

**Center for Biological Diversity • Conservation Law Foundation •  
• Defenders of Wildlife •**

June 29, 2021

Gina Raimondo, Secretary of Commerce  
U.S. Department of Commerce  
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Janet Coit, Assistant Administrator for Fisheries  
NOAA Fisheries  
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**Re: New Scientific Information Necessitates Immediate Re-examination of Assumptions  
on the Efficacy of So-called Weak Rope to Protect North Atlantic Right Whales**

Dear Secretary Raimondo and Ms. Coit,

On behalf of the Center for Biological Diversity, Conservation Law Foundation, and Defenders of Wildlife, we write to notify you that the National Marine Fisheries Service (“NMFS”) must reinitiate consultation on its recently-issued biological opinion<sup>1</sup> (“2021 BiOp”) and reconsider certain aspects of the forthcoming rule to amend the Atlantic Large Whale Take Reduction Plan (“Plan”) in order to address newly-available scientific evidence that casts significant doubt on key assumptions of those documents: namely, the efficacy of so-called “weak rope” or “weak insertions” to mitigate the impacts of entanglements on the critically endangered North Atlantic right whale.

NMFS’s decisions under the Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) and its environmental analysis under the National Environmental Policy Act (NEPA) must be based on the best available scientific information (also termed evidence or data) to meet statutory requirements and to pass judicial muster under the Administrative Procedure Act. *See, e.g., Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988) (ESA); *Brower v. Evans*, 257 F.3d 1058, 1070–71 (9th Cir. 2001) (MMPA). Under the ESA, a final biological opinion must not only be based on the best available scientific data, 16 U.S.C. § 1536(a)(2), but when “new

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<sup>1</sup> *See* NMFS, *Endangered Species Act Section 7 Consultation on the: (a) Authorization of the American Lobster, Atlantic Bluefish, Atlantic Deep-Sea Red Crab, Mackerel/Squid/Butterfish, Monkfish, Northeast Multispecies, Northeast Skate Complex, Spiny Dogfish, Summer Flounder/Scup/Black Sea Bass, and Jonah Crab Fisheries and (b) Implementation of the New England Fishery Management Council’s Omnibus Essential Fish Habitat Amendment 2* [Consultation No. GARFO-2017-00031], May 27, 2021.

information reveals effects of the action that may affect listed species . . . in a manner or to an extent not previously considered,” 50 C.F.R. § 402.16(a)(2), NMFS must reinitiate consultation.

A recently-published paper by NMFS scientist Joshua Stewart and co-authors, titled “Decreasing body lengths in North Atlantic right whales,”<sup>2</sup> constitutes significant new information directly relevant not only to NMFS’s no-jeopardy conclusion in the 2021 BiOp but also to specific aspects of the proposed rule to amend the Plan and the environmental analysis of the proposed rule and alternatives set forth in the Draft Environmental Impact Statement (DEIS). This paper compares length measurements of 129 individual whales born between 1981 and 2019 for which age and length data were collected in two periods, from 2000–2002 and from 2016–2019.<sup>3</sup> It demonstrates that right whales “born in recent years have experienced stunted growth, and over the same period that we have detected this effect they have experienced increasing rates of entanglement.”<sup>4</sup>

*Sublethal effects of entanglements may decrease reproductive success and increase risk of lethal entanglement*

Noting that, in baleen whales, “larger maternal size and body condition are associated with faster calf growth rates and larger calves,” the paper observes that “Decreasing body size may therefore be associated with smaller calves and lower calf survivorship, or potentially delayed first calving and lower reproductive success in females. [Right whales] exhibit generally poor body condition compared to other populations of right whales, which could contribute to synergistic negative effects where females in poor condition produce smaller calves that ultimately reach smaller maximum sizes, further contributing to reduced calf growth and declining calf condition.”<sup>5</sup> Although the paper posits that “birth year effects on asymptotic length represents the cumulative effects of dynamic and hard-to-observe impacts on individual [right whales] that may include unrecorded entanglements, shifting prey seascapes, vessel strikes, and foraging interference from vessel traffic,”<sup>6</sup> its results “suggest that sub-lethal entanglements constrain overall body size in [right whales], which may in turn make them less resilient to future entanglements by reducing their absolute energetic reserves and increasing the probability of a lethal entanglement.”<sup>7</sup>

The Stewart et al. paper is thus directly relevant to and casts doubt on NMFS’s no-jeopardy conclusion in the 2021 BiOp, which already inadequately and unlawfully failed to consider the impacts of sublethal entanglements on the species’ likelihood of survival and recovery under the proposed amendments to the Plan.<sup>8</sup> Unlike the model-based papers the 2021 BiOp implicitly

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<sup>2</sup> Stewart et al., Decreasing body lengths in North Atlantic right whales, *Current Biology* (2021), available at <https://doi.org/10.1016/j.cub.2021.04.067>

<sup>3</sup> *Id.* at 1.

<sup>4</sup> *Id.* at 2.

<sup>5</sup> *Id.* at 3.

<sup>6</sup> *Id.* at 2.

<sup>7</sup> *Id.* at 3.

<sup>8</sup> *See, e.g.*, 2021 BiOp at 220–21; *see also id.* at 221 (“However, at this time, there is no further evidence to make the conclusion that sublethal effects from fishing gear entanglement alone causes [sic] a decline in large whale health.”); *id.* at 338–39 (“sublethal effects analysis” of jeopardy analysis, acknowledging that the proposed Plan amendments will not decrease sublethal effects or improve calving rates); *id.* at 341–342 (no-jeopardy determination, also acknowledging

disparages as “postulations,”<sup>9</sup> the Stewart paper presents concrete photogrammetric evidence of the stunting associated with sublethal entanglements both of a right whale directly and of a right whale’s mother during lactation.<sup>10</sup> NMFS must reinitiate consultation on the 2021 BiOp and, before finalizing the Plan amendments or the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), take this information into account.

Also highly relevant to the sublethal entanglements issue are two additional papers that NMFS failed to cite or analyze in the 2021 BiOp, the proposed rule, or the DEIS. The first, by Sarah Fortune and co-authors, titled “Body growth of North Atlantic right whales (*Eubalaena glacialis*) revisited” and published in October 2020<sup>11</sup> demonstrates that healthy right whales are considerably heavier than previously estimated and that therefore previously estimated energy requirements have been underestimated for some age-classes. Specifically, “sexually mature right whales require more energy per unit body mass than previously thought because their estimated body mass exceeds the upper limits of previous estimates.”<sup>12</sup>

The second, by Katherine Graham and co-authors, titled “Stress and reproductive events detected in North Atlantic right whale blubber using a simplified hormone extraction protocol” and published in January 2021,<sup>13</sup> confirms that the highest detected levels of stress hormones from biopsy or necropsy samples of right whales with known life history states came from whales with active entanglements or that died from acute entanglements. In light of the accepted scientific literature demonstrating the high energetic and stress costs of sublethal entanglements to individual females,<sup>14</sup> NMFS must consider both Fortune et al. (2020) and Graham et al. (2021) in a reinitiated consultation and prior to finalizing the Plan amendments and FEIS/ROD.

*NMFS must reexamine its assumptions that weak ropes/contrivances will significantly reduce right whale mortalities/serious injuries in smaller/weaker animals*

In addition to its relevance on the sublethal effects of entanglements, the Stewart et al. (2021) paper also has serious implications for the efficacy of NMFS’s proposed risk reduction measures based on the unproven assumption that weak rope, weak insertions, and/or weak toppers will

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that the proposed Plan amendments will not reduce sublethal effects or improve calving rates). In every section of the 2021 BiOp in which NMFS purports to address the sublethal effects of entanglement, it essentially punts its obligation to engage in a meaningful analysis of these effects with the excuse that they cannot be quantified.

<sup>9</sup> *Id.* at 221.

<sup>10</sup> *Id.* at 2.

<sup>11</sup> Fortune et al., Body growth of North Atlantic right whales (*Eubalaena glacialis*) revisited, *Marine Mammal Science* (2020), available at <https://doi.org/10.1111/mms.12753>

<sup>12</sup> *Id.* at 10; *see also id.* at 12 (“Consequently, the new predictions of body mass result in elevated metabolic rates, lending further support to certain ages of right whales being more vulnerable to nutritional stress than others. This is particularly important for reproductively mature females, who may be able to withstand short periods of reduced feeding if they can replenish their blubber reserves during the postlactation period.”).

<sup>13</sup> Graham et al., Stress and reproductive events detected in North Atlantic right whale blubber using a simplified hormone extraction protocol, *Conservation Physiology* (2021), available at <https://doi.org/10.1093/conphys/coaa133>.

<sup>14</sup> *See, e.g.*, 2021 BiOp at 220–21 (citing papers).

substantially reduce right whale mortalities and serious injuries (M/SI) in fixed-gear fisheries using static vertical buoy lines.<sup>15</sup> This unproven assumption is based on a single paper, Knowlton et al. (2016),<sup>16</sup> that concluded that 1700 pound-force (lbf) breaking strength rope could reduce M/SI for right whales. Even more fundamentally, the Stewart et al. (2021) paper calls into question the entire Decision Support Tool, where the gear risk component consists of “a gear threat model to determine the relative threat of gear based on gear strength.”<sup>17</sup>

All of the ropes studied in Knowlton et al. (2016) were taken from gear collected from large whale entanglements between 1994 and 2010.<sup>18</sup> In other words, the entanglements from which the studied ropes were collected occurred not only before the documented shift in right whale distribution, increase in right whale mortality, and decline in right whale abundance all starting in 2010, but also before the documented decreases in body length and stunted growth of calves demonstrated by Stewart et al. (2021).

Stewart et al. (2021) conclude that “With the maximum effect of birth year applied, a whale born in 2019 is expected to reach a maximum length approximately 1 m shorter than a whale born in 1981.”<sup>19</sup> The consequences of this meter reduction in length with respect to mass are illustrated by Table 2 in Fortune et al. (2020). There, the authors model a 13.6 m right whale’s weight at 35,277 kg (age 25) versus a 12.6 m right whale’s weight at 28,187 kg (age 9), a full 25% decrease.<sup>20</sup>

Shorter right whales, with commensurately less mass, cannot be assumed to be able to exert the same forces as longer right whales, casting into doubt NMFS’s “suggestion” that “right whales may be able to break free of rope that is weaker than 1700 lbf . . . consistent with estimates of the force that large whales are capable of applying, based on an axial locomotor muscle morphology study.” See 2021 BiOp at 25; DEIS at 3-64, 5-134, 5-161, 5-172 (citing Arthur et al. (2015)<sup>21</sup>).

Taken together, these papers demonstrate that NMFS cannot rely on the assumptions undergirding the gear threat component of the Decision Support Tool or on the assumptions in the 2021 BiOp, proposed rule, and DEIS, that weak ropes/weak contrivances will significantly reduce M/SI in right whales.

### *Conclusion*

In our comments on the draft 2021 BiOp and the draft proposed rule/DEIS, we detailed the many significant legal and scientific shortcomings of those documents. NMFS has already explicitly violated a federal district court’s opinions and orders by issuing the 2021 BiOp without a lawful

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<sup>15</sup> See, e.g., DEIS at 5-157–5-162 (§ 5.2.13., “Weak Rope”).

<sup>16</sup> Knowlton et al., Effects of fishing rope strength on the severity of large whale entanglements, *Conservation Biology* (2016), available at <https://doi.org/10.1111/cobi.12590>

<sup>17</sup> See, e.g., DEIS at 3-65; *id.* at 3-74 (describing adjustments to model assumptions on weak rope based on weak insertions).

<sup>18</sup> *Id.* at 320.

<sup>19</sup> Stewart et al. (2021) at 2.

<sup>20</sup> Fortune et al. (2020) at 9, Table 2.

<sup>21</sup> Arthur et al., Estimating maximal force output of cetaceans using axial locomotor muscle morphology, *Marine Mammal Science* (2015), available at <https://doi.org/10.1111/mms.12230>.

incidental take statement for the lethal take of right whales that the document bluntly concedes will continue to occur even if the Plan amendments are fully successful. The proposed rule does not even pretend to meet the MMPA's explicit requirements of bringing M/SI below the potential biological removal level. The Stewart et al. (2021) paper, together with other sources of the best available scientific data that the agency has failed to consider and incorporate into its decision-making, only reinforce that the agency is currently on a collision course with disaster for both the right whale and the fishing industry. With an extremely limited window in which to act, NMFS should finally open its eyes to the fact that its proposed rule is a failure both scientifically and legally.

We reiterate that the only reasonable course of action is for NMFS to withdraw the proposed rule and reinitiate consultation to drastically rework the Plan to bring it into conformity with the requirements of the ESA and MMPA. In the interim, NMFS must finally act on our December 2, 2020 petition for emergency rulemaking under MMPA section 118(g), 16 U.S.C. § 1387(g).

Please do not hesitate to contact us with any questions or to discuss the issues we raise.

Sincerely,

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Attachments