other articles;<sup>134</sup> commercial fisherman who take marine mammals incidentally with their catch;<sup>135</sup> those who obtain permits from the appropriate governmental figure or agency<sup>136</sup>

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<sup>128</sup> 16 U.S.C. § 1362(13). A taking is also defined as “the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal.” 50 C.F.R. § 216.3 (2006).

<sup>129</sup> *See* United States v. Hayashi, 22 F.3d 859 (9th Cir. 1993) (as amended on April 26, 1994).

<sup>130</sup> 16 U.S.C. § 1375(a)(1).

<sup>131</sup> *Id.* at § 1375(b).

<sup>132</sup> *Id.* at §§ 1375(a)-(b).

<sup>133</sup> Cases enforcing that even enforce the MMPA are few and far between. The author has found very few instances where criminal takings have been enforced, and in these instances, the appellate court did not discuss penalties and the subsequent district court proceeding is unreported. *See, e.g.*, Strong v. United States, 5 F.3d 905 (5th Cir. 1993). The lack of reported cases leads the author to believe that the problem may not be with the amount of the penalties assessed but rather the lack of MMPA enforcement.

<sup>134</sup> *Id.* at §§ 1371(b)(1)-(2). However, these takings must not be accomplished “in a wasteful manner.” *Id.* at § 1371(b)(3).

<sup>135</sup> *Id.* at § 1371(a)(2).

<sup>136</sup> *Id.* at § 1371(a)(1). However, the Secretary of Commerce, responsible for issuing such permits, has no affirmative duty to make sure that particular animals are taken humanely or otherwise in accordance with the MMPA. John A. Bourdeau, Annotation, *Validity, Construction, and Application of Marine Mammal Protection Act of 1972* (16 U.S.C.A. § 1361 et seq.), 124 A.L.R. FED. 593, § 12 (2006).

(generally the Secretary of the Interior or the Secretary of Commerce);<sup>137</sup> those who can properly show that the taking at issue was committed in self-defense or for the preservation of another human life;<sup>138</sup> and good samaritans using reasonable care to save the animal from entanglement in fishing gear.<sup>139</sup> These exceptions may well be reasonable in light of current technology and practices. However, the exemptions, and particularly that for commercial fisherman, do nothing to force, or even encourage, technological development for the protection of marine life.<sup>140</sup>

Perhaps more distressing, however, is the judiciary's restricted construction of what constitutes a taking under the MMPA. Only court got it right,<sup>141</sup> while the others allow abusive practices well beyond what Congress intended when promulgating the MMPA. In *Strong v. United States*, the United States Court of Appeals for the Fifth Circuit held that feeding wild dolphins constitutes a taking under the MMPA.<sup>142</sup> In accordance with the MMPA, the NMFS, part of the Department of Commerce, promulgated a rule prohibiting the feeding of such animals.<sup>143</sup> The agency construed "feeding" in its own regulation as a form of "disturbing" the wildlife.<sup>144</sup> Further, the NMFS equated "disturb" with "harass" under the MMPA's definition of a taking.<sup>145</sup> Consistent with administrative law and the standard for judicial review of agency

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<sup>137</sup> See 35A AM. JUR. 2D *Fish, Game, and Wildlife Conservation* § 68 (2005).

<sup>138</sup> 16 U.S.C. § 1371(c).

<sup>139</sup> *Id.* at § 1371(d).

<sup>140</sup> Some environmental regulations impose standards that the regulated community must comply with by a certain date. PERCIVAL, *supra* note 10, at 136-37. These statutes encourages the regulated community to be inventive, to create their own means of meeting the standards and, thus, advance technological development in the environmental arena. *Id.* The MMPA is not completely silent on the issue of technological development in the fishing industry. See 16 U.S.C. § 1381(a) ("The Secretary of the department in which the National Oceanic and Atmospheric Administration is operating (hereafter referred to in this section as the "Secretary") is hereby authorized and directed to immediately undertake a program of research and development for the purpose of devising improved fishing methods and gear so as to reduce to the maximum extent practicable the incidental taking of marine mammals in connection with commercial fishing.").

<sup>141</sup> See *Strong*, 5 F.3d 905 (holding that the feeding of wild dolphins constitutes a "taking").

<sup>142</sup> *Id.* at 906.

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

decisions, the Fifth Circuit construed NMFS' interpretation of its own regulation as reasonable and, thus, upheld the regulation.<sup>146</sup>

Important in NMFS' regulation is the permissible construction of the term "taking."<sup>147</sup> Before instituting its opinion, NMFS "sought the opinions of informed experts on the effect of feeding dolphins, finally concluding that harm was a real possibility and that habitual feeding cruises should be restricted as harassment of the mammal."<sup>148</sup> The agency upheld the objective of the MMPA, effectuating the act's goal of protecting marine life.<sup>149</sup>

Most courts, however, have narrowly construed "taking" in circumstances that should ordinarily be deemed harassment of marine life in order to further the nation's commercial and natural resource interests.<sup>150</sup> For example, in *Brown v. Watt*, the Secretary of the Interior leased sections of the outer continental shelf to defendant oil companies for mineral development and drilling purposes.<sup>151</sup> After assuming that the lease constituted a threat to marine life, the United States District Court for the Central District of California nonetheless held that no taking had occurred.<sup>152</sup> The district court reasoned that even though marine animals would likely die as a consequence of the lease, a more immediate danger was necessary to constitute a taking.<sup>153</sup>

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<sup>146</sup> *Id.* at 907.

<sup>147</sup> Taking is also defined broadly in a definitions section of the Code of Federal Regulations. 50 C.F.R. § 216.3. In that section, a taking can mean "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect, or kill any marine mammal. This includes, without limitation, any of the following: The collection of dead animals, or parts thereof; the restraint or detention of a marine mammal, no matter how temporary; tagging a marine mammal; the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent or intentional act which results in disturbing or molesting a marine mammal; and feeding or attempting to feed a marine mammal in the wild." *Id.* Thus, "taking" should be construed broadly in accordance with legislative intent.

<sup>148</sup> Strong, 5 F.3d at 906.

<sup>149</sup> 16 U.S.C. §§ 1361(1)-(2).

<sup>150</sup> See, e.g., *Bays' Legal Fund v. Browner*, 828 F. Supp. 102 (D. Mass. 1993); *California v. Watt*, 520 F. Supp 1359 (C.D. Cal. 1981).

<sup>151</sup> *Watt*, 520 F. Supp. at 1365.

<sup>152</sup> *Id.* at 1387.

<sup>153</sup> *Id.* at 1388; see also *Palila v. Hawaii Dep't of Land & Natural Res.*, 471 F. Supp. 985, 995 (D. Haw. 1979) (interpreting "taking" under the Endangered Species Act).

For a taking to occur, the district court seemed to suggest that a cause-and-effect relationship in which temporal proximity between the act constituting a potential taking and injury to marine mammals was the determinative factor as to whether or not a taking actually occurred. There is a catastrophic consequence to this requirement. Oil drilling naturally produces oil spilling, and oil is harmful to marine ecosystems.<sup>154</sup>

Much like in the toxic tort realm, causes and effects may not be discovered until long after the destructive force has ceased to exist.<sup>155</sup> Further, because of bio-accumulation, effects of the initial contamination may be minor, with effects becoming more severe as the effected organism becomes part of the food chain.<sup>156</sup> Also, the noise pollution drilling platforms create is detrimental to marine mammals.<sup>157</sup> Hence, oil drilling disturbs, harasses, and otherwise “takes” the lives of marine mammals. Nevertheless, it seems that in some courts, the proverbial smoking gun is necessary to constitute a taking.

In other courts, even that is not enough. In *United States v. Hayashi*, a commercial fisherman fired warning shots at some porpoises to scare them away from his catch.<sup>158</sup> Rational minds would agree that firing bullets near any mammal will, in the very least, disturb or harass the animal. Such behavior is also reckless, risking both human and animal health. Yet, the United States Court of Appeals for the Ninth Circuit held that no taking had occurred.<sup>159</sup> The majority, wary of the danger of a ricochet hitting another fisherman, suggested that clubbing the

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<sup>154</sup> NOAA OFFICE OF RESPONSE AND RESTORATION, *Emergency Response: Assessing Environmental Harm*, [http://response.restoration.noaa.gov/topic\\_subtopic.php?RECORD\\_KEY\(subtopics\)=subtopic\\_id&subtopic\\_id\(subtopics\)=13](http://response.restoration.noaa.gov/topic_subtopic.php?RECORD_KEY(subtopics)=subtopic_id&subtopic_id(subtopics)=13) (last visited Feb. 25, 2006).

<sup>155</sup> See generally Global-Pollution.com, *Ocean Pollution Puts Eco-Systems in Jeopardy*, <http://www.global-pollution.com/water-pollution/ocean-pollution.php> (last visited Feb. 26, 2006).

<sup>156</sup> SaveArcticRefuge.org, *supra* note 96, at <http://www.savearcticrefuge.org/sections/species/marine.html>.

<sup>157</sup> FLORIDA PIRG, *Save Our Shores*, <http://floridapirg.org/FL.asp?id2=9946&id3=FL&> (last visited Feb. 23, 2006).

<sup>158</sup> 22 F.3d at 861.

<sup>159</sup> *Id.* at 861-62.

porpoises with a baseball bat would have been a more reasonable solution.<sup>160</sup> However, the majority kindly conceded that clubbing a porpoise would likely constitute a “severe disruption of the porpoise’s life activities” and, thus, *might* constitute a taking.<sup>161</sup>

In a well-reasoned dissent, Justice Browning warned of the dangers of so limiting the term “taking” under the MMPA:

The majority unjustifiably restricts the breadth of the Marine Mammal Protection Act to avoid subjecting Hayashi to a criminal prosecution the majority regards as unreasonable. The gloss imposed by the majority to limit the scope of “taking,” a key jurisdictional term in the Act, has no source in the language, structure or legislative history of the Act and derives little support from the various circumstances collected to sustain it. It ignores the structure and purpose of the Act and substantially weakens it as an instrument for effectuating the public policy determined by Congress . . . The authority granted the Secretary by the Act to prohibit acts harmful to marine mammals and to develop and encourage means of ensuring their survival is keyed directly or indirectly to the concept of “taking.” A cramped construction of the term “taking” will therefore restrict most aspects of the scheme envisioned by Congress for the protection of marine mammals, from the monitoring of marine mammal populations to research into more humane fishing techniques.<sup>162</sup>

As Justice Browning noted, the majority’s interpretation of “taking” strips the MMPA of much of its authority, severely limiting its effectiveness towards attaining its intended goals.<sup>163</sup> Does the majority’s construction of the term adequately balance animal conservation with competing interests?

The United States Court of Appeals for the District of Columbia shares the Ninth Circuit’s championing of clubbing as the most fashionable method of killing marine mammals.<sup>164</sup> In *Animal Welfare Institute v. Kreps*, the Animal Welfare Institute argued that

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<sup>160</sup> *Id.* at 865

<sup>161</sup> *Id.*

<sup>162</sup> *Id.* at 866-67 (Judge Browning dissenting).

<sup>163</sup> *Id.*

<sup>164</sup> *Animal Welfare Inst. v. Kreps*, 561 F.2d 1002, 1013 (D.C. Cir. 1977). “The parties agree that the most humane method of killing is the so-called ‘stun and stick’ method. The method involves three stages: (1) the roundup drive;

taking seals by multiple blows (nevermind just one) with a club was inhumane under the MMPA.<sup>165</sup> Under the Act, it is unlawful to take a marine mammal in an inhumane manner.<sup>166</sup> “Humane” is defined as “that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved.”<sup>167</sup> The author finds it extremely difficult to find anything humane, or human, in repeatedly clubbing a seal until death or unconsciousness. In fact, it is downright inhumane and inhuman.<sup>168</sup> However, the appellate court in *Kreps* did not share this view.<sup>169</sup> It literally held that hitting seals with a club multiple times is not inhumane under the MMPA.<sup>170</sup> Since the U.S. has since banned the Alaskan seal hunt, maybe this case would be resolved differently today.<sup>171</sup>

On the other hand, environmentalists have made some rather absurd attempts to acquire standing for marine mammals to bring claims under the MMPA.<sup>172</sup> Disregarding the difficulties

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(2) clubbing the animal so as to render it unconscious; and (3) severing the great arteries or heart with a knife to kill the animal quickly.” *Id.*

<sup>165</sup> *Id.* at 1012-13.

<sup>166</sup> 16 U.S.C. § 1372(b)(4).

<sup>167</sup> *Id.* at § 1362(4).

<sup>168</sup> The Court of Appeals in *Kreps* stated, “[t]here was expert testimony that multiple blows were not necessarily inhumane, provided they were delivered within a minimal period of time. Two out of three observers concluded that the harvest they observed was, overall, humane.” *Kreps*, 561 F.2d at 1013. What kind of people are these “experts” and “observers”? What kind of person would walk up to a seal and clobber it to death?

<sup>169</sup> *Id.*

<sup>170</sup> *Id.* The court appropriately defined “humane” as “that method of taking which involves the least possible degree of pain and suffering practicable to the mammal involved,” taking its definition directly from 16 U.S.C. § 1362(4). *Id.* The parties agreed that, at the time the case was decided, the most humane method to kill a seal consisted of knocking it unconscious and slicing its arteries, causing it to quickly bleed to death. *Id.* Since this was supposedly the most humane method, the court found that multiple blows would thus be humane, as well. *Id.*

<sup>171</sup> 16 U.S.C. § 1152 (2000). “It is unlawful, except as provided in this Act or by regulation of the Secretary, for any person or vessel subject to the jurisdiction of the United States to engage in the taking of fur seals in the North Pacific Ocean or on lands or waters under the jurisdiction of the United States, or to use any port or harbor or other place under the jurisdiction of the United States for any purpose connected in any way with such taking, or for any person to transport, import, offer for sale, or possess at any port or place or on any vessel, subject to the jurisdiction of the United States, fur seals or the parts thereof, including, but not limited to, raw, dressed, or dyed fur seal skins, taken contrary to the provisions of this Act or the Convention, or for any person subject to the jurisdiction of the United States to refuse to permit, except within the Exclusive Economic Zone of the United States, a duly authorized official of Canada, Japan, or Russia to board and search any vessel which is outfitted for the harvesting of living marine resources and which is subject to the jurisdiction of the United States to determine whether such vessel is engaged in sealing contrary to the provisions of said Convention.” *Id.*

<sup>172</sup> *See, e.g.*, *Cetacean Cmty.*, 386 F.3d 1169 (where the “Cetacean Community,” consisting of the world’s whales and dolphins challenged the U.S. Navy’s use of sonar).

inherent in cross-examining Flipper, the idea of animals having standing to bring claims is preposterous. On the contrary, the idea of environmental organizations bringing claims on behalf of marine mammals is rational and appropriate . . . and exactly what the MMPA permits.<sup>173</sup> To establish standing, an organization may show that “the interests that the suit seeks to vindicate are pertinent to the objectives for which the organization was formed.”<sup>174</sup> Thus, an environmental group has standing to sue if the takings in issue injure the group itself in that they impair the group’s capability to realize its corporate purpose.<sup>175</sup> Organizations, such as Natural Resources Defense Council (NRDC), are the true voices for marine mammals in U.S. courts and the true protectors of marine biodiversity.

In the U.S., the MMPA is the primary means of defense for marine mammals against the onslaught of human impact upon their liquid domain. However, due to its excessive exemptions, its paltry penalty provisions, and its restrictive judicial constructions, the MMPA fails in its essential purpose, the protection of marine mammals. To make matters worse, Congress recently amended the MMPA to give the U.S. Navy more flexibility in its active sonar use.<sup>176</sup> With the burgeoning explosion of active sonar use and the constant need for oil,<sup>177</sup> the MMPA’s shortcomings spell dismay for the plight of all marine mammals.

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<sup>173</sup> See, e.g., Evans, 232 F. Supp. 2d 1003; Citizens to End Animal Suffering & Exploitation, Inc. v. New England Aquarium, 836 F. Supp. 45 (D. Mass. 1993).

<sup>174</sup> Bourdeau, *supra* note 136, at 593, § 2(b).

<sup>175</sup> *Id.*

<sup>176</sup> Barefoot-Watmbwa, *supra* note 45, at 579. The amendments allow “the Navy to redefine the concept of ‘harassment’ under the MMPA, thus making it much easier to use the low-frequency sonar that has created difficulties for cetaceans whenever it has been used.” Jon M. Van Dyke, *More Bad News for the Whales*, 19 NAT. RESOURCES & ENV’T 20, 22 (2004).

<sup>177</sup> As President George W. Bush proclaimed in his 2006 State of the Union Address (Jan. 31, 2006), “America is addicted to oil.”

## B. Clean Water Legislation

With the enduring shelf-life of ghostnets<sup>178</sup> and other permanent and semi-permanent solid wastes, the cumulative effects of toxic contamination,<sup>179</sup> and the widespread impact of oil spills on marine ecosystems,<sup>180</sup> ocean pollution would quickly devastate marine life without appropriate regulation. Fortunately, the U.S. has already implemented a number of acts specifically designed to combat water pollution or provide for clean-up regimes. These acts provide a good starting point towards protecting marine life. However, the acts leave plenty of room for improvement, particularly in the areas of prevention and enforcement.

Four federal acts cover the majority of ocean pollution. The first, the Federal Water Pollution Control Act, better known as the Clean Water Act (CWA), prohibits “the discharge of any pollutant by any person”<sup>181</sup> into all “navigable waters.”<sup>182</sup> The Act’s objective is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”<sup>183</sup> The CWA covers all U.S. waters, and, thus, the territorial sea is included within its provisions.<sup>184</sup> As it pertains to ocean pollution, the CWA focuses its regulatory provisions on point sources other than vessels.<sup>185</sup>

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<sup>178</sup> Fjelstad, *supra* note 31, at 677. As previously noted, ghostnets are lost or abandoned fishing line. *Id.*

<sup>179</sup> SaveArcticRefuge.org, *supra* note 96, at <http://www.savearcticrefuge.org/sections/species/marine.html>.

<sup>180</sup> Davis, *supra* note 95, at <http://www.unu.edu/unupress/unupbooks/uu211e/uu211e01.htm>.

<sup>181</sup> 33 U.S.C. § 1311 (2000). Although the term is extensively defined, the phrase “any pollutant” is deceptive. *Id.* at § 1362(6). Under the CWA, “pollutant” is defined as “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) ‘sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces’ within the meaning of section 312 of this Act.” *Id.*

<sup>182</sup> *Id.* at § 1362(7).

<sup>183</sup> *Id.* at § 1251(a).

<sup>184</sup> *Quivira Mining Co. v. EPA*, 765 F.2d 126, 129 (10th Cir. 1985).

<sup>185</sup> 33 U.S.C. § 1362(12). “The term ‘discharge of a pollutant’ and the term ‘discharge of pollutants’ each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.” *Id.*

Perhaps more applicable to ocean dumping is the Marine Protection, Research, and Sanctuaries Act.<sup>186</sup> Also known as the Ocean Dumping Act, this legislation does not actually prohibit ocean dumping as its alias implies.<sup>187</sup> Rather, the Act prohibits “*transporting* materials for the purpose of disposing the materials into the marine environment.”<sup>188</sup> Thus, unlike the CWA, the Ocean Dumping Act regulates vessels.<sup>189</sup> However, like the CWA, the Act only extends as far as the outer boundary of the territorial sea (twelve nautical miles seaward).<sup>190</sup> Further, the Ocean Dumping Act permits various entities to engage in ocean dumping after obtaining a permit to do so.<sup>191</sup>

Next, the Oil Pollution Prevention, Response, Liability, and Compensation Act (OPA) makes vessel or facility owners strictly liable for damages and clean-up costs associated with oil spills.<sup>192</sup> Unlike the prior two acts, the OPA covers the waters of the nation’s exclusive economic zone, in addition to its territorial sea.<sup>193</sup> Further, the OPA establishes design requirements for oil tankers<sup>194</sup> and an Oil Spill Liability Trust Fund intended to cover oil spill response and clean-up costs.<sup>195</sup>

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<sup>186</sup> 16 U.S.C. § 1401 et seq. (2000). The Marine Protection, Research, and Sanctuaries Act (hereinafter, the Ocean Dumping Act) recognizes that “[u]nregulated dumping of material into ocean waters endangers human health, welfare, and amenities, and the marine environment, ecological systems, and economic potentialities.” *Id.* at § 1401(a).

<sup>187</sup> Fjelstad, *supra* note 31, at 685-86.

<sup>188</sup> *Id.* (emphasis added). “Except as may be authorized by a permit issued pursuant to section 102 or section 103 of this title [33 U.S.C. § 1412 or 1413], and subject to regulations issued pursuant to section 108 of this title [33 USCS § 1418], (1) no person shall transport from the United States, and (2) in the case of a vessel or aircraft registered in the United States or flying the United States flag or in the case of a United States department, agency, or instrumentality, no person shall transport from any location.” 33 U.S.C. § 1411.

<sup>189</sup> 33 U.S.C. § 1411.

<sup>190</sup> *Id.* at § 1411(b).

<sup>191</sup> *Id.* at §§ 1412-13.

<sup>192</sup> 33 U.S.C. § 2702(a) (2000). “[E]ach responsible party for a vessel or a facility from which oil is discharged, or which poses the substantial threat of a discharge of oil, into or upon the navigable waters or adjoining shorelines or the exclusive economic zone is liable for the removal costs and damages specified in subsection (b) that result from such incident.” *Id.*

<sup>193</sup> *Id.*

<sup>194</sup> *See, e.g.*, 46 U.S.C. § 3703a(a)(1)-(2) (2000). “Except as otherwise provided in this section, a vessel to which this chapter applies shall be equipped with a double hull (1) if it is constructed or adapted to carry, or carries, oil in

Finally, upon concluding that “[t]he habitat areas of the coastal zone, and the fish, shellfish, other living marine resources, and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man’s alterations,” Congress passed the Coastal Zone Management Act (CZMA).<sup>196</sup> This act requires coastal states to manage nonpoint sources of pollution in their coastal waters.<sup>197</sup> Further, the CZMA provides federal funding to coastal states that comply with the statute’s provisions and create a state coastal management program.<sup>198</sup>

Together, these statutes seem inclusive of most pollution harms to marine life. Yet, pollution in ocean waters continues to needlessly harm a diverse lot of the oceans’ inhabitants.<sup>199</sup> Part of the problem is likely that these acts are limited in their jurisdictional boundaries. Another shortcoming of the afore-mentioned legislation is the lack of an enforcement regime or significant penalties to act as deterrents. What is in place to prevent the ocean polluter from dumping harmful waste into the sea when no one is looking? Is this sort of action preventable? It probably can never be eliminated, but with proper carrot-and-sick legislation, maybe the ocean polluter will think twice before he or she disposes of waste . . . and marine life along with it.

### **C. Other Domestic Legislation**

The MMPA is certainly the most comprehensive legislation to directly impact marine mammals. However, other statutes flesh out the legislative corpus of marine mammal protection.

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bulk as cargo or cargo residue; and (2) when operating on the waters subject to the jurisdiction of the United States, including the Exclusive Economic Zone.” *Id.*

<sup>195</sup> 26 U.S.C. § 9509 (2000).

<sup>196</sup> 16 U.S.C. § 1451(d) (2000).

<sup>197</sup> *Id.* at § 1455b. “Coastal waters” are defined as “those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.” *Id.* at § 1453(3).

<sup>198</sup> *Id.* at § 1455.

<sup>199</sup> NATURAL RESOURCES PROTECTION ASSOCIATION, *Coastal Issues*, <http://www.nrpa.com/issues.htm> (last visited Feb. 27, 2006).

Foremost among these statutes is the Endangered Species Act (ESA).<sup>200</sup> The purposes of the ESA are “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of” various international conventions for the conservation of wildlife and fauna.<sup>201</sup> At the heart of the statute is a desire to prevent the extinction and restore the viability of at-risk species.<sup>202</sup> The ESA provides for cooperative agreements and federal funding both intranationally<sup>203</sup> and internationally<sup>204</sup> for the conservation of threatened and endangered species.

The ESA prohibits a number of acts, but its primary regulatory provision makes it unlawful to “take” an animal listed as an endangered species,<sup>205</sup> unless one first obtains a permit to do so.<sup>206</sup> For intentional violations, the financial penalties are negligibly higher, both civilly and criminally, than those under the MMPA, while the potential incarceration provision mirrors that of the MMPA.<sup>207</sup> Conversely, civil fines for negligent takings cannot exceed \$500,<sup>208</sup> a paltry consolation to the endangered animal population.

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<sup>200</sup> 16 U.S.C. § 1531 et seq.

<sup>201</sup> *Id.* at § 1531(b).

<sup>202</sup> Steven P. Quarles & Thomas R. Lundquist, *The Pronounced Presence and Insistent Issues of the Sea*, 16 NAT. RESOURCES & ENV'T 59, 59 (2001).

<sup>203</sup> 16 U.S.C. § 1535.

<sup>204</sup> *Id.* at § 1537.

<sup>205</sup> *Id.* at § 1538(a)(1). “[I]t is unlawful for any person subject to the jurisdiction of the United States to (A) import any such species into, or export any such species from the United States; (B) take any such species within the United States or the territorial sea of the United States; (C) take any such species upon the high seas; (D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C); (E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species; (F) sell or offer for sale in interstate or foreign commerce any such species; or (G) violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed pursuant to section 4 of this Act [16 USCS § 1533] and promulgated by the Secretary pursuant to authority provided by this Act.” *Id.*

<sup>206</sup> *Id.* at § 1539.

<sup>207</sup> *Id.* at § 1540. The maximum civil penalty under the ESA is \$25,000 per violation. *Id.* at § 1540(a). For criminal violations, the maximum penalty is \$50,000 *or* imprisonment of up to one year. *Id.* at § 1540(b).

Where the endangered species is a marine mammal, the MMPA's provisions largely supercede those of the ESA.<sup>209</sup> Other than helping to define similar terms under the two statutes, the ESA offers another provision that may provide remedy where the MMPA cannot.<sup>210</sup> Under certain conditions, citizen suits are permissible.<sup>211</sup> Therefore, where the average citizen cannot defend marine mammals under the MMPA, he or she could have the ESA as an alternative and viable avenue of redress.<sup>212</sup>

For the purposes of this article, however, the most intriguing provision of the ESA involves compensation. Under the ESA's penalty and enforcement provisions, the federal government will compensate those who protect endangered species:

The Secretary or the Secretary of the Treasury shall pay, from sums received as penalties, fines, or forfeitures of property for any violation of this Act or any regulation issued hereunder (1) a reward to any person who furnishes information which leads to an arrest, a criminal conviction, civil penalty assessment, or forfeiture of property for any violation of this Act or any regulation issued hereunder, and (2) the reasonable and necessary costs incurred by any person in providing temporary care for any fish, wildlife, or plant pending the disposition of any civil or criminal proceeding alleging a violation of this Act with respect to that fish, wildlife, or plant. The amount of the reward, if any, is to be designated by the Secretary or the Secretary of the Treasury, as appropriate.<sup>213</sup>

Compensation for the protection of wildlife? Rewards for aiding in the capture of ESA violators? This hints of animal salvage. However, reward money for assisting in the capture of fugitives does little to prevent animal harm itself, unless the person captured is likely to repeat his deviant behaviors. Also, much like life salvors under *Peninsular*,<sup>214</sup> the "animal salvors"

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<sup>208</sup> *Id.* at § 1540(a)(1).

<sup>209</sup> Fjelstad, *supra* note 31, at 687.

<sup>210</sup> *See* 16 U.S.C. § 1540(g).

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*; *see also* Strahan v. Coxe, 939 F. Supp. 963, 975-76 (D. Mass. 1996) (explaining how although a citizen suit may not be brought under the MMPA, such a suit can be brought on behalf of marine mammals that are also endangered or threatened species under the ESA), *vac'd in part on other grounds*, 127 F.3d 155 (1st Cir. 1997).

<sup>213</sup> 16 U.S.C. § 1540(d).

<sup>214</sup> *The Peninsular & Oriental Steam Navigation Co.*, 553 F.2d at 834.

who care for endangered animals in distress receive only restitution for their efforts.<sup>215</sup>

Ironically, since the MMPA supercedes the ESA with regards to marine mammals and that statute lacks a similar restitution provision,<sup>216</sup> salvors of marine mammals get nothing if they can only bring suit under the MMPA. Still, the ESA's provision is noteworthy for its sensitivity towards biodiversity and its practical encouragement for maintaining it.

Conversely, the Animal Welfare Act (AWA) has only a minimal impact on marine mammals.<sup>217</sup> The act places handling requirements on research facilities and mandates licensing of dealers and exhibitors of animals.<sup>218</sup> It also requires humane standards for the transport of animals in interstate commerce.<sup>219</sup> A purpose of the AWA is to "insure that animals intended for use in research facilities or for exhibition purposes or for use as pets are provided humane care and treatment."<sup>220</sup> Although the AWA now includes marine mammals under its provisions,<sup>221</sup> state anti-cruelty laws probably serve this purpose more efficiently and effectively because virtually all states have anti-cruelty laws, and some may even be used to protect marine life.<sup>222</sup>

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<sup>215</sup> 16 U.S.C. § 1540(d).

<sup>216</sup> The MMPA does, however, offer a reward for information leading to a criminal conviction for the taking of a marine mammal. 16 U.S.C. § 1376(c).

<sup>217</sup> 7 U.S.C. § 2131 et seq.

<sup>218</sup> Carole Lynn Nowicki, *The Animal Welfare Act: All Bark and No Bite*, 23 SETON HALL LEGIS. J. 443, 458-59 (1999).

<sup>219</sup> 7 U.S.C. § 2143.

<sup>220</sup> *Id.* at § 2131(1).

<sup>221</sup> Steven J. Havercamp, *Are Moderate Animal Welfare Laws and a Sustainable Agricultural Economy Mutually Exclusive? Laws, Moral Implications, and Recommendations*, 46 DRAKE L. REV. 645, 665 n.136 (1998).

<sup>222</sup> 4 Am. Jur. 2d *Animals* § 28 (2006). "Statutes have been enacted in most jurisdictions which have for their common object the protection of animals from the ill treatment or cruelty of persons, by making subject to indictment and punishment one who willfully or wantonly abuses or neglects or cruelly mistreats them. Such legislation is a valid exercise of the police power and the right of the state to conserve public morals, which wanton cruelty to living creatures is deemed to have a tendency to corrupt . . . In many jurisdictions the statutes against cruelty afford protection to all animals indiscriminately, the word 'animal' being employed to embrace every living dumb creature. In others, however, they apply only to certain specified animals, or classes of animals, such as domestic animals." *Id.*

In 1990, Congress passed another law that changed the face of tuna cans everywhere.<sup>223</sup> The Dolphin Protection Consumer Information Act (DPCIA) was enacted in response to concerns about the number of cetaceans caught and killed by tuna fishers despite the claims of tuna companies that their tuna was “dolphin safe.”<sup>224</sup> The DPCIA prohibits companies from making false “dolphin safe” claims<sup>225</sup> and encourages dolphin-safe fishing practices by banning tuna that has been caught using the purse seine fishing method from the U.S. market.<sup>226</sup> In essence, the DPCIA uses the “reward” of increased marketability to encourage fishing practices that are safer to cetaceans.

Finally, the Magnuson Fisheries Conservation and Management Act (Magnuson Fisheries Act)<sup>227</sup> requires foreign vessels fishing within the America’s exclusive economic zone to first obtain a permit.<sup>228</sup> “Agencies have used this power to expressly prohibit the intentional disposal of fishing gear” in American waters.<sup>229</sup> Permit violations can lead to thousands of dollars in civil penalties and possibly some criminal penalties.<sup>230</sup>

The afore-mentioned acts offer a woefully inadequate, ad hoc approach to a much bigger problem. Further, they do so ineffectively, as they fail to account for technology-caused takings, the longevity of pollution, or the need for adequate enforcement provisions. The end result is that marine life needlessly dies for the sake of lesser considerations.

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<sup>223</sup> See 16 U.S.C. § 1385 et seq. (2000). It is important to note that the DPCIA’s goal is to effectuate a “zero mortality rate” regarding incidental by-catch of marine mammals. *Id.* at § 1387(b).

<sup>224</sup> PERCIVAL, *supra* note 10, at 114-15.

<sup>225</sup> Donald W. McChesney, *Dolphin-Safe of Fisherman-Friendly? Abuse of Discretion in Amendment of the Dolphin-Safe Tuna Labeling Standard*, 38 U.C. DAVIS L. REV. 1725, 1731 (2005).

<sup>226</sup> *Id.*

<sup>227</sup> 16 U.S.C. §§ 1801 et seq. (2000).

<sup>228</sup> Fjelstad, *supra* note 31, at 684.

<sup>229</sup> *Id.* This could aid in reducing the ghostnet phenomenon. *Id.*

<sup>230</sup> *Id.* at 685. The maximum civil penalty under this statute is \$100,000. 16 U.S.C. § 1858(a).

#### D. An International Comedy of Errors

Ideally, an international regime would regulate all harms to marine mammals. In actuality, various conventions do monitor several harms to oceanic life-forms. Perhaps most notably, the United Nations Convention on the Law of the Sea of 1982 (1982 LOS Convention) takes a broad and undefined approach to marine mammal protection.<sup>231</sup> Article 192 of this convention declares that member States “have the obligation to protect and preserve the marine environment.”<sup>232</sup> In order to achieve this goal, the 1982 LOS Convention promulgated numerous measures for: pollution prevention, control, and penalization;<sup>233</sup> marine scientific research;<sup>234</sup> and conservation of marine life.<sup>235</sup> Specifically, Article 65 states:

Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.<sup>236</sup>

The article expressly encourages the formation of international organizations for the protection of marine life.<sup>237</sup> Having no enforcement unit of its own, the 1982 LOS Convention must then rely on the international community to self-regulate, an ideal that remains unrealized.

In accordance with the principles explicit in Article 65, the International Whaling Commission (IWC) seems to be an appropriate international organization to protect cetaceans.<sup>238</sup> Established in 1946, the IWC currently bans all whaling, although some nations (such as Norway

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<sup>231</sup> United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397.

<sup>232</sup> *Id.* at art. 192. Article 193 fleshes out this general obligation, stating: “States have the sovereign right to exploit their natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment.” *Id.* at art. 193.

<sup>233</sup> *Id.* at arts. 194-237.

<sup>234</sup> *Id.* at arts. 238-65.

<sup>235</sup> *Id.* at arts. 61-74.

<sup>236</sup> *Id.* at art. 65.

<sup>237</sup> *Id.*

<sup>238</sup> Van Dyke, *supra* note 176, at 20.

and Japan) openly defy it.<sup>239</sup> Throughout its history, the IWC's primary goal was to prohibit the hunting and slaying of whales.<sup>240</sup> Only in recent years has the IWC concerned itself with aboriginal and scientific whaling and the protection of smaller cetaceans.<sup>241</sup> Beyond this, the IWC offers marine mammals no protection from the diverse harms they encounter.

Conversely, "the International Convention for the Prevention of Pollution from Ships (MARPOL) addresses pollution of the marine environment by ships from operational or accidental causes."<sup>242</sup> Specifically, Annex V of the MARPOL Protocol addresses the issue of ghostnets.<sup>243</sup> The provision expressly prohibits "the intentional disposal of synthetic fishing nets into the marine environment."<sup>244</sup> This ban is applicable to all U.S. vessels and foreign vessels fishing within the U.S. exclusive economic zone.<sup>245</sup> However, Annex V is riddled with enforcement problems and has certainly failed to cure the ghostnet problem.<sup>246</sup>

The conventions, treaties, and international organizations that impact marine life all seem to lack the two traits necessary to truly protect marine life: (1) specific and enduring comprehension of the many harms combining to deplete marine communities and (2) adequate enforcement provisions to ensure protection of the ocean's most intriguing and majestic creatures. The sea of legislative failures lack commonality. An inclusive regime, protecting marine mammals from *all* harms, is necessary to truly maintain biodiversity amongst aquatic species.

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<sup>239</sup> *Id.* at 20.

<sup>240</sup> William C. Burns, *The International Whaling Commission and the Future of Cetaceans: Problems and Prospects*, 8 COLO. J. INT'L ENVTL. L. & POL'Y 31, 35-53 (1997).

<sup>241</sup> NOAA, *International Whaling Commission Scientific Committee: The Role of Genetics*, <http://swfsc.nmfs.noaa.gov/prd/PROGRAMS/POP-ID/research/iwc.html> (last visited Feb. 20, 2006).

<sup>242</sup> Sean D. Murphy, ed., *Contemporary Practice of the United States Relating to International Law: International Oceans, Environment, Health and Aviation Law: Submission of MARPOL Protocol to U.S. Senate*, 97 AM. J. INT'L L. 979, 979 (2003).

<sup>243</sup> Fjelstad, *supra* note 31, at 687.

<sup>244</sup> *Id.*

<sup>245</sup> *Id.*

<sup>246</sup> *Id.* at 688.

#### IV. Bigger Solutions for Bigger Problems – What We Should Do to Protect Marine Life.

In a perfect world, dolphins would not be entangled in lingering fishnets to slowly die from starvation or dehydration. In a perfect world, the U.S. Navy would not need sonar to defend our coastlines from enemy submarines. In a perfect world, natural resources could be extracted from our oceans in an environmentally friendly manner. It is not a perfect world, but that does not mean we must accept needless animal deaths when such deaths can be prevented at little or no cost to society as a whole.

Some view marine mammals as mere resources.<sup>247</sup> Assuming for the moment that this anthropocentric view is warranted, those who espouse such a view must concede that depleting any resource is inadvisable.<sup>248</sup> Even if the sole reason for maintaining biodiversity is for the benefit of humankind, no benefit can be derived from an animal driven to extinction.<sup>249</sup> Further, marine ecosystems serve as important national assets.<sup>250</sup> Thus, “solicitous and decent treatment for the animals may well also be in the long-term best interest of man.”<sup>251</sup>

Furthermore, marine mammals play an important role in the food chain and in the maintenance of the marine ecosystem:

Together, genetic and species diversity contribute to the health and resiliency of individual ecosystems. Within each ecosystem are a number of trophic levels, or levels of hierarchy within the food web, reflecting the fact that different species play different roles in the food web. In a very simplified schematic, for example, plants are photosynthesizers that convert the sunlight into food for other organisms. Herbivores eat the plants, carnivores eat the herbivores (and often each other), omnivores eat both, and decomposers break down the dead plants and animals and their wastes. Higher biodiversity results in greater redundancy at

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<sup>247</sup> David R Schmahmann & Lori J. Polacheck, *The Case Against Rights for Animals*, 22 B.C. ENVTL. AFF. L. REV. 747, 769-70 (1995).

<sup>248</sup> *Id.*

<sup>249</sup> *Id.*

<sup>250</sup> Craig, *supra* note 101, at 339.

<sup>251</sup> Schmahmann & Polacheck, *supra* note 247, at 769.

each level, giving ecosystems as a whole, greater resiliency and a greater ability to respond to environmental changes.<sup>252</sup>

The loss of biodiversity often reduces the productivity of ecosystems, thereby shrinking nature's basket of goods and services, from which we constantly draw. It destabilizes ecosystems, and weakens their ability to deal with natural disasters such as floods, droughts, and hurricanes, and with human-caused stresses, such as pollution and climate change.<sup>253</sup>

Marine ecosystem preservation (and, thus, preservation of the animal life that comprises it) is of primary concern, as “ocean health and human health are inextricably linked.”<sup>254</sup> Therefore, cost-effective means to protect marine life must be implemented. Below are some macro-solutions that encompass all threats to marine life.

#### **A. True Animal Salvage – A Real Possibility**

What is the quickest and easiest way to alleviate health risks to marine mammals? Expand current legislation. The ESA already awards “the reasonable and necessary costs incurred by any person in providing temporary care for any [endangered] fish, wildlife, or plant.”<sup>255</sup> Thus, a person who rescues and nurses a listed species will be awarded restitution for his efforts.<sup>256</sup> The rescuer will be paid this restitution from money collected as penalties from those who violate the ESA.<sup>257</sup>

Incorporating a similar provision into the MMPA, a person who rescues a marine mammal would be entitled to similar restitution. But why stop there? Why not create true animal salvage and add a reward to the amounts obtained for restitution? Under the ESA, the restitution amount is within the discretion of the Secretary of Agriculture or the Secretary of the

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<sup>252</sup> Craig, *supra* note 101, at 337.

<sup>253</sup> *Id.* at 338.

<sup>254</sup> Nancy Knowlton, *Ocean Health and Human Health*, 112:5 ENV'T HEALTH PERSPS. A262 (Apr. 2004), available at <http://ehp.niehs.nih.gov/docs/2004/112-5/editorial.html>.

<sup>255</sup> 16 U.S.C. § 1540(d).

<sup>256</sup> *Id.*

<sup>257</sup> *Id.*

Treasury.<sup>258</sup> An additional reward could also be discretionary. Additional funding to provide such rewards could come from increasing the fines associated with violations of the ESA or MMPA.

Rewards may also be given for the return of derelict ghostnets.<sup>259</sup> Much like some states compensate for the recycling of beverage cans and bottles, the federal government could compensate for the removal and return of ghostnets.<sup>260</sup> The money for such awards could also be derived from stricter penalties assessed against takers of marine mammals.

Animal salvage makes a whole lot of sense. By increasing financial culpability, penalty provisions are more likely to deter would-be violations. By increasing rewards, those who see an animal in distress would be more apt to act. Thus, this minor tweak to an already existing compensation scheme increases both incentives to assist endangered animals and discourages endangering such animals further. Also, making animal salvage a reality costs no one but the “taker.” Would this not better serve the MMPA’s purpose to protect marine mammals? Shouldn’t the one causing the problem bear the costs of the cure?<sup>261</sup>

## **B. What It Really Means To “Take”**

What did Congress mean when it chose the word “take” to define prohibited actions under the MMPA?<sup>262</sup> Certainly, Congress did not intend for the feeding of a few wild dolphins to constitute an unlawful taking,<sup>263</sup> while the knowingly caused, mass stranding of a pod of

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<sup>258</sup> *Id.*

<sup>259</sup> Fjelstad, *supra* note 31, at 697.

<sup>260</sup> *Id.*

<sup>261</sup> The concept of making takers pay for the harm they cause is similar to the “polluter pays” principle, where “the community effectively ‘owns’ the environment, and forces users to pay for damages they impose.” Lucien J. Dhooge, *The Revenge of the Trail Smelter: Environmental Regulation as Expropriation Pursuant to the North American Free Trade Agreement*, 38 AM. BUS. L.J. 475, 476 (2001).

<sup>262</sup> 16 U.S.C. § 1372(a)(1).

<sup>263</sup> *See* Strong, 5 F.3d 905.

cetaceans due to active sonar use<sup>264</sup> or the intentional and repeated clubbing of countless seals for their pelts<sup>265</sup> fail to qualify. By simply expanding judicial interpretation of the term or, perhaps, by correctly interpreting the reasonableness standard associated with a negligent taking, national security, commercial, and environmental considerations may effectively harmonize.

Using sonar as an example, active sonar use that causes marine mammal death must constitute a negligent taking when such sonar use is unreasonable. Active sonar use during wartime for legitimate national security concerns would not result in an unreasonable taking if it causes marine mammal death. Conversely, during peacetime, the U.S. Navy should use passive sonar to “ensure marine mammals are not in the testing area before switching to active sonar.”<sup>266</sup> Further, the Navy should avoid feeding or breeding areas and steer clear from migration routes, placing habitats rich in marine mammals off limits.<sup>267</sup> Sonar can impact marine life several miles away, so it may be best for the Navy to avoid these habitats altogether during peacetime.<sup>268</sup> The Navy rightfully needs to test its sonar under varying oceanographic conditions, but by simply being cognizant of seasonal and migratory locations for marine mammals, it will have access to virtually all ocean waters at one time or another each year.<sup>269</sup> In order to appropriately consider all environmental consequences, the Navy must include the effects of sonar use in its Environmental Impact Statement (EIS).<sup>270</sup> Similarly, oil company drilling schedules and airgun

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<sup>264</sup> See NRDC, 279 F. Supp. 2d 1129.

<sup>265</sup> See Kreps, 561 F.2d 1002.

<sup>266</sup> NRDC, *supra* note 7, at <http://www.nrdc.org/wildlife/marine/sonar.asp>.

<sup>267</sup> *Id.*

<sup>268</sup> MICHEAL JASNY ET AL., SOUNDING THE DEPTHS II: THE RISING TOLL OF SONAR, SHIPPING, AND INDUSTRIAL OCEAN NOISE ON MARINE LIFE 26 (2005).

<sup>269</sup> *Id.* “One country, Spain, has taken actual steps to protect marine mammals by introducing ‘a sonar exclusion zone around the Canary Islands.’” Barefoot-Watambwa, *supra* note 45, at 585 (citing Richard Sadler & Geoffrey Lean, *Hi-Tech Military Sonar Systems ‘Are Killing Britain’s Whales and Dolphins’*, INDEPENDENT, June 19, 2005, at 17).

<sup>270</sup> The National Environmental Policy Act requires all federal agencies to prepare this document, which must include: “(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term

use can certainly take into account marine mammal habitats and migration routes to determine appropriate activity for the minimization of animal death.<sup>271</sup>

Additionally, technological advancement should be encouraged. A marine vibrator, a device that conducts seismic surveys at a lower decibel and pulse speed, could be a more reasonable alternative to the airgun.<sup>272</sup> Further, fishing nets can be equipped with “pingers,” low-tech, inexpensive net alarms that make a low-volume sound similar to that of a school bus backing up.<sup>273</sup> Cetaceans, themselves, back up when hearing this alarm, thus keeping a safe distance from potential entanglement.<sup>274</sup> Pingers have been so successful in reducing cetacean entanglement that federal orders have mandated their use in certain territorial waters.<sup>275</sup> However, different cetaceans respond differently towards the devices; research on the relevant marine life in the area of intended use and its particular reaction to pingers should be thoroughly conducted before using them.<sup>276</sup> Pingers cause noise pollution much in the same manner as sonar, but at much safer volumes. Certainly, they could be construed as a form of harassment under the MMPA, but considering the trade-off of marine mammal lives saved, this harassment is justifiable and thus reasonable under the MMPA.

As it pertains to pollution, some pollution may seep into the ocean as a by-product of commercial or industrial activity. When this pollution reaches harmful levels, however, it becomes unreasonable. When it causes marine mammal death, it causes negligent takings. With

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productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.” 42 U.S.C. §§ 4332(C)(i)-(v) (2000).

<sup>271</sup> JASNY, *supra* note 268, at 35.

<sup>272</sup> *Id.*

<sup>273</sup> Marla Cone, *Fisherman Use Low-Tech ‘Pingers’ to Save Marine Mammals*, PHILA. ENQUIRER, Feb. 12, 1999, at <http://www.fishingnj.org/artpinger.htm>.

<sup>274</sup> *Id.*

<sup>275</sup> *Id.* The government has mandated the use of pingers on New England sink nets and Californian and Oregon drift nets. *Id.*

<sup>276</sup> Cetacean Bycatch Resource Center, *Effectiveness: Do Pingers Work?*, [http://www.cetaceanbycatch.org/pingers\\_effectiveness.cfm](http://www.cetaceanbycatch.org/pingers_effectiveness.cfm) (last visited Feb. 19, 2006).

regard to solid waste, the intentional disposition of such material, including fishing nets, is always unreasonable. The closer call, and a question of fact for a jury that would probably revolve around in-place procedures to minimize lost fishing lines and the level of care used to recover all fishing nets, is determining what constitutes unreasonable takings for the fisherman who unintentionally leaves his net behind. By requiring all nets to have ownership insignia clearly marked upon them,<sup>277</sup> enforcers could determine who simply has lost one net and who makes a practice out of doing so. Further, strict liability, imposing a fee on the owner for all of his or her recovered fishing line, may better serve as a deterrent to ghostnet production.

Nevertheless, by adhering to the reasonableness standard under the MMPA prohibition of negligent takings, certain current practices unreasonably take marine mammal lives and should be punished accordingly. The above restrictions invoke common sense and are certainly both practical and feasible. Thus, naval, industrial, or commercial activity that ignores marine mammal concerns would be unreasonable, and any deaths that result should constitute negligent takings under the MMPA.

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<sup>277</sup> “It is now possible to implant wire-encoded tags in netting that could contain all the information necessary to track a piece of netting to the original purchaser.” Fjelstad, *supra* note 31, at 695. A standard tag placed on the net, however, may be just as effective and a whole lot cheaper.

### **C. Closed Caption for the Hearing Impaired**

Another possible solution to limit the risks of toxic, solid, oil, and noise pollution, as well as to prevent both negligent and intentional takings, would be to delineate geographical conservation zones.<sup>278</sup> In a critical zone, such as a primary habitat for endangered species, the potential devastation to marine life warrants limiting commerce and other maritime activity in the area.<sup>279</sup> Of course, an appropriate balance must be maintained between human interests and marine mammal conservation. In areas where there is greater need for environmental deference, greater exclusion of human activity is reasonable. Thus, a sliding scale, balancing all environmental, commercial, national security, and industrial costs and equities, seems an appropriate method to obtain solutions through compromise.

The cost to the vessel of fuel and time spent in avoiding migration routes or marine mammal habitats is inconsequential compared to the number of animals likely to be saved. Much like most people would not drive their cars through a dog park during peak hours, why should captains take their vessels through a “whale park?” The ocean is vast and home to both marine mammals and human industry. There is no reason why it cannot be shared in a manner accommodating to both.

### **D. Broadening the Powers of the Coast Guard**

Of course, all of the above solutions, if enacted, would prove fruitless without a useful enforcement scheme. A bigger and more powerful Coast Guard, funded by the fines assessed from “takers” of marine life or other violators, should be utilized to patrol our waters for the safety of both human and animal life. Perhaps the U.S. Navy or National Guard can also play

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<sup>278</sup> See Michael McCarthy, *Huge No-Fishing Zones ‘Offer Only Hope’ of Saving Marine Ecosystem From Disaster*, COMMON DREAMS NEWS CENTER, Dec. 8, 2004, available at <http://www.commondreams.org/headlines04/1208-08.htm>.

<sup>279</sup> JASNY, *supra* note 268, at 19.

some part in enforcement as they traverse U.S. waters. The fear of punishment is needed to deter would-be takers, and the repeated awarding of salvors is necessary to provide incentive to would-be animal rescuers. The Coast Guard should warn of migration routes and feeding grounds and prohibit shipping through critical zones, as well as provide assistance in ocean clean-up and pollution prevention. Maybe this is beyond the purposes for which the Coast Guard was created. But if not the Coast Guard, then who can protect the ocean from its fiercest enemy – humankind?

Perhaps agencies, like NRDC, could provide a more active role. If the NOAA and NMFS are unwilling or unable to take on the task of enforcing the MMPA and the solutions proposed by the author, the federal government could privatize overseeing of marine mammal conservation. Organizations that are partially federally funded could recoup excess costs from takers through litigation and stiffer legal penalties. There is a lot of ocean for animal conservationists to monitor, but the haphazard fisherman, boater, miner, or entrepreneur would be less inclined to carry on his or her business in a negligent manner if the likelihood of being caught is more prevalent.

MMPA enforcement will likely always be a difficult task. The ocean is simply too vast for the Coast Guard and relevant federal agencies to monitor in its entirety on a full-time basis. However, this fact accentuates the need for a more encompassing construction of “take” combined with statutory provisions that encourage animal salvage and discourage harmful practices. Tenacious enforcement and financial gains and losses could shape ocean commerce, navigation, and security practices into animal-friendly, yet not overly burdensome, systems of co-habitation. The oceans are not ours alone but ours to share. Sometimes the law may be needed to remind us of that.

## Conclusion

Ideally, the solutions suggested in the previous section of this article will all come to fruition. Broadening the judicial interpretation of “taking” to encompass the express purposes of the MMPA, providing for true animal salvage as admiralty law would likely define the term, and restricting access seasonally and indiscriminately to marine mammal habitats and migration routes will ensure the future existence of a diverse undersea world needing of human protection from human interference. Proper and reasonable restrictions on human activity will save our ocean’s largest living resources and salvage marine life.

Humankind’s dominion over animals has its limits; we are not “free to subject animals to cruelties and other forms of abuse simply as we wish.”<sup>280</sup> Instead, we must assume the roles of stewards, requiring us to protect animals from ourselves.<sup>281</sup> Morally, we owe a duty to all living creatures, regardless of their usefulness to future generations of humankind.<sup>282</sup> But where morality falls short as incentive, legal ramifications may provide the necessary motivation to protect marine life. The combination of adequate reward and deterrent provisions is the key to successful protection of marine biodiversity. Animal salvage is a provocative fiction that can quite easily be made a reality. Perhaps it is time to institute animal salvage before there is nothing left to save.

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<sup>280</sup> Barry S. Edwards, “. . . *And on His Farm He Had a Geep*”, 2001 MINN. INTELL. PROP. REV. 3 (2001).

<sup>281</sup> *Id.*

<sup>282</sup> Anthony D’Amato & Sudhir K. Chopra, *Whales: Their Emerging Right to Life*, 85 AM. J. INT’L L. 21, 23 (1991).