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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 223

[Docket No. 151120999-5999-01]

RIN 0648-XE328

Endangered and Threatened Wildlife and Plants; Final Listing Determinations on Proposal to List the Banggai Cardinalfish and Harrison's Dogfish Under the Endangered Species Act

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

ACTION: Final rule.

SUMMARY: In response to a petition, we, NMFS, issue a final rule to list the Banggai cardinalfish (*Pterapogon kauderni*) as a threatened species under the Endangered Species Act (ESA). We have also determined that the proposed listing of Harrison's dogfish shark (*Centrophorus harrissoni*) as a threatened species is not warranted at this time. We will not designate critical habitat for Banggai cardinalfish because the geographical areas occupied by this species are entirely outside U.S. jurisdiction, and we have not identified any unoccupied areas within U.S. jurisdiction that are currently essential to the conservation of this species.

DATES: This final rule is effective [*insert date 30 days after date of publication in the FEDERAL REGISTER*].

ADDRESSES: Chief, Endangered Species Division, NMFS Office of Protected Resources

(F/PR3), 1315 East West Highway, Silver Spring, MD 20910, USA.

FOR FURTHER INFORMATION CONTACT: Therese Conant or Maggie Miller, NMFS, Office of Protected Resources, (301) 427-8403.

SUPPLEMENTARY INFORMATION:

Background

On July 15, 2013, we received a petition from WildEarth Guardians to list 81 marine species as threatened or endangered under the Endangered Species Act (ESA). We found that the petitioned actions may be warranted for 27 of the 81 species and announced the initiation of status reviews for each of the 27 species (78 FR 63941, October 25, 2013; 78 FR 66675, November 6, 2013; 78 FR 69376, November 19, 2013; 79 FR 9880, February 21, 2014; and 79 FR 10104, February 24, 2014). On December 16, 2014, we published a proposed rule to list the dusky sea snake (*Aipysurus fuscus*) and three foreign corals (*Cantharellus noumeae*, *Siderastrea glynni*, and *Tubastraea floreana*) as endangered species, and we proposed to list the Banggai cardinalfish (*Pterapogon kauderni*) and Harrison's dogfish (*Centrophorus harrissoni*) as threatened species (79 FR 74953). We requested public comment on information in the status reviews and proposed rule through February 17, 2015. This final rule provides a discussion of the information we received during the public comment period and our final determination on the petition to list the Banggai cardinalfish (*Pterapogon kauderni*) and Harrison's dogfish (*Centrophorus harrissoni*) under the ESA. Our final determinations for the other species proposed for listing in the December 16, 2014, proposed rule (dusky sea snake and three foreign corals) were made in a prior rule (80 FR 60560). The status of the findings and relevant **Federal Register** notices for those and the other 21 species can be found on our website at

<http://www.nmfs.noaa.gov/pr/species/petition81.htm>.

We are responsible for determining whether species are threatened or endangered under the ESA (16 U.S.C. 1531 *et seq.*). To make this determination, we consider first whether a group of organisms constitutes a “species” under the ESA, then whether the status of the species qualifies it for listing as either threatened or endangered. Section 3 of the ESA defines a “species” to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”

Section 3 of the ESA defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range” and a threatened species as one “which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” We interpret an “endangered species” to be one that is presently in danger of extinction. A “threatened species,” on the other hand, is not presently in danger of extinction, but is likely to become so in the foreseeable future (that is, at a later time). In other words, the primary statutory difference between a threatened and an endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or in the foreseeable future (threatened).

When we consider whether a species might qualify as threatened under the ESA, we must consider the meaning of the term “foreseeable future.” It is appropriate to interpret “foreseeable future” as the horizon over which predictions about the conservation status of the species can be reasonably relied upon. The foreseeable future considers the life history of the species, habitat characteristics, availability of data, particular threats, ability to predict threats, and the reliability to forecast the effects of these threats and future events on the status of the species under

consideration. Because a species may be susceptible to a variety of threats for which different data are available, or which operate across different time scales, the foreseeable future is not necessarily reducible to a particular number of years.

Section 4(a)(1) of the ESA requires us to determine whether any species is endangered or threatened due to any one or a combination of the following five threat factors: the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other natural or manmade factors affecting its continued existence. We are also required to make listing determinations based solely on the best scientific and commercial data available, after conducting a review of the species' status and after taking into account efforts being made by any state or foreign nation to protect the species.

In making a listing determination, we first determine whether a petitioned species meets the ESA definition of a "species." Next, using the best available information gathered during the status review for the species, we complete a status and extinction risk assessment. In assessing extinction risk for these two species, we consider the demographic viability factors developed by McElhany *et al.* (2000) and the risk matrix approach developed by Wainwright and Kope (1999) to organize and summarize extinction risk considerations. The approach of considering demographic risk factors to help frame the consideration of extinction risk has been used in many of our status reviews, including for Pacific salmonids, Pacific hake, walleye pollock, Pacific cod, Puget Sound rockfishes, Pacific herring, scalloped hammerhead sharks, and black abalone (see <http://www.nmfs.noaa.gov/pr/species/> for links to these reviews). In this approach, the collective condition of individual populations is considered at the species level according to

four demographic viability factors: abundance, growth rate/productivity, spatial structure/connectivity, and diversity. These viability factors reflect concepts that are well-founded in conservation biology and that individually and collectively provide strong indicators of extinction risk.

We then assess efforts being made to protect the species, to determine if these conservation efforts are adequate to mitigate the existing threats. Section 4(b)(1)(A) of the ESA requires the Secretary, when making a listing determination for a species, to take into consideration those efforts, if any, being made by any State or foreign nation to protect the species.

Summary of Comments

In the solicitation for information from the public on the proposed rule, we received information and/or comments on the Banggai cardinalfish and Harrison's dogfish proposals from 13 parties. These comments are broken out by species and summarized below.

Banggai Cardinalfish

Twelve commenters submitted information and/or commented on the proposed listing of the Banggai cardinalfish.

Comment 1: One commenter felt that instead of listing under the ESA, the Banggai cardinalfish would derive a greater benefit if we would engage in direct talks and support for Indonesia's internal efforts to conserve the species. The commenter also felt that continued efforts to list the species under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) should be undertaken.

Response: We were petitioned to list the Banggai cardinalfish and found that the

petitioned action may be warranted for the species (see **Background**). Thus, we are required to review the best available scientific and commercial data to determine whether the species is threatened or endangered under the ESA (16 U.S.C. 1531 *et seq.*). We agree that Indonesia's efforts to conserve and protect the Banggai cardinalfish are essential to the long-term viability of the species and should be supported. The ESA recognizes the international instruments, including CITES, to conserve and protect various species. Further, the ESA calls for a suite of engagements to enhance international cooperation with foreign nations where listed species occur. Through the ESA, we are encouraged to work with foreign countries to enter into bilateral or multilateral agreements to provide for conservation of species. Regarding CITES, in 2007, due to overharvest concerns, the Banggai cardinalfish was proposed to be listed under CITES Appendix II. Appendix II includes species that are vulnerable to overexploitation, but not at risk of extinction under CITES criteria; trade must be regulated to avoid exploitation rates that are incompatible with species survival. Indonesia did not support the proposal and it was withdrawn. The next Conference of the Parties (COP) will be held in 2016. The United States has not determined which species it will propose for listing at the next COP. The United States has a public process to determine which species it will propose.

Comment 2: One commenter stated that requiring the aquarium trade to only buy captive-bred or maricultured specimens through a section 4(d) protective regulation would not control commercial trade in wild-caught fish because there is no way to discern a captive-bred or maricultured specimen from a wild-harvested one.

Response: We agree that identifying a captive-bred from a wild-harvested fish would be difficult. We have not decided which, if any, of the section 9 prohibitions to apply to the Banggai

cardinalfish. We intend to announce an advance notice of proposed rulemaking to solicit public comment and information on any section 4(d) protective regulation, if proposed, for the Banggai cardinalfish.

Comment 3: Many commenters felt that the data do not support a listing under the ESA. Rather, they stated that the Banggai cardinalfish should be listed as a species of concern. They recommended continued data collection on population trends and structure, stratified by habitat in both the historical and introduced ranges, establishment of a sampling regime to quantify habitat trends in abundance and quality, studies of the Banggai cardinalfish's use of alternative microhabitats, and consultations with the Republic of Indonesia on current and future management plans for wild harvest and captive propagation. One commenter felt the population abundance transect surveys need to be standardized, given the species' patchy distribution and variable density. They felt this was necessary for future evaluations on the species' population status and trends. However, they agreed with the overall conclusion that abundance has declined due to unsustainable harvest in the early years. One commenter recommended we extend the period to make a final determination, citing a lack of data to support the proposed listing and the need to solicit additional data.

Response: We disagree that the data are insufficient to make a listing determination. Data exist on the Banggai cardinalfish's biology, population structure, abundance, trends, habitat use and threats that were reported in the proposed rule and the status review. We agree that standardized surveys across years would be ideal. However, the existing data indicate an overall population decline, and decreases in population density are also evidenced by significant declines in the catch per unit effort. Prior to 2003, collectors from Bone Baru typically required

one day to capture approximately 2,000 specimens. In 2007, they reported requiring one week to capture the same number. For Banggai Island, reported mean catch declined from about 1,000 fish/hour in 2000 to 25-330 fish/hour in 2004. Extirpations of populations within the Banggai cardinalfish's natural range have occurred. In particular, extirpation of local populations has been documented in areas with increased harvest of microhabitat, such as *Diadema* sea urchins and sea anemones, combined with fishing pressure on Banggai cardinalfish. Further fragmentation of an already small endemic population, which exhibits high genetic population substructuring, increases the extinction risk for the Banggai cardinalfish.

Comment 4: One commenter felt that the species' life history represents an adaptation of a small-bodied fish to its physical environment (i.e., shallow waters separated by deep channels with swift currents). They contend that its early maturity, low fecundity, and extended parental care are manifestations of a reproductive strategy in a physically limited environment. They state that situational cannibalism is further evidence of a behavior adapted to maintain abundance within the carrying capacity of its microhabitat-oriented habitat. Therefore, they do not concur with the assertion that these characteristics lower Banggai cardinalfish resilience.

Response: While we agree the Banggai cardinalfish life history characteristics are likely adaptive, we disagree that these traits do not render the species less resilient and vulnerable to threats. The Banggai cardinalfish lacks dispersal ability and exhibits high site fidelity, and new recruits stay within parental habitat. Thus, population discreteness is high and recolonization is unlikely once a local population is extirpated. Local populations off Liang Island, Peleng Island, and Masoni Island are reported extirpated, and interviews with local fishermen indicate extirpation of local populations throughout the Banggai Archipelago.

Comment 5: Several commenters provided information on their shift from purchasing wild-harvest to mariculture specimens, including from domestic facilities. Many commenters felt that directed harvest for the live marine ornamental reef fish trade no longer poses a significant threat to the Banggai cardinalfish.

Response: We appreciate the information submitted, as it supports the proposed rule's statement that Banggai cardinalfish exports for the ornamental live reef fish trade may be decreasing, although systematic data are lacking. We reported that the large-scale aquaculture facility based in Thailand and efforts to captive-breed the species in the United States may alleviate some of the pressure to collect fish from wild populations, but the degree to which aquaculture would affect harvest of wild populations is unknown. As we explain in more detail in the response to the next comment, the evidence shows that directed harvest for the live marine ornamental reef fish trade and harvest of microhabitat remain concerns.

Comment 6: One commenter felt that the improved harvest practices, development of significant aquaculture production, and Indonesian management initiatives undertaken since 2007 were not fully considered in the proposed rule.

Response: We disagree. All section 4(a)(1) factors that are found to pose an extinction risk to the Banggai cardinalfish, as well as ongoing conservation efforts and other mitigating factors, were considered in the proposed rule. In the proposed rule, we considered the improved harvest practices, the increasing aquaculture facilities, and the local management initiatives under these factors. If the species is endangered or threatened with extinction because of any one of the 4(a)(1) factors, then we must determine that listing is warranted. In our synthesis of the extinction risk to the Banggai cardinalfish, we stated that overutilization from direct harvest for

the ornamental live reef fish trade has significantly impacted the Banggai cardinalfish and remains a concern. We further stated an increase in compliance with the Fish Quarantine regulations and improved trade practices have occurred in recent years, and we anticipated compliance and trade practices will likely continue to improve in the future, which may mitigate impacts through sustainable trade. However, since the proposed rule, interviews were held in March 2015 with Indonesian government officials and Banggai cardinalfish collectors. The interviews were conducted by Dr. Vagelli, New Jersey Academy for Aquatic Sciences, who served as a peer reviewer (Information Quality Act, Public Law 106-554) for the Banggai cardinalfish status review. The March 2015 report (Vagelli unpublished report 2015) is available upon request (see **FOR FURTHER INFORMATION CONTACT**). Indonesian officials and collectors reported that compliance with the Fish Quarantine regulations was largely voluntary and that improved trade practices had not been implemented (Vagelli unpublished report 2015). Thus, reports are conflicting on whether compliance and trade practices have improved and are likely to improve in the future. Participation in collection of Banggai cardinalfish for the live ornamental reef trade has dropped in recent years. Captive-bred facilities have recently started in the United States and Thailand and are anticipated to decrease the threat of directed harvest of the wild populations in the future, but the degree to which aquaculture would affect harvest of wild populations is unknown. Data also indicate that by 2007, harvest of microhabitat (sea urchins and sea anemones) had negatively impacted cardinalfish populations, and the harvest had increased by 2011, and will continue in the future, which negatively impacts Banggai cardinalfish and their ability to avoid predators. Overutilization from direct harvest for the ornamental live reef fish trade has significantly impacted the Banggai cardinalfish and remains a

concern. Data from several sources reported an increase in compliance with the Fish Quarantine regulations and improved trade practices, but an updated survey in 2015 reported voluntary compliance and a lack of improved trade practices. For these reasons, we conclude that directed harvest for the live marine ornamental reef fish trade harvest and harvest of microhabitat remain concerns.

Comment 7: One commenter stated that the introduced populations in Palu Bay and Luwuk Harbor must be considered in the listing process.

Response: We considered these introduced populations. The introduced populations are an artifact of the commercial ornamental live reef trade and are not part of any conservation program to benefit the native populations. The introduced populations were introduced through the practice of high-grading (i.e., discarding live specimens determined to be of low quality/non saleable) or escapement near trade centers for the ornamental live reef market. The introduced population at Lembeh Strait is considered invasive and may be impacting local diversity through interspecific competition for resources in the area, but specific data on ecological impacts are lacking. Because one of the purposes of the ESA is to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved (16 U.S.C. 1531(b)), we consider a species' natural range to be biologically and ecologically important to the species' viability to persist in the face of threats. The introduced populations are outside of the Banggai cardinalfish's natural range and may not contribute to the species' ability to persist and therefore were not included in the analysis of the overall extinction risk to the species.

Comment 8: One commenter disagreed with the statement in the proposed rule that designation of critical habitat was not proposed for any of the species, including the Banggai

cardinalfish, because critical habitat shall not be designated in foreign countries or other areas outside U.S. jurisdiction (50 CFR 424.12 (h)). The commenter argued that we should construe areas under U.S. “jurisdiction,” as used in §424.12(h), to include Taiwan and areas under U.S. military protection. The commenter cited multiple sections in U.S. Code Title 22, Foreign Relations and Intercourse, and referenced “U.S. Navy Okinawan Dugong litigation” without citation.

Response: We found one line of cases involving the Department of Defense and the Okinawa dugong (*Ctr. for Biological Diversity v. Hagel*, 80 F. Supp. 3d 991 (N.D. Cal. 2015); *Okinawa Dugong v. Gates*, 543 F.Supp.2d 1082 (N.D. Cal. 2008); *Okinawa Dugong v. Rumsfeld*, No. 03-4350, 2005 WL 522106 (N.D. Cal. Mar. 2, 2005) (unpublished)). These cases interpret specific provisions of the National Historic Preservation Act, not the ESA, and have no bearing on interpretation or application of 50 CFR 424.12(h). We also note that the Banggai cardinalfish’s natural historical and present range does not occur within the area mentioned by the commenter, and therefore, the question of critical habitat designation is irrelevant.

Harrisson’s dogfish

We received a single submission on the proposal to list Harrisson’s dogfish from the Australian Government Department of the Environment. We briefly summarize their comments below and respond with references to our prior documents where relevant.

Comment 9: The proposal to list Harrisson’s dogfish suggests that lower catches in recent years reflect a decreasing population. This conclusion appears not to have taken into account restrictive catch limits for Harrisson’s dogfish in the last five years in the Southern and Eastern Scalefish and Shark Fishery (SESSF). Since 2010, a limit of 15 kg per day of Harrisson’s dogfish

has been implemented, which has contributed to reductions in catch rates by stopping targeted fishing and encouraging active avoidance of dogfish.

Response: The text in the proposed rule, to which this comment refers, states “However, even before the prohibition, reported catch rates of Harrison’s dogfish in the SESSF have been minimal in recent years, likely due to the low abundance of the species on the continental margin where the fisheries operate.” While we agree that the 2010 catch limit does, in part, contribute to the observed low catches of the species, we would like to point out that even before the 2010 catch limit, *C. harrissoni* catches were rare. According to Walker *et al.* (2009), annual catches of Harrison’s dogfish in the SESSF from 2000-2006 were < 1 t. Catches of all gulper sharks (*C. harrissoni*, *C. moluccensis*, *C. zeehaani*) have also been decreasing since the mid-1990s (Georgeson *et al.* 2014). Given that Harrison’s dogfish’s relative abundance on the upper-slope is estimated to have declined by over 99 percent between 1976-77 and 1996-97 (Graham *et al.* 2001), we find that the minimal catches of the species, even prior to 2010, are more likely a reflection of the low abundance and rarity of the species on the continental margin.

Comment 10: The proposal to list Harrison’s dogfish notes that there is potentially high at-vessel mortality of Harrison’s dogfish in auto-longline (ALL) gear and cites to Williams *et al.* (2013a). However, the proposal does not appear to have considered tagging studies, which indicate post-capture survival rates on ALL gear to be between 65 and 95 percent, potentially downgrading capture on longline to a lower risk method (Williams *et al.* 2013a).

Response: The Status Review Report (Miller 2014), upon which the proposed rule for Harrison’s dogfish was based, discusses the potential for high at-vessel mortality in ALL gear. Citing the Williams *et al.* (2013a) paper, Miller (2014) notes that mortality of Harrison’s

dogfish after capture on ALL gear ranged from 4 percent (if estimates included only confirmed dead sharks immediately after capture) to as high as 73 percent (if estimates included sharks that swam away slowly after capture, indicating stress or shock, as potential mortalities). The comment above appears to refer to the estimates of post capture survival on ALL gear from tagging studies on a different gulper species, the Southern dogfish (*C. zeehaani*), as reported in Williams *et al.* (2013a) which further cited Williams *et al.* (2012). Based on detections from 70 tagged Southern dogfish, post-capture mortality rate was estimated to be low, around 3 to 16 percent (Williams *et al.* 2013a). However, as part of this tagging study, steps were taken to maximize survivorship (such as restricting soak times to 2-4 hours and careful de-hooking and handling of the sharks) that may not be followed during commercial fishing operations (Williams *et al.* 2012). In fact, Williams *et al.* (2012) notes that soak times of up to 13.45 hours are more common during normal commercial fishing operations. Given the methods taken to maximize survivorship, as well as the fact that the study focused on Southern dogfish, we find that the estimates reported in Williams *et al.* (2012; 2013a) and referred to by the commenters may not be an accurate representation of post-capture survivorship for Harrison's dogfish on ALL gear. As such, we find no reason to change our initial characterization of risk from incidental capture on ALL gear.

Comment 11: Since the publication of the proposed rule, there has been a reduction in ALL effort in the SESSF, with one boat leaving the fishery. There are now only two dedicated longline boats remaining in the fishery, as opposed to the three vessels considered in the proposed listing. Both of the remaining vessels have now been fitted with electronic monitoring systems which are required to monitor all fishing operations. This allows assessment of dogfish

handling practices, as well as evaluation of the effectiveness of the industry code of conduct.

Response: We appreciate the new information and have updated the status review accordingly. After review, we do not find that the removal of this single vessel from the fishery would significantly change the overall conclusions of the extinction risk analysis.

Status Reviews

Status reviews for the petitioned species addressed in this finding were conducted by NMFS staff. Separate draft status reviews were completed for the Banggai cardinalfish (Conant 2014) and Harrison's dogfish (Miller 2014). In order to complete the status reviews, we compiled information on the species' biology, ecology, life history, threats, and conservation status from information contained in the petition, our files, a comprehensive literature search, and consultation with experts. We also considered information submitted by the public and peer reviewers. Prior to publication of the proposed rule, all status reviews were subjected to peer review. Peer reviewer comments are available at

http://www.cio.noaa.gov/services_programs/prplans/PRsummaries.html.

The status review reports provide a thorough discussion of life history, demographic risks and threats to the particular species. We considered all identified threats, both individually and cumulatively, to determine whether the species responds in a way that causes actual impacts at the species level. The collective condition of individual populations was also considered at the species level, according to the four demographic viability factors discussed above.

The proposed rule (79 FR74953, December 16, 2014) summarizes general background information on the natural history, range, reproduction, population structure, distribution and abundance of the Banggai cardinalfish and Harrison's dogfish. All of that information is

incorporated herein by reference. In addition, an update on the Banggai cardinalfish population abundance and conservation efforts (Vagelli unpublished report 2015) is available upon request (see **FOR FURTHER INFORMATION CONTACT**).

Species Determinations

Based on the best available scientific and commercial information described above and in the status review reports, we have determined that the Banggai cardinalfish (*Pterapogon kauderni*) and Harrison's dogfish (*Centrophorus harrissoni*) are taxonomically-distinct species and therefore meet the definition of "species" pursuant to section 3 of the ESA and are eligible for listing under the ESA.

Summary of Threat Factors Affecting the Two Species

Next we considered whether any one or a combination of the five threat factors specified in section 4(a)(1) of the ESA contribute to the extinction risk of these species. For Harrison's dogfish, none of the information we received from public comment on the proposed rule affected our discussion or conclusions regarding any of the section 4(a)(1) factors or their interactions, so we incorporate the discussion of these factors from the proposed rule (79 FR 74953, December 16, 2014) by reference herein. For the Banggai cardinalfish, the report received from the peer review on the Banggai cardinalfish status review indicated that compliance with the Fish Quarantine regulations was largely voluntary and that improved trade practices had not been implemented (Vagelli unpublished report 2015). Thus, we are less certain that compliance and trade practices will improve in the future under the "inadequacy of existing regulatory mechanisms" threat factor.

Extinction Risk

None of the information we received from public comment on the proposed rule affected our extinction risk evaluation of Harrison's dogfish. As such, our evaluation remains the same as in the original status review report and the discussion in the proposed rule (79 FR 74953, December 16, 2014), and that discussion is incorporated herein by reference. For the Banggai cardinalfish, as stated above, the report received from the peer review on the Banggai cardinalfish status review indicated that compliance with the Fish Quarantine regulations was largely voluntary and that improved trade practices had not been implemented (Vagelli unpublished report 2015). Thus, we are less certain that compliance and trade practices will improve in the future. However, the updated information on the inadequacy of existing regulatory mechanisms did not result in a higher risk of extinction because we previously had considered that enforcement was weak, and illegal, unregulated, and unreported capture and trade were still a major problem in the extinction risk assessment (Conant 2014).

Conservation Efforts

Finally, we considered conservation efforts to protect each species and evaluated whether these conservation efforts are adequate to mitigate the existing threats to the point where extinction risk is significantly lowered and the species' status is improved. None of the information we received from public comment on the proposed rule affected any of our discussion or conclusions regarding conservation efforts to protect Banggai cardinalfish, so we incorporate the discussion of these efforts from the proposed rule (79 FR 74953, December 16, 2014) by reference herein.

For Harrison's dogfish, we specifically requested information during the public comment process on the conservation efforts that were identified in the proposed rule (79

FR74953; December 16, 2014) and their certainty of implementation and effectiveness. We received no comments or information on our conclusions regarding the effectiveness of the conservation efforts. As such, our discussion and conclusion from the proposed rule remains the same (and is incorporated herein by reference); namely, that the implemented conservation efforts are likely to improve the present status of the species by effectively decreasing the threat of overutilization by fisheries in the near term to the point where the species is no longer presently in danger of extinction.

We did receive information on the other aspect of our evaluation of conservation efforts, namely, the certainty of implementation of these conservation efforts. Specifically, we received information from the Australian Government, the organization in charge of implementing the conservation efforts. This information, as well as additional information collected during the comment period and our analysis of this new information, is discussed below.

Certainty of Implementation of Conservation Efforts to Protect Harrison's Dogfish

In the proposed rule (79 FR 74954), we concluded that the regulatory measures from the Upper-Slope Dogfish Management Strategy (the "Strategy"; see AFMA, 2012), which the Australian Fisheries Management Authority (AFMA) implemented for the conservation of the species, were likely to be effective in improving the present status of the species. However, we also noted in the proposed rule that the certainty of the conservation efforts remaining in place after 5 years could not be predicted at this time. As such, we concluded that the time frame over which the conservation efforts would certainly be in place was insufficient to increase the species' chances of survival or prevent its extinction through the foreseeable future.

Our conclusion was primarily based on our understanding that the legal instrument (i.e.,

the “SESSF Fishery Closures Direction No. 1 2013”) used to implement the conservation efforts within the Strategy expires in 5 years, with no certainty of implementation of conservation efforts past this point in time. Additionally, we interpreted the listing of the species as “conservation dependent” under Australia’s Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to mean that it is not afforded protection by the EPBC Act because it is not considered to be a “matter of national significance.” However, upon review of the information received from the Australian Government, as well as information we collected during the comment period, briefly discussed below, we now have a high degree of certainty that conservation efforts will continue to be implemented beyond a 5-year period.

In Australia, Commonwealth fisheries are managed by AFMA, which is governed by the legislative objectives in Australia’s Fisheries Management Act 1991 (FM Act). One of AFMA’s main legislative objectives under the FM Act is “Ensuring that the exploitation of fisheries resources and the carrying on of any related activities are conducted in a manner consistent with the principles of ecologically sustainable development (which include the exercise of the precautionary principle), in particular the need to have regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment” (FM Act subsection 3(1)(b)). In addition, AFMA also has the objective of “Ensuring, through proper conservation and management measures, that the living resources of the AFZ [Australian Fishing Zone] are not endangered by over-exploitation” (FM Act subsection 3(2)(a)).

In 1999, the EPBC Act was passed and is considered to be the key legislation for conserving the biodiversity of Australian ecosystems and protecting the natural environments that support these ecosystems. Broadly, the EPBC Act requires that fishing actions do not have a

significant impact on the Commonwealth marine environment, including protected species or ecological communities. Objectives of the EPBC Act include providing for the protection of the environment, especially matters of national environmental significance (which includes Commonwealth marine areas), conserving Australian biodiversity, and promoting ecologically sustainable development through the conservation and ecologically sustainable use of natural resources.

Part of AFMA's obligations under the EPBC Act is the requirement to prepare strategic assessment reports for all Commonwealth fisheries, particularly those with an export component. These reports are prepared to address the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*, which specifies principles and objectives designed to ensure a strategic and transparent way of evaluating the ecological sustainability of fishery management measures. These reports also provide updates on the implementation of conditions and recommendations from the previous assessments of the fishery. These reports are then submitted to and assessed by Australia's Department of Environment for accreditation. The Department of the Environment ultimately evaluates the environmental performance of fisheries, including: the strategic assessment of fisheries under Part 10 of the EPBC Act; assessments relating to impacts on protected marine species under Part 13 of the EPBC Act; and assessments for the purpose of export approval under Part 13A of the EPBC Act.

This accreditation process is extremely important for the SESSF. As noted in the proposed rule, Harrison's dogfish are primarily caught as bycatch by the SESSF, which operates over an extensive area of the AFZ around eastern, southern, and southwestern Australia. In fact,

the management area covers almost half of the AFZ (Georgeson *et al.* 2014). In 2012-2013, the SESSF was the largest commonwealth fishery in terms of production value, and also the most valuable, with a gross value of production (GVP) of \$91.8 million (28 percent of the total GVP for Commonwealth fisheries) (Georgeson *et al.* 2014). As such, ensuring that the SESSF is managed in an ecologically sustainable way so that commercial export of Australian native wildlife from this fishery may continue appears to be a priority for the Australian Government.

The most recent assessment of the SESSF occurred in 2013, before the EPBC Act listing of Harrison's dogfish. However, in recognition of the decline in Harrison's dogfish and the potential impacts that continued SESSF operations may have on the shark, the Department of Environment recommended that the accreditation be subject to a number of conditions that must be addressed by AFMA within the period of the approved wildlife trade operation declaration for the fishery. For Harrison's dogfish, these conditions were: 1) implement long-term management measures, including fisheries closures and other actions, that are clearly directed towards stopping the decline and supporting the recovery of Harrison's dogfish and southern dogfish, and 2) continue, in consultation with relevant experts, to monitor and review the adequacy of management measures designed to stop the decline and support the recovery of Harrison's dogfish and southern dogfish (Department of Environment 2013). On February 25, 2013, Australia's Minister for the Environment officially declared the harvest operations of the SESSF an approved wildlife trade operation but subject to a number of conditions, including the ones concerning Harrison's dogfish stated above (Commonwealth of Australia Gazette S 30; 25 February 2013). This approval is valid until February 25, 2016, at which point the SESSF will have to be re-assessed to ensure the sustainability of the fishery, including AFMA's progress on

meeting the conditions from the approval declaration.

The state-managed New South Wales Ocean, Trap, and Line Fishery (OTLF) and Ocean Trawl Fishery (OTF) also potentially bycatch Harrison's dogfish and were assessed in March and May 2014, respectively, after Harrison's dogfish was listed as conservation dependent under the EPBC Act. Similar to the conditions set forth for the SESSF accreditation, the OTLF and OTF are also subject to conditions for protecting Harrison's dogfish. Specifically, the New South Wales Department of Primary Industries, in consultation with AFMA, must: 1) maintain long-term management measures that are clearly directed towards stopping the decline and supporting the recovery of Harrison's dogfish and southern dogfish, and 2) continue, in consultation with relevant experts, to monitor and review the adequacy of management measures designed to stop the decline and support the recovery of Harrison's dogfish and southern dogfish (Commonwealth of Australia Gazette C2014G00735; 8 May 2014 (OTLF); C2014G01029; 20 June 2014 (OTF)). These approvals are valid for 3 years, after which, again, the fisheries must be re-assessed to ensure ecological sustainability. If any of these fisheries fail to follow the conditions set forth in the wildlife trade operation declaration, then they would be prohibited from exporting products derived from the fishery, essentially shutting down the fishery operations.

To meet the approval conditions and satisfy the management requirements for a conservation dependent listing under the EPBC Act (TSSC 2013), AFMA identified and implemented fishery management measures in the Strategy that were deemed necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximized. In the proposed rule, we determined that these conservation efforts would

be effective at preventing the extinction of Harrison's dogfish (see 79 FR 74954, discussion of Harrison's Dogfish **Protective Efforts**). These measures have ultimately been given legal effect through legislative instruments under the FM Act, including the Fishery Closure Direction ("SESSF Fishery Closures Direction No. 1 2013"). Although the current closure direction will expire in 5 years (which is the longest time period that closure directions are in effect; G. Day, AFMA, personal communication 2014), the objectives of and requirements under the FM Act and the EPBC Act (as stated above) compel ongoing management measures to be implemented to protect Harrison's dogfish from extinction through the foreseeable future.

To assist with these ongoing conservation efforts, AFMA published the "Upper-Slope Dogfish Management Strategy Research and Monitoring Workplan," ("Workplan"; AFMA 2014) which uses the principles of adaptive management to assess the effectiveness of the Strategy in stopping the decline of and promoting the rebuilding of Harrison's dogfish. According to the Workplan, the scheduled periodic reviews of its outcomes "provides for a feedback loop whereby arrangements in the Strategy can be adapted as necessary to meet developments in the fishery and the improved understanding of Harrison's dogfish biology and stock structure" (AFMA 2014). The Workplan also outlines explicit incremental objectives for the conservation effort, steps needed to achieve the objectives, timeframes associated with the steps, as well as performance indicators, monitoring mechanisms and progress reporting on the implementation and evaluation of the success of the objectives.

Given the implementation of current conservation efforts, with a published Workplan that allows for the continued monitoring and reporting on the implementation and effectiveness of these conservation efforts, as well as legislative obligations that compel these efforts, we find

there to be a high likelihood that management measures for the protection of Harrison's dogfish will continue to be implemented through the foreseeable future. As noted by the Australian Government in their public submission, "following the expiration of the current Closure Direction, management measures will be reviewed and subsequent spatial closure decisions or other conservation efforts will be implemented for the protection of Harrison's Dogfish in light of the performance of the Strategy against its objectives and the objectives of the FM Act and EPBC Act." Based on the above, we have determined that the conservation efforts protecting Harrison's dogfish from risk of extinction through the foreseeable future have a high certainty of being implemented.

In the proposed rule we also noted that the protection of the species is not required under the EPBC Act due to its conservation dependent status. However, as noted above, there are a number of legislative protections for Harrison's dogfish. In addition, although the species is not directly characterized as a matter of national significance due to its conservation dependent status under the EPBC Act, the species is indirectly protected by the EPBC Act through the designation of Commonwealth Marine Areas as matters of national significance. Under this designation, an action that is likely to have a substantial adverse effect on a population of a marine species (such as Harrison's dogfish), including its life cycle (for example, breeding, feeding, migration behavior, life expectancy) and spatial distribution, is considered to have a significant impact on the environment in a Commonwealth Marine Area and must be referred to Australia's Minister of the Environment and undergo an environmental assessment and approval process. This is an additional protection afforded to Harrison's dogfish under the Australian Government's legal framework that was not considered in the proposed rule.

In light of the new information received and collected during the public comment period regarding Australia's legislative objectives, requirements, and actions, especially as they pertain to Harrison's dogfish, we no longer find that the timeframe over which conservation efforts will certainly be in place is insufficient to increase the species' chances of survival or prevent its extinction through the foreseeable future. Rather, we now have a high degree of certainty that conservation efforts to protect the species from further decline (and with the primary objective of rebuilding) will continue to be implemented after 5 years and through the foreseeable future, effectively mitigating existing threats to the species and improving the status of the species to the point where extinction is unlikely now or in the foreseeable future.

Final Determination

We have reviewed the best available scientific and commercial information, including the petition, the information in the status review reports, public comments, and the comments of peer reviewers. Based on the information presented, we find that the Banggai cardinalfish (*Pterapogon kauderni*) is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. We assessed the ESA section 4(a)(1) factors and demographic risk factors and conclude that habitat destruction and overutilization affect Banggai cardinalfish. After considering efforts being made to protect Banggai cardinalfish, we could not conclude that the proposed conservation efforts would alter the extinction risk for the species. Therefore, we are listing the Banggai cardinalfish as threatened under the ESA.

Based on the information presented, we find that Harrison's dogfish is not in danger of extinction, or likely to become so in the foreseeable future, throughout all or a significant portion of its range. We assessed the ESA section 4(a)(1) factors and demographic risk factors and

conclude that Harrison's dogfish faces threats from overutilization, with the species' natural biological vulnerability to overexploitation and demographic risks exacerbating the severity of the threats. However, we also conclude that ongoing conservation efforts implemented by the Australian Government are currently effective in decreasing this main threat of overutilization to the point where the species is not presently in danger of extinction. In addition, we conclude that these conservation efforts are sufficiently certain to be implemented and effective over a timeframe necessary to stop the decline of, and support recovery of, the species so that its chances of long term survival in nature are maximized, thereby making it unlikely that the species will become in danger of extinction in the foreseeable future. Therefore, we find that listing Harrison's dogfish as an endangered or threatened species under the ESA is not warranted at this time.

We will continue to monitor the status of Harrison's dogfish and if, at any time, data indicate that protective status under the ESA may be necessary and should be considered again, including information that the implementation of necessary conservation efforts has ceased, or if we become aware of noncompliance issues with the conservation measures, or if there are new or increasing threats, we can initiate listing procedures, including, if appropriate, emergency listing pursuant to section 4(b)(7) of the ESA.

Effects of Listing

Conservation measures provided for species listed as endangered or threatened under the ESA include recovery actions (16 U.S.C. 1533(f)); concurrent designation of critical habitat, if prudent and determinable (16 U.S.C. 1533(a)(3)(A)); Federal agency requirements to consult with NMFS under section 7 of the ESA to ensure their actions do not jeopardize the species or

result in adverse modification or destruction of critical habitat should it be designated (16 U.S.C. 1536); and prohibitions on taking (16 U.S.C. 1538). Recognition of the species' plight through listing promotes conservation actions by Federal and state agencies, foreign entities, private groups, and individuals.

Identifying Section 7 Consultation Requirements

Section 7(a)(2) (16 U.S.C. 1536(a)(2)) of the ESA and NMFS/USFWS regulations require Federal agencies to consult with us to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or destroy or adversely modify critical habitat. It is unlikely that the listing of the Banggai cardinalfish under the ESA will increase the number of section 7 consultations, because this species occurs outside of the United States and is unlikely to be affected by Federal actions.

Critical Habitat

Critical habitat is defined in section 3 of the ESA (16 U.S.C. 1532(5)) as: (1) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the ESA is no longer necessary (16 U.S.C. 1532(3)). Section 4(a)(3)(A) of the ESA (16 U.S.C. 1533(a)(3)(A)) requires that, to the extent prudent and determinable, critical habitat be designated concurrently with the listing of a species. However,

critical habitat shall not be designated in foreign countries or other areas outside U.S. jurisdiction (50 CFR 424.12 (h)).

The best available scientific and commercial data as discussed above identify the geographical areas occupied by *Pterapogon kauderni* as being entirely outside U.S. jurisdiction, so we cannot designate critical habitat for this species. We can designate critical habitat in areas in the United States currently unoccupied by the species, if the area(s) are determined by the Secretary to be essential for the conservation of the species. Based on the best available information, we have not identified unoccupied area(s) in U.S. waters that are currently essential to the conservation of the Banggai cardinalfish. Therefore, based on the available information, we will not designate critical habitat for *Pterapogon kauderni*.

Protective Regulations Under Section 4(d) of the ESA

Section 9 of the ESA prohibits the take of endangered species. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (16 U.S.C. 1532(19)). In the case of threatened species, ESA section 4(d) leaves it to the Secretary’s discretion whether, and to what extent, to extend the section 9(a) “take” prohibitions to the species, and authorizes us to issue regulations necessary and advisable for the conservation of the species. Thus, we have flexibility under section 4(d) to tailor protective regulations, taking into account the effectiveness of available conservation measures. The 4(d) protective regulations may prohibit, with respect to threatened species, some or all of the acts which section 9(a) of the ESA prohibits with respect to endangered species. These section 9(a) prohibitions apply to all individuals, organizations, and agencies subject to U.S.

jurisdiction. We will consider potential protective regulations pursuant to section 4(d) for the Banggai cardinalfish in a future rulemaking.

References

Vagelli, A.A. 2015. Update on populations' condition of the Banggai cardinalfish *Pterapogon kauderni*. Unpublished report. 17 pages.

A complete list of the references used in this proposed rule is available upon request (see **ADDRESSES**).

Classification

National Environmental Policy Act

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation v. Andrus*, 675 F. 2d 825 (6th Cir. 1981), NMFS has concluded that ESA listing actions are not subject to the environmental assessment requirements of the National Environmental Policy Act (NEPA) (See NOAA Administrative Order 216-6).

Executive Order 12866, Regulatory Flexibility Act, and Paperwork Reduction Act

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. In addition, this final rule is exempt from review under Executive Order 12866. This final rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

Executive Order 13132, Federalism

In accordance with E.O. 13132, we determined that this final rule does not have significant Federalism effects and therefore a Federalism assessment is not required.

List of Subjects in 50 CFR Part 223

Administrative practice and procedure, Endangered and threatened species, Exports, Imports, Reporting and record keeping requirements, Transportation.

Dated: January 7, 2016.

Samuel D. Rauch, III,
Deputy Assistant Administrator for Regulatory Programs,
National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 223 is amended as follows:

PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

1. The authority citation for part 223 continues to read as follows:

Authority: 16 U.S.C. 1531-1543; subpart B, § 223.201–202 also issued under 16 U.S.C. 1361 *et seq.*; 16 U.S.C. 5503(d) for § 223.206(d)(9).

2. In § 223.102, amend the table in paragraph (e) by adding the entry “Cardinalfish, Banggai” in alphabetical order under the subheading “Fishes” to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

(e) * * *

Species ¹			Citation(s) for listing Determination(s)	Critical Habitat	ESA rules
Common name	Scientific name	Description of listed entity			

Fishes					

Cardinalfish, Banggai	<i>Pterapogon kauderni</i>	Entire species	[Insert FEDERAL REGISTER publication date] [Insert Federal Register citation]	NA	NA.

¹Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

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