



Billing Code 3510-22-P

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 224**

**[Docket No. 150506424-6642-02]**

**RIN 0648-XD940**

**Endangered and Threatened Wildlife and Plants; Listing Three Angelshark Species as Endangered Under the Endangered Species Act**

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

**ACTION:** Final rule.

**SUMMARY:** We, NMFS, issue a final rule to list three foreign marine angelshark species under the Endangered Species Act (ESA). We considered comments submitted on the proposed listing rule and have determined that the sawback angelshark (*Squatina aculeata*), smoothback angelshark (*Squatina oculata*), and common angelshark (*Squatina squatina*) warrant listing as endangered species. We will not designate critical habitat for any of these species because the geographical areas occupied by these 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 any of these 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.

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

**SUPPLEMENTARY INFORMATION:**

**Background**

On July 15, 2013, we received a petition from WildEarth Guardians to list 81 marine species or subpopulations as threatened or endangered under the ESA. This petition included species from many different taxonomic groups, and we prepared our 90-day findings in batches by taxonomic group. We found that the petitioned actions may be warranted for 24 of the species and 3 of the subpopulations and announced the initiation of status reviews for each of the 24 species and 3 subpopulations (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 July 14, 2015, we published a proposed rule to list the sawback angelshark (*Squatina aculeata*), smoothback angelshark (*Squatina oculata*), and the common angelshark (*Squatina squatina*) as endangered species (80 FR 40969). We requested public comment on information in the draft status review and proposed rule, and the comment period was open through September 14, 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 sawback angelshark, smoothback angelshark, and common angelshark under the ESA. The status of the findings and relevant **Federal Register** notices for the other 21 species and 3 subpopulations can be found on our website at

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

### *Listing Species Under the Endangered Species Act*

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 first consider 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 endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or in the foreseeable future (threatened).

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 three angelshark species, we considered the demographic viability factors developed by McElhany *et al.* (2000). 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 viable population descriptors: abundance, growth rate/productivity, spatial structure/connectivity, and diversity. These viable population descriptors reflect concepts that are well-founded in conservation biology and that individually and collectively provide strong indicators of extinction risk (NMFS 2015).

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 response to our request for comments on the proposed rule, we received information and/or comments from three parties. Two of the commenters presented general information on threats or provided data that were already cited, discussed, and considered in the draft status review report (Miller 2015) or the proposed rule (80 FR 40969; July 14, 2015). Summaries of the substantive public comments received, and our responses, are provided below, with references to our prior documents where relevant.

*Comment 1:* One commenter agreed with the listing determination, citing the evidence provided in the draft status review report (Miller 2015) that the three species are at high risk of extinction due to threats of overutilization and inadequacy of existing regulatory mechanisms.

*Response:* We agree with the commenter.

*Comment 2:* One commenter suggested that instead of a traditional recovery plan for the endangered *Squatina* sharks, the Secretary should contribute resources toward developing the Illegal, Unreported, and Unregulated (IUU) and Seafood Fraud Action Plan under the direction of the Presidential IUU Task Force. The commenter specifically mentioned that traceability regulations are integral for the recovery of these *Squatina* species, and while imports into U.S. markets are likely minimal (because catches are currently so low), limitations on seafood traceability preclude any enforcement of the ESA import provisions. As such, the IUU design principles around traceability are especially relevant to the recovery of these species and the strategy will advance the recovery of these, and other, internationally threatened species.

*Response:* Once a species is listed as threatened or endangered, section 4 of the ESA requires that we develop and implement recovery plans that must, in part, identify objective, measurable criteria which, when met, would result in a determination that the species may be

removed from the list. However, we note that the action to develop recovery plans for these *Squatina* species is not part of the determination for listing, which is the subject of this action, and, thus, will not be considered further here. The Presidential Task Force on Combating IUU Fishing and Seafood Fraud and the Action Plan for Implementing the Task Force Recommendations are also beyond the scope of this rulemaking.

*Comment 3:* One commenter remarked on our consideration of the International Union for Conservation of Nature (IUCN) Red List species assessments. Using an example from over 30 years ago, the commenter asserted, noting the IUCN's "vulnerable" extinction risk determination for the Guadalupe fur seal, that we applied the corresponding ESA listing status of "threatened" to this species. Furthermore, the commenter suggested that in addition to our practice of evaluating the source of information the IUCN classification is based upon, in light of the standards on extinction risk and impacts or threats (as discussed in our previous ESA listing findings), we should ensure that we give adequate weight to the opinions of the reasonable scientists who make these threat determinations as well, especially given the fact that they are often preeminent experts on the species being assessed. The commenter stated that the IUCN species assessments, themselves, are each essentially scientific articles quantifying threats to species, should be treated as an additional, independent scientific source, and should be given weight beyond the mere citations that they include.

*Response:* As noted in many of our previous findings (see 81 FR 1376; January 12, 2016, and 81 FR 8874; February 23, 2016, for 2 recent examples), risk classifications by other organizations or made under other Federal or State statutes may be informative, but such classification alone does not provide the rationale for listing determinations (or even preliminary

90-day findings) under the ESA. As mentioned in the 90-day finding for these species (78 FR 69376; November 19, 2013), species classifications under IUCN and the ESA are not equivalent, and data standards, criteria used to evaluate species, and treatment of uncertainty are also not necessarily the same. As the commenter notes, our practice is to evaluate the source of information that the IUCN classification is based upon in light of the standards on extinction risk and impacts or threats discussed above. This was applicable even in the case of the Guadalupe fur seal, although the commenter misrepresents the listing determination basis, implying that we listed the Guadalupe fur seal as “threatened” based on the IUCN’s “vulnerable” risk determination. In fact, as noted in the final determination for the Guadalupe fur seal (50 FR 51252; December 16, 1985), the IUCN submitted comments on the proposed Guadalupe fur seal listing rule, recommending an ESA “endangered” status for the species. However, based on the available information and our evaluation of the data in light of the standards on extinction risk, threats to the species, and ESA definitions, we determined that the status of the Guadalupe fur seal corresponded with the ESA definition of a “threatened” species. Thus, as we did with the Guadalupe fur seal listing determination, we will continue to evaluate all sources of available information, in light of the ESA standards on extinction risk and impacts or threats to the species, to inform our ESA listing determinations.

*Comment 4:* One commenter cited the new 2015 IUCN assessment of *S. squatina* (Ferretti *et al.* 2015) as evidence of the bleak status of the species.

*Response:* We reviewed the new IUCN assessment of *S. squatina* (Ferretti *et al.* 2015) and evaluated the sources of available information cited within the assessment in light of the ESA standards on extinction risk and impacts or threats to the species. We did not find any new

species-specific information on the impacts of threats or the biological response of the species to these threats that was not already considered in the proposed rule and draft status review report. The latest assessment references many of the same studies and findings discussed in the status review and proposed rule. We did, however, update the status review based on information from a reference cited within Ferretti *et al.* (2015), specifically Maynou *et al.* (2011). Maynou *et al.* (2011) conducted interview surveys of 106 retired fishermen who used to fish (either in the small scale fisheries or trawl fishers) in the Catalan, Ligurian, Tyrrhenian, north Adriatic, and Hellenic Seas, to see if these fishermen perceived any trends in dolphin and shark abundances between 1940 and 1999. As it applies to the three *Squatina* species of this action, the results from these interviews suggest that angelsharks disappeared from the Catalan Sea probably before 1959, from waters off the western Italian coast by the early 1980s, and from waters off Sardinia by the mid-1980s. As we already assumed potential extirpations of these species in the Ligurian and Tyrrhenian Seas and off the Balearic Islands based on other available information, this new information does not change our conclusions regarding the extinction risk of the species, but does provide further support for our assumptions and findings.

*Comment 5:* One commenter disagreed with our assessment of the climate change threat to the three *Squatina* species. The commenter asserted that climate change is likely to harm all three *Squatina* species and provided the following reasons: (1) The climate change threat was only assessed for *S. squatina* in United Kingdom (UK) waters (based on the Jones *et al.* (2013) paper) and, therefore, our conclusion regarding climate change impacts are purely speculative for *S. aculeata* and *S. oculata*; (2) Our expected decrease in the angelshark species' overlap with commercially-targeted species is unlikely to occur; (3) Our projected increase in protected



angelshark range is unlikely to occur; and (4) the three angelshark species are likely entirely unable to migrate to avoid the effects of climate change.

*Response:* Broad statements about generalized threats to the species, such as climate change, 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.

Based on our comprehensive review of the literature, the Jones *et al.* (2013) paper was the only information we found that provided an analysis of the threat of climate change and potential response by a *Squatina* species (*S. squatina*). While the commenter disagreed with our reliance on the Jones *et al.* (2013) paper, the commenter did not provide any new species-specific information on the threat of climate change or evidence that the *Squatina* species are responding in a negative fashion to the threat. As such, and as stated in the proposed rule, the best available information does not indicate that climate change is contributing significantly to the extinction risk of these species. Below we provide further comments on each of the commenter's points mentioned above.

The commenter mentioned that the climate change threat was only assessed for *S. squatina* in UK waters and, therefore, our conclusion regarding climate change impacts are purely speculative for *S. aculeata* and *S. oculata*. We disagree that our conclusions are speculative. Rather, we state that our conclusions are based on the best available information. In the proposed rule, we note that besides the Jones *et al.* (2013) study (which examined the impacts from climate change for *S. squatina* in UK waters), “we found no other information

regarding the response of *Squatina* species to the impacts of climate change.” Therefore, based on the best available information (i.e., the Jones *et al.* (2013) paper) we did not find any evidence to suggest that climate change contributes significantly to the extinction risk of *S. squatina*, and, additionally, we have no information to suggest that climate change contributes significantly to the extinction risk of the other two *Squatina* species.

The commenter also asserts that our expected decrease in the angelshark species’ overlap with commercially-targeted species, and the projected increase in protected angelshark range, are unlikely to occur, and speculates that the three angelshark species will be unable to migrate to avoid the effects of climate change. In the proposed rule, we cited findings from the Jones *et al.* (2013) paper, including that the impacts from a range shift due to climate change would likely be offset by an increase in availability of protected habitat areas for the common angelshark (*S. squatina*). We also noted that the predicted range shift would shrink the (common) angelshark’s overlap with other commercially-targeted species. The commenter states that the proposed climate-induced shifts in range discussed in the Jones *et al.* (2013) paper predict only slight increases in habitat suitability in candidate marine protected areas, and because these are only candidate areas, the commenter notes that it is unclear whether these habitat areas will ever even be protected in the future. Additionally, according to the Jones *et al.* (2013) paper, and acknowledged by the commenter, *S. squatina* was predicted to have a small, but negative change of 2.7 percent in median overlap across all commercial species investigated. However, the commenter argues that this change is so miniscule when considering the effects that fishing of commercially-targeted species in areas currently overlapping with *S. squatina* has had over the last several decades. As such, bycatch pressure on *S. squatina* will likely remain high as the

overlap will remain almost entirely the same. Finally, the commenter speculates that the three angelshark species may be unable to move to avoid climate change due to limited dispersal capabilities.

As already thoroughly discussed in the proposed rule and draft status review for these angelshark species, we agree that overutilization is a significant threat that has led to *S. squatina* being presently in danger of extinction. The purpose of the above information and discussion was to evaluate the specific impact of climate change and the corresponding likely response of the common angelshark in order to evaluate the significance of this particular threat on the species' risk of extinction. As the commenter has made clear, the impact of climate change on the extinction risk of *S. squatina* appears negligible as it will unlikely alter the threat of overutilization to the species. Although a very minor range shift may occur, there is no information to suggest the species' response to climate change impacts would significantly alter its extinction risk (either through a decrease or increase in risk). Additionally, the commenter provides no information on the actual threat that climate change poses to the species, such as the species' biological or physiological responses to climate change impacts and the actual need for the species to migrate elsewhere, and we could find no such information. As such, our conclusion remains the same: the best available information does not suggest that climate change contributes significantly to the extinction risk of the species.

*Comment 6:* One commenter provided new information on historical catch of *Squatina* species in the Adriatic Sea (based on fish market data; Raicevich and Fortibuoni 2013) and information on benthic shark exploitation in the Canary Islands (Couce-Montero *et al.* 2015).

*Response:* We have updated the status review report to include this information. In

particular, the new information indicates the contemporary presence of *S. squatina* in the Adriatic Sea (which was previously thought to be potentially extirpated), but demonstrates the significant decline in both abundance and size that has occurred in the population since the early 20<sup>th</sup> century (Fortibuoni *et al.* 2016), providing additional evidence of the overutilization of the species in this part of its range. Similarly, the Couce-Montero *et al.* (2015), which was a broad-scale study of the impacts of artisanal, recreational and industrial fleets on the Gran Canaria (Canary Islands) marine ecosystem, found overall fishing pressure by these fleets to be high and benthic sharks, as a functional group, to be overexploited. This new information does not change our conclusions regarding the extinction risk of the *Squatina* species.

*Comment 7:* One commenter suggested we consider the global impacts of recreational fishing on *S. squatina* and *S. aculeata*, providing a general description of some of the aspects of recreational fishing and ways it differs from commercial fishing.

*Response:* In our evaluation of threats in both the draft status review report and proposed rule, we did consider impacts of recreational fishing on the *Squatina* species (see the *Overutilization for Commercial, Recreational, Scientific, or Educational Purposes* sections of both documents). As the commenter did not provide any new species-specific information on threats from recreational fishing effort that was not already considered in the proposed rule and draft status review report, we have no reason to change our evaluation of the threat at this time.

*Comment 8:* One commenter provided information on the ancient and contemporary use of *S. oculata* in Spain for therapeutic purposes (Vallejo and Gonzalez 2014) and suggested this use is an additional threat to the species.

*Response:* The paper cited by the petitioner, Vallejo and Gonzalez (2014), provides

simply an inventory of the fish species that have been used for medicinal purposes from ancient times to recent times in Spain. While we have updated the status review to include this new information on the use of the species, neither the study, nor the commenter, provide information on the extent or frequency that this species is collected for traditional Spanish remedies. Also, the contemporary evidence identified in the paper corresponds to *S. squatina* in Gran Canaria (Canary Islands), as opposed to *S. oculata*, and is from a 2004 article (González Salgado 2004) that also provides no information on the extent or frequency of use of *S. squatina* in traditional medicines. Finally, current regulations in Spain prohibit these *Squatina* species from being captured, injured, traded, imported, or exported. Therefore, we do not find any indication that the use of these species in traditional Spanish remedies is an additional threat that significantly increases these species' risks of extinction.

*Comment 9:* One commenter provided suggested edits to the background portions of the draft status review report to reflect the research they and others have conducted on *S. squatina* in the Canary Islands, and included information on the conservation initiatives of their nonprofit organization (ElasmoCan). Specifically, the commenter provided new (or clarified previous) information on the reproduction, growth, and distribution of *S. squatina*, identified a micropredator of *S. squatina* in the Canary Islands, provided details on the trawling prohibition in the Canary Islands, and highlighted the research they have conducted on the common angelshark within the Canary Islands. They also provided links to petitions requesting that the Canary Islands become a shark and ray sanctuary, that *S. squatina* be added to the Canarian catalogue of protected species, and that recreational fishing in the Canary Islands be prohibited.

*Response:* We have updated the status review with the provided information where

appropriate. None of the information provided by the commenter (which was primarily life history and distribution data for *S. squatina* within the Canary Islands) changed our analysis of the threats to the species. As stated in the proposed rule, current conservation efforts, including those by Elasmocan, are helping to increase the scientific knowledge about *S. squatina* and promote public awareness of the species (as demonstrated by the petitions cited by the commenter); however, there is no indication that these efforts are currently effective in reducing the threats to the species, particularly those related to overutilization and the inadequacy of existing regulatory mechanisms. As such, our conclusion from the proposed rule regarding the overall extinction risk of *S. squatina* remains the same.

In addition to requesting public comment on our proposed rule, we also directly solicited comments from the foreign ambassadors of countries where the three *Squatina* species occur. We received responses from three embassies, and their comments, as well as our responses, are provided below.

*Comment 10:* The Libyan Embassy, through Dr. Ramadan, consultant of the International Cooperation Office of the General Corporation for Agriculture on fisheries and marine resources of Libya, commented that while the three *Squatina* sharks are found in Libyan waters, they are not targeted by fishermen, nor are they common in the catch. However, most of the fishing gear used in the traditional fisheries can catch the species (including trammel nets, gillnets, bottom trawls, longlines, and illegal explosive), and when caught as bycatch, Libyans will consume these sharks. Dr. Ramadan also provided names of the two marine protected areas in Libya that could afford the species some protection: Wadi Elkouf and Ain El Gazala, both located on the eastern Mediterranean coast.

*Response:* We thank Dr. Ramadan for the comments and have updated the status review accordingly. While the proposed rule and draft status review noted that the three *Squatina* species were “relatively common” in Libyan waters, with a caveat that there was no corresponding citation or more recent data to support the statement, this new information, particularly that the species is not common in the fisheries catch yet susceptible to the traditional fishing gear, indicates that the species has likely significantly declined in abundance in Libyan waters over the past 10 years. We find this information lends further support to our conclusion that these species are presently at a high risk of extinction throughout their respective ranges.

*Comment 11:* The Sierra Leone Embassy, through the Ministry of Fisheries and Marine Resources, commented that the three *Squatina* sharks are found throughout the entire coastal waters of Sierra Leone, and endemic in the southern tip, from the shoal of Saint Ann to the boundary of Liberia and potentially beyond. Their presence has been recorded in both industrial fisheries and research survey data collected from 2008-2010. *Squatina oculata* has also been recorded from artisanal landing sites in Bonthe, Sierra Leone. However, overall, in Sierra Leone waters, the *Squatina* species are sparsely distributed and seldom caught. The Ministry of Fisheries and Marine Resources expressed support for the listing of these species as endangered and provided a list of draft fisheries regulations pertaining to sharks, but noted that they will not close areas to fishing to protect these species.

*Response:* We thank the Sierra Leone Ministry of Fisheries and Marine Resources for the comments and have updated the status review accordingly. We note that while the survey data mentioned above indicate the recent presence of *S. squatina* in Sierra Leone waters, the range of the species in the Eastern Atlantic is thought to extend only as far south as Mauritania. It is

unclear if these findings indicate a range expansion for the species, new migratory routes, a reflection of the true range of the species that was previously unknown due to poor sampling of the region, or perhaps, and more likely, misidentification of the species, as the species has yet to be identified from any other countries south of Mauritania, despite expansive historical sampling. Additionally, the draft nature of the regulations provided by the Ministry, and uncertainty regarding their implementation or effectiveness, coupled with the implication that the Ministry will not consider area closures where the species are found because they inhabit major fishing grounds in the territorial waters of Sierra Leone, we do not consider these efforts adequate to mitigate the existing threats to the point where extinction risk is significantly lowered for these three species.

*Comment 12:* The Embassy of Greece, through the Hellenic Ministry of Rural Development and Food, commented that Greece meets its obligations arising from international conventions, such as the Barcelona Convention, and is a party to the General Fisheries Commission of the Mediterranean (GFCM), the regional fisheries management organization whose convention area includes Mediterranean waters and the Black Sea. The measures adopted by the GFCM are incorporated into European Law. The Ministry specifically highlighted GFCM recommendation GFCM/36/3012/3, which prohibits those sharks on Annex II of the Specially Protected Areas and Biological Diversity (SPA/BD) Protocol to the Barcelona Convention (which include the three *Squatina* species) from being retained on board, transhipped, landed, transferred, stored, sold or displayed, or offered for sale. The Ministry noted that the species must be released, as far as possible, unharmed and alive, and that there is an obligation of owners of fishing vessels to record information related to fishing activities, including capture data,



incidental catch, and releases and/or discards of species.

*Response:* We thank the Hellenic Ministry of Rural Development and Food for the comments and have updated the status review accordingly. We note that while these regulations and retention prohibitions may decrease, to some extent, fisheries-related mortality of the *Squatina* species in the Mediterranean, for the most part, it appears that these *Squatina* species are normally discarded due to their low commercial value. Given the species' assumed high mortality rates in fishing gear (around 60 percent in trawls and 25-67 percent in gillnets), vulnerability to exploitation, present demographic risks, population declines and potential local extirpations to the point where all three species are rarely observed throughout the Mediterranean, and the evidence of continued intensive demersal fisheries operating throughout the Mediterranean, we conclude that these regulatory mechanisms are unlikely to significantly decrease the *Squatina* species' risks of extinction.

### **Summary of Changes from the Proposed Listing Rule**

We reviewed, and incorporate as appropriate, scientific data from references that were not previously included in the draft status review report (Miller 2015) and proposed rule (80 FR 40969; July 14, 2015). We also incorporate, as appropriate, relevant information received as communications during the public comment process. We include the following references and communications, which, together with previously cited references, represent the best available scientific and commercial data on *S. aculeata*, *S. oculata*, and *S. squatina*: El Dia Digital 2000; Lamboeuf *et al.* 2000; Maynou *et al.* 2011; Narváez 2012; Narváez *et al.* 2014; Couce-Montero *et al.* 2015; Gelbalder 2015; Osaer *et al.* 2015; Osaer and Narváez 2015; Dr. Ramadan personal communication (pers. comm.) 2016; Elasmocan pers. comm. 2016; Fitzpatrick *et al.* 2016;

Fortibuoni *et al.* 2016; Narváez and Osaer 2016; Sierra Leone Ministry of Fisheries and Marine Resources pers. comm. 2016. However, the information not previously included in the draft status review or proposed rule does not present significant new findings that change any of our proposed listing determinations.

### **Status Review**

The status review for the three angelshark species was conducted by a NMFS biologist in the Office of Protected Resources. In order to complete the status review, 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. Prior to publication of the proposed rule, the status review was subjected to peer review. Peer reviewer comments are available at [http://www.cio.noaa.gov/services\\_programs/prplans/PRsummaries.html](http://www.cio.noaa.gov/services_programs/prplans/PRsummaries.html). The status review report has since been updated (Miller 2016) based on the aforementioned information submitted by the public and new information collected since the publication of the proposed rule, and is available at: <http://www.nmfs.noaa.gov/pr/species/petition81.htm>.

This status review report provides a thorough discussion of the life history, demographic risks, and threats to the three angelshark species. We considered all identified threats, both individually and cumulatively, to determine whether these angelshark species respond 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 viable population descriptors discussed above.

### **Species Determinations**

Based on the best available scientific and commercial information described or referenced above, and included in the status review report, we have determined that the sawback angelshark (*S. aculeata*), smoothback angelshark (*S. oculata*), and common angelshark (*S. squatina*) 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 Factors Affecting the Three Species**

Next we consider 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. The comments that we received on the proposed rule and the additional information that became available since the publication of the proposed rule did not change our conclusions regarding any of the section 4(a)(1) factors or their interactions for these species. In fact, the majority of the new information received (Maynou *et al.* 2011; Couce-Montero *et al.* 2015; Dr. Ramadan pers. comm. 2016; Fortibuoni *et al.* 2016; Hellenic Ministry of Rural Development and Food pers. comm. 2016; Sierra Leone Ministry of Fisheries and Marine Resources pers. comm. 2016), and described previously in our response to comments, lends further support to our conclusion that the threats of overutilization and inadequacy of existing regulatory mechanisms are contributing significantly to the risk of extinction for all three *Squatina* species. Therefore, we incorporate herein all information, discussion, and conclusions on the summary of factors affecting the three angelshark species in the status review report (Miller 2016) and proposed rule (80 FR 40969; July 14, 2015).

### **Extinction Risk**

None of the information we received from public comment on the proposed rule affected

our extinction risk evaluations of these three angelshark species. We note that based on comments from Dr. Ramadan (pers. comm. 2016), we no longer find it likely that the *S. oculata* may be more common in portions of the central Mediterranean (i.e., Libya), as was previously stated in the proposed rule. Additionally, based on the information from Fortibuoni *et al.* (2016), we no longer consider *S. squatina* to be extirpated from the entire Adriatic Sea, but find that the information from Maynou *et al.* (2011) provides further support for our assumption of the likelihood of extirpations of the *Squatina* species in the Ligurian, Tyrrhenian, and Catalan Seas. Additionally, we reviewed a recent abstract (Fitzpatrick *et al.* 2016) that provided preliminary information on the genetic population dynamics of *S. squatina* in the Canary Islands, and found that the results of low genetic diversity support our previous assumption that the species is likely comprised of small, fragmented and isolated populations that are at an increased risk of random genetic drift and could experience the fixing of recessive detrimental alleles, reducing the overall fitness of the species.

While this information has been used to provide minor updates to our status review report, our evaluations and conclusions regarding extinction risk for these species remain the same. Therefore, we incorporate herein all information, discussion, and conclusions, with the minor updates noted above, on the extinction risk of the three angelshark species in the status review report (Miller 2016) and proposed rule (80 FR 40969; July 14, 2015).

### **Protective 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. While none of the

information we received from public comment on the proposed rule affected our conclusions regarding conservation efforts to protect the three angelshark species, we have updated the status review report (Miller 2016) to reflect the information provided by ElasmocoCan during the public comment period on their conservation initiatives in the Canary Islands (ElasmocoCan pers. comm. 2016). We incorporate herein all information, discussion, and conclusions on the protective efforts for the three angelshark species in the status review report (Miller 2016) and proposed rule (80 FR 40969; July 14, 2015).

### **Final Determination**

We have reviewed the best available scientific and commercial information, including the petition, the information in the status review report (Miller 2016), the comments of peer reviewers, public comments, and information that has become available since the publication of the proposed rule. Based on the best available information, we find that all three *Squatina* species are in danger of extinction throughout their respective ranges. We assessed the ESA section 4(a)(1) factors and conclude that *S. aculeata*, *S. oculata*, and *S. squatina* all face ongoing threats of overutilization by fisheries and inadequate existing regulatory mechanisms throughout their ranges. *Squatina squatina* has also suffered a significant curtailment of its range. These species' natural biological vulnerability to overexploitation and present demographic risks (*e.g.*, low and declining abundance, small and isolated populations, patchy distribution, and low productivity) are currently exacerbating the negative effects of these threats and placing these species in danger of extinction. After considering efforts being made to protect each of these species, we could not conclude that the existing or proposed conservation efforts would alter the extinction risk for any of these species. Therefore, we are listing all three species as endangered.

## **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)); 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); designation of critical habitat if prudent and determinable (16 U.S.C. 1533(a)(3)(A)); and prohibitions on taking (16 U.S.C. 1538). In addition, recognition of the species' plight through listing promotes conservation actions by Federal and State agencies, foreign entities, private groups, and individuals. Because the ranges of these three species are entirely outside U.S. jurisdiction, the main effects of these endangered listings are prohibitions on take, including export and import.

### *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 these species under the ESA will increase the number of section 7 consultations, because these species occur entirely outside of the United States and are 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. 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 *S. aculeata*, *S. oculata*, and *S. squatina* as being entirely outside U.S. jurisdiction, so we cannot designate occupied critical habitat for these 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. The best available scientific and commercial information on these species does not indicate that U.S. waters provide any specific essential biological function for any of the *Squatina* species. Therefore, based on the available information, we are not designating critical habitat for *S. aculeata*, *S. oculata*, or *S. squatina*.

*Identification of Those Activities That Would Likely Constitute a Violation of Section 9 of the ESA*

On July 1, 1994, NMFS and FWS published a policy (59 FR 34272) that requires us to identify, to the maximum extent practicable at the time a species is listed, those activities that would or would not likely constitute a violation of section 9 of the ESA. Because we are listing the three *Squatina* species as endangered, all of the prohibitions of section 9(a)(1) of the ESA

will apply to these species. These include prohibitions against the import, export, interstate or foreign trade (including delivery, receipt, carriage, shipment, transport, sale and offering for sale), and “take” of these species. These prohibitions apply to all persons subject to the jurisdiction of the United States, including in the United States, its territorial sea, or on the high seas. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” The intent of this policy is to increase public awareness of the effects of this listing on proposed and ongoing activities within the species’ ranges. Activities that we believe could (subject to the exemptions set forth in 16 U.S.C. 1539) result in a violation of section 9 prohibitions for these species include, but are not limited to, the following:

(1) Possessing, delivering, transporting, or shipping any individual or part (dead or alive) taken in violation of section 9(a)(1);

(2) Delivering, receiving, carrying, transporting, or shipping in interstate or foreign commerce any individual or part, in the course of a commercial activity;

(3) Selling or offering for sale in interstate or foreign commerce any individual or part, except antique articles at least 100 years old; and

(4) Importing or exporting these angelshark species or any part of these species.

We emphasize that whether a violation results from a particular activity is entirely dependent upon the facts and circumstances of each incident. Further, an activity not listed may in fact constitute or result in a violation.

*Identification of Those Activities That Would Not Likely Constitute a Violation of Section 9 of the ESA*



Although the determination of whether any given activity constitutes a violation is fact dependent, we consider the following actions, depending on the circumstances, as being unlikely to violate the prohibitions in ESA section 9: (1) Take authorized by, and carried out in accordance with the terms and conditions of, an ESA section 10(a)(1)(A) permit issued by NMFS for purposes of scientific research or the enhancement of the propagation or survival of the species; and (2) continued possession of parts that were in possession at the time of listing. Such parts may be non-commercially exported or imported; however the importer or exporter must be able to provide evidence to show that the parts meet the criteria of ESA section 9(b)(1) (i.e., held in a controlled environment at the time of listing, in a non-commercial activity).

## **References**

A complete list of the references used in this final 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).

### *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, this final rule is

exempt from review under Executive Order 12866 and the economic analysis requirements of the Regulatory Flexibility Act are not applicable to the listing process. 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 that a Federalism assessment is not required.

**List of Subjects in 50 CFR Part 224**

Endangered and threatened species, Exports, Imports, Transportation.

Dated: July 26, 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 224 is amended as follows:

**PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES**

1. The authority citation for part 224 continues to read as follows:

**Authority:** 16 U.S.C. 1531-1543 and 16 U.S.C 1361 *et seq.*

2. In § 224.101, amend the table in paragraph (h) by adding entries for “Angelshark common,” “Angelshark sawback,” and “Angelshark smoothback” in alphabetical order under the “Fishes” table subheading to read as follows:

**§ 224.101 Enumeration of endangered marine and anadromous species.**

\* \* \* \* \*

(h) The endangered species under the jurisdiction of the Secretary of Commerce are:

Species <sup>1</sup>			Citation(s) for listing Determination(s)	Critical Habitat	ESA rules
Common name	Scientific name	Description of listed entity			
*****					
<b>Fishes</b>					
Angelshark, common	<i>Squatina squatina</i>	Entire species	<i>81 FR [Insert <b>FEDERAL REGISTER</b> page where the document begins], [Insert date of publication when published in the <b>FEDERAL REGISTER]</b></i>	NA	NA.
Angelshark, sawback	<i>Squatina aculeata</i>	Entire species	<i>81 FR [Insert <b>FEDERAL REGISTER</b> page where the document begins], [Insert date of publication when published in the <b>FEDERAL REGISTER]</b></i>	NA	NA.
Angelshark, smoothback	<i>Squatina oculata</i>	Entire species	<i>81 FR [Insert <b>FEDERAL</b></i>	NA	NA.

			<i><b>REGISTER</b> page where the document begins], [Insert date of publication when published in the <b>FEDERAL REGISTER]</b></i>		
*****					

<sup>1</sup>Species 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).

\*\*\*\*\*

[FR Doc. 2016-18071 Filed: 7/29/2016 8:45 am; Publication Date: 8/1/2016]