

EXPLOITERS
FRIENDS
of ANIMALS



February 3, 2015

Via U.S. Certified Mail, Return Receipt Requested

Penny Pritzker
Secretary of Commerce
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Dr. Kathryn Sullivan, Administrator
National Oceanic and Atmospheric Administration
1401 Constitution Avenue, NW
Room 5128
Washington, DC 20230

RE: Notice of Intent to Sue for Violations of the Endangered Species Act

Dear Secretary Pritzker and Director Sullivan:

Friends of Animals and WildEarth Guardians hereby provides notice of their intent to sue (collectively or individually) the Department of Commerce, the National Oceanographic and Atmospheric Administration, the National Marine Fisheries Service/NOAA Fisheries, and their officers and directors (collectively, "NMFS") over violations of Section 4 of the Endangered Species Act (ESA)(16 U.S.C. § 1531 *et seq.*) for the decision not to list the queen conch as threatened or endangered under the ESA. 79 Fed. Reg. 65628, Endangered and Threatened Wildlife and Plants: Notice of 12-Month Finding on a Petition To List the Queen Conch as Threatened or Endangered Under the Endangered Species Act (Nov. 5, 2014) (hereinafter, "Not Warranted Finding").

The Federal Government is increasingly abusing its power in the management of wildlife species, ignoring the advice of its own experts.¹ NMFS's decision-making process in making a Not Warranted Finding for the queen conch was flawed, contradicting the advice of its own experts and the best available science. *See Memo*

¹ *See e.g.,* Steve Davis, *Fish and Wildlife Service's 30-year eagle permit rule vacated*, ENDANGERED SPECIES & WETLAND REPORT (August 12, 2015), <http://www.eswr.com/2015/08/fish-and-wildlife-services-30-year-eagle-permit-vacated>.

from Dwayne Meadows, Ph.D. Lead HQ Staff on Queen conch 12-month finding (Oct. 10, 2014) (finding “the best available information suggests this is a threatened species”).

As described in detail below, NMFS’s Not Warranted Finding was arbitrary and capricious, and violated the requirements of the ESA and corresponding regulations. *See* 16 U.S.C. §§ 1533(a)(1), (b)(1) & (b)(3)(B). NMFS’s Not Warranted Finding: (1) applies the wrong legal and scientific methodologies, including the failure to establish the baseline risks to the species, the failure to disclose the overall extinction risk, improper reliance on the sustainability index, and the improper applications of “foreseeable future” and “significant portion of its range”; (2) is not based on the best available science; (3) is contrary to the evidence; and (4) applies an incorrect definition of threatened and endangered species.

STATUTORY FRAMEWORK: ENDANGERED SPECIES ACT

Pursuant to the ESA, a species is “endangered” if it “is in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). A species is considered “threatened” if it is “likely to become an endangered species within the foreseeable future.” *Id.* § 1532(20). In considering whether a species is either threatened or endangered, the NMFS must consider the following criteria: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence (collectively, “listing factors”). 16 U.S.C. § 1533(a)(1).

Any interested person can begin the listing process by filing a petition to list a species. 16 U.S.C. § 1533(b)(3)(A); 50 C.F.R. § 424.14(a). Upon receipt of a petition to list a species, NMFS is required to make an initial finding known as a “ninety-day finding” on whether the petition presents “substantial scientific or commercial information indicating that the petitioned action may be warranted.” 16 U.S.C. § 1533(b)(3)(A).

If NMFS initially finds that a petition presents substantial information, then the agency must complete a status review to evaluate whether the species warrants listing. 16 U.S.C. § 1533(b)(3); 50 C.F.R. § 424.14 (b)(3).

According to NMFS’s policy, the procedure for conducting a status review consists of the following steps: (1) compiling the best available information; (2) identifying distinct population segments as appropriate; (3) conducting a risk assessment to assess the level of extinction risk throughout all or a significant portion of a species’ range; (4) documenting conclusions in a Status Review Report. NMFS, *Guidance on Conducting Status Reviews Under the Endangered Species Act* (May 24,

2013) at 3. Compilation of the best available data should precede the risk assessment. *Id.* at 7. The risk assessment should synthesize all available information regarding the ESA listing factors and develop an estimated risk of extinction through the foreseeable future. *Id.* The risk assessment should:

provide a description of methods for the risk analysis that was conducted, including evaluations of risk based on specific demographic factors (e.g., population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), any quantitative or qualitative estimates of overall extinction risk for the species, and the relative contribution of identified demographic risks to the overall assessed level of extinction risk. The demographic analysis is an assessment of the biological response or manifestation of past factors for decline and present threats.

Id. at 8. To ensure quality information and transparency in the decision making process, the risk assessment and status report should follow certain procedures including peer review. *Id.* at 10-11.

Following the status review, NFMS must make a final finding on whether the species warrants listing as threatened or endangered. 16 U.S.C. § 1533(b). NFMS should list the species if the agency determines that the species is endangered or threatened because of any one or a combination of the listing factors. 50 C.F.R. § 424.11 (c). NMFS must base its decision solely on the best available scientific and commercial data. 16 U.S.C. § 1533(b). The information relied on for the final listing decision should be peer reviewed. 59 Fed. Reg. 34270 (July 1, 1994); *see also* Office of Management and Budget, Final Information Quality Bulletin for Peer Review (December 16, 2004) (generally requiring that all "influential scientific information" and "highly influential scientific information" be peer reviewed).

FACTUAL BACKGROUND

On February 27, 2012, WildEarth Guardians submitted a petition to the U.S. Secretary of Commerce to list the queen conch as threatened or endangered under the ESA (hereinafter, "Petition"). The queen conch is a large gastropod mollusk characterized by its spiral-shaped shell and distinctive pink aperture. The conch's habitat and behavioral characteristics make it particularly vulnerable to exploitation because it is slow moving, easily identifiable, and often gathers in large aggregations in shallow water. As laid out in the Petition, the queen conch's habitat is threatened by water pollution, degradation of seagrass beds, and the destruction of essential nursery areas. The species is also threatened by the harvest of conch meat for sale in growing local and international markets. Existing regulatory mechanisms are inadequate to protect the queen conch. Finally, conch are particularly biologically vulnerable to human

exploitation; the low adult densities resulting from exploitation limit conch population recovery. Human population growth will only exacerbate current threats to the species.

On August 27, 2012, NMFS published a 90-day finding with its determination that the Petition presented substantial scientific and commercial information indicating that the petitioned action may be warranted. 77 Fed. Reg. 51763.

Based on information NMFS received in response to the 90-day finding, as well as other relevant information, it created a status report on the queen conch.² Then, NMFS assembled a group with expertise in marine mollusk biology, ecology, population dynamics, ESA-policy, and fisheries management (the Extinction Risk Analysis, or “ERA” group) to conduct a threats assessment based on the status report. NMFS asked each group member to independently assess the risk level of various threats to the queen conch. The ERA groups members were allocated five points for each threat and asked to distribute the points amongst the following categories: “very high risk” the highest risk ranking used to indicate danger of extinction in the near future; “increasing risk” the next highest ranking which indicated that the risk of extinction is likely to increase to high risk in the foreseeable future (defined in this case as within 15 years) if present conditions continue; “moderate risk” to indicate that the threat contributes significantly to long-term risk of extinction, but does not constitute a danger of extinction in the near future; “low risk” to indicate the threat may affect the species’ status, but only to a degree that is unlikely to significantly elevate the risk of extinction; and “unknown.” If the risk was unknown all points were required to be assigned to that category alone, otherwise the ERA group members could split up the five points among the various risk levels. *See* Not Warranted Finding at 65628, 65633; Instructions for Threat Table Ranking.

The majority of the ERA group determined that there was a “very high” or “increasing” risk of extinction due to several threats, including: (a) habitat alteration, (b) overutilization, (c) law enforcement, regulations in foreign countries, and international trade regulations; and (d) other factors such the allee effect,³ life history traits, population connectivity, and artificial selection.

NMFS did not ask the ERA group to evaluate the cumulative effects of the threats, the contribution of each threat to the overall extinction risk, or the overall

² NMFS, Queen Conch, *Strombus gigas* (Linnaeus 1758) Status Report (2014), http://www.cio.noaa.gov/services_programs/prplans/pdfs/ID236_Queen_Conch_Final_Status_Report.pdf (hereinafter, “Status Report”).

³ The “allee effect” is the term used to refer to the effect of low population density levels; when queen conch density drops below a critical threshold conch mating will not occur at the frequency needed to sustain the population, which can lead to recruitment failure and population collapse.

extinction risk. NMFS ignored input from the ERA group regarding what should constitute the foreseeable future and a significant portion of the queen conch's range.

Instead, NMFS relied on information, including a "sustainability index," submitted from the Southeast Fisheries Science Center and NMFS's Southeast Region's Sustainable Fisheries Division to make its decision. NMFS did not include this information in the status review, nor did it make this information available to the ERA group or the public. There is no indication that this information was peer reviewed, nor did NMFS analyze how this information affected the ERA's threats analysis.

NMFS published notice of its finding that the queen conch does not warrant listing as threatened or endangered under the ESA on November 15, 2014. 79 Fed. Reg. 65628 (hereinafter, "Not Warranted Finding"). NMFS's finding did not explain why its decision departed from the conclusion of the ERA group. NMFS did not provide quantitative or qualitative assessments or estimates of the overall extinction risk for the queen conch, nor did it provide an assessment regarding the contribution of each identified risk to the overall level of extinction risk. In making its Not Warranted Finding, NMFS violated several requirements of the ESA.

ENDANGERED SPECIES ACT VIOLATIONS

A. NMFS utilized arbitrary methodologies in making its Not Warranted Finding.

1. Failure to establish an existing level of risk based upon current queen conch density levels.

As the Not Warranted Finding acknowledges, "density is likely the single most important criterion affecting conch productivity throughout its life." 79 Fed. Reg. at 65632. It is not disputed that currently a "majority of queen conch populations in the greater Caribbean region are well below or now within the range where negative population growth or recruitment failure is a significant risk." *Id.* Indeed, at minimum, 60.81 percent of habitat is below the critical density threshold of 100 adult conch/ha, and that number may be as high as 85.25 percent if one takes a conservative approach regarding the incomplete data available from Cuba, Honduras, the Caymans, Grenada, Montserrat, Saint Lucia, Saint Vincent, the Grenadines, and Trinidad and Tobago. *Id.* Still, NMFS never considers whether or not the queen conch is *presently* threatened or endangered as a result of these low density numbers.

Instead, NMFS attempts to downplay the harrowing density level problem by attempting to turn the focus to apparent queen conch abundance within the Caribbean, as measured by reported landings. *Id.* at 65637. NMFS believes that the number of reported landings is inconsistent with the "estimates of widespread low densities," and thus the density data should be discarded. *Id.* There are several problems with this conclusion. First, as the Not Warranted Finding clearly documents, landing data is

simply not reliable. For example, there is a lack of consistent historical data from all range countries. Moreover, landings data could remain stable for a period of time following unsustainable harvest and then experience a sudden crash. *See Infra § NMFS failed to rely on the best available science in its Not Warranted Finding.* Second, NMFS provides no reasonable justification for its assertion that the landing data alone renders the information pertaining to density unreliable. Nowhere does NMFS suggest any flaws in the density surveys that would diminish their importance to the Finding. To the contrary, it appears the surveys overestimate the density of queen conch by making assumptions about the relative consistency of queen conch populations throughout its range that are known to be incorrect.

In short, it was clearly arbitrary for NMFS to undervalue density surveys merely because they appear inconsistent with recent reported landings without further explanation and/or examination.

2. The Non-Warranted Finding is erroneously based on the Southeast Region’s Sustainable Fisheries Division’s unsupported and illogical “sustainability index.”

NMFS’ Not Warranted Finding improperly relies on information from the Southeast Region’s Sustainable Fisheries Division. The sustainability index gave equal weight (50%) to management factors and regulatory compliance, as it did to density (50%), which was then weighted by limited landings data from 2000.⁴ The sustainability index was also limited to 11 countries around the Caribbean. The index ranked those 11 countries on a 20-point scale (20 allegedly indicating greater sustainability and 0 indicating unsustainable harvest practices). NMFS claimed that a score closer to 10 would indicate that some harvest practices may be sustainable for some countries and unsustainable for others. The average score for the countries included on the index was 8.55 out of 20 when weighted by landings, and 8.90 out of 20 when weighted by amount of available habitat from 0 to 30 m deep. Not Warranted Finding at 65636.

As an initial matter, it appears that the sustainability index relied upon to reach the Not Warranted Finding was neither peer reviewed nor provided to the ERA group. This alone makes it a highly suspect tool for ignoring the ERA group’s analysis, which, while not making any specific recommendation, makes a strong argument for concluding that the queen conch is a threatened or endangered species. *See Part C.1 below.*

⁴ Despite the fact that Food and Agriculture Organization has landings data from 30 countries that shows a 50% decline in landings has occurred since the mid-1990s, the sustainability index only includes information for 11 countries from 2000 to 2011.

The index also suffers from several other problems. First, if a species is below the density needed for reproduction (as is the case for the conch), mating will not occur at the frequency needed to sustain the stock, which can lead to a population collapse. *Id.* Thus, density information is critical, and is more relevant than abundance numbers or landing data to determining the queen conch's risk of extinction. However, the information and index from the Southeast Region's Sustainable Fisheries Division places undue emphasis on landings, abundance, and regulatory mechanisms. Because the sustainability index gives equal weight to regulatory mechanisms as it does to density, a country could receive a high sustainability ranking despite their conch populations being well below the critical threshold density. Regardless of the regulatory mechanisms in place, a population below the critical density level may not be able to recover. As explained in NMFS's Status Report, "[m]any countries do not report a substantial recovery of queen conch populations despite active conservation actions and international management policies, such as bans, catch quotas and fishery closures." Status Report at 17 (citing Stoner and Ray 1996; Stoner 1997)." Thus, even with some regulatory mechanisms in place, experience shows that conch populations may very well continue to decline. The analysis required by the ESA is whether existing regulatory mechanisms are *adequate* to protect the species, not merely whether they exist.

Moreover, the methodology used to create the sustainability index gives far more weight to regulatory mechanisms than is otherwise supported by the record. The ranking system gives positive points and ranks a country's queen conch harvest more sustainable based on regulatory mechanisms just existing, regardless of whether or not those regulations are enforced (enforcement only accounted for 2 points in the ranking system). This is contrary to NMFS's finding that "the best available information indicates that most of the existing regulations designed to regulate conch harvest are inadequate and do not prevent overharvest or the harvest of juvenile conch." Not Warranted Finding at 65640.

Finally, there is no explanation as to how NMFS determined which number in the ranking system constituted the threshold for "sustainability." Moreover, there is no indication that the ranking system would provide reliable results. For example, if a country had a queen conch density below the critical threshold and the queen conch were threatened by high levels of illegal poaching and harvest, the country could still conceivably receive a 10.5 score on the sustainability index.⁵ Thus, NMFS's conclusion that an average score ranging from 8 to 9 indicates no risk of extinction now or in the foreseeable future is completely unsupported.

⁵ The sustainability index gave up to 8 points for regulations (regardless of high illegal harvest and poaching), and gave 2.5 points for densities between 56-100 adult conch/ha, and the critical threshold is 100 adult conch/ha.

3. NMFS failed to assess or disclose the queen conch's overall extinction risk.

The ESA requires NMFS to make a determination on whether “the species is endangered or threatened because of any one **or a combination**” of the listing factors. *See* 50 C.F.R. § 424.11 (c) (emphasis added). “This language makes plain that individual consideration of each of the five factors does not suffice as the [agency] must also consider the impact upon the species of all the factors together.” *Ctr. for Native Ecosystems v. United States Fish & Wildlife Serv.*, 795 F. Supp. 2d 1199, 1206 (D. Colo. 2011).

NMFS's Not Warranted Finding, however, is devoid of any discussion of cumulative effects of threats to the queen conch, and fails to provide an assessment regarding the contribution of each identified risk to the overall level of extinction risk. Viewing each threat in isolation, NMFS recognized several threats. Not Warranted Finding at 65633-65642. However, nowhere does NFMS analyze the factors in combination rather than in isolation. For this reason alone, NMFS violated the ESA. *Carlton v. Babbitt*, 900 F. Supp. 526, 530 (D.D.C. 1995) (finding that the agency “must consider each of the listing factors singularly and in combination with the other factors.”); *WildEarth Guardians v. Salazar*, 741 F.Supp 2d 89, 102 (D.D.C. 2010) (finding that the agency’s “failure to consider the cumulative effect of the listing factors renders the Finding arbitrary and capricious.”).

Moreover, NMFS's Not Warranted Finding violated the ESA because it failed to provide **any** quantitative or qualitative assessments or estimates of the overall extinction risk for the queen conch. *Western Watersheds Project v. Foss*, 2005 U.S. Dist. LEXIS 45753, *48, 2005 WL 2002473 (D. Idaho Aug. 19, 2005) (dismissing agency conclusions where the agency failed to outline quantitative and general factors it considered in its decision).

4. NMFS improperly limited the foreseeable future analysis to fifteen years.

A species is “threatened” if it is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1531(20). While the ESA does not define the term “foreseeable future,” NMFS must use a definition that is reasonable, that ensures protection of the petitioned species, and that gives the benefit of the doubt regarding any scientific uncertainty to the species. *See Oregon Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1151 (D. Or. 1998). NMFS cannot dismiss a risk of extinction that may be reasonably forecasted by science. *See Western Watersheds Project v. Foss*, 2005 U.S. Dist. LEXIS 45753, *41 (D. Idaho Aug. 19, 2005). Thus, when calculating the foreseeable future, NMFS “should not use an arbitrary ‘default’ time period that is absolute (*e.g.*, 25 years) or based solely on the

generation time of the species at issue.” U.S. Dept. of Interior, Solicitor's M-Opinion 37021: The Meaning of 'Foreseeable Future' in Section 320 of the Endangered Species Act (Jan. 16, 2009).

For the queen conch Not Warranted Finding, NMFS arbitrarily defined foreseeable future as an absolute period of 15 years based on three queen conch generations. NMFS did not explain why it could not reliably predict population trends beyond 15 years, nor did it consult with the scientific community about the time period in which queen conch trends could be reasonably predicted. In fact, NMFS ignored concerns regarding the unreasonableness of the 15-year period it selected. Instead, NMFS indicated the reason it selected the 15-year time period was to see if regulatory changes could influence a species that it is already in danger of extinction. *See* Not Warranted Finding at 65633 (explaining that 15 years would “allow time necessary to provide for the recovery of overexploited populations.”). Tellingly, NMFS’s decision to choose a 15-year period seems less based upon what could be reasonably forecasted by science, than an outer deadline of time for which the agency can internally justify not taking action under the ESA to appease outside interests. *Id.* at 65633 (“[I]t is likely that the results of recommended actions being considered by fishery managers, developed by several working groups and international conferences [], would also be realized, and reflected in populations[,] within a 15-year time period”).

NMFS’s decision to only evaluate risks for 15 years is an unreasonably narrow interpretation that, if generally applied, would substantially limit the ability of science to inform listing determinations. *Id. See, e.g. Oregon Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139 (D. Or. 1998) (setting aside a “not warranted” finding for unreasonably short foreseeable future analysis); *Western Watersheds Project v. Foss*, 2005 U.S. Dist. Lexis 45753 (D. Idaho Aug. 19, 2005) (setting aside a “not warranted” finding for using a foreseeable future analysis that was shorter than 100 years).

Moreover, under NMFS’s brief timeframe, the species would essentially be beyond recovery before it could be listed. The listing process often takes years to complete, promulgating a recovery plan and implementing recovery actions takes even longer. Refusing to look beyond 15 years is illogical and directly conflicts with the ESA’s goals and directives. *See Oregon Natural Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1152 (D. Or. 1998) (“The whole purpose of listing species as ‘threatened’ or ‘endangered’ is not simply to memorialize species that are on the path to extinction, but also to compel those changes needed to save these species from extinction.”). *See also* S. Rep. No. 93-307, at 3 (including threatened species in the ESA so that the Secretary has authority to regulate animals “**before** the danger becomes imminent”) (emphasis added).

5. NMFS failed to properly consider whether the queen conch is endangered or threatened in a significant portion of its range.

A species need not be threatened or endangered in all of its range to merit listing as threatened or endangered. 16 U.S.C. § 1532. In order to make a non-warranted finding, NMFS should explain how the loss of a species range, or risk of loss, does not constitute a “significant portion.” *WildEarth Guardians v. Salazar*, 741 F. Supp. 2d 89, 99 (D.D.C. 2010). At minimum, NMFS should have determined whether the complete loss of a portion of a species’ range would place the species as a whole in danger of extinction. *See* Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s Definitions of “Endangered Species” and “Threatened Species” 79 Fed. Reg. 37578, 37581 (July 1, 2014).⁶ This analysis should include consideration of viability characteristics, such as abundance, spatial distribution, productivity, and diversity of the species. *Id.* at 37578.

In the Not Warranted Finding, NMFS did not consider these factors. NMFS acknowledged that the “best available conch density data indicate that the majority of queen conch populations in the greater Caribbean region are well below or now within the range where negative population growth or recruitment failure is a significant risk.” Not Warranted Finding at 65633. Only three range states representing 14.08% of the 0 to 30 m habitat available to the species had conch densities above the critical threshold required for sustainable conch populations. *Id.* at 65633. Thus, over 85% of the species’ range contains populations that are or may be below the critical threshold. Nonetheless, NMFS never considered whether this constituted a significant portion of the queen conch’s range. NMFS never analyzed whether the species would be in danger of extinction, or likely to become so in the foreseeable future, without that 85% of the species’ range.

NMFS failed to consider whether the potential loss of 85% of the range where the conch population that is likely below the critical threshold could disrupt the spatial structure of the entire species, resulting in fragmentation that could preclude individuals from moving from degraded habitat to better habitat. Nor did NMFS consider whether the portion of the population potentially below critical threshold density contains important elements of genetic diversity, without which the remaining population may not be genetically diverse enough to allow for adaptations to changing environmental conditions. NMFS’s failure to conduct these analyses violates the ESA.

Moreover, NMFS’s explanation for its finding is contrary to the evidence. NMFS concludes that the queen conch is not endangered in a significant portion of its range

⁶ There remain questions on the legality of NMFS’s Final Policy on Interpretation of the Phrase “Significant Portion of Its Range.” However, regardless of the legality of the new policy, NMFS’s lack of analysis clearly violated its statutory obligations under the ESA.

due to the “relative genetic homogeneity of the species, and the fact that they are maintaining stable landings.” Not Warranted Finding at 65642. However, the best available data does not point to “genetic homogeneity.” To the contrary, as NMFS admits, there is “evidence of possible genetic separation occurring between some queen conch populations” and there are “genetically distinct” populations. *Id.* at 65642.

Additionally, the landings are not instructive on whether the conch is threatened in a significant portion of its range, nor are the landings stable.⁷ Not Warranted Finding at 65637. Thus, NMFS’s determination that the queen conch is not threatened in a significant portion of its range is arbitrary, capricious, and contrary to the ESA mandates.

B. NMFS failed to rely on the best available science in its Not Warranted Finding.

Pursuant to Section 4(b)(1)(A) of the ESA, and NMFS’s implementing regulations, NMFS must make all listing determinations “solely on the basis of the best scientific and commercial data available.” 16 U.S.C. § 1533 (b)(1)(A).

The standard, often referred to as the “best available science” standard, does not require scientific certainty nor does it prohibit NMFS from making listing decisions in the face of scientific disagreement or uncertainty. On the contrary, application of a stringent standard requiring conclusive evidence to list a species violates the plain language and intent of the ESA. *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679 (D.D.C. 1997). Using the best available science, as opposed to requiring absolute scientific certainty, “is in keeping with congressional intent” that an agency “take preventive measures **before** a species is ‘conclusively’ headed for extinction.” *Id.* at 679–80 (D.D.C. 1997) (emphasis in original); *see also American Wildlands v. Norton*, 193 F.Supp.2d 244, 251 (D.D.C. 2002) (same). The best available science standard gives “the benefit of the doubt to the species.” *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988). The best available science standard should prevent NMFS from manipulating its analysis by unreasonably relying on certain sources and excluding

⁷ For example, in order to reach the conclusion that landings were stable, NMFS excluded data from Jamaica, Mexico, the Dominican Republic, and Honduras. NMFS did not consider Mexico because of missing landings data, and excluded landings from Jamaica, the Dominican Republic, and Honduras because of “confounding regulatory changes and missing landings.” Not Warranted Finding at 65,637. However, NMFS failed to analyze why certain landings data was missing, why regulations were implemented, or how the excluded data could impact landing trends. In fact, when you include data from these countries, it shows that landings have significantly declined since their peak in the 1990’s. Status Report at 16.

others. *Las Vegas v. Lujan*, 891 F.2d 927, 933 (D.C. Cir. 1989) (finding that the agency may not disregard “scientifically superior evidence.”).

NMFS failed to base its decision on the best available science. The majority of experts in the ERA group ranked several threats as either very high risks that indicate danger of extinction in the near future or increasing risks that are likely to indicate a danger of extinction for the entire species within 15 years, including: commercial harvest, inadequate law enforcement, the allee effect, inadequate regulatory mechanisms in multiple countries, life history traits, and international trade regulations.

NMFS did not present any faults with the ERA group analysis, nor did it identify better available data that would lead to differing conclusions. Nonetheless, NMFS proceeded to determine that the queen conch was not endangered or threatened with extinction. To justify its conclusions, NMFS either offers no explanation, or references information about landings or the Southeast Region’s Sustainable Fisheries Division sustainability index. Neither the index nor the landings data represent the best available science.

The sustainability index produced by the Southeast Region’s Sustainable Fisheries Division does not represent the best available science for several reasons, including that it: (1) excluded countries with queen conch (2) excluded 20 years of queen conch data (3) relied on regulatory mechanisms which NMFS previously found to be inadequate to protect queen conch, and (4) did not give density statistics proper weight. *See supra* § A(1). Additionally, there is no indication this information was peer reviewed, nor was it provided to the ERA group or the public for review and input. Therefore, reliance on this information violated the ESA. *See W. Watersheds Project v. United States Forest Serv.*, 535 F. Supp. 2d 1173, 1176 (D. Idaho 2007) (“By improperly insulating the decision-makers from scientific input, it creates opacity when transparency is required”).

Next, reliance on conch landings for the Not Warranted Finding violates the best available data standards because, as NMFS admits, queen conch landings are not the best indicator of the species’ status. Not Warranted Finding at 65637. There are several reasons landings should not be used to determine the status of the species. NMFS acknowledges that “landings can increase, decrease, or remain stable for numerous reasons that do not necessarily reflect stock health or abundance. For instance, landings may be increasing because of increasing effort, but such harvest rates may not be sustainable.” *Id.* at 65637. In fact, it is likely that landings appear more stable despite unsustainable harvest. As explained in the Petition, the use of modern dive gear has led to harvest of previously unexploited populations in deeper waters. Moreover, diverse fishing conditions and the lack of formal statistical systems to collect queen conch data make accurate conch stock assessment difficult. Status

Report at 32. People can continue to harvest conch, including juveniles, even after density becomes too low to support a viable, reproducing population. Thus, there is a time period when harvest numbers can remain high before a crash in landings and potential extinction. Finally, NMFS admits that “the best available science shows there is a significant risk to population sustainability when queen conch densities fall below the 100 adult conch/ha threshold.” Not Warranted Finding at 65632.

Moreover, as discussed below, NMFS violated the Administrative Procedure Act because it failed to articulate a rational connection between the best available evidence on queen conch threats and its Not Warranted Finding. *See Motor Vehicle Mfrs. Ass'n of United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

C. NMFS failed to articulate a satisfactory explanation for its action and the Not Warranted Finding is contrary to the evidence.

1. The evidence demonstrates that the queen conch is endangered or threatened due to present or threatened destruction, modification, or curtailment of its habitat or range.

The majority of the ERA group ranked conch habitat alteration as an “increasing risk,” likely to increase to “high risk” in the foreseeable future if present conditions continue. Not Warranted Finding at 65635. NMFS found that “there are numerous potential threats to coastal habitat as identified above; however, we believe that the one most significant threat is habitat loss.” *Id.* at 65635. NMFS detailed how the destruction of coastal seagrass negatively affects queen conch recruitment, and how the best available science shows that habitat destruction from recreational and commercial boat traffic, boat groundings, dredging, and hurricanes has caused serious declines in populations of queen conch in Montserrat, Barbados, Saint Kitts and Nevis, Turks and Caicos. *Id.* at 65634. Additional factors threatening queen conch include: increased sedimentation, run-off of toxins and chemicals, and other water pollution. *Id.* at 65634-35.

Despite NMFS’s own conclusions, as well as the conclusion of the ERA group, NMFS did not rely on the best available science or a reasonable standard for evaluating risks to the species. Instead, NMFS changed its position, with no citations or explanation, and concluded that “there is little evidence of significant habitat loss or destruction.” *Id.* at 65543. NMFS’s Not Warranted Finding runs counter to the evidence, and to its own findings about the risks from habitat loss and destruction. NMFS offered **no** explanation for why its decision departed from the facts described earlier in the finding.

2. The evidence demonstrates that the queen conch is endangered or threatened due to overutilization for commercial, recreational, scientific, or educational purposes.

The ERA group found that the threat posed by overutilization is an increasing risk, likely to increase to high risk of extinction within 15 years for the entire species if present conditions continue. Not Warranted Finding at 65636. The Status Report indicates that both fishing pressure and exports have increased over the past two decades resulting in diminishing queen conch population density across its range. Status Report at 16. NMFS's website also concludes that "trade from many Caribbean countries is known or suspected to be unsustainable, and illegal harvest, including fishing of the species in foreign waters and subsequent illegal international trade, is a common and widespread problem."⁸ It also states that "[p]opulations of the species in Honduras, Haiti, and the Dominican Republic, in particular, are currently being exploited at rates that may be unsustainable." *Id.*

There is no indication that other science refutes these conclusions. In fact, NMFS indicated in its Not Warranted Finding that there is overwhelming evidence that the queen conch is threatened from fishing and poaching. In the last paragraph of NMFS's analysis regarding the threat of overutilization, the agency concluded that "overutilization for commercial purposes is a significant threat to the species." Not Warranted Finding at 65637. However, in the last sentence of that paragraph, NMFS changes its position to claim that based on assessments from Southeast Region's Sustainable Fisheries Division and restrictions on exports from these unsustainable fisheries, the current and foreseeable future impacts associated with these threats are not affecting the queen conch to such an extent that they represent a risk to persistence of the species. NMFS fails to explain how the assessment from Southeast Region's Sustainable Fisheries Division is superior to information contained in its Status Report or how this information changed the ERA Group's findings. *See supra* § A (1) (explaining the impropriety of relying on information from Southeast Region's Sustainable Fisheries Division).

Moreover, NMFS did not offer any explanation for relying on "restrictions on exports of these fisheries." In fact, the agency's own findings refute its ultimate conclusion. *Id.* at 65640 ("The best available information indicates that most of the existing regulations designed to regulate conch harvest are inadequate and do not prevent overharvest or the harvest of juvenile conch."). NMFS also states that it was "unable to identify any conservation efforts that were reasonably certain to occur that would benefit the species." *Id.* at 65642.

⁸ NMFS, <http://www.nmfs.noaa.gov/pr/species/invertebrates/queenconch.htm> (last visited Nov. 4, 2015).

3. The evidence demonstrates that the queen conch is endangered or threatened due to the inadequacy of existing regulatory mechanisms.

NMFS concludes that “current and foreseeable future impacts associated with these threats [inadequate existing regulatory mechanisms] are not affecting the queen conch to such an extent that they represent a risk to persistence of the species.” Not Warranted Finding at 65,640. The agency failed to articulate a satisfactory explanation, or any explanation, for this conclusion. To the contrary, NMFS’s analysis indicated the opposite. NMFS states, “[w]e also believe that the inadequacy of existing regulatory mechanisms is a significant threat to queen conch.” NMFS even explained:

The best available information indicates that most of the existing regulations designed to regulate conch harvest are inadequate and do not prevent overharvest or the harvest of juvenile conch. It is also difficult to measure regulatory compliance; it is likely that in some cases, enforcement is non-existent, which allows for significant illegal harvest, juvenile harvest, and poaching.

*Id.*⁹

The conclusion that threats from human exploitation poses a risk to the species’ survival is supported by the ERA group’s ranking, which indicates that international trade regulations, existing fishery regulations in foreign countries, and lack of regulatory enforcement are significant threats that indicate extinction risk in the foreseeable or near future. *Id.* at 65,640. NMFS violated the ESA when it changed its conclusion in order to deny listing; the agency offered no explanation for departing from its previous conclusion or from the ERA ranking.

4. The evidence demonstrates that the queen conch is endangered or threatened due to other natural or manmade factors affecting its continued existence.

The queen conch’s biological characteristics (e.g., slow growth, late maturation, limited mobility, occurrence in shallow waters, and tendency to aggregate) render the species particularly vulnerable to overharvest, and the viability of the population is reduced as population density decreases. Not Warranted Finding at 65636. According to

⁹ Moreover, NMFS found that “at this time, it is not possible to determine any future positive benefit to the species that may result from efforts currently being contemplated by fisheries managers. In addition, we cannot determine which range states/entities, if any, will implement these conservation efforts or new management measures. Due to uncertainties surrounding their implementation we cannot be reasonably certain that these benefits will occur.” Not Warranted Finding at 65641.

NMFS, “research has shown that there is a density-dependent effect on reproduction, with low densities inhibiting reproduction, and potentially causing a decline in recruitment. At density levels less than the critical threshold discussed below, conch mating will not occur at the frequency needed to sustain the population, which can lead to recruitment failure and population collapse (Stoner and Ray-Culp, 2000); this is known as an Allee effect.” *Id.* at 65636. The ERA group ranked this threat as an “increasing risk” which will lead to the danger of extinction throughout the species’ entire range in 15 years if present conditions continue. *Id.* at 65635.

The best available conch density data support the ERA group’s finding and indicate that a large portion of queen conch populations are well below or now within the range where negative population growth or recruitment failure is a significant risk. *Id.* at 65633. NMFS’s Not Warranted Finding is not based on the best available data. Rather, it is based on select landings data that NMFS claims indicate—despite the best available science indicating density and population decline—that “queen conch harvest has remained high.” *Id.* at 65642. As explained above, harvest and landings data do not represent the best available science. NMFS admits that density, which was evaluated by the ERA group to indicate a risk of extinction, is “the best available scientific information.” *Id.* at 65663. Thus, NMFS’s conclusion that the queen conch should not be listed due to this factor is arbitrary, capricious, and in violation of the ESA.

D. NMFS used in an inappropriate standard for determining whether the queen conch was threatened or endangered.

NMFS failed to rely on a consistent and valid definition of threatened and endangered in its Not Warranted Finding. NMFS did not base its Not Warranted Finding on whether the queen conch is in danger of extinction throughout all or a significant portion of its range, or likely to become so, as required by the ESA. 16 U.S.C. § 1532. Instead, NMFS concluded “the current and foreseeable future impacts associated with these threats are not affecting the queen conch to such an extent that they represent a risk to persistence of the species.” *See* 7 Not Warranted Finding at 65,640; *see also* Not Warranted Finding at 65637, 65641. NMFS did not explain what this test entails and did not define what it meant by “risk to persistence,” nor is this standard statutorily defined.¹⁰

Moreover, this standard excludes whether the species is currently at risk of extinction due to the impacts of past actions, such as the overharvest of the species, which NMFS admits poses a risk that the population cannot sustain itself. *See id.* at 65,642 (“The consequences of decades of overharvest have resulted in estimates

¹⁰ It is worth noting that the term has only been used by the agency a handful of times in the history of the ESA.

indicating that over 60 percent of habitat in the Caribbean, ranging from 0 to 30 m, have adult conch densities below the 100 individuals/ha threshold.”).

NMFS’s use of the incorrect standard to determine whether the queen conch is threatened or endangered is arbitrary and capricious and violates the plain terms of the ESA.

CONCLUSION

NMFS’s finding that listing of the queen conch is not warranted violates the specific mandates of the ESA and is arbitrary and capricious because it: (1) applies the wrong methodologies; (2) is not based on the best available scientific and commercial data available; (3) is contrary to the evidence; and (4) employs an incorrect definition of threatened and endangered species. Moreover, NMFS ignored the conclusions of its own experts, and failed to provide any rational explanation for its Not Warranted Finding.

If NMFS does not act within sixty days to correct this violation, Friends of Animals and WildEarth Guardians intend to pursue litigation in federal court against NMFS. However, this is not our preference. The purpose of the sixty-day notice provision in the ESA is for violators of the law to come into compliance, therefore avoiding the need for litigation. Accordingly, if you have any plans to issue a finding that listing the queen conch under the ESA is warranted in the near future, please contact me to discuss the matter. Thank you for your concern.

Sincerely,



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