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# A MULTI-FACETED APPROACH IS NECESSARY TO PROTECT ENDANGERED SPECIES: A CASE STUDY OF THE CRITICALLY IMPERILED NORTH ATLANTIC RIGHT WHALE

#### REGINA ASMUTIS-SILVIA\*

**Abstract:** While protection of endangered species in the United States is mandated for listed species under the Endangered Species Act and the Marine Mammal Protection Act, both require ancillary efforts to ensure their intents are enforced. Science, negotiation, litigation, and lobbying for political solutions are all tools that can be brought to bear to ensure compliance with protective laws. However, there is a right and wrong time for the use of each of these tools. This paper provides a short discussion of the available tools, the likelihood of success or failure of each depending on when and how they are used, and it makes the case for a multifaceted approach to protection of endangered species, using critically endangered right whales as a case study.

#### Introduction

North Atlantic right whales (*Eubalaena glacialis*) are an endangered species.<sup>1</sup> Originally brought to the brink of extinction as a result of whaling, the species continues to teeter on the edge of extinction in spite of years of legislative protection.<sup>2</sup> Beginning in 1935 under the Convention for the Regulation of Whaling and later in 1949 under the International Convention for the Regulation of Whaling, the species was protected from commercial hunting.<sup>3</sup> In 1969 the Endangered

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<sup>&</sup>lt;sup>1</sup> Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2006); Endangered Status for North Pacific and North Atlantic Right Whales, 73 Fed. Reg. 12024, 12028 (Mar. 06, 2008) (codified at 50 C.F.R. pt. 224).

 $<sup>^2</sup>$  See generally The Urban Whale: North Atlantic Right Whales at the Cross-roads (Scott D. Kraus & Rosalind M. Rolland eds., 2007) (describing threats to the survival of the right whale both past and present).

 $<sup>^3</sup>$  International Convention for the Regulation of Whaling sched.  $\P$  2, Dec. 2, 1946, 62 Stat. 1716, 161 U.N.T.S. 72 (amended 2008); Convention for the Regulation of Whaling art. 4, Sept. 24, 1931, 49 Stat. 3079, 155 L.N.T.S. 349.

Species Conservation Act<sup>4</sup> was passed in the United States, followed by the Marine Mammal Protection Act of 1972 (MMPA).<sup>5</sup> The following year saw passage of the Endangered Species Act of 1973 (ESA).<sup>6</sup> Right whales were considered as a species in need of protection in each of these instances. Yet the population continues to remain precariously close to extinction—fewer than 400 of the animals remain today.<sup>7</sup>

While no longer threatened by hunting, unintentional—or "incidental"—death and serious injury resulting from vessel strikes and fishing gear entanglements occur at a rate that impacts the continued survival of the North Atlantic right whale.<sup>8</sup> Although the means to protect this species exist in U.S. legislation, these vehicles are often in need of service to function appropriately. Deaths have continued and ensuring compliance with protective laws requires vigilance and often enforcing action. There are numerous tools available to protect right whales, each serving a specific function. Using the wrong tool at the wrong time can be detrimental. Here we provide a short discussion of the available tools, the likelihood of success or failure of each depending on when and how they are used, and make the case for a multi-faceted approach to protection of the North Atlantic right whale.

#### I. THE TOOLS

The Endangered Species Act (ESA) defines "take" to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." According to the Marine Mammal Protection Act (MMPA), a "take" means "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Yet, in spite of the legal prohibitions on "taking" North Atlantic right whales (NA right whales), they continue to occur at an unsustainable rate for this species. Of greatest concern are "takes" that result in serious injury or death of individual whales. As a result, one must consider available tools to secure the protection of this spe-

<sup>&</sup>lt;sup>4</sup> Pub. L. No. 91-135, 83 Stat. 275 (1969).

 $<sup>^5</sup>$  Pub. L. No. 92-522, 86 Stat. 1027 (1972) (codified as amended at 16 U.S.C. §§ 1361–1423h (2006)).

<sup>&</sup>lt;sup>6</sup> Pub. L. No. 93-205, 87 Stat. 884 (1973) (codified as amended at 16 U.S.C. §§ 1531–1544 (2006)).

<sup>&</sup>lt;sup>7</sup> See Hal Caswell et al., Declining Survival Probability Threatens the North Atlantic Right Whale, 96 Proc. Nat'l Acad. Sci. 3308, 3312 (1999).

<sup>8</sup> Id. at 3308.

<sup>9 16</sup> U.S.C. § 1532(19) (2006).

<sup>10</sup> Id. § 1362(13).

<sup>&</sup>lt;sup>11</sup> Caswell et al., *supra* note 7, at 3308.

cies through these Acts. That is, what is needed is to first demonstrate that the current mechanisms of protection are inadequate.

We believe the tools to address the current inadequate protection are as follows: science, negotiation, litigation, and lobbying for political intervention. The order in which they are presented does not suggest priority. Each serves a purpose and, in combination, their use can lead to increased protection for the species. However, like tools in a toolbox, they do not work interchangeably and each should be well considered to determine which is most appropriate for a specific task before being used.

#### A. Science

Both the MMPA and ESA require scientific evidence to support their listing criteria. <sup>12</sup> Once listed, however, ongoing scientific research is an important tool for demonstrating the need for additional protection and to help identify measures that may be effective to reduce risk. As previously stated, both the MMPA and ESA prohibit takes of NA right whales. <sup>13</sup> Yet takes are not as easily documented in this marine species as they might be in terrestrial species, and research is a necessary tool to continue to document impacts. For example, depending on how a right whale is struck, mortality resulting from a vessel strike may not be readily apparent. In cases where blunt trauma is implicated, external injuries are often absent and only through a thorough necropsy can cause of death be accurately determined.

On January 30, 1996 NA right whale # 1623 (aka "Lindsay") was found floating dead off the coast of Georgia. <sup>14</sup> Initial observations indicated the animal appeared robust, and no external signs of injury were apparent. <sup>15</sup> However, upon internal examination, the necropsy results indicated "the animal had suffered massive blunt trauma from a moving vessel and died approximately five days prior to examination." <sup>16</sup>

Research has also been an important tool in documenting habitat use and thus areas in need of additional protection. When critical habi-

<sup>&</sup>lt;sup>12</sup> 16 U.S.C. § 1386(a); 16 U.S.C. § 1533(b)(1)(a). While the MMPA protects all marine mammals inclusively, additional mechanisms of protection are afforded to species considered as "strategic" and "depleted." *See* 16 U.S.C. §§ 1362(19)–(20), 1387(f)(5)(B).

<sup>&</sup>lt;sup>13</sup> See supra notes 9–10.

<sup>&</sup>lt;sup>14</sup> Michael J. Moore et al., *Morphometry, Gross Morphology and Available Histopathology in North Atlantic Right Whale* (Eubalaena glacialis) *Mortalities* (1970–2002), 6 J. CETACEAN RES. & MGMT. 199, 204 (2004).

<sup>&</sup>lt;sup>15</sup> *Id*.

<sup>&</sup>lt;sup>16</sup> *Id*.

tat for NA right whales was initially designated in 1994, two areas off Massachusetts and one extended area off Florida and Georgia were included. 17 A petition to revise and increase critical habitat for the species was put forward by the Ocean Conservancy in 2002. 18 This petition was rejected by the National Marine Fisheries Service (NMFS) on the grounds that the "information presented in the petition does not adequately support the petitioned new boundaries for critical habitat." 19 However, recent data from the NMFS indicates that areas not previously considered as important habitat for NA right whales may represent a breeding ground for this endangered species. 20 These areas are of specific concern as they were not included in the Vessel Operational Measures to Reduce Ship Strikes to the NA right whale, 21 nor were these areas given specialized consideration during the development of the Take Reduction Plans (TRP) to reduce fishery impacts. 22

Between 2004 and March 2009, at least twenty-four dead right whales were documented.<sup>23</sup> Of the nineteen carcasses that were examined, 58% (eleven) were determined to have died as a result of either vessel strike or entanglement.<sup>24</sup> While these data indicate current measures of protection are inadequate, additional research will not enhance protection and alternative tools must be considered at this time. Funding research is important but it is not enough.

In the previously mentioned cases, scientific research is the tool most critical to defining the risk reduction measures most likely to be successful for particular areas or sources of risk. Yet science is not a tool that can solve issues of protection; it can merely inform management

<sup>&</sup>lt;sup>17</sup> Designated Critical Habitat; Northern Right Whale, 59 Fed. Reg. 28,793, 28,793 (June 3, 1994) (codified at 50 C.F.R. pt. 226).

<sup>&</sup>lt;sup>18</sup> Finding for a Petition to Revise Critical Habitat for Northern Right Whales, 67 Fed. Reg. 69,708, 69,709 (Nov. 19, 2002).

<sup>&</sup>lt;sup>19</sup> Finding for a Petition to Revise Critical Habitat for Northern Right Whales, 68 Fed. Reg. 51,758, 51,762 (Aug. 28, 2003).

 $<sup>^{20}</sup>$  See Richard M. Pace III & Richard L. Merrick, Nat'l Marine Fisheries Serv., Ref Doc. 08–07, Northwest Atlantic Ocean Habitats Important to the Conservation of North Atlantic Right Whales (Eubalaena Glacialis) 6 (2008).

<sup>&</sup>lt;sup>21</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,179 (Oct. 10, 2008).

<sup>&</sup>lt;sup>22</sup> Atlantic Large Whale Take Reduction Plan Regulations, 72 Fed. Reg. 57,104, 57,104–05 (Oct. 5, 2007).

<sup>&</sup>lt;sup>23</sup> See infra Table 1. This table was compiled using data obtained from by the NMFS Office of Protected Resources' Marine Mammal Health and Stranding Response Program, Northeast Regional Office and Southeast Regional Office with assistance from the Provincetown Center for Coastal Studies, New England Aquarium, and Woods Hole Oceanographic Institution.

<sup>&</sup>lt;sup>24</sup> *Id*.

actions. Once data are available, and it can be demonstrated that the species is adversely impacted, management action is necessary.

## B. Negotiation

It is important to remember that the ESA does not blindly protect species over economics and, in fact, specifically considers economic impacts prior to designating critical habitat. <sup>25</sup> In respect of takes from fishery interactions, the MMPA specifically considers "the economic and technological feasibility of implementation." <sup>26</sup> Therefore, while science may provide data to demonstrate where, when, or how many takes have occurred, or to document habitat usage of NA right whales, the ESA and MMPA mandate consideration of economic impacts; data alone will not necessarily result in enhanced protection. <sup>27</sup>

Section 118(f) of the MMPA triggers the development of a Take Reduction Team (TRT) for species whose anthropogenic death rate exceeds their Potential Biological Removal (PBR) level. <sup>28</sup> The MMPA specifies that Teams are made up of

representatives of Federal agencies, each coastal State which has fisheries which interact with the species or stock, appropriate Regional Fishery Management Councils, interstate fisheries commissions, academic and scientific organizations, environmental groups, all commercial and recreational fisheries groups and gear types which incidentally take the species or stock, Alaska Native organizations or Indian tribal organizations, and others as the Secretary deems appropriate.<sup>29</sup>

The TRTs are tasked with developing a Take Reduction Plan (TRP) to mitigate takes in implicated fisheries, reducing the "takes" to below PBR within six months of the implementation of the Plan, and a timeline is specified for publication of TRPs.<sup>30</sup>

The death of right whale #3107 resulted from fishing gear that was determined to be compliant with the mandates of the TRP that was in effect at that time.<sup>31</sup> Because the TRP measures served as the "reason-

<sup>&</sup>lt;sup>25</sup> See 16 U.S.C. § 1533(b)(2) (2006).

<sup>&</sup>lt;sup>26</sup> See 16 U.S.C. § 1373(b) (5) (2006).

<sup>&</sup>lt;sup>27</sup> See id. § 1373(b) (5); 16 U.S.C. § 1533(b) (2).

<sup>&</sup>lt;sup>28</sup> 16 U.S.C. § 1387(f).

<sup>&</sup>lt;sup>29</sup> Id. § 1387(f)(6)(C).

<sup>&</sup>lt;sup>30</sup> *Id.* § 1387(f) (4)–(5), (7) (D).

<sup>&</sup>lt;sup>31</sup> See Atlantic Large Whale Take Reduction Plan Regulations, 64 Fed. Reg. 7529 (Feb. 16, 1999); Moore et al., supra note 14, at 209.

able and prudent alternatives" (RPA) to jeopardy under the ESA, the death of this whale in compliant gear triggered the need for a new plan to be developed under the MMPA and thus the imposition of new RPA.<sup>32</sup>

The TRT that was convened under the MMPA to address entanglement risk to large endangered whales from gillnet and trap/pot gear has been meeting since 1996.<sup>33</sup> This team has failed to generate consensus recommendations, as envisioned in the MMPA,<sup>34</sup> however other TRTs for species such as harbor porpoise have been successful in reaching consensus and their recommendations have resulted in the required reductions in mortalities and serious injuries.<sup>35</sup>

# C. Lobbying

Parallel to the process of negotiation, lobbying can be an effective tool to either increase or limit protection. In some cases, the fishing industry has effectively used lobbying to limit the NMFS's ability to impose restrictions aimed at reducing risk.<sup>36</sup> In other cases, such as increasing budgets for right whale research, lobbying has been effective in assisting conservation efforts.<sup>37</sup>

Public outreach can also be an effective means of lobbying by harnessing consumer choices to influence policy. This was clearly demonstrated in the campaign that made consumers aware that large num-

<sup>&</sup>lt;sup>32</sup> Taking of Marine Mammals Incidental to Commercial Fishing Operations; Atlantic Large Whale Take Reduction Plan Regulations; Proposed Rule 70 Fed. Reg. 35,896 (June 21, 2005).

 $<sup>^{\</sup>rm 33}$  Atlantic Large Whale Take Reduction Team Meeting, 61 Fed. Reg. 40,819, 40,819–20 (Aug. 6, 1996).

<sup>&</sup>lt;sup>34</sup> 16 U.S.C. § 1387 (f) (7) (A) (2).

<sup>35</sup> See Office of Protected Res., Nat'l Marine Fisheries Serv., Harbor Porpoise (Phocoena phocoena), http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/harborporpoise.htm (last visited Apr. 21, 2009).

<sup>&</sup>lt;sup>36</sup> See, e.g., Press Release, Sen. Olympia J. Snowe, Snowe Meets with Maine Lobstermen Association Representatives to Discuss Unfair Fishing Regulation (Aug. 1, 2007), http://snowe.senate.gov/public/index.cfm?FuseAction=PressRoom.PressReleases&ContentRecord\_id=21cdd13b-802a-23ad-49c4-d2614d124265&Region\_id=&Issue\_id=. In one case, the Maine Lobstermen's Association claimed that risk reduction rules should not apply in Maine, as they were burdensome. A former staffer of Senator Susan Collins who worked at the OMB had held up the rule and Senator Olympia Snowe ultimately intervened to assure her fishermen were not adversely affected. See id. The final regulations exempted 71% of Maine state waters. Letter from Tom Allen, Rep., Maine, to Mary Colligan, Assistant Reg'l Adm'r for Protected Res., NMFS, (Sept. 17, 2007), available at http://www.mainelobstermen.org/pdf/Allen%20FEIS%20Comments.pdf.

 $<sup>^{37}</sup>$  See S. Rep. No. 106-404, at 118 (2000) (Senate report reflecting increased budget and dissatisfaction with allocations to date).

bers of dolphins in the eastern tropical Pacific were dying in nets set to catch tuna.<sup>38</sup> The so-called "dolphin-safe" campaign led to labeling reform and legislation that resulted in better protection.<sup>39</sup> In the case of right whales, a recent example can be found in the nascent program, "Massachusetts Lobster Fishing—The Right Way," which provides a mechanism for consumers to choose products that have a direct conservation benefit to whales.<sup>40</sup>

Lobbying, however, is generally not a stand-alone tool and is most often used to support or intervene in some process which is underway (for example proposed regulations, federal budget development, ongoing or proposed scientific research), or as a means of encouraging future legislation.

## D. Litigation

Litigation is often a tool of last resort because it is costly, time consuming, and carries no assurance that a court ruling will result in the desired outcome. Further, it is only relevant in specific instances. We believe that litigation is most effective when a violation can be proven to have taken place, such as a legislatively mandated timeline being missed (for example, a TRP not issued in the required time frame), or when there has been a substantive violation of a legislative mandate (for example when a TRT has not been convened).

In 1997, the Commonwealth of Massachusetts was sued under the premise that its lobster fishery was a state-permitted action that could

<sup>&</sup>lt;sup>38</sup> See Lorraine Mitchell, *Dolphin-Safe Tuna Labeling, in Econ. Res. Serv.*, U.S. Dep't of Agric., Econ. Report No. 793, Economics of Food Labeling 22, 24–25 (2000). An example of the campaign itself is the work of the Earth Island Institute. See Earth Island Institute, Dolphin Safe Tuna, http://www.earthisland.org/dolphinSafeTuna/consumer/ (last visited Apr. 21, 2009).

<sup>&</sup>lt;sup>39</sup> See Mitchell, supra note 38, at 24–25.

<sup>40</sup> Massachusetts Lobster Fishing—The Right Way, http://www.masslobster.org/pdf/Masslobsterleaflet.pdf (last visited Apr. 21, 2009). The Massachusetts Lobstermen's Association, Massachusetts Division of Marine Fisheries, the Ocean Conservancy, and Whale and Dolphin Conservation Society developed this program in 2008. *Id.* "Second only to Maine, Massachusetts' lobster harvest is among the nations largest fishery [sic]. However, while Massachusetts regulations require the use of sinking groundline as a means to reduce the risk of entanglement to large whales, more than 70% of Maine State waters are exempted from a similar rule." Posting of RedFoxFire118 to http://www.dosomething.org/project/massachusetts-lobster-fishing-the-right-way (Jan. 30, 2009, 19:15). The "Massachusetts Lobster Fishing—The Right Way" campaign provides Massachusetts lobstermen with green-labeled bands to put on claws of lobsters fished from Massachusetts state waters, promoting the fishery's more proactive entanglement risk reduction measures. Massachusetts Lobster Fishing—The Right Way, *supra*; Posting of RedFoxFire118, *supra*.

result in harm to endangered species.<sup>41</sup> The federal court found that the Massachusetts Executive Office of Environmental Affairs was liable for "taking" a NA right whale in state-permitted fishing gear<sup>42</sup> and ordered the establishment of the Massachusetts Marine Fisheries Conservation Program.<sup>43</sup>

In 2007, the Humane Society of the United States and the Ocean Conservancy filed suit against the NMFS charging that the agency missed a mandated deadline for revising and publishing a TRP for large endangered whales, as defined in section 118 of the Marine Mammal Protection Act.<sup>44</sup> In that case, Maine lobstermen gained intervenor status in an attempt to defend delays.<sup>45</sup> The NMFS settled the case and, as part of the stipulated settlement agreement, acquiesced to a deadline by which it had to release the rule.<sup>46</sup> The groups returned to court in 2008 when the NMFS announced a further delay in implementing a requirement for the use of sinking groundline in trap and pot gear, and simultaneously terminated the risk reduction measures that had served as RPAs in the extant plan (Dynamic and Seasonal Area Management).47 The court nonetheless ruled in the plaintiffs' favor and enjoined NMFS from terminating the programs in the interim of the delay, while reinforcing a date certain for implementation of sinking groundline requirements. 48

Litigation has been less successful in cases where legal interpretation is needed, and in some cases can result in findings that may be detrimental to conservation efforts. In an example of the limits of litigation to further conservation, in 2002 the Center for Biological Diversity (CBD) filed suit against the NMFS over the agency's failure to meet zero mortality rate (ZMRG) mandates in section 118 of the MMPA.<sup>49</sup> In

<sup>41</sup> See Strahan v. Coxe, 127 F.3d 155, 158 (1st Cir. 1997).

<sup>42</sup> See id. at 163.

<sup>&</sup>lt;sup>43</sup> See id. at 170–71; Mass. Div. of Marine Fisheries, Programs and Projects: Right Whale Conservation, http://www.mass.gov/dfwele/dmf/programsandprojects/ritwhale.htm#right (last visited Apr. 21, 2009).

<sup>&</sup>lt;sup>44</sup> See Complaint at 12–13, Humane Soc'y of the U.S. v. Gutierrez (*Humane Soc'y I*), No. 07-0333 (D.D.C. Feb. 12, 2007).

<sup>&</sup>lt;sup>45</sup> Motion to Intervene at 1–2, *Humane Soc'y I*, No. 07-0333 (D.D.C. Apr. 16, 2007).

 $<sup>^{46}</sup>$  See Humane Soc'y I, No. 07-cv-00333 (D.D.C. July 10, 2007) (order adopting terms and conditions of stipulated settlement agreement).

<sup>&</sup>lt;sup>47</sup> See Amended Complaint at 23, Humane Soc'y of the U.S. v. Gutierrez (*Humane Soc'y II*), No. 08–1593 (D.D.C. Sept. 19, 2008).

<sup>&</sup>lt;sup>48</sup> See Humane Soc'y II, No. 08–1593 (D.D.C. Sept. 26, 2008) (order granting preliminary injunction).

<sup>&</sup>lt;sup>49</sup> See Ctr. for Biological Diversity v. Nat'l Marine Fisheries Serv., No. 02-3901 (N.D. Cal. Apr. 29, 2003) (order adopting terms and conditions of stipulated settlement agreement). Section 118 of the MMPA required fisheries to attain the so-called zero mortality rate goal

this case, CBD charged that the NMFS had failed to comply with reporting requirements on fishery mortality rates and, further, that many fisheries had not attained the required reductions in mortality.<sup>50</sup> A favorable outcome in that case has not led to the hoped-for impetus to institute dramatic measures to attain that goal, but has instead resulted in concerted efforts by the fishing industry to remove ZMRG from the Act and use the much higher PBR level in its place as the lowest level to which mortality and serious injury must be reduced.<sup>51</sup>

With regard to right whales, a suit was filed in 2007 against an individual Massachusetts lobsterman for entangling an endangered humpback whale.52 While the court did find that a "take" occurred, it also concluded that the whale was not "harmed" and found that economic hardship of the defendant outweighed risk to the species.<sup>53</sup> This attempt to use the law in a novel way was clearly less than successful. Such a finding may be deemed detrimental if courts only consider the impact of an individual whale becoming entangled in a specific piece of gear as opposed to the overall risk of any NA right whale becoming entangled in fishing gear in general, where the risk is actually quite high.<sup>54</sup> Without a clear "hook" to a violation, litigation may be unsuccessful and may result in a ruling that could even be harmful to conservation efforts. Even when there is a clear statutory violation, a ruling that is adverse to a powerful interest group may simply result in attempts by those interests to change the statute in question, requiring significant effort to defeat changes that would weaken protective measures in the statute.

Litigation is an important tool to protect endangered whales by allowing enforcement of statutory mandates. But litigation must be undertaken with an understanding of possible favorable or adverse outcomes.

<sup>(</sup>ZMRG), that is, a level that is insignificant and approaching a zero mortality and serious injury rate within seven years of the 1994 reauthorization and, in the case of fisheries with take reduction plans, within five years of the implementation of the TRP. 16 U.S.C. § 1387(f)(2) (2006).

<sup>&</sup>lt;sup>50</sup> See Ctr. for Biological Diversity v. Nat'l Marine Fisheries Serv., No. 02–3901 (N.D. Cal. Apr. 29, 2003) (order adopting terms and conditions of stipulated settlement agreement).

<sup>&</sup>lt;sup>51</sup> 153 Cong. Rec. E334 (daily ed. Feb. 13, 2007) (statement of Rep. Young).

<sup>&</sup>lt;sup>52</sup> Strahan v. Holmes, 595 F. Supp. 2d 161, 162 (D. Mass. 2009).

<sup>53</sup> See id. at 165-66.

<sup>&</sup>lt;sup>54</sup> Amy Knowlton et al., Analysis of Scarring on North Atlantic Right Whales (*Eubalaena glacialis*): Monitoring Rates of Entanglement Interaction: 1980–2002, at 11 (Feb. 2005) (unpublished report to the National Marine Fisheries Service) (on file with author).

#### II. DISCUSSION AND CONCLUSION

Each tool listed above may be more or less appropriate for use to further conservation action depending on the situation at hand. There are times when each has distinct advantages or disadvantages that should be weighed carefully in determining which is most likely to result in the desired conservation end. In most cases, a multi-faceted approach involving more than one of these tools is the most productive. This is demonstrated by the attempts to protect the NA right whale from vessel strikes.

For more than ten years, a growing body of scientific data indicated that lethal right whale takes resulting from vessel strikes were a substantial threat to the species.<sup>55</sup> These data were used as the basis for developing a strategy to reduce the risk of strikes to NA right whales. Scientific research enabled the substantiation of times and areas of greatest risk based on co-occurrence of whales and vessels, and speeds most likely to be fatal.<sup>56</sup> But research had to be coupled with the development of management measures and the promulgation of protective regulations to be useful in conservation. The convening of the Ship Strike Subcommittee of the Northeast Implementation Team provided a platform for discussion of risk among stakeholders and led to recommendations for reducing the risk of vessel strikes.<sup>57</sup> Yet, as years passed, the recommendations were not implemented. The shipping industry tried to slow or prevent the development of a rule.<sup>58</sup> Scientists and conservationists argued in both public and in scientific for afor the implementation of protective regulations.<sup>59</sup> Both lobbied Congress and

<sup>&</sup>lt;sup>55</sup> See generally NOAA Fisheries Service, Ship Strike-Related Research, http://www.nero.noaa.gov/shipstrike/doc/Publications%20and%20Research.htm (last visited Apr. 21, 2009) (collecting scientific articles concerning ship strikes).

<sup>&</sup>lt;sup>56</sup> See, e.g., Lance P. Garrison, S.E. Fisheries Sci. Ctr., Applying a Spatial Model to Evaluate the Risk of Interactions Between Vessels and Right Whales in the Southeast United States Critical Habitat 1–2 (2005), available at http://www.nmfs.noaa.gov/pr/pdfs/shipstrike/spatial\_model.pdf.

<sup>&</sup>lt;sup>57</sup> Bruce Russell, Recommended Measures to Reduce Ship Strikes of North Atlantic Right Whales 3–5 (2001), *available at* http://www.nero.noaa.gov/shipstrike/subinfo/finalreport.pdf.

<sup>&</sup>lt;sup>58</sup> See Matthew Madia, With Concessions to Industry, Right Whale May be Moving, OMB WATCH, Aug. 26, 2008, http://www.ombwatch.org/node/9262 (discussing the World Shipping Council's lobbying of the Bush Administration to prevent the release of the ship strike rule).

 $<sup>^{59}</sup>$  Scott D. Kraus et al., North Atlantic Right Whale in Crisis, 309 Science 561, 561–62 (2005).

the administration to make a decision.<sup>60</sup> In 2006, a group of NGOs filed suit against NMFS for its delay in promulgating rules, after having a petition for emergency regulations denied by the agency.<sup>61</sup> The litigation was aimed at requiring the NMFS to publish measures to reduce the likelihood of ship strikes. The groups also charged the U.S. Coast Guard with failing to meet its obligations under the Endangered Species Act to consult with NMFS on the effects of designating shipping lanes within right whale habitat.<sup>62</sup> Finally, in December of 2008, and in the wake of attempts both to litigate and legislate protection, the Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales went into effect.<sup>63</sup> It is important to note, however, that as a result of industry lobbying, the final rule has a five-year sundown clause; that is, at the end of five years the requirement for a speed limit of ten knots in high risk areas will be terminated.<sup>64</sup> As a result, there will be a continued need for collection of scientific data and ongoing negotiations with members of the shipping industry. Lobbying will continue and there is the possibility of future litigation.

Abraham Maslow once said, "If the only tool you have is a hammer, you tend to see every problem as a nail." When it comes to finding solutions to vexing conservation problems, agencies prefer to rely on stakeholders reaching agreement, and sometimes that is an effective tool. Advocates who are experienced in litigation tend to see the solution to problems in a lawsuit, and sometimes that is an effective tool. Advocates who are skilled lobbyists see every problem with a legislative solution, and sometimes that is an effective tool. Not every tool is right for every situation, but all have their uses and all must be used in the service of recovering endangered species.

In spite of more than seventy years of protection, North Atlantic right whales continue to teeter on the brink of extinction. While the Endangered Species Act and the Marine Mammal Protection Act provide an umbrella for protection, the mandates of these Acts, and the regulations that enact them must be maintained and enforced in order

<sup>&</sup>lt;sup>60</sup> See, e.g., Fred O'Regan, Int'l Fund for Animal Welfare, Help Stop Ships From Killing Endangered Right Whales (Feb. 22, 2008), http://blog.stopwhaling.org/2008/02/help-stop-ships.html.

<sup>61</sup> See Defenders of Wildlife v. Gutierrez, 484 F. Supp. 2d 44, 46–47 (D.D.C. 2007).

<sup>62</sup> Id.

<sup>&</sup>lt;sup>63</sup> Final Rule to Implement Speed Restrictions to Reduce the Threat of Ship Collisions with North Atlantic Right Whales, 73 Fed. Reg. 60,173, 60,173 (Oct. 10, 2008) (codified at 50 C.F.R. pt. 224).

<sup>64</sup> Id. at 60,183.

for them to be effective. Among the tools available to ensure that the intent and mandates of the Acts are carried out are scientific research, negotiation, lobbying, and litigation, and we must be ready and willing to use them all as appropriate.

The best hope for conservation of large whales in the waters of the United States is for advocates to work together to use their individual strengths in a focused and strategic manner to solve problems. Each of us has tools that we are particularly adept at using, but an insistence on a single-tool approach is myopic and doomed to failure, as is damning the use of any particular tool. Saving a species requires the willingness of advocates to work together and a commitment by all to the common goal of saving vulnerable species. It requires respect for the skills and talents of all those who have tools that can be brought to bear on the protection of the species whose very survival depends on the success of our collaborative efforts.

When saving the life of an individual animal can tip the balance toward or away from extinction,<sup>65</sup> the stakes are too high for all of us to give anything less than everything we have.

<sup>&</sup>lt;sup>65</sup> See Masami Fujiwara & Hal Caswell, Demography of the Endangered North Atlantic Right Whale, 414 Nature 537, 537–41 (2001).

Table 1. Summary of North Atlantic Right Whale Mortality and Strike Incidents, 2004 through April 2009

	Sex (Age)	Date	Location	Alive or Dead	Cause of Death		
1	M (calf)	2/3/04	FL	Dead	Unknown		
2	F (adult; pregnant)	2/7/04	NC	Dead	Ship strike		
3	F (adult; pregnant)	11/24/04	NC	Dead	Ship strike		
4	Unknown	12/9/04	MA	Dead	Carcass not retrieved*		
5	F (adult)	1/9/05	MA	Dead	Carcass not retrieved*		
6	F (adult; pregnant)	1/12/05	GA	Dead	Infection from		
			374	D 1	previous vessel strike		
7	F (adult)	3/3/05	VA	Dead	Entanglement		
8	F (adult)	3/10/05	GA	Injured; likely dead	Vessel strike		
9	F (nine years old)	4/28/05	MA	Dead	Vessel strike		
10	Unknown	7/13/05	MA	Alive—Strike	Vessel strike		
11	M (calf)	01/10/06	FL	Dead	Ship strike		
12	F (calf)	01/16/06	TX	Alive—Scarred	Scarring source unclear		
13	F (calf)	1/22/06	FL	Dead	Fishing gear entanglement		
14	M (one year old)	3/11/06	GA	Alive—Strike	Vessel strike—not re- sighted		
15	F (sub adult)	5/18/06	NY	Dead	Carcass not retrieved*		
16	F (calf of year)	7/24/06	CAN	Dead	Ship strike		
17	F	9/03/06	CAN	Dead	Ship strike		
18	M (2005 calf)	12/30/06	GA	Dead	Ship strike		
19	M (neonate)	1/25/07	FL	Dead	Birth trauma		
20	Unknown (2 years old)	2/12/07	MA	Alive—Strike	Vessel strike		
21	M (adult)	3/25/07	CAN	Dead	Carcass not re- trieved;* entangled since 2002		
22	M (calf)	3/31/07	NC	Dead	Not determined; signs of entanglement		
23	M (neonate)	1/25/08	FL	Dead	Birth trauma		
24	Unknown (neonate)	2/15/08	FL	Dead	Birth trauma		
25	Unknown (perinate)	12/16/08	NC	Euthanized	Birth trauma		
26	Unknown (2007 calf)	1/26/09	NC	Euthanized	Likely entanglement		
27	Unknown (calf)	2/17/09	FL	Dead	Birth defect		
28	F (8 year old)	2/25/09	MA	Dead	Carcass not retrieved*		
29	Unknown	4/7/09	SC	Alive—Strike	Blood in water; damage to vessel; not resighted		
30	Female	4/19/09	MA	Alive—Strike	Propeller cuts to ventral fluke		
*Carcass not retrieved, but ship strike cannot be ruled out.							