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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

[Docket No. 1206013326-2490-01]

RIN 0648-XA984

Endangered and Threatened Wildlife; 90-Day Finding on a Petition to List Nassau Grouper as Threatened or Endangered Under the Endangered Species Act

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

ACTION: Notice of 90-day petition finding, request for information.

SUMMARY: We (NMFS) announce a 90-day finding on a petition to list Nassau grouper (*Epinephelus striatus*) as threatened or endangered under the Endangered Species Act (ESA).

We find that the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Accordingly, we will conduct a review of the status of this species to determine if the petitioned action is warranted. To ensure that the status review is comprehensive, we solicit information pertaining to this species from any interested party.

DATES: Information and comments on the subject action must be received by [insert date 60 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: You may submit information, identified by the code 0648-XA984, addressed to: Jason Rueter, Fisheries Biologist, by any of the following methods:

- Electronic Submissions: Submit all electronic information via the Federal eRulemaking Portal [http:// www.regulations.gov](http://www.regulations.gov)
- Facsimile (fax): 727-824-5309
- Mail: NMFS, Southeast Regional Office, 263 13th Avenue South, St. Petersburg, FL 33701
- Hand delivery: You may hand deliver written information to our office during normal business hours at the street address given above.

Instructions: All information received is a part of the public record and may be posted to <http://www.regulations.gov> without change. All personally identifiable information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information. We will accept anonymous submissions. Attachments to electronic comments will be accepted in Microsoft Word, Excel, Corel WordPerfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: Jason Rueter, NMFS Southeast Region, 727-824-5350; or Lisa Manning, NMFS Office of Protected Resources, 301-427-8466.

SUPPLEMENTARY INFORMATION:

Background

On September 3, 2010, we received a petition from the WildEarth Guardians to list goliath grouper (*Epinephelus itajara*), Nassau grouper (*Epinephelus striatus*), and speckled hind (*Epinephelus drummondhayi*) as threatened or endangered under the ESA. Copies of this petition are available from us (see ADDRESSES, above). Due to the scope of the WildEarth Guardians' petition, as well as the breadth and extent of the required evaluation and response, we

decided to provide species-specific findings on this petition. This finding addresses WildEarth Guardians' petition to list Nassau grouper. Negative findings for goliath grouper and speckled hind were made on June 1, 2011 (76 FR 31592), and May 1, 2012 (77 FR 25687), respectively.

ESA Statutory and Regulatory Provisions and Evaluation Framework

Section 4(b)(3)(A) of the ESA of 1973, as amended (U.S.C. 1531 et seq.), requires, to the maximum extent practicable, that within 90 days of receipt of a petition to list a species as threatened or endangered, the Secretary of Commerce make a finding on whether that petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted, and to promptly publish such finding in the Federal Register (16 U.S.C. 1533(b)(3)(A)). When we find that substantial scientific or commercial information in a petition indicates the petitioned action may be warranted (a "positive 90-day finding"), we are required to promptly commence a review of the status of the species concerned during which we will conduct a comprehensive review of the best available scientific and commercial information. In such cases, we are to conclude the review with a finding as to whether, in fact, the petitioned action is warranted within 12 months of receipt of the petition. Because the finding at the 12-month stage is based on a more thorough review of the available information, as compared to the narrow scope of review at the 90-day stage, a "may be warranted" finding does not prejudice the outcome of the status review.

Under the ESA, a listing determination may address a "species," which is defined to also include subspecies and, for any vertebrate species, any distinct population segment (DPS) that interbreeds when mature (16 U.S.C. 1532(16)). A joint NOAA-U.S. Fish and Wildlife Service (USFWS) policy clarifies the agencies' interpretation of the phrase "distinct population segment"

for the purposes of listing, delisting, and reclassifying a species under the ESA (“DPS Policy”; 61 FR 4722; February 7, 1996). A species, subspecies, or DPS is “endangered” if it is in danger of extinction throughout all or a significant portion of its range, and “threatened” if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (ESA sections 3(6) and 3(20), respectively; 16 U.S.C. 1532(6) and (20)). Pursuant to the ESA and our implementing regulations, we determine whether species are threatened or endangered because of any one or a combination of the following section 4(a)(1) factors: the present or threatened destruction, modification, or curtailment of habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; inadequacy of existing regulatory mechanisms; and any other natural or manmade factors affecting the species’ existence (16 U.S.C. 1533(a)(1), 50 CFR 424.11(c)).

ESA-implementing regulations issued jointly by NMFS and USFWS (50 CFR 424.14(b)) define “substantial information” in the context of reviewing a petition to list, delist, or reclassify a species as the amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted. When evaluating whether substantial information is contained in a petition, the Secretary must consider whether the petition: (1) clearly indicates the administrative measure recommended and gives the scientific and any common name of the species involved; (2) contains detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species; (3) provides information regarding the status of the species over all or a significant portion of its range; and (4) is accompanied by the appropriate supporting documentation in the form of bibliographic

references, reprints of pertinent publications, copies of reports or letters from authorities, and maps (50 CFR 424.14(b)(2)).

Court decisions clarify the appropriate scope and limitations of the Services' review of petitions at the 90-day finding stage, in making a determination whether a petitioned action "may be" warranted. As a general matter, these decisions hold that a petition need not establish a "strong likelihood" or a "high probability" that a species is either threatened or endangered to support a positive 90-day finding.

We evaluate the petitioner's request based upon the information in the petition including its references, and the information readily available in our files. We do not conduct additional research, and we do not solicit information from parties outside the agency to help us in evaluating the petition. We will accept the petitioner's sources and characterizations of the information presented, if they appear to be based on accepted scientific principles, unless we have specific information in our files that indicates the petition's information is incorrect, unreliable, obsolete, or otherwise irrelevant to the requested action. Information that is susceptible to more than one interpretation or that is contradicted by other available information will not be dismissed at the 90-day finding stage, so long as it is reliable and a reasonable person would conclude it supports the petitioner's assertions. In other words, conclusive information indicating the species may meet the ESA's requirements for listing is not required to make a positive 90-day finding. We will not conclude that a lack of specific information alone negates a positive 90-day finding, if a reasonable person would conclude that the unknown information itself suggests an extinction risk of concern for the species at issue.

To make a 90-day finding on a petition to list a species, we evaluate whether the petition presents substantial scientific or commercial information indicating the subject species may be either threatened or endangered, as defined by the ESA. First, we evaluate whether the information presented in the petition, along with the information readily available in our files, indicates that the petitioned entity constitutes a “species” eligible for listing under the ESA. Next, we evaluate whether the information indicates that the species at issue faces extinction risk that is cause for concern; this may be indicated in information expressly discussing the species’ status and trends, or in information describing impacts and threats to the species. We evaluate any information on specific demographic factors pertinent to evaluating extinction risk for the species at issue (e.g., population abundance and trends, productivity, spatial structure, age structure, sex ratio, diversity, current and historical range, habitat integrity or fragmentation), and the potential contribution of identified demographic risks to extinction risk for the species. We then evaluate the potential links between these demographic risks and the causative impacts and threats identified in section 4(a)(1).

Information presented on impacts or threats should be specific to the species and should reasonably suggest that one or more of these factors may be operative threats that act or have acted on the species to the point that it may warrant protection under the ESA. Broad statements about generalized threats to the species, or identification of factors that could negatively impact a species, do not constitute substantial information that listing may be warranted. We look for information indicating that not only is the particular species exposed to a factor, but that the species may be responding in a negative fashion; then we assess the potential significance of that negative response.

Nassau Grouper Species Description

The Nassau grouper is a moderately large sea bass (family Serranidae) distributed in the Western North Atlantic from Bermuda, Florida, Bahamas, Yucatan Peninsula, and throughout the Caribbean to southern Brazil. It is not known from the Gulf of Mexico except at the Campeche Bank off the coast of the Yucatan, the Flower Gardens Bank off Texas, and off the Dry Tortugas and Key West, Florida (Beebe and Tee-van, 1933; Randall, 1965; Heemstra and Randall, 1993; Foley et al., 2007). Nassau grouper are generally found near high-relief coral reefs and rocky bottoms from inshore to a maximum depth of approximately 330 feet (100 m). There is no evidence of distinct subpopulations of Nassau grouper based on genetic analysis (mtDNA and microsatellites) of fish sampled from a number of sites in Florida, Cuba, Belize and the Bahamas (Sedberry *et al.*, 1996). Therefore, Nassau grouper are considered as one, connected population.

Nassau grouper reach a maximum size of approximately 39 inches (100 cm) and 55 pounds (25 kg). They are late-maturing (between 4-7 years) and fairly long-lived (up to 29 years). Nassau grouper were originally considered to be amonandric protogynous hermaphrodites, meaning all males are produced by the sex change of adult females. Evidence of a change from adult female to adult male, however, is weak. Instead, available evidence indicates that the Nassau grouper is primarily gonochoristic (separate sexes) (Sadovy and Eklund, 1999). Nassau grouper are known to assemble in very large numbers, from a few dozen to historically over 100,000 individuals, at transient, site-specific areas each year to spawn, presumably cued by temperature and moon phase. Spawning is not known to occur outside of these aggregations. Aside from spawning, Nassau grouper are solitary fish.

Analysis of the Petition

We have determined, based on the information provided in the petition and readily available in our files, that the petition presented substantial scientific or commercial information indicating that the petitioned action may be warranted. The petition contains a justification for the recommended measure, species taxonomic description, geographic distribution, preferred habitat characteristics, population status and trends, and threats contributing to the species' decline, and it is accompanied by appropriate supporting documentation. Below is a synopsis of our analysis of the information provided in the petition and readily available in our files.

The petition cites classifications made by NMFS, the International Union for Conservation of Nature (IUCN), and NatureServe to support its assertion that Nassau grouper is imperiled. The petitioner suggests historic and continued overfishing is the primary threat to Nassau grouper. Because commercial and recreational landings in the U.S. from 1986-1991 decreased in both pounds landed and average size, the Caribbean (1990), South Atlantic (1991), and Gulf of Mexico (1996) Fishery Management Councils, and the State of Florida (1993) all have prohibited the take and possession of Nassau grouper (NMFS, 2010). The IUCN estimates the population of Nassau grouper has declined by 60 percent over the last three generations (Cornish and Eklund, 2003). The petition also cites the IUCN's conclusion that Nassau grouper is suffering from a "high rate of decline in population size" (Cornish and Eklund, 2003). This decline was estimated by weighing estimates of the original Nassau population to coral reef area (rather than population size) to give an overall decline figure. This method assumes that pristine densities of Nassau grouper were the same at all localities. This is probably not likely to have been the case but it enables a single figure to be derived (60 percent decline of Nassau grouper),

which is likely more representative of the global situation than the alternative, which would be to say that the decline lies between 55 and 99.5% (the lowest and highest documented decline rates) (Cornish and Eklund, 2003). Additionally, NatureServe (2009) estimates the global abundance of Nassau grouper to be as low as 10,000 worldwide, with numbers still declining. This estimate by NatureServe is based on the occurrence of at least 28 extant spawning aggregations in the western Atlantic, most of which are assumed to each represent hundreds to thousands of individuals (Smith, 1972; Aguilar-Perera, 1990). Conversely, the declining trend is based on spawning aggregations that are absent, disappearing, or becoming increasingly rare throughout the range with several spawning aggregations having vanished completely (Sobel, 1996).

Heavy fishing of spawning aggregations leading to recruitment overfishing is thought to be a major reason for the “catastrophic” decline in populations of Nassau grouper (Colin, 1996; Beets and Hixon, 1994). The spawning aggregations are particularly vulnerable to fishing pressure as they are spatially and temporally predictable. The aggregations form on or near the full moons during November through February when water temperatures are 25-26 degrees Celsius (Colin, 1992). Targeting of spawning aggregations can cause local populations to be extirpated in a matter of a few years (Morris et. al., 2000).

The petitioner claims that throughout the Caribbean, inadequate regulations have led to heavy fishing of the spawning aggregations. Numerous examples exist of the discovery of spawning aggregations, followed by heavy exploitation, and then loss of the spawning aggregation in subsequent years (see Sadovy, 1992 for examples). In other countries, heavy fishing of aggregations led to a fishery composed of primarily juveniles or to the species being considered fishery extinct (Sadovy, 1992). Because there was no evident increase in the number

of Nassau grouper following the fishing ban imposed in the Atlantic and Caribbean, Sadovy and Eklund (1999) state an increase is unlikely given presumed illegal capture. In the U.S., where harvest has been prohibited, regulations have not totally prevented harvest of grouper. For example, harvest has been prohibited since 1990 in Puerto Rico yet Nassau grouper landings averaged 12,539 pounds annually between 1991-2010. Further, in waters off the continental U.S., population levels are low relative to historical levels, having shown little response to a fishing moratorium established in 1992 (NMFS, 2010).

The information presented by the petitioner and otherwise available to us indicates that Nassau grouper populations in many Caribbean countries declined as a result of overexploitation and inadequacy of regulatory mechanisms. Much of the data we and the petition use are quite dated with some more than two decades old, and we are concerned about relying on such old information for this finding; however, we believe the seriousness of these threats and the lack of a response by the population to regulatory mechanisms over the last twenty years are sufficient to indicate that Nassau grouper face an extinction risk of concern. Declines in landings, catch per unit effort, and, by implication, abundance have been reported throughout its range, and it is now considered to be commercially extinct in a number of areas (Sadovy and Eklund, 1999). Further, heavy fishing, especially of spawning aggregations, and certain fishing practices such as spearfishing and the excessive capture of juveniles in small-mesh fish traps, are the attributed causes for severe declines (Sadovy and Eklund, 1999). The reported extirpations of spawning aggregations, in particular, causes us to be concerned that overexploitation may pose a significant risk to the Nassau grouper, as the demographic impacts of targeting the reproductive population can be much more serious than merely fishing down a stock's overall abundance.

In addition to the information on overutilization and inadequacy of existing regulatory mechanisms, the petitioner provided information addressing the other ESA section 4(a)(1) listing factors: the present and threatened destruction, modification, or curtailment of habitat or range, and the other natural or manmade factors that may be affecting the continued existence of Nassau grouper. However, because we have determined that the information provided on overutilization and inadequacy of existing regulatory mechanisms presents substantial information indicating the petitioned action may be warranted, we do not find a need to conduct a detailed analysis of the other submitted information here.

Petition Finding

We have determined after reviewing the information contained in the petition, as well as information readily available in our files, that there is substantial information indicating that the petitioned action may be warranted, based on the threats of overutilization for commercial, recreational, scientific or education purposes, and inadequacy of existing regulatory mechanisms. Because we have found that substantial information was presented on the above factors, we will commence a status review of the species. During our status review, we will fully address all five of the listing factors set out in section 4(a)(1). At the conclusion of the status review, we will determine whether the petitioned action is warranted. As previously noted, a “may be warranted” finding does not prejudice the outcome of the status review.

Information Solicited

As required by section 4(b)(3)(B) of the ESA and NMFS’ implementing regulations (50 CFR 424.14(b)(2)), we are to commence a review of the status of the species and make a determination within 12 months of receiving the petition as to whether the petitioned action is

warranted. We intend that any final action resulting from this review be as accurate and as effective as possible. Therefore, we open a 60-day public comment period to solicit information from the public, government agencies, the scientific community, industry, and any other interested parties on the status of Nassau grouper throughout its range including: (1) status of historical and current spawning aggregation sites; (2) historical and current distribution, abundance, and population trends; (3) biological information (life history, genetics, population connectivity, etc.); (4) management measures, regulatory mechanisms designed to protect spawning aggregations, and enforcement information; (5) any current or planned activities that may adversely impact the species; and (6) ongoing or planned efforts to protect and restore the species and their habitats. We request that all information be accompanied by: (1) supporting documentation such as maps, bibliographic references, or reprints of pertinent publications; and (2) the submitter's name, address, and any association, institution, or business that the person represents. Section 4(b)(1)(A) of the ESA and NMFS' implementing regulations (50 CFR 424.11(b)) require that a listing determination be made solely on the basis of the best scientific and commercial data, without consideration of possible economic or other impacts of the determination. During the 60-day public comment period we are seeking information related only to the status of Nassau grouper throughout its range.

Peer Review

On July 1, 1994, NMFS, jointly with the U.S. Fish and Wildlife Service, published a series of policies regarding listings under the ESA, including a policy for peer review of scientific data (59 FR 34270). The intent of the peer review policy is to ensure listings are based on the best scientific and commercial data available. The Office of Management and Budget

issued its Final Information Quality Bulletin for Peer Review on December 16, 2004. The Bulletin went into effect June 16, 2005, and generally requires that all “influential scientific information” and “highly influential scientific information” disseminated on or after that date be peer reviewed. Because the information used to evaluate this petition may be considered “influential scientific information,” we solicit the names of recognized experts in the field that could take part in the peer review process for this status review (see ADDRESSES).

Independent peer reviewers will be selected from the academic and scientific community, tribal and other Native American groups, Federal and state agencies, the private sector, and public interest groups.

References Cited

A complete list of references is available upon request from the Southeast Regional Office, Protected Resource Division (see ADDRESSES).

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

Dated: October 2, 2012.

Alan D. Risenhoover,
Director, Office of Sustainable Fisheries,
performing the functions and duties of the
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

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