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1315 East-West Highway  
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Submitted via: ITP.Laws@noaa.gov.

May 23, 2016

**Re: Southeast Fishery Science Center: Application For Letter Of Authorization Under MMPA Section 101(a)(5)(A)**

Dear Ms. Harrison,

On behalf of members and constituents of The Humane Society of the United States and of Whale and Dolphin Conservation, we offer the following comments on the request from the National Marine Fisheries Service's (NMFS) Southeast Fisheries Science Center (SEFSC) for a letter of authorization (LOA) to take small numbers of marine mammals incidental to conducting fisheries research over a five year period starting at the date of any authorization, 81 Fed. Reg. 23,677 (Apr. 22, 2016) (the "Notice"). As much of the information in the application for LOA (the "Application") was also submitted as part of the associated Draft Programmatic Environmental Assessment (DPEA), we have attached our comments on the DPEA and incorporate them herein by reference.<sup>1</sup> Our comments for the LOA will focus almost exclusively on impacts to bottlenose dolphin (*Tursiops truncatus*) stocks in the Southeast.

As NMFS acknowledges in the Notice, under Section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA), "incidental taking shall be allowed if NMFS finds that the taking will have a negligible impact on the species or stock(s) affected . . . ."<sup>2</sup> Further, NMFS states it has defined "negligible impact" in 50 C.F.R. § 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."<sup>3</sup> NMFS has provided further guidance stating that, in order to make a "negligible impact" determination, all

<sup>1</sup> The Application can be found at:

[http://www.nmfs.noaa.gov/pr/permits/incidental/research/sefsc\\_2016loa\\_app.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/research/sefsc_2016loa_app.pdf). The DPEA can be found at

[http://www.nmfs.noaa.gov/pr/permits/incidental/research/sefsc\\_2016loa\\_dpea.pdf](http://www.nmfs.noaa.gov/pr/permits/incidental/research/sefsc_2016loa_dpea.pdf).

<sup>2</sup> 81 Fed. Reg. at 23,677-78; see 16 U.S.C. § 1371(a)(5)(A).

<sup>3</sup> 81 Fed. Reg. at 23,678.

sources of anthropogenic mortality must be less than 10 percent of a stock's Potential Biological Removal (PBR) level.<sup>4</sup> This is analogous to the Zero Mortality rate Goal in the MMPA.<sup>5</sup> As we will discuss, and is discussed at length in our comments on the DPEA, no negligible impact determination is possible for most of the bottlenose dolphin stocks likely to be affected by the proposed research activities. For a number of stocks where PBR can be calculated, the effects of anthropogenic mortality will exceed 10 percent of PBR, even after imposition of the proposed mitigation in the DPEA's "Preferred Alternative." However, for the other bottlenose dolphin stocks, where there is outdated or insufficient information on the population abundance and thus no calculation of PBR, NMFS cannot simply presume takes will be negligible. Further, we do not agree with NMFS that "NMFS received an adequate and complete application."<sup>6</sup>

As is discussed in greater detail below, NMFS must reject the Application, as NMFS cannot reasonably find that the take requested will have a negligible impact on the bottlenose dolphin and several other marine mammal stocks impacted. The DPEA is incomplete, the Application is based on insufficient data, and the data that are presented show that the proposed takes could well be unsustainable. A negligible impact finding, and thus the issuance of an LOA based on such a finding, would be arbitrary and capricious.

### **1. The Application is Missing Information Regarding Documented Takes of Bottlenose Dolphins.**

NMFS states "[a]lthough the SEFSC take estimates for species captured historically are based on an average take during 2002-2015, it should be emphasized that there is still an inherent level of uncertainty in estimating potential take both in terms of numbers and species of marine mammals that may actually be taken."<sup>7</sup> This degree of uncertainty is troubling, particularly in light of widespread uncertainty about the abundance and status of most of the dolphin stocks likely to be taken in the research. Further, not all takes in the SEFSC's research were enumerated in the DPEA or in this Application.

As our comments on the DPEA pointed out, the SEFSC accounting of "[h]istorical takes of marine mammals during SEFSC surveys, 2002-2015" (which is Table 6-1 in the Application but Table 4.2-15 in the DPEA), omits consideration of research-related takes that are documented in the NMFS Stock Assessment Reports (SAR) for bottlenose dolphins stocks in the (BSEs) of the Gulf of Mexico (GOM).<sup>8</sup>

The "Other Mortality" section of this SAR documented considerably more research-related takes in years between 2010 and 2014 than does the DPEA.<sup>9</sup> During those years, the SAR documents twelve research-related entanglements/takes of dolphins of whom three were killed, one seriously injured, two

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<sup>4</sup> 64 Fed. Reg. 28,801 (May 27, 1999). The MMPA defines PBR as "the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population." 16 U.S.C. § 1362(20).

<sup>5</sup> See: Zero Mortality Rate Goal defined and discussed by NMFS at: [http://www.nmfs.noaa.gov/pr/interactions/fkwtrt/orientation/mmpa\\_section118/zmrg.pdf](http://www.nmfs.noaa.gov/pr/interactions/fkwtrt/orientation/mmpa_section118/zmrg.pdf).

<sup>6</sup> 81 Fed. Reg. at 23,678.

<sup>7</sup> Application, *supra* note 1, at 86.

<sup>8</sup> NMFS. 2015. Marine Mammal Stock Assessments: Common Bottlenose Dolphin: Northern Gulf of Mexico Bays, Sounds and Estuary stocks. Tech Memo NMFS-NE-231 at: <http://www.nmfs.noaa.gov/publications/tm/tm231/tm231.pdf>.

<sup>9</sup> DPEA, *supra* note 1, at Table 4.2-15 (Historical Takes of Marine Mammals during SEFSC Surveys, 2002-2015).

had no determination made of condition on release and six others were released alive.<sup>10</sup> In contrast, in that same time period, the DPEA lists only four “historical takes,” including two deaths and two released alive.<sup>11</sup> The DPEA is missing information from the SAR. The DPEA must be amended to include all relevant information, and granting an LOA based on an incomplete DPEA would be unlawful.

Research-related takes enumerated in DPEA Table 4.2-15 fall almost entirely on the Mississippi Sound or Mobile Bay stocks; whereas, the most recent SAR lists a number of takes each year in other stocks that are not enumerated in this Table. The SAR documents takes in Texas affecting the stock defined as the Copano Bay, Aransas Bay, San Antonio Bay, Redfish Bay, and Espiritu Santo Bay stock.<sup>12</sup> It is not clear why these takes are not mentioned in the DPEA, but they should have been accounted for. We note with some concern that, in the SAR, two of these research-related interactions in Texas were injuries and one was a mortality (though additional animals in this same stock were said to have been entangled and released uninjured).<sup>13</sup> These three mortalities and/or serious injuries are *three times* the number requested in the NMFS take authorization in Table 4.2-20 of the DPEA (Table 6-3 of the Application).<sup>14</sup> Clearly the number of takes requested for this stock is inadequate simply based on the recent research-related interaction rates. Based on documentation of takes in the SAR, it would be improper for NMFS to grant the LOA, as the research-related interactions would result in takes above the likely PBR.

## **2. NMFS has underestimated the magnitude of the impact of these takes in its analysis.**

### **a. The Impact Analysis Must Include the Total Anthropogenic Mortality.**

The Application states that “[f]or purposes of estimating potential mortality/serious injury (M&SI) takes and Level A harassment takes (Tables 6-2 and 6-3) for the [Atlantic Research Area (ARA)] and [Gulf of Mexico Research Area (GOMRA)], the SEFSC calculated the average number of reported interactions for bottlenose dolphins in all gear types deployed for each research area during 2002-2015.”<sup>15</sup> However, as noted above and in our attached DPEA comments, not all takes have in fact been accounted for, nor has their impact been properly assessed.<sup>16</sup>

The Application discusses the difference in definition between “minor,” “moderate,” and “major” impacts as a product of comparing the takes to a stock’s PBR. It concludes that takes would be “minor to moderate” for all bottlenose dolphin stocks.<sup>17</sup> However, as we pointed out in our DPEA comments for the Copano Bay, Aransas Bay, San Antonio Bay, Redfish Bay, and Espirtu Santo Bay stock, past research-related takes have occurred at a level that is apparently “major,” as it is several times the PBR that was set in the NMFS SAR at the time of the population’s last assessment.<sup>18</sup>

Interestingly, with regard to the GOMRA, NMFS provides a caveat to its assessment of impact to dolphin stocks, stating that “[e]xcluding coastal and BSE bottlenose dolphins, the SEFSC take request includes ten

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<sup>10</sup> Stock Assessment 2015, *supra* note 8.

<sup>11</sup> DPEA, *supra* note 1, at Table 4.2-15.

<sup>12</sup> Stock Assessment 2015, *supra* note 8.

<sup>13</sup> Stock Assessment 2015, *supra* note 8

<sup>14</sup> The referenced table requests 0.2 takes per year, but the research-related takes in the SAR are said to average 0.6 takes per year. See DPEA, *supra* note 1, at Table 4.2-20; Stock Assessment, *supra* note 8, at \_\_\_\_.

<sup>15</sup> Application, *supra* note 1, at 84.

<sup>16</sup> See attached DPEA comments at pages 8-10 for additional detail of missing information on take levels.

<sup>17</sup> Application, *supra* note 1, at 116.

<sup>18</sup> See our comments on the DPEA at pages 9-10 for more detail on takes for this stock.

species or stocks; all of which are requested at an annual level well below 10 percent of PBR.”<sup>19</sup> This exclusion of the BSE stocks is not trivial. In fact, the impact of research takes, when added to fishery-related mortality, is not less than PBR. The PBR is generally said to be unknown for most of these stocks,<sup>20</sup> and many of these stocks were small when last assessed.<sup>21</sup> Additionally, many stocks were also adversely affected by the Deepwater Horizon disaster, which resulted in high levels of mortality in affected stocks, affecting abundance and likely PBR. As we note in our comments on DPEA, NMFS has failed to account for all impacts to the stocks.<sup>22</sup>

b. The Impact Assessment Does Not Properly Address the Commercial Fishery-related Impacts.

Before a finding of negligible impact can be made and a permit issued for incidental taking, NMFS acknowledges that it must examine “total human-related serious injuries and mortalities,” not just those of the proposed action.<sup>23</sup> Both the DPEA and the Application fail to adequately assess the additive impact of commercial fishery-related mortality, though these takes are human-related and are part of the cumulative impacts that must be considered when determining whether a permit can be issued.

Fishery-related mortality is discussed in the SARs for the various stocks to a degree not well accounted for in either the DPEA or the Application. For example, the NMFS SAR for bottlenose dolphin stocks in the BSEs documents a “mean annual mortality” in shrimp trawls (not including added mortality in skimmer trawls) of 41 bottlenose dolphins from “the Mississippi River Delta east to Mobile Bay.”<sup>24</sup> While the specific stock(s) affected was not identified, the SAR shows that—where a current PBR is set—stocks in this area have PBRs between 1.7 and 5.6 per year, though most stocks in the area have unknown PBRs.<sup>25</sup> It is highly likely that this combined research and fishery-related mortality would exceed 10 percent of any PBR set for these stocks.

The fact that takes in research are additive (cumulative) to already high levels of shrimp trawl takes appears to have been overlooked, or at best understated, since most state waters fisheries lack fishery observer coverage.<sup>26</sup> Similarly, while takes have been documented in research-related gillnets in the ARA and GOMRA, most fisheries, particularly those in state waters, lack federal observer coverage of gillnet effort.<sup>27</sup> Absence of data on impacts in analogous gear is not the same thing as data showing absence of impacts by analogous gear.

The total anthropogenic take of many of the stocks for which takes are proposed would exceed 10 percent of PBR. NMFS should examine the information on human-related mortality and serious injury

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<sup>19</sup> Application, *supra* note 1, at 115 [emphasis added].

<sup>20</sup> See DPEA *supra* note 1, at Tables 7-2 and 7-4.

<sup>21</sup> Stock Assessment 2015, *supra* note 8.

<sup>22</sup> See our comments on the DPEA at pages 14-17 for more discussion of unaccounted impacts.

<sup>23</sup> 64 Fed. Reg. at 28,801.

<sup>24</sup> Stock Assessment 2015, *supra* note 8.

<sup>25</sup> Stock Assessment 2015, *supra* note 8.

<sup>26</sup> Application at 73.

<sup>27</sup> See SAR for Bay, Sound and Estuarine stocks stipulating “these stocks interact with unobserved fisheries” including trawl fisheries, gillnets and seine fisheries, which use gear similar to that employed in the SEFSC research. And, for the ARA there is a similar admission in the SARs for most coastal stocks including both the Northern and the Southern North Carolina Estuarine System stocks which, after listing myriad commercial fisheries with which the stock may interact, states “observer coverage is also limited or non-existent for most of these fisheries.” (All SARs at: <http://www.nefsc.noaa.gov/publications/tm/tm231/>.)

that it has published in its own SARs and re-calculate impacts in the DPEA and Application based on total takes that are likely, including projections of impact based on stranding information.

### 3. The Status of the Stocks is More Precarious than the DPEA or LOA Application Acknowledge.

Half of the stocks of dolphins in the ARA (8 of 16) lack a current PBR level.<sup>28</sup> Only a handful of the more than 30 stocks in the GOM have current PBRs. NMFS states: “[a]s described above for ARA stocks with undetermined PBRs, the lack of any recent population information for these stocks in the GOMRA prohibit the SEFSC from providing a quantitative assessment with up-to-date information on the potential impacts of the requested takes of animals from these stocks. If new population estimates for one or more stocks of bottlenose dolphins in the GOMRA are developed in the future, NMFS will consider the potential impacts of its ongoing fisheries research program.”<sup>29</sup>

However, the DPEA indicates that the agency has no plans to update these estimates, in part due to the cost of surveys.<sup>30</sup> This is an interesting catch-22. The agency avers that it cannot provide a quantitative estimate of populations due to lack of recent surveys, so it will essentially ignore the magnitude of any likely fishery-related impacts on populations until such time as it has undertaken surveys to update these population estimates—but it has no plans to undertake surveys to update estimates so that impacts can be properly assessed.<sup>31</sup> This is unacceptable.

NMFS must consider that, not only are the abundance surveys out of date, but impacts from the Deepwater Horizon disaster heavily impacted a large number of GOM dolphin stocks in the BSEs, meaning the population estimates are likely smaller than acknowledged either in the outdated SAR estimates, the Application, or the DPEA. As a result, the research-related impacts on populations may be underestimated.<sup>32</sup> While NMFS has no specific plans to update surveys, as our DPEA comments noted, the Mississippi Sound stocks appear to be sustaining research-related takes that are near or above PBR, which compounds ongoing impacts from commercial fisheries at the same time that the stock has suffered a major decline that will require up to half a century for recovery.<sup>33</sup> Based on a damage assessment that was released in April of this year, federal officials estimate it would take 39 years for bottlenose dolphins in Barataria Bay to recover, 52 years for dolphins along the Mississippi River Delta, 46 years in Mississippi Sound, and 31 years in Mobile Bay.<sup>34</sup> Given the magnitude of the likely losses to these populations, and thus, the need to reconsider the PBRs, the impact of research activities relative to PBR (for those that have a PBR) is surely greater than is listed in Table 7-4 of the Application.

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<sup>28</sup> Application at Table 7-2.

<sup>29</sup> Application at 116-17.

<sup>30</sup> See discussion at DPEA 4-58 stating “Given the large number of stocks that overlap with SEFSC research activities and the huge geographic area in which they occur, such a research program to better define the populations of this species would be a very large and expensive operation. It is not clear what the prospect is that such a comprehensive research program would be funded in the future but it would likely take years to conduct the research, analyze the data, and incorporate the information into the SARs.” [emphasis added]

<sup>31</sup> See DPEA at 4-58 admitting that the geographic area and cost of surveys would be large and “It is not clear what the prospect is that such a comprehensive research program would be funded in the future...”

<sup>32</sup> See attached DPEA comments on pages 15-16 for more detailed discussion.

<sup>33</sup> Deepwater Horizon Natural Resource Damage Assessment Trustees. (2016). Deepwater Horizon oil spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement. Chapter 4: Injury to Natural Resources. At: [http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4\\_Injury\\_to\\_Natural\\_Resources\\_508.pdf](http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4_Injury_to_Natural_Resources_508.pdf). At 4-383.

<sup>34</sup> Deepwater Horizon, *supra* note 33.

#### 4. The Proposed Mitigation is Inadequate.

As we discussed at length in our comments on the DPEA, mitigation measures in NMFS' Preferred Alternative will almost surely fail to reduce the level of mortality that would occur under the Status Quo Alternative.<sup>35</sup> After acknowledging that use of status quo mitigation measures has been inconsistent and ineffective, the Application contains includes 12 pages of discussion of mitigation and monitoring measures under the Preferred Alternative that are essentially the same as the status quo measures in the DPEA, but with the addition of crew training in the use of the status quo mitigations and with opportunities for crew to communicate "best practices."<sup>36</sup> In fact, the same number of takes were requested under both the Status Quo and Preferred Alternatives in the DPEA. Since the interaction rate is projected to be the same under the various alternatives (other than the "no research" alternative); we must look to differences in mitigation. As admitted in the DPEA, the Preferred Alternative includes identical mitigation measures as in the Status Quo Alternative, "plus some additional measures [that are simply] *intended to improve the implementation of existing protocols.*"<sup>37</sup> Given that takes have occurred under the status quo even though these "existing protocols" were already required, and that some stocks have sustained fishery-related mortality and serious injury at levels that are well above 10 percent of their PBR, this suite of proposed mitigation is grossly inadequate. The LOA should not be issued until and unless additional mitigation measures are identified and required that will reduce the current level of takes in stocks in the ARA and GOMRA.

#### 5. NMFS Cannot Reasonably Make a Negligible Impact Finding.

In assessing whether or not the action would have a negligible impact, NMFS sets out a 5 part process.<sup>38</sup> First, the total number of human-related serious injuries and mortalities is weighed against the stock's PBR.<sup>39</sup> If total human-related serious injuries and mortalities are less than 0.1 PBR, all fisheries may be permitted. If this is not the case but combined fishery-related mortality is less than the 0.1 PBR, then individual fisheries may be permitted if management measures are taken to address non-fisheries-related serious injuries and mortalities.<sup>40</sup> However, if total fishery-related serious injury and mortality is "greater than 0.1 PBR and less than PBR and the *population is stable or increasing*, fisheries may be permitted subject to individual review and *certainty of data.*"<sup>41</sup> The impact test stipulates that even more restrictive criteria are necessary if the population is declining and, further, if total fishery-related serious injury and mortality is greater than PBR, permits may not be issued.<sup>42</sup> As we have pointed out in our comments on the DPEA and have reiterated in these comments, populations in the GOM were significantly adversely affected by the Deepwater Horizon disaster and are certainly *not* stable or increasing. And, given that the majority of stocks in the ARA and GOMRA have no PBR and there is no observer coverage on interacting commercial fisheries to properly quantify the total level of human-caused mortality and serious injury in risk-prone gear; there is clearly no "certainty of data."

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<sup>35</sup> See more detailed discussion in attached DPEA comments at pages 10-12.

<sup>36</sup> Application, *supra* note 1, at 135-147.

<sup>37</sup> DPEA, *supra* note 1, at 4-151 [emphasis added].

<sup>38</sup> 64 Fed. Reg. at 28,801.

<sup>39</sup> 64 Fed. Reg. at 28,801.

<sup>40</sup> 64 Fed. Reg. at 28,801.

<sup>41</sup> 64 Fed. Reg. at 28,801 (emphasis added).

<sup>42</sup> 64 Fed. Reg. at 28,801.

As noted, a number of stocks lack a PBR but, even for those that have a PBR, it is not clear that fishery-related impacts are at a negligible level. For example, bottlenose dolphins in the Northern North Carolina Estuarine System are documented in the most recent final SAR to be sustaining fishery-related mortality that may exceed their PBR of 7.8.<sup>43</sup> While NMFS acknowledges that the lack of observer coverage makes it difficult to determine exact mortality levels, the SAR states that annual fishery-caused mortality ranges between 0.6 and 15.9.<sup>44</sup> At the lower range of the estimate, that level of mortality is close to 10 percent of the PBR, but with the addition of the projected 0.2 research takes per year it exceeds 10 percent of the PBR. At the higher end of the mortality estimate, it is *twice* the PBR even without the added impact of research-related takes. This is not negligible and, other than a crew training workshop, no mitigation measures beyond the status quo are proposed that appear likely to reduce this level to one that is negligible. Similarly, as we pointed out in comments on the DPEA, Table 5.5-2 of the DPEA indicates that the Northern North Carolina estuarine stock may be subjected to an annual take of up to 5% of its PBR by research-related interactions, but this is apparently added to an estimated mortality and serious injury in commercial fisheries. This table indicates that the impact of commercial fisheries alone ranges somewhere between 13%-214% of the PBR annually. This wildly divergent estimate of impacts indicates great uncertainty regarding the magnitude of impacts on the stock, which the SEFSC takes are only compounding. If this research is to be authorized, additional mitigation needs to be imposed for stocks where data are uncertain but the cumulative impacts may be at levels above 10 percent of PBR.

Even as NMFS acknowledges that the lack of observer coverage and poor reporting by fisheries likely leads to underestimates of fishery-related mortality,<sup>45</sup> the Application itself stipulates that fishery-related takes for a number of stocks are projected to be above 10 percent of the PBR<sup>46</sup>—without adding the impact of mortality from all human-related causes, as is required to be included in consideration of making a negligible impact determination.

Citing its own SARs, the Application analysis acknowledges that “[t]he levels of take are not less than 10 percent of PBR for [three stocks:] the oceanic; Mississippi Sound, Lake Borgne, Bay Boudreau; and Choctawhatchee Bay stocks, so cannot be considered insignificant and approaching zero mortality and serious injury rate for those stocks. The [GOM BSE] stocks are listed as strategic due to largely unknown, but likely small, stock sizes and low numbers of mortalities and serious injuries would exceed PBR.”<sup>47</sup>

Moreover, Table 7-4 of the Application stipulates that SEFSC research alone would result in takes exceeding 10 percent of PBR for several stocks including St. Joseph Bay stock, the Mississippi River Delta stock, and the Mississippi Sound, Lake Borgne and Lake Budreau stock. The admission that many of the

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<sup>43</sup> NMFS 2014. Stock Assessment Report: Common Bottlenose Dolphin (*Tursiops truncatus truncatus*) Northern North Carolina Estuarine System. At: [http://www.nmfs.noaa.gov/pr/sars/2013/ao2013\\_bottlenose-northern-nc-estuarine.pdf](http://www.nmfs.noaa.gov/pr/sars/2013/ao2013_bottlenose-northern-nc-estuarine.pdf).

<sup>44</sup> Stock Assessment 2014, *supra* note 43.

<sup>45</sup> DPEA, *supra* note 1, at 5-21, stating for ARA stocks that “these numbers are minimum numbers and are likely underestimates of actual serious injuries and mortalities due to a number of unobserved commercial fisheries, poor monitoring and reporting systems for recreational fisheries, the likelihood that all injured or killed marine mammals are not found or reported.” Identical language is in the DPEA for GOM stocks at page 5-30.

<sup>46</sup> See Application, *supra* note 1 at 61, 64, acknowledging takes of “not less than 10 percent of the calculated PBR” for Risso’s dolphins in the ARA, for Short-beaked dolphins in the ARA, and for three bottlenose dolphin stocks in the GOM: the oceanic stock; the Mississippi Sound, Lake Borgne, Bay Boudreau stock; and Choctawhatchee Bay stock.

<sup>47</sup> Application, *supra* note 1 at 73-74.

SEFSC requests for take under the proposed research (which already assume use of mitigation measures) will exceed a negligible level precludes issuance of an LOA, particularly given that there are additive and largely unmitigated takes that are also occurring in commercial fisheries. Given the failure to propose additional mitigation beyond training and mandated reporting, NMFS cannot reasonably make a negligible impact determination for any stocks where either the impact of the SEFSC alone or its impact combined with impacts from commercial fisheries exceeds 10 percent of the stocks' PBR.

With regard to the stocks in the BSEs of the GOM, NMFS states that "[m]any of the stocks with undetermined PBR are also small and, if their populations were determined, would also likely have small PBRs and the take request could be a similar percentage of their respective PBRs as the five stocks with a calculated PBR."<sup>48</sup> That is, NMFS is asserting that the takes would be at a level it feels is similar and likely to be minor to moderate. This is an unfounded contention. As we have discussed in our comments on the DPEA, a number of these stocks for which takes are proposed have population estimates of 35 or less<sup>49</sup> based on outdated information, and many of the GOM stocks suffered high rates of mortality from the Deepwater Horizon disaster and have had populations reduced by half or more with recovery to baseline levels projected to take decades.<sup>50</sup>

## 6. Conclusion

NMFS cannot make a negligible impact determination based on the Application and the DPEA. For many stocks of bottlenose dolphins, PBR is not known. In these cases we do not know what level is negligible, but it is clear that anthropogenic mortality makes it unlikely that even a small number of additional takes would be sustainable. In cases where PBR may be known, the SEFSC takes alone are projected to exceed a negligible impact even with the proposed mitigation (which adds little to existing protocols). In other cases, the SEFSC takes, added to serious injury and mortality in commercial fisheries, will exceed 10 percent of the PBR, with no additional mitigation proposed for either the SEFSC or the commercial fishery. The LOA should be denied until such time as a complete DPEA is available, and until such time as a negligible impact can be assured either by greater certainty in the data or by imposition of additional mitigation. Until that time, the issuance of an LOA would be arbitrary and capricious.

Sincerely,



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<sup>48</sup> Application, *supra* note 1 at 116.

<sup>49</sup> Stock Assessment Report *supra* note 8 which lists Sabine Lake, Calcaieu Lake, Vermillion Bay (et al); Perdido Bay and Caloosahatchee river with NO estimated population abundance (i.e., it is listed as "0") and the stocks in West Bay and St. Joseph Sound/Clearwater Harbor are estimated at 32 and 37 animals respectively based on prior, outdated abundance surveys.

<sup>50</sup> See attached DPEA comments at page 8, discussing the number of stocks with estimates of abundance of 30 or less when last assessed and prior to the Deepwater Horizon disaster. See also Deepwater Horizon, *supra* note 33, at 4-383.







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Submitted via: SEFSC.DPEA@noaa.gov.

May 20, 2016

**Re: Comments on Draft Programmatic Environmental Assessment for Fisheries and Ecosystem Research Conducted and Funded by the Southeast Fisheries Science Center**

Dear Dr. Ponwith

On behalf of members and constituents of The Humane Society of the United States and of Whale and Dolphin Conservation, we offer the following comments on the Draft Programmatic Environmental Assessment (DPEA) for Fisheries and Ecosystem Research Conducted and Funded by the Southeast Fisheries Science Center (SEFSC or the "Center"). 81 Fed. Reg. 23276 (Apr. 20, 2016). Our comments will focus almost exclusively on impacts to bottlenose dolphin (*Tursiops truncatus*) stocks in the Southeast.

The National Marine Fisheries Service (NMFS or the "Agency") is considering four alternatives: (1) a no-action/status quo alternative that would continue the current research activities and mitigation ("Status Quo Alternative"); (2) NMFS' preferred alternative, which includes a new suite of research and some additional training in mitigation measures ("Preferred Alternative"); (3) a modified research alternative with a longer suite of potential mitigation ("Modified Research Alternative"); and (4) an alternative that would permit no SEFSC-funded fieldwork for federal fisheries and ecosystem research ("No Research Alternative"). The following are comments regarding the first three proposed alternatives. We provide no comments on the final alternative, which was largely a pro forma alternative.

In general, we find that the DPEA underestimates impacts of both the Status Quo and the Preferred Alternatives. We cannot support the Preferred Alternative, as this suite of mitigation measures is entirely inadequate to avoid significant adverse impacts. While we understand the pressing need for up-to-date information on the status of fish stocks that inform fishery management, the Agency appears to have inappropriately prioritized this need over the mandate to mitigate adverse impacts to protected species. As we will discuss further in these comments, it is apparent that the SEFSC has essentially chosen the Status Quo Alternative and simply added

outreach training to scientific parties and vessel operators. Given the unacceptably high rate of mortality

and serious injury and the manifest questions regarding population status of bottlenose dolphins in small stocks considered under the Status Quo Alternative, simply providing additional crew training is an insufficient remedy. Further, based on NMFS' own analysis, for NMFS to make a finding of negligible impact under the Marine Mammal Protection Act (MMPA) would be arbitrary and capricious. As NMFS cannot properly make a finding of negligible impact under the MMPA, it would be arbitrary and capricious for NMFS to issue a finding of no significant impact (FONSI) under the National Environmental Policy Act (NEPA).

## **Chapter 2: Alternatives**

### 2.2 Alternative 1: No Action/Status Quo Alternative

After listing the various research methodologies and foci in section 2.2.1, the DPEA discusses the mitigation employed to date. This suite of mitigation is clearly inadequate given the takes of bottlenose dolphins delineated in NMFS' Marine Mammal Stock Assessment Reports (SAR) and this DPEA. As we will discuss later in these comments, additional takes of these stocks have occurred in the extant/status quo SEFSC research that are not documented in the DPEA. NMFS' egregious failure to communicate critical mitigation information to scientific parties and vessel operators up to this point in the research program may account for some of the takes that are documented later in the DPEA and in these comments,<sup>1</sup> but it is clear that the Status Quo Alternative is not acceptable since the status quo as described here has resulted in unacceptably high levels of mortality and serious injury occurring in a number of small localized, and in many cases heavily impacted, stocks of dolphins.

### 2.3 Alternative 2: Preferred Alternative

This alternative proposes most of the same research as in the Status Quo Alternative, though it adds some additional areas of inquiry. The SEFSC acknowledges that the research being proposed requires sampling in "hot spots" for marine life, which may also be attracting marine mammals.<sup>2</sup> This likely accounts for some of the history of takes of bottlenose dolphins discussed in Chapter 4 and outlined later in these comments. The knowledge of ongoing takes requires new methods to mitigate risk. However, the only putative mitigation added is to increase training in the use of the status quo mitigation measures and to stress the need for better reporting.<sup>3</sup> Further, this alternative continues to rely on the judgment of the Field Party Chief and Scientific Watch Leader as to whether to employ specific mitigations (e.g., moving on from a risk-prone area or whether to employ other specific mitigation measures), even as the SEFSC admits that to date "there may be inconsistencies across the range of research surveys conducted and funded by the SEFSC in how those judgments are made,"<sup>4</sup> and these inconsistencies likely result in operating in a manner that increases risk to animals in some areas more than others. In addition to proposing a continuation of the status quo measures, which have been insufficient to prevent lethal impacts on small stocks, the SEFSC proposes to undertake a training workshop to discuss current "best practices," mirror efforts already undertaken in other regions by constructing a manual for safe handling and release, require that at least two persons on a vessel have

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<sup>1</sup> The preamble to the Preferred Alternative states that for "at least some of the research activities considered in this DPEA, especially those conducted by cooperative research partners, explicit links between the implementation of these best practices and their usefulness as mitigation measures for avoidance of protected species have not been formalized and clearly communicated with all scientific parties and vessel operators." DRAFT Programmatic Environmental Assessment for Fisheries and Ecosystem Research Conducted and Funded by the Southeast Fisheries Science Center April 2016 (DPEA) at 2-39.

<sup>2</sup> DPEA at xxv.

<sup>3</sup> DPEA at xxiii and xxiv.

<sup>4</sup> DPEA at 2-39.

received training from NMFS on safe handling, and undertake a review and possible updating of informational placards and reporting methods. Further, the Preferred Alternative would also require that “research partners” use the same Protected Species Incidental Take (PSIT) form for reporting as is required of other SEFSC researchers and incorporating into contracts with research partners all requirements for training, operating and reporting.<sup>5</sup> This alternative provides no real difference from the already inadequate status quo. It imposes no new mitigation to avert potentially lethal interactions with marine mammals; it simply formalizes requirements training and would standardize reporting of takes. This is wholly inadequate.

#### 2.4 Alternative 3: Modified Research Alternative

The same types and levels of research are proposed as in the Preferred Alternative, but additional mitigation measures would be added to those proposed in the Preferred Alternative. The new mitigation proposed is said to have been the result of seeking public input, internal discussions with NMFS Office of Protected Resources (OPR) staff, and a review of relevant literature. New mitigation includes the possibility of requiring trained and dedicated protected species observers (PSO) and “technological methods” of observing, imposing operational restrictions on time and area, and the use of alternative sampling methodologies. NMFS stipulates that one or more of these may be considered under subsequent MMPA or Endangered Species Act (ESA) consultations.<sup>6</sup>

SEFSC “acknowledges the inherent risk of these surveys and it has implemented a variety of measures to help mitigate that risk,”<sup>7</sup> yet it is clear from information presented later in the DPEA and in the NMFS SARs for bottlenose dolphins that these measures have been insufficient to prevent takes of dolphins from small stocks. Takes have occurred with the current suite of mitigation measures, yet in rejecting the Modified Research Alternative as a preferred alternative, the SEFSC provides a great deal of prose explaining that any additional mitigation would interfere with its research objectives, and states that it “currently has no viable alternatives to collecting the data derived from these surveys and does not propose to implement potential mitigation measures that would preclude continuation of these surveys, such as the elimination of research activities conducted at night or periods of poor visibility.”<sup>8</sup>

In spite of the incidental lethal interactions with dolphins, the reason our organizations are not supporting Alternative 4, the No Research Alternative, is because we understand the need for fishery-related surveys. However, it is unacceptable to issue a blanket refusal to consider *any* other additional mitigation without an explanation as to how some of the proposed measures would compromise the research. For example, it is difficult to see how use of trained PSO’s compromises research. However, we *do* know that a failure to adopt additional mitigation will compromise the status of populations of dolphins.

#### 2.5 Alternative 4: No Research Alternative

We offer no substantive comments on this alternative, as the No Research Alternative is not a realistic alternative. We agree with the concerns NMFS expresses in the DPEA as to the consequences of halting at-sea research under this alternative: “...the loss of scientific information about fish populations and their habitats, especially commercially valuable species, would make it increasingly difficult for fisheries managers to effectively monitor stock status, set commercial harvest limits, or develop fishery

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<sup>5</sup> A brief summary is provided in the DPEA at xxiv- xxv.

<sup>6</sup> DPEA at 2-45.

<sup>7</sup> DPEA at xxv.

<sup>8</sup> DPEA at 2-45.

regulations to recover depleted stocks or protect vulnerable stocks, especially as information used in stock assessments gets older and less reliable.”<sup>9</sup> Research to inform the status of fish stocks is key to their conservation, we only wish that the agency appeared equally concerned with the need to update “older and less reliable” information on dolphin stocks in the Gulf of Mexico, since most of that information is considerably outdated.

### Chapter 3: Affected Environment

First, we note that the executive summary states that “[m]arine mammal species that occur in the SEFSC research area are listed in Table 3.2-4.”<sup>10</sup> However, the table referenced is actually “Target Species in the Caribbean Research Area.”<sup>11</sup> There is a “Table 3.2-7 Marine Mammal Species that Regularly Occur in the SEFSC Atlantic (ARA), Gulf of Mexico (GOMRA/GOM), and Caribbean (CRA) Research Areas,” which may be what NMFS intended to cite. This error should be corrected.

Table 3.2-7 summarizes all stocks that “regularly occur” in the research areas; however, for bottlenose dolphins, the “ESA/MMPA” status column states “varies” but a footnote to this “status” says that “there are 54 stocks of bottlenose dolphins in the SEFSC research areas (17 in the ARA, 36 in the GOMRA, 1 in the CRA). Refer to Table 3.2-9 for details.” Table 3.2-9 shows that, with only a handful of exceptions, all of these stocks of bottlenose dolphins are listed as either “depleted” under the MMPA or as “strategic” stocks due to concerns for missing data and/or excessive fishery-related mortality. The footnote is misleading. Rather than Table 3.2-7 simply stating that the status “varies,” the footnote should be corrected to better inform the public of the fact that, of the 17 stocks in the ARA, two are non-strategic, five are depleted, and the remaining 10 are designated as strategic stocks. For the GOM, five stocks are non-strategic and the remaining 31 are strategic, the footnote could then refer readers to Table 3.2-9 for further details on each of the stocks. This would be more informative at the appropriate place in this chapter.

In its discussion of bottlenose dolphins from the GOM, the DPEA discusses fishery-related takes of “not less than 10 percent of PBR [(potential biological removal level)] for the oceanic; Mississippi Sound, Lake Borgne, Bay Boudreau; and Choctawhatchee Bay stocks, so [this] cannot be considered insignificant and approaching zero mortality and serious injury rate.”<sup>12,13</sup> This is a misleading statement, as it implies that takes are at a greater than negligible level only in the case of these three stocks. First, as we will discuss later in our comments on Chapter 4, not all recent research-related takes were fully accounted for, so

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<sup>9</sup> DPEA at 4-139

<sup>10</sup> DPEA at xxvii.

<sup>11</sup> DPEA at 3-49.

<sup>12</sup> DPEA at 3-60, the Oceanic stock has a PBR of 42 and a documented fishery-related mortality averaging 6.5 per year and the other two stocks, respectively have PBRs of 5.7 and 1.7 with average annual anthropogenic mortality of greater than 10% of their small PBRs.

<sup>13</sup> In 16 U.S.C. § 1362(20) “The term ‘potential biological removal level’ means the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.” Negligible Impact is discussed in 64 Fed. Reg. 28800 (May 27, 1999) requiring that, prior to making a “negligible impact” determination, all sources of anthropogenic mortality are less than 10% of a stock’s PBR. *See also* 50 C.F.R. § 216.103 (defining “negligible impact” as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.”). This is analogous to the Zero Mortality rate Goal defined at:

[http://www.nmfs.noaa.gov/pr/interactions/fkwtrt/orientation/mmpa\\_section118/zmrg.pdf](http://www.nmfs.noaa.gov/pr/interactions/fkwtrt/orientation/mmpa_section118/zmrg.pdf).

there are more than three stocks to which this conclusion applies. Moreover, most stocks do not have a PBR to which takes can be compared.

With regard to determining the status and trends in bottlenose dolphins, it is troubling that most of the ARA and GOM dolphins stocks have no abundance estimates and, where abundance estimates are given in the SAR, there is no PBR set for the overwhelming majority of stocks in the coastal and bay areas of the GOM due to outdated abundance estimates.<sup>14</sup> The text should be clarified to reflect this rather than to imply through the sin of omission that only three of these stocks are likely sustaining mortality in fisheries that is non-negligible. Further, in the discussions of the Bay, Sound, and Estuarine (BSE) stocks in the GOM, the DPEA must acknowledge that, as stipulated in the NMFS SAR, most fisheries had little or no federal fishery-observer coverage.<sup>15</sup> Absence of data on interactions is not the same thing as data substantiating an absence of interactions.

Further, though Chapter 3 is said to summarize the “baseline information” on the affected environment,<sup>16</sup> the discussion of bottlenose dolphins starting on page 3-60 on the Affected Environment makes no mention of the fact that stocks in both the ARA and the northern GOM have recently been subjected to high levels of mortality for which an “Unusual Mortality Event” (UME) designation was made. The UME in the GOM results from the Deepwater Horizon disaster and is considered ongoing.<sup>17</sup> The other UME, in the ARA, is likely due to ingestion of biotoxins and the UME designation was just lifted in late 2015 after several years of high rates of stranding of dolphins in multiple stocks. Since this chapter, in essence, summarizes information from the SARs, these UME designations should have been mentioned along with the discussion of fishery-related mortality, rather than mentioned only briefly and solely in the chapter on Cumulative Impacts.

#### **Chapter 4: Environmental Effects**

We are concerned with a number of aspects of the analyses in this chapter. Apart from general concerns, the number of requested takes as compared to the PBR for the stocks is problematic for a number of reasons: research-related takes occur in a number of stocks that are not accounted in the DPEA but are enumerated elsewhere, the suggested mitigations appear insufficient, and, as noted briefly earlier, there is an insufficient basis for assuming that a negligible impact determination can be made.

##### A. General Comments Regarding Impacts to Bottlenose Dolphin Stocks

There are 17 stocks of bottlenose dolphins in the ARA, 36 stocks in the GOM, and one stock in the CRA.<sup>18</sup> The SEFSC requests takes for 1 or up to 3 dolphins from the various stocks over a 5 year period, totaling 10 mortalities and serious injuries within each of the ARA and GOM.<sup>19</sup> What is not well explained is the

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<sup>14</sup> DPEA at Table 4.2-20.

<sup>15</sup> As one example see SAR for Mississippi Sound dolphins stating: “It is not possible to estimate the total number of mortalities or serious injuries associated with menhaden purse seine, hook and line, or blue crab trap/pot fisheries since there are no systematic observer programs for those fisheries.” Similar caveats exist in all of the SARs for coastal and estuarine stocks of bottlenose dolphins, often listing additional commercial fishery gear types including trawl fisheries.

<sup>16</sup> DPEA at xxvi.

<sup>17</sup> See: UME in Northern Gulf of Mexico: 2010-Present at: [http://www.nmfs.noaa.gov/pr/health/mmume/cetacean\\_gulfofmexico.htm](http://www.nmfs.noaa.gov/pr/health/mmume/cetacean_gulfofmexico.htm).

<sup>18</sup> DPEA at 4-150.

DPEA's statement in table 4.2-20 that "[a]lthough potential take for each requested stock is either one or three over the five-year period and, if simply added, would equal 33 takes over that period, the maximum requested take, for all gear types combined, is 10 bottlenose dolphins from the coastal and BSE stocks in the GOMRA over the five-year LOA application period."<sup>20</sup> The Center's assumption underlying this failure to request the higher level of potential take appears to be that some stocks will likely have no takes in a given year and others may have one or more during the 5 years but, if all takes are "lumped," the total takes for all stocks would not exceed 10. This is certainly not precautionary when the SEFSC admits that takes could be as high as 33 for the GOM stocks alone. Similarly, for the ARA stocks, the note in Table 4.2-17 also states that "[a]lthough potential take for each requested stock is either one or three over the five-year period and, if simply added, would equal 25 takes over that period, the maximum requested take, for all gear types combined, is 10 bottlenose dolphins in the ARA over the five-year LOA period." It is these higher levels of "potential" takes that should have been requested and analyzed for impact.

It is theoretically possible that, in one year, three dolphins might be taken from one stock in the ARA (e.g., Southern NC estuarine) and none from the other stocks, thereby keeping takes lower than the total requested takes for the 17 stocks in the ARA. Yet in this example, the entire impact would have fallen on a single stock, which would be considerably disadvantaged by the takes even though, spread across the combined stocks, the impact appears to be "sustainable." This is not an academic concern.

The DPEA acknowledges the propensity for bottlenose dolphins to travel in groups; thus the SEFSC acknowledges that there could be multiple takes during one event.<sup>21</sup> The SEFSC stipulates that the potential takes requested for each stock will be restricted on a stock-by-stock basis but, because of the small number of takes allotted per year (i.e., 0.2 or 0.6), it is not clear how the situation of multiple takes in a single year would be addressed. It is not clear what, if anything, NMFS would do if the takes exceed the ceiling for a single stock (e.g., if there were two takes in one year, resulting in exceeding the request for no more than one take in five years) other than to reconsider imposing additional mitigation that it has already declared in Alternative 3 that it feels would not be feasible. The DPEA should specify what steps will be taken.

Whether the putative impact of additional research-related takes on a stock is minor, moderate, or major is based on the percentage of PBR that the activity will impact.<sup>22</sup> The DPEA concludes that impacts on the various stocks of bottlenose dolphins will be "minor to moderate."<sup>23</sup> For the vast majority of bottlenose dolphin stocks, that conclusion is debatable at best. Later in these comments, we will discuss the problem with the impact analysis, which is based on a failure to consider all past takes and the impacts of this research which, in the case of some stocks, appears to be major. The requested number of takes and the analysis of their impact were made with the assumption that this is what will occur even with mitigation imposed. There are many problems with this projection.

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<sup>19</sup> DPEA at xxx.

<sup>20</sup> See preamble to table 4.2-20 in the DPEA.

<sup>21</sup> DPEA at 4-150.

<sup>22</sup> DPEA at xxvi, stating: "For the purposes of this analysis under NEPA, research-related incidental serious injury or mortality less than or equal to 10 percent of PBR for the marine mammal stock is considered minor in magnitude for the population. Serious injury or mortality between 10 percent and 50 percent of PBR is considered moderate in magnitude. Serious injury or mortality greater than or equal to 50 percent of PBR is considered major in magnitude."

<sup>23</sup> DPEA at xxvi.

## B. Comparing the Impact of Requested Takes with the PBR for Stocks

The text in this chapter stipulates that the analysis of impacts in the DPEA will “compare impacts to baseline conditions described in Chapter 3” and, for marine mammals, rate them as minor, moderate, or major.<sup>24</sup> To define the impact, the SEFSC states it will examine the proposed take relative to the stock’s PBR and the similarity of gear used by fisheries categorized in the NMFS List of Fisheries.<sup>25</sup> Table 4-1 in the DPEA concludes there will likely be “minor to moderate” effects on marine mammals under all alternatives.

In Table 4.2-17 and 4.2-20, NMFS calculates the impact of the SEFSC research relative to PBR for bottlenose dolphins based on the average annual requested take for all gears. As noted, for the ARA stocks, up to 25 takes are likely to occur for all bottlenose dolphin stocks combined, though the SEFSC states that it is only requesting authorization for takes of 10 bottlenose dolphins. Similarly, for the GOM, fewer takes are requested than said to be likely and the Mississippi Sound dolphins are said likely to sustain more takes than other stocks (i.e., for most stocks 0.2 takes annually are projected but 0.6 takes annually are requested for the Mississippi Sound).<sup>26</sup>

It is important to stress that eight of the 16 stocks in the ARA have an “undetermined” PBR.<sup>27</sup> Takes are requested from these stocks despite unknown PBRs, unknown abundance estimates and unknown population trend information. For that reason alone, it is not possible to determine whether the SEFSC research impacts relative to PBR is minor, moderate, or major, let alone make a negligible impact determination.<sup>28</sup>

Of the 31 stocks in the GOM, all but six have “undetermined” PBRs.<sup>29</sup> The PBR is listed in the SAR as undetermined for these stocks because there are no recent and reliable estimates of population. There are no population trend data and many of the stocks have sustained considerable mortality over the past few years as a result of the Deepwater Horizon oil spill. For these heavily impacted stocks with unknown PBRs, we have no idea what level of fishery-related mortality is sustainable (let alone negligible). Thus, any level of take could be problematic for ARA or GOM stocks with unknown PBRs. The Center tries to assure the public that there is no need for concern regarding takes from these stocks with unknown PBRs because “[f]rom a PBR perspective, the stock size would have to be 30 individuals or fewer for the requested take to exceed PBR over five years.”<sup>30</sup> And “[w]hile again unknown, the likelihood that many stocks, if any, are comprised of 30 individuals or fewer is very remote. Also, the level of taking would have to exceed PBR over an extended period of time to impact the survival of the stock.”<sup>31</sup> This attempt at assurance is flawed to say the least.

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<sup>24</sup> DPEA at 4-2.

<sup>25</sup> DPEA at 4-3.

<sup>26</sup> DPEA at Table 4.2-20.

<sup>27</sup> DPEA at Table 4.2-17.

<sup>28</sup> As previously noted, 64 Fed. Reg. 28800 (May 27, 1999) requires that, prior to making a “negligible impact” determination, all sources of anthropogenic mortality are less than 10% of a stock’s PBR or, if the level of serious injury and mortality is greater than 10% of the PBR but “less than PBR and the population is stable or increasing, fisheries may be permitted subject to individual review and certainty of data.” 64 Fed. Reg. at 28801. Assertions of stable populations and “certainty of data” are not the case for stocks with unknown PBRs, particularly those in the Deepwater Horizon footprint that appear to have lost up to half of their pre-spill abundance.

<sup>29</sup> DPEA at Table 4.2-20.

<sup>30</sup> DPEA at 4-58.

<sup>31</sup> DPEA at 4-58.



The NMFS SAR for BSE stocks of bottlenose dolphins in the GOM stipulates aging but “best” population abundances of approximately 30 or less for *eight* of these 30 GOM stocks.<sup>32</sup> Many were also adversely impacted by the Deepwater Horizon oil spill and experienced increased mortality as reflected in stranding rates. As such there is no reason to believe that there are more than 30 individuals in any of these eight stocks.

It is troubling to see the SEFSC apparently throwing up its hands with regard to remedying the lack of population abundance estimates, stating that “uncertainty regarding the potential effects on these populations could only be addressed with new field and laboratory research on these stocks. Given the large number of stocks that overlap with SEFSC research activities and the huge geographic area in which they occur, such a research program to better define the populations of this species would be a very large and expensive operation. It is not clear what the prospect is that such a comprehensive research program would be funded in the future but it would likely take years . . . .”<sup>33</sup> Further, “[i]f new population estimates for one or more stocks of bottlenose dolphins are developed in the future, NMFS will consider the potential impacts of its ongoing fisheries research program and requested take authorizations on an adaptive management basis, including the potential for additional mitigation measures as necessary.”<sup>34</sup> That is, the SEFSC is essentially saying it has no plans to update abundance estimates due to the cost of surveys but will assume that the proposed research activities will not kill dolphins at problematic levels and will let the public know if the Center concludes anything different. This is risk-prone to say the least and is akin to a “don’t ask, don’t tell” policy. For most stocks, the impacts of the research are unknown and not “minor to moderate” relative to their PBR.

### C. Unaccounted Research-Related Takes

We believe the accounting of stocks that could be affected and/or the likely impact of takes from SEFSC is grossly flawed. The Executive Summary of the DPEA states that [t]he estimated take numbers are based on the historical capture of 11 bottlenose dolphins in SEFSC-affiliated research from 2002 through 2015. These 11 dolphins were from two stocks in the GOM and four stocks in the Atlantic. Past marine mammal captures have occurred using gillnets (one), mid-water trawls (two), bottom trawl (five), trammel nets (one), and bottom longline (one). Of the 11 animals captured or hooked, three were released alive.”<sup>35</sup>

The DPEA goes on to state that the “SEFSC calculated the average number of historical bottlenose dolphins takes in all gear type for each research areas from 2002-2015.” This is problematic as the baseline does not appear to account for all research-related captures/takes in a stock nor does it account for all stocks in which takes have occurred. There are, for example, major errors in the summary of takes in GOM stocks (which is based on data provided in Table 4.2-15).

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<sup>32</sup> NMFS. 2015. Marine Mammal Stock Assessments: Common Bottlenose Dolphin: Northern Gulf of Mexico Bays, Sounds and Estuary stocks. Tech Memo NMFS-NE-231 at: <http://www.nefsc.noaa.gov/publications/tm/tm231/tm231.pdf> The referenced SAR lists Sabine Lake, Calcaieu Lake, Vermillion Bay (et al); Perdido Bay and Caloosahatchee river with NO estimated population abundance (i.e., it is listed as “0”) and the stocks in West Bay and St. Joseph Sound/Clearwater Harbor are estimated at 32 and 37 animals respectively based on prior, outdated abundance surveys.

<sup>33</sup> DPEA at 4-58.

<sup>34</sup> DPEA at 4-150.

<sup>35</sup> DPEA at xxx.

The research-related takes of dolphins in the GOM as listed in Table 4.2-15 can be compared to the research-related takes listed in the NMFS SAR for the multiple GOM stocks in the BSEs. The “Other Mortality” section of this SAR documented in narrative form considerably more research-related takes in years between 2010 and 2014 than does the DPEA table.<sup>36</sup> During those years, the SAR documents 12 research-related entanglements/takes of dolphins of whom 3 were killed, 1 seriously injured, 2 had no determination made of condition on release, and 6 were released alive.<sup>37</sup> In contrast, in that same time period, the DPEA lists only four “historical takes” including two deaths and two released alive. The DPEA is missing information from the SAR. This should be corrected.

In addition to the numerical discrepancy between the SAR and the DPEA, there is a discrepancy as to which stocks are likely affected and this, in turn, raises concern regarding the degree of impact to a small stock and, as we will discuss below, whether a negligible impact finding can be made.

Table 4.2-15 of the DPEA shows, for the three years in which data were provided; takes of bottlenose dolphins in the GOM occurred most often in the Mississippi Sound environs. That is, two are said to have been killed within a 4-year period and one was released alive, possibly injured (its condition was not noted). This appears to help provide the basis of the SEFSC request for take of 3 dolphins in five years (0.6 per year for 5 years) from this stock under the preferred alternative (which included mitigation). Even with the mitigation suggested, this results in an annual average mortality in the research of 0.6 dolphins per year, which even the DPEA admits in Table 4.2-20 is greater than 10% of the PBR of 5.6 and therefore not “negligible.” It is worth emphasizing that this is the take level that is *projected after, not prior to, imposing mitigation*, obviating making a negligible impact determination unless additional mitigation is added beyond simply reminding staff in a training workshop to undertake mitigation that they should have been using all along.

In the case Risso’s dolphins in the GOM, the combined take from commercial and research-related fisheries is approximately 50 percent of the PBR (a “major” impact). Similarly, for the Mississippi Sound stock, based on the accounting in the DPEA and the SAR, combined commercial fishery and research-related takes appear to equal or exceed 50% of the PBR as stipulated in table 5.5-3, which also acknowledges that this is likely an underestimate. Moreover, it is not just this dolphin stock for which impacts are likely underestimated. Table 4.2-15 seems grossly inaccurate based on information provided in the NMFS stock assessments for other BSE bottlenose dolphin stocks<sup>38</sup>. Research-related takes enumerated in this table fall almost entirely on the Mississippi Sound or Mobile Bay stocks; whereas, the most recent NMFS SAR lists a number of takes each year in other stocks that are not enumerated in the table. The NMFS SAR documents research-related takes in Texas affecting the stock defined as the Copano Bay, Aransas Bay, San Antonio Bay, Redfish Bay, Espiritu Santo Bay stock. It is not clear why these takes are not mentioned in the DPEA, but they should have been accounted for. We note with some concern that two of these research-related interactions in Texas resulted in injuries and one resulted in mortality (and additional animals in this same stock were said to have been entangled and released uninjured). These three mortalities and/or serious injuries are *three times* the number

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<sup>36</sup> DPEA at Table 4.2-15 Historical Takes of Marine Mammals during SEFSC Surveys, 2002-2015.

<sup>37</sup> NMFS, 2015 Stock Assessment, *supra* note 32.

<sup>38</sup> DPEA at 5-30 stating for GOM stocks that “these numbers are minimum numbers and are likely underestimates of actual serious injuries and mortalities due to a number of unobserved commercial fisheries, poor monitoring and reporting systems for recreational fisheries, the likelihood that all injured or killed marine mammals are not found or reported.”

requested in the NMFS take authorization in Table 4.2-20.<sup>39</sup> Clearly the number of requested takes for this stock is inadequate based on recent research-related interaction rates. Further, the NMFS SAR for this stock indicates that the last abundance survey for this stock was done in 1992, at which time the best estimate of abundance was said to be 55 dolphins. However, due to the age of the survey, the actual abundance is said to be unknown and the PBR is therefore “undetermined.” Clearly, with regard to making a negligible impact determination, the level of mortality and serious injury sustained is not less than 10% of an undetermined PBR and, with regard to reliability of data, the stock abundance and trend is far from “certain.” Given that this is likely a small stock with an unknown PBR and takes are occurring regularly in NMFS research activities, this cannot be considered a “minor to moderate” impact as listed in Table 4-1 and a “negligible impact” determination would be inappropriate given the level of takes projected even with the proposed mitigation.

#### D. Inadequacies in Mitigation

With regard to the various bottlenose dolphin stocks, as previously stated, we believe the impacts have been substantially underestimated. Similarly, the mitigation appears inadequate.

NMFS summarizes that “the primary difference between the alternatives regarding marine mammals involves incidental take through entanglement, hooking, or capture in fisheries research gear, and the mitigation measures used to reduce the risk of those interactions.”<sup>40</sup> Since the interaction rate is projected to be the same under the various action alternatives, we must look to differences in mitigation. The Preferred Alternative, includes identical mitigation measures as in the Status Quo Alternative, “plus some additional measures [that are simply] *intended to improve the implementation of existing protocols.*”<sup>41</sup> That is, new mitigation is not proposed and NMFS merely hopes that benefit will accrue from standardizing “protected species training, awareness, and reporting procedures . . . that would apply equally to SEFSC research crews and research partner crews.”<sup>42</sup> The fact that the DPEA projects that there will be the same level of take in both the Status Quo and Preferred Alternative testifies to the apparent inadequacy of the mitigation measures suggested for the preferred alternative.<sup>43</sup>

The only benefit said likely from mitigation proposed for preferred alternative 2 appears to be that, with training, “the SEFSC expects these new procedures to facilitate and improve the implementation of the mitigation measures described under [Status Quo] Alternative 1.”<sup>44</sup> Expectation does not always match reality and the DPEA does not provide any quantitatively derived estimates of how these changes would mitigate or decrease adverse interactions with marine mammals; it simply opines that actual impacts to marine mammals “will likely be less.”<sup>45</sup> That is, the SEFSC is merely hoping that extra training and a greater focus on standardized use of protocols by non-NMFS partners under this alternative will reduce the current death toll, but it can’t be sure. This is not precautionary and not appropriate.

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<sup>39</sup> Table 4.2-20 requests 0.2 takes per year, but the SAR takes amount to 0.6 takes per year.

<sup>40</sup> DPEA at 4-149.

<sup>41</sup> DPEA at 4-151 (emphasis added).

<sup>42</sup> DPEA at 4-151.

<sup>43</sup> DPEA at xxx, stating: “Because the scope of research activities under the Status Quo Alternative is very similar to the Preferred Alternative, *the estimated take numbers from the LOA application are used* as part of the analysis of effects on marine mammals in all research areas *under both alternative*” (emphasis added).

<sup>44</sup> DPEA at xxxiv.

<sup>45</sup> DPEA at xxxi.

Alternative 3 contains the same mitigation as the previous two action alternatives and “a number of other potential mitigation measures that” the SEFSC states it does not propose to adopt or implement.<sup>46</sup> Under this alternative, the SEFSC states that the “potential direct and indirect effects of this alternative on marine mammals would be the same as described for the Preferred Alternative *except for the potential of the additional mitigation measures to reduce Level A harassment/serious injury and mortality takes through gear interactions.*”<sup>47</sup> Here NMFS acknowledges that the added mitigation in Alternative 3 would likely assist in avoiding death and serious injury. Thus, despite the earlier assertion that impacts are the same, the impacts would *not* be the same. Reducing serious injury and mortality through gear interactions, albeit to an unquantified degree, is a notable difference.

Apparently ignoring the need to identify truly meaningful mitigation, the DPEA states that, for Alternative 3, while some of the additional measures listed may reduce adverse impacts “some of these additional mitigation measures would have limited or no utility for mitigation” and they could be costly.<sup>48</sup> In which case, if they truly have no utility in mitigating adverse interactions, it makes little sense to propose these measures as “additional” mitigation and they appear to have been added as proverbial “poison pills” simply to make the alternative less desirable. The SEFSC’s main objection to the additional measures it lists in Alternative 3 is that their use might adversely impact the types of research done and could reduce the scope of the research. We understand that some measures such as time-area restrictions might be said to limit research. But others such as the use of trained PSO, the use of night vision goggles or passive acoustic monitoring in higher risk areas, are reasonable mitigation. Some of these reasonable mitigation measures may already be required of commercial fishing vessels in this or other regions, and thus should be considered for SEFSC’s fishery research as well. Furthermore, halting or abbreviating a trawl survey in conditions of limited visibility seems prudent and the DPEA does not adequately explain why this is problematic to its research.

The SEFSC states that “[t]he main difference between the alternatives in regard to marine mammals is the mitigation measures that would be implemented to reduce the risk of marine mammal interactions with research gear.”<sup>49</sup> As noted earlier in our comments on the alternatives, we find no significant difference in mitigation measures between the Status Quo Alternative and the Preferred Alternative (which simply adds crew training to the status quo mitigation measures). Troublingly, the SEFSC states that “[t]he DPEA does not attempt to quantify the effectiveness of the different mitigation measures considered in the different alternatives; the analysis *provides a qualitative description of how such measures could reduce* the risk of interactions with marine mammals and how their incorporation into scientific protocols may impact the fisheries research programs.”<sup>50</sup> That is, there is no way to quantify whether mitigation measures are likely to be effective or, if implemented, the degree to which they may have had an effect in reducing marine mammal mortalities; it is simply a qualitative judgment call.

The Center states that it “considers the suite of mitigation measures to be implemented under the Preferred Alternative to represent the most effective and practicable means to reduce the risk of adverse interactions with protected species without adversely affecting the scientific integrity of its research programs.”<sup>51</sup> Takes from small and fragile stocks have occurred at levels that are likely not

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<sup>46</sup> DPEA at xxxii.

<sup>47</sup> DPEA at xxxii (emphasis added).

<sup>48</sup> DPEA at xxxii.

<sup>49</sup> DPEA at 4-150.

<sup>50</sup> DPEA at 4-150.(emphasis added).

<sup>51</sup> DPEA at 4-122.

“minor to moderate” under the Status Quo Alternative, and the Preferred Alternative simply memorializes the mitigation under the Status Quo Alternative along with a requirement for standardized training and reporting. We find it hard to believe that the Preferred Alternative is the “most effective” means to reduce the risk of adverse interactions, given that takes continue to occur and yet the DPEA proposes no additional mitigation in the preferred alternative.

The SEFSC grudgingly offers the only reason why it is considering any deviation from current protocols in admitting that OPR “must consider a broad range of mitigation measures under the MMPA authorization and ESA consultation processes, and these additional measures will be considered in [the Modified Research Alternative].”<sup>52</sup> While it may be true that the Center is only considering the impacts of its research as a result of its legal obligations, it is hardly in the spirit of the requirements of NEPA and the MMPA to confirm that the Agency has no intention of providing any further mitigation of takes of dolphins from already-precarious stocks. The Agency appears to comply with the letter of the law in that it developed a list of possible additional mitigation, but it then summarily dismisses the measures in order to stay as close as possible to the inadequately protective status quo.<sup>53</sup>

The use of PSO’s is dismissed because the Agency has stated under the preferred alternative that it will use the same training program as is undertaken for the PSO’s that will train chief scientists, bridge, and deck crew. A multi-tasking crew member may well miss the potential for (or actual) interactions while working below deck, or adjusting equipment, or undertaking record-keeping; and thus is hardly of the same value in this situation as a focal PSO whose only duty is keeping watch for cetaceans and documenting or assisting with interactions. We support the use of PSO during research in times and areas where interactions can occur. This should not have been rejected as mitigation.

With regard to implementing operational restrictions, SEFSC states that “only a small portion of the marine mammal takes in the SEFCS (three out of eleven) occurred during dusk, hours of darkness or early morning conditions . . . however many takes occurred during daylight hours.”<sup>54</sup> It may be true that *most* takes occurred during daylight; however, most members of the public would not consider 27% of anything a “small portion” (e.g., losing over a quarter of one’s salary would not be considered a “small” thing). This wording should be changed to stipulate that over quarter of all takes occurred during conditions of limited visibility. This situation clearly requires additional mitigation.

#### E. Making a Negligible Impact Finding

The DPEA states that “[a]uthorization for incidental takes may be granted *if NMFS finds a negligible impact on the species or stock(s)*, and if the methods, mitigation, monitoring and reporting for takes are permissible.”<sup>55</sup> Further, NMFS defined “negligible impact” determinations as being possible if all sources of anthropogenic mortality are less than 10% of a stock’s PBR.<sup>56</sup> However, if the level of serious injury and mortality is greater than 10% of the PBR but “less than PBR and *the population is stable or*

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<sup>52</sup> DPEA at 4-122.

<sup>53</sup> DPEA at 4-151, stating this alternative “includes a number of other potential mitigation [and monitoring] measures that the SEFSC is not proposing to implement . . . .”

<sup>54</sup> DPEA at 4-127.

<sup>55</sup> DPEA at 6-2 (emphasis added).

<sup>56</sup> Negligible Impact is discussed in 64 Fed. Reg. 28800 (May 27, 1999) requiring that, prior to making a “negligible impact” determination, all sources of anthropogenic mortality are less than 10% of a stock’s PBR.

*increasing*, fisheries may be permitted *subject to individual review and certainty of data.*<sup>57</sup> That is not the case for many stocks.

Mississippi Sound Stocks, as discussed above, are one example of a problem with making this determination. Their combined commercial fishery and research takes are at least half of, but likely greater than, their PBR and, as a result of the Deepwater Horizon oil disaster, the stock is said to have a projected reduction in population size of *62 percent*.<sup>58</sup> As a result, this stock cannot reasonably be said to be “stable or increasing” nor are the data on population level effects “certain.” No negligible impact finding can be made for this stock. The same is true for many others.

As accounted above, takes from a stock in Texas, the Copano Bay, Aransas Bay, San Antonio Bay, Redfish Bay, Espiritu Santo Bay stock, appear to be several times the stock’s likely PBR. Clearly, with regard to making a negligible impact determination, the data document takes that are not less than 10% of an undetermined PBR and the stock abundance and trend is far from “certain.” Given that this Texas stock is likely a small stock with an unknown PBR and takes are occurring regularly in NMFS research activities, this cannot be considered a “minor to moderate” impact as listed in Table 4-1 and certainly a “negligible impact” determination would be inappropriate given the level of takes projected even with the proposed mitigation.

For the Mississippi Sound, Lake Borngre, Bay Boudreau stock, Table 5.5-3 stipulates that the mortality and serious injury from fisheries is 2.2 per year (approximately 40% of the PBR), although this seems likely to be an under-estimate. If the 0.6 from the projected SEFSC research is added, the total mortality and serious injury would be 2.8 a year. This is half of the PBR of 5.6—an impact that is “major,” not “negligible.”<sup>59</sup>

It is important to keep in mind that the SEFSC appears to be assuming that stocks must have increased since their aging estimates of abundance, ignoring the tremendous impact that the recent Deepwater Horizon oil disaster had on these populations. While we will discuss this further in our comments on Chapter 5, we wish to point out that the federal government itself has determined that a number of the stocks that will be impacted by research-related takes will take decades to recover from the effects of the oiling of their habitat and the toxins that were ingested as a result of the Deepwater Horizon disaster.<sup>60</sup> Given the uncertainty of the population abundance and lack of recent PBR calculations as well as the clear evidence of a recent decline, a negligible impact finding would not appear possible for a number of the stocks adversely impacted by the Deepwater Horizon disaster.

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<sup>57</sup> 64 Fed. Reg. at 28801. (emphasis added)

<sup>58</sup> Deepwater Horizon Natural Resource Damage Assessment Trustees. (2016). Deepwater Horizon oil spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement. See: Chapter 4 Injury to Natural Resources. p. 4-585 At [http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4\\_Injury\\_to\\_Natural\\_Resources\\_508.pdf](http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4_Injury_to_Natural_Resources_508.pdf) .

<sup>59</sup> DPEA at xxvi, stipulating that “major” impacts with regard to a NEPA analysis are equal to or greater than 50% of the PBR.

<sup>60</sup> Deepwater Horizon Natural Resource Damage Assessment Trustees. (2016). Deepwater Horizon oil spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement. Chapter 4: Injury to Natural Resources At: [http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4\\_Injury\\_to\\_Natural\\_Resources\\_508.pdf](http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Chapter-4_Injury_to_Natural_Resources_508.pdf).

## Chapter 5: Cumulative Effects

Prior to focusing on cumulative impacts to bottlenose dolphins, we wish to point out that the cumulative lethal takes from anthropogenic impacts—primarily commercial fisheries and Center activities—is often far from “minor to moderate.” While the SEFSC and NEFSC takes may be small in comparison to commercial fishery-related mortality (e.g. less than one requested take per year), the combined totals are often significant.

For example, in table 5.5-1 approximately 93% of the PBR for short-finned pilot whales is taken each year by commercial fisheries, and the Center would add another 0.4 percent to that total. Similarly, for long-finned pilot whales, the commercial fishery take is approximately 89% of the PBR each year, to which the Center would add a projected 0.4. For harbor porpoise, the commercial fishery takes approximately 80% of the PBR each year, and the Center would add another 0.2 percent. Takes of Risso’s dolphins in the Northern Gulf of Mexico, as discussed above, are similarly occurring at a “major” level. While the Center’s “share” of the lethal take may be minor, the cumulative impacts from combined fishery takes for these stocks are major.

### ARA dolphin stocks

As the DPEA acknowledges, a multi-year UME occurred with large numbers of bottlenose dolphins stranding along the mid-Atlantic and southeastern coast. Citing a National Oceanic and Atmospheric Association (NOAA) website, the DPEA stipulates that “Southern Migratory, Northern Migratory, Northern North Carolina Estuarine System, and Offshore stocks are the four potential stocks in the vicinity of where UME-related strandings occurred.”<sup>61</sup> While it is often not possible to determine the stock identity of a particular stranded dolphin, there is no question that the stranding of over 1,800 animals from these stocks had considerable impact on population abundance for some stocks that are already listed as depleted under the MMPA. This loss of population abundance and ongoing takes in commercial fisheries is only compounded by research-related fishery-related takes.

With regard to impacts on cetaceans, particularly dolphins, the DPEA concludes that “contribution of SEFSC fisheries research activities to cumulative effects on non-ESA-listed species is likely to be small.”<sup>62</sup> That may be true, but the cumulative impacts from all anthropogenic sources may be considerable.

In the ARA, Table 5.5-2 indicates that the Northern NC estuarine stock may be subjected to an annual take of up to 5% of its PBR by research-related interactions, but this is apparently added to an estimated mortality and serious injury in commercial fisheries. This table indicates that the impact of commercial fisheries alone ranges somewhere between 13%-214% of the PBR annually. This wildly divergent estimate of impacts indicates great uncertainty regarding the magnitude of impacts on the stock which the SEFSC takes are only compounding. For many other ARA stocks, neither the abundance estimate nor the fishery interactions have been quantified, leaving no means of quantifying the degree of adverse impact inflicted on the stock by commercial or research fisheries, particularly when many fisheries are unobserved and impacts poorly quantified.<sup>63</sup>

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<sup>61</sup> DPEA at 5-22.

<sup>62</sup> DPEA at 5-31.

<sup>63</sup> DPEA at 5-21 states for ARA stocks that “these [commercial fishery take] numbers are minimum numbers and are likely underestimates of actual serious injuries and mortalities due to a number of unobserved commercial

It is theoretically possible that, in one year, 3 dolphins might be taken in a research fishery from a single stock (e.g., Southern NC estuarine) and none from the other stocks, thereby keeping takes lower than the requested total number of takes for the 17 stocks, yet the entire impact would have fallen on a single stock, which would be considerably disadvantaged by the takes even though the impact to the combined stocks appears to be “sustainable.” There is no discussion of specific adjustments that would result from disproportional impacts to a single stock (e.g., restricting the research fishing method or area in the following year or other means of assuring that the 5-year average is not exceeded).

#### GOM dolphin stocks

The DPEA re-asserts that impacts for stocks with known PBRs will be minor to moderate and that, for the 17 GOM dolphin stocks with no determined PBR, “no quantitative assessment” is possible but, if an estimate is developed in the future, the Center will re-consider its impacts.<sup>64</sup> This appears to assume that the impacts will be negligible until otherwise proven and is inappropriately non-precautionary, particularly for stocks that were heavily impacted by the Deepwater Horizon spill, where a single take could prove problematic for the persistence of a very small localized stock. The DPEA asserts that “[w]hen considered in conjunction with other past, present, and reasonably foreseeable future activities affecting non-ESA-listed cetaceans in the GOMRA, the contribution of the three research alternatives to cumulative effects on these species through disturbance, direct takes, and prey removal would be minor adverse.”<sup>65</sup> Again, given the recent die-off consequent to the Deepwater Horizon disaster, this impact may well *not* be “minor.” As an example, as noted above and in table 5.5-3, the Mississippi Sound stock appears to suffer a combined commercial fishery and research-related takes in excess of 50% of the PBR but the DPEA abundance estimate for this stock (and the consequent PBR) is also likely an overestimate based on the federal acknowledgement that this stock suffered mass—and ongoing—mortality consequent to the Deepwater Horizon disaster.

Further, the commercial fishery-related takes of animals are largely unmonitored from almost all of these stocks. Thus, NMFS itself considers any assertion of takes an underestimate or entirely unknown.<sup>66</sup> Further, in a number of cases, the impacts of commercial fisheries combined with that of the proposed research can hardly be called “minor to moderate.” Though it should have been included, neither this chapter nor Chapter 4 includes a chart summarizing the individual fishery-related mortality of a number of stocks to better elucidate method-specific risks. The NMFS SAR for the BSEs documents a “mean annual mortality” in shrimp trawls (not including added mortality in skimmer trawls) of 41 bottlenose dolphins from “the Mississippi River Delta east to Mobile Bay.”<sup>67</sup> While the specific stock(s) affected was not identified, the NMFS SAR shows PBRs for the stocks in this area of between 1.7 and 5.6 per year—where a current PBR is set at all—and most have unknown PBRs. This cumulative impact of research using trawl gear and combined with high levels of commercial shrimp trawl takes appears to have been overlooked or, at best, understated. Further, there are regularly self-reported takes in the Menhaden

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fisheries, poor monitoring and reporting systems for recreational fisheries, the likelihood that all injured or killed marine mammals are not found or reported.”

<sup>64</sup> DPEA at 5-32.

<sup>65</sup> DPEA at 5-23

<sup>66</sup> NMFS, 2015 Stock Assessment, *supra* note 32, stating that “total annual human-cause mortality and serious injury for these stocks is unknown because these stocks interact with unobserved fisheries.” It also stipulates that estimates of mortality in shrimp trawls is calculated by the states, not NMFS, and independent observer coverage of the fishery does not include monitoring of the waters of BSEs. See also DPEA, *supra* notes 63

<sup>67</sup> NMFS, 2015 Stock Assessment, *supra* note 32.



purse seine fishery in the area around the Mississippi Sound and Delta stocks, and NMFS admits that “without an ongoing observer program, it is not possible to obtain statistically reliable information for this fishery.”<sup>68</sup> Similarly, as noted above, there have been research-related takes in gillnets, yet this fishery also lacks observer coverage both in state waters as well as when prosecuted in most federal waters near the Bays area. This chapter does a very poor job of assessing the compounding effect of SEFSC research on stocks already being impacted by commercial fisheries and the information in Table 5.5-3 stipulates that interactions are “unknown” for most stocks. It is also worth reiterating that the DPEA itself acknowledges the lack of accurate information for commercial fishery takes due to a lack of observers on vessels using gear types known to interact with dolphins.

On page 5-31 of the DPEA, the SEFSC states that the conclusions of the Trustee Council Draft Programmatic Damage Assessment and Restoration Plan were not final and thus its conclusions regarding the Deepwater Horizon disaster were under review. As we have noted, since the time the DPEA was apparently drafted, this Damage Assessment document was finalized.<sup>69</sup> The assessment looked at 37 stocks of bottlenose dolphins in the northern GOM, 13 of which (9 BSE stocks, 2 coastal stocks, 1 shelf stock, and 1 oceanic stock) were found in areas within the Deepwater Horizon oil spill footprint.<sup>70</sup> The considerably abbreviated discussion of Deepwater Horizon in this chapter (i.e., approximately 1 page)<sup>71</sup> fails to capture the disaster’s heavy impact on abundance and reproduction in the various stocks that will also suffer death in fisheries. The Mississippi Sound stocks appear to be sustaining research-related takes that are near or above PBR and this compounds interactions in commercial fisheries at a time that the stock has suffered a major decline that is said to require up to half a century for recovery.<sup>72</sup> Based on a damage assessment that was released in April of this year, federal officials estimated it would take 39 years for bottlenose dolphins in Barataria Bay to recover, 52 years for dolphins along the Mississippi River Delta, 46 years in Mississippi Sound and 31 years in Mobile Bay.<sup>73</sup> This is an impact that appears to have been completely overlooked.

Further, with regard to oceanic stocks, federal officials have found that oceanic stocks that were exposed to the oil from the Deepwater Horizon blowout “experienced increased mortality (as high as 17 percent), reproductive failure (as high as 22 percent), and adverse health effects (as high as 18 percent).”<sup>74</sup> This sort of impact on abundance and population trend is minimized or ignored in the DPEA.

It is particularly concerning that the SEFSC projects a dolphin may be killed in Barataria Bay, which has a 2001 population estimate of 138 animals—over half of whom were likely lost due to sustained and serious adverse impacts from the Deepwater Horizon oil spill.<sup>75</sup> NMFS itself reports results of peer reviewed studies documenting the deaths of adult females and almost complete reproductive failure in this stock and an adult “survival rate in this group of dolphins [is] estimated at only 86%.”<sup>76</sup> Further, NOAA reported the results of a study finding that, due to Deepwater Horizon, one in every three dead

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<sup>68</sup> NMFS, 2015 Stock Assessment, *supra* note 32.

<sup>69</sup> Deepwater Horizon, 2016, *supra* note 60.

<sup>70</sup> Deepwater Horizon, 2016, *supra* note 60.at 4-383.

<sup>71</sup> See DPEA at 5-31

<sup>72</sup> Deepwater Horizon, 2016, *supra* note 60.at 4-383.

<sup>73</sup> Deepwater Horizon, 2016, *supra* note 60.

<sup>74</sup> Deepwater Horizon, 2016, *supra* note 60.at 4-585.

<sup>75</sup> Deepwater Horizon, 2016, *supra* note 60.

<sup>76</sup> NOAA. 2016. Births Down and Deaths Up in Gulf Dolphins Affected by Deepwater Horizon Oil Spill revised May 6, 2016. at: <http://response.restoration.noaa.gov/about/media/births-down-and-deaths-gulf-dolphins-affected-deepwater-horizon-oil-spill.html>.

dolphins examined across Louisiana, Mississippi, and Alabama had lesions affecting their adrenal glands, resulting in “adrenal insufficiency,” and this impacts fitness and productivity and makes animals more susceptible to succumbing to other stressors in their lives (such as non-lethal harassment or capture in fishing gear).<sup>77</sup> The takes by SEFSC’s research add to this already major impact on population health and recovery trajectory and was not given adequate consideration in the DPEA.

We were also, frankly, baffled at the assertion that “research conducted by the SEFSC (e.g., the Marine Mammal and Ecosystem Assessment Survey) provides valuable information for the conservation and management of these species...”<sup>78</sup> Table 2.2-1 lists this survey among the types of research conducted, and the description states that “[o]bservational surveys are conducted to assess all cetacean species in U.S. EEZ [(exclusive economic zone)] waters” aboard the vessel. We are not, in fact, concerned that this platform operates to the detriment of cetaceans, but to imply in the cumulative impacts chapter that it somehow benefits dolphins is misleading at best and disingenuous at worst. Given the preponderance of stocks with absolutely no recent estimates of abundance, the statement that this platform can “assess all cetacean species in the U.S. EEZ” is erroneous. Perhaps it *can*, but it would appear that it does not. Table 1 in the NMFS SAR for bottlenose dolphins in Bays, Sounds and Estuaries shows that surveys rarely occur other than in offshore/oceanic waters, with some stock un-surveyed since 1992.

It is difficult for the SEFSC to make any assertions about the impact of its research (or other cumulative impacts from commercial fisheries) given the lack of any recent abundance information or PBR and in the face of recent heavy population losses to coastal and estuarine dolphins and the apparent lack of any plans to remedy this egregious lack of information.

## Conclusion

It is clear from reading the DPEA that NMFS is essentially trying to maintain the status quo for research with a Preferred Alternative that contains no new mitigation other than merely adding a proposal to train to on-board crew in best current practices in hopes that it will somehow reduce the magnitude of takes to a degree that the status quo mitigation measures have not been able to achieve. Takes likely to occur in SEFSC research are clearly underestimated. Moreover, and of significant concern, many of these stocks lack information on abundance, trend and PBR. These uncertainties in data for small stocks, and the SEFSC’s refusal to consider adding reasonable mitigation to its status quo measures make a negligible impact finding—and therefore, a FONSI—indefensible. Further, many ARA and GOM stocks have also been adversely affected by recent UMEs. ARA stocks, many of which are already depleted under the MMPA, have suffered elevated numbers of strandings for several years. GOM stocks, most of which are “strategic stocks” under the MMPA, are part of an ongoing UME resulting from widespread and devastating population-level effects that have reduced populations, adversely affected survivorship and fecundity, and have drastically extended recovery trajectories. The cumulative effects of added, and largely unmitigated, takes from these stocks along with that of commercial fisheries will have impacts that are neither “minor” nor “moderate,” but rather are likely to be major.

The manifest flaws in the DPEA and its analysis of impacts render it inadequate. The SEFSC must re-analyze impacts (both from ongoing research and in the context of cumulative impacts) and re-consider

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<sup>77</sup> NOAA 2015. Latest NOAA Study Ties Deepwater Horizon Oil Spill to Spike in Dolphin Deaths. 5/20/2015 at: <http://response.restoration.noaa.gov/about/media/latest-noaa-study-ties-deepwater-horizon-oil-spill-spike-gulf-dolphin-deaths.html>.

<sup>78</sup> DPEA at 5-23.

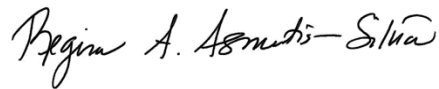
its rejection of added mitigation. It would be arbitrary and capricious for NMFS to issue a FONSI based on the inadequate DPEA, and due to NMFS' inability to make a defensible negligible impact finding. Until a more robust analysis can be undertaken, NMFS should not approve the Preferred Alternative and should not grant any authorization for incidental take.

We plan to submit additional comments on NMFS' proposed authorization of SEFSC's incidental take of marine mammals, 81 Fed. Reg. 23677 (Apr. 22, 2016).

Sincerely,



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