not contain an information collection subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. Therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198.

85. Concerning the *Second FNPRM,* this document does not contain an information collection subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. Therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198.

C. Congressional Review Act

86. The Commission will send a copy of this *Order on Reconsideration and Second Further Notice of Proposed Rulemaking* in a report to be sent to Congress and the Government Accountability Office, pursuant to the Congressional Review Act.

D. Contact Persons

87. For further information concerning this proceeding, please contact Peter Trachtenberg, Spectrum and Competition Policy Division at 202–418–7369, Christina Clearwater, Spectrum and Competition Policy Division at 202–418–1893 or Nese Guendelsberger, Spectrum and Competition Policy Division at 202–418–0634.

IV. Ordering Clauses

88. Accordingly, *it is ordered,* pursuant to the authority contained in Sections 1, 4(i), 201, 202, 251(a), 253, 303(r), and 332(c)(1)(B) of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 201, 202, 251(a), 253, 303(r), and 332(c)(1)(B), and Section 1.429 of the Commission's rules, 47 CFR 1.429, this *Order on Reconsideration and Second Further Notice of Proposed Rulemaking is hereby adopted.*

89. *It is further ordered* Section 20.12 of the Commission's rules *is amended* as specified in the Final Rules, and such rule amendments shall be effective May 28, 2010.

90. *It is further ordered* the Petitions for Reconsiderations filed by Leap Wireless International, Inc., MetroPCS Communications, Inc., Spectrum Co., LLC, Sprint Nextel, and T–Mobile USA, Inc. *are hereby granted in part and denied in part* to the extent expressed herein.

91. *It is further ordered* the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Order on Reconsideration and Second Further Notice of Proposed Rulemaking,* including the Initial Regulatory Flexibility Analysis and Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 20

Communications common carriers, Communications equipment, and Radio.

Marlene H. Dortch,

Secretary, Federal Communications Commission.

Final Rules

■ For the reason discussed in the preamble, the Federal Communications Commission amends 47 CFR part 20 as follows:

PART 20—COMMERCIAL MOBILE RADIO SERVICES

■ 1. **Authority:** 47 U.S.C. 154, 160, 201, 251–254, 303, and 332 unless otherwise noted.

■ 2. In § 20.3 remove the definitions "Home Carrier" and "Home Market" and revise the definition of "Host Carrier" to read as follows:

§ 20.3 Definitions.

* * * * *

Host Carrier. For automatic roaming, the host carrier is a facilities-based CMRS carrier on whose system another carrier's subscriber roams. A facilities-based CMRS carrier may, on behalf of its subscribers, request automatic roaming service from a host carrier.

* * * * *

■ 3. In § 20.12 revise paragraph (d) to read as follows:

§ 20.12 Resale and roaming.

* * * * *

(d) *Automatic Roaming.* Upon a reasonable request, it shall be the duty of each host carrier subject to paragraph (a)(2) of this section to provide automatic roaming to any technologically compatible, facilities-based CMRS carrier on reasonable and not unreasonably discriminatory terms and conditions, pursuant to Sections 201 and 202 of the Communications Act, 47 U.S.C. 201 and 202. The Commission shall presume that a request by a technologically compatible CMRS carrier for automatic roaming is reasonable pursuant to Sections 201 and 202 of the Communications Act, 47 U.S.C. 201 and 202. This presumption may be rebutted on a case by case basis. The Commission will resolve automatic roaming disputes on a case-by-case basis, taking into consideration the totality of the circumstances presented in each case.

[FR Doc. 2010–9832 Filed 4–27–10; 8:45 am]

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Parts 223 and 224

[Docket No. 080229341–0108–03]

RIN 0648–XF89

Endangered and Threatened Wildlife and Plants: Threatened Status for the Puget Sound/Georgia Basin Distinct Population Segments of Yelloweye and Canary Rockfish and Endangered Status for the Puget Sound/Georgia Basin Distinct Population Segment of Bocaccio Rockfish

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

ACTION: Final rule.

SUMMARY: We, the NMFS, issue a final determination to list the Puget Sound/Georgia Basin Distinct Population Segments (DPSs) of yelloweye rockfish (*Sebastes ruberrimus*) and canary rockfish (*Sebastes pinniger*) as threatened, and bocaccio rockfish (*Sebastes paucispinis*) as endangered under the Endangered Species Act (ESA). We intend to propose protective regulations for yelloweye and canary rockfish under ESA section 4(d) and critical habitat for all three species in separate rulemakings, and will solicit public comments for these rulemakings separately.

DATES: This final rule is effective on July 27, 2010.

ADDRESSES: NMFS, Protected Resources Division, 7600 Sandpoint Way, NE., Building #1, Seattle, WA 98115.

FOR FURTHER INFORMATION CONTACT: Dan Tonnes at the address above or at (206) 526–4643, or Dwayne Meadows, Office of Protected Resources, Silver Spring, MD (301) 713–1401. The final rule, references and other materials relating to this determination can be found on our Web site at *http://www.nwr.noaa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On April 9, 2007, we received a petition from Mr. Sam Wright of

Olympia, Washington, to list stocks of greenstriped rockfish, redstripe rockfish, yelloweye rockfish, canary rockfish, and bocaccio, in Puget Sound as endangered or threatened species under the ESA and to designate critical habitat. Puget Sound is part of a larger inland system, the Georgia Basin, situated between southern Vancouver Island and the mainland coasts of Washington State and British Columbia. We declined to initiate a review of the species' status under the ESA, finding that the petition failed to present substantial scientific or commercial information to suggest that the petitioned actions may be warranted (72 FR 56986; October 5, 2007). On October 29, 2007, we received a letter from Sam Wright presenting information that was not included in the April 2007 petition, and requesting that we reconsider our October 5, 2007, decision not to initiate a review of the species' status. We considered the supplemental information provided in the letter and the information submitted previously in the April 2007 petition as a new petition to list these species and to designate critical habitat. The supplemental information included additional details on the life histories of rockfish supporting the case that individuals of these species occurring in Puget Sound may be unique and additional information on recreational harvest levels suggesting significant declines of rockfish abundance. We determined that greenstriped rockfish and redstripe rockfish did not warrant listing under the ESA, but that the bocaccio, yelloweye and canary rockfishes may warrant listing under the ESA; and we therefore initiated status reviews of these three species (73 FR 14195; March 17, 2008).

The overall steps we follow when evaluating the ESA status of a species are to: (1) Delineate the species under consideration; (2) review the status of the species; (3) consider the ESA section 4(a)(1) factors to identify threats facing the species; (4) assess whether certain protective efforts mitigate these threats; and (5) predict the species' future persistence. We provide more detailed information and findings regarding each of these steps later in this notice.

To ensure that this assessment was based on the best available scientific and commercial information, we formed a Biological Review Team (BRT) comprised of Federal scientists from our Northwest and Southwest Fisheries Science Centers. We asked the BRT to first determine whether yelloweye rockfish, canary rockfish and bocaccio warrant delineation into DPSs, using the criteria in the joint NMFS—U.S. Fish and Wildlife Service (FWS) DPS policy (61 FR 4722; February 7, 1996). We also asked the BRT to assess the level of extinction risk facing each species and to describe their confidence that the species is at high risk, moderate risk, or neither. We described a species with high risk as one that is at or near a level of abundance, productivity, and/or spatial structure that places its persistence in question. We described a species at moderate risk as one that exhibits a trajectory indicating that it is more likely than not to be at a high level of extinction risk in the foreseeable future, with the appropriate time horizon depending on the nature of the threats facing the species and the species' life history characteristics. The report of the BRT deliberations (Drake *et al.,* 2010) (hereafter "status report") thoroughly describes yelloweye rockfish, canary rockfish, and bocaccio biology and natural history, and assesses demographic risks, threats, limiting factors, and overall extinction risk.

On April 23, 2009, we proposed to list the Puget Sound/Georgia Basin DPSs of yelloweye rockfish and canary rockfish as threatened and bocaccio rockfish as endangered species under the ESA (74 FR 18516). We solicited comments and suggestions from all interested parties including the public, other governmental agencies, the Government of Canada, the scientific community, industry, and environmental groups. Specifically, we requested information regarding: (1) Population structure of yelloweye rockfish, canary rockfish, and bocaccio; (2) biological or other relevant data concerning any threats to the rockfish DPSs we propose for listing; (3) the range, distribution, and abundance of these rockfish DPSs; (4) current or planned activities within the range of the rockfish DPSs we propose for listing and their possible impact on these DPSs; and (5) efforts being made to protect rockfish DPSs we propose to list. Subsequent to the proposed rule (74 FR 18516, April 23, 2009), the BRT produced an updated status report (Drake *et al.,* 2010) that summarizes new and additional information that has become available since release of the draft status report (Drake *et al.,* 2008), responds to substantive peer review and public comments on the draft status report and the proposed rule and presents the final BRT conclusions on the status of the Puget Sound/Georgia Basin DPSs of yelloweye rockfish, canary rockfish, and bocaccio.

Summary of Comments Received in Response to the Proposed Rule

We solicited public comment on the proposed listing of each rockfish DPS for 60 days. We did not receive a request for, nor did we hold, a public hearing on the proposal. Public comments were received from four separate commenters, and copies of all public comments received are available online at: *http://www.regulations.gov/search/Regs/.* Summaries of the substantive technical comments received, and our responses, are provided below, organized by category.

In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum peer review standards, a transparent process for public disclosure, and opportunities for public input. Similarly, a joint NMFS/FWS policy requires us to solicit independent expert review from at least three qualified specialists, concurrent with the public comment period (59 FR 34270; July 1, 1994). In accordance with these policies, we solicited technical review of the draft status report (Drake *et al.,* 2008) from six independent experts selected from the academic and scientific community. Each of these reviewers is an expert in rockfish biology or extinction risk assessment methodology. Comments were received from four of the six independent experts from whom we requested technical review. The reviewers were generally supportive of the scientific principles underlying the DPS determination and proposed listing determination for each species.

There was substantial overlap between the comments from the independent expert reviewers and the substantive public comments. The comments were sufficiently similar that we have responded to the peer reviewer's comments through our general responses, which have been placed in three general categories below. The comments received concerning critical habitat are not germane to this listing decision and will not be addressed in this final rule. Those comments will be addressed during any subsequent rulemaking on critical habitat for each rockfish DPS.

Delineation of Distinct Population Segments

Comment 1: One commenter questioned the BRTs interpretation of the strong 1999 year class of coastal bocaccio, and the lack of a strong year class the same year in the Georgia Basin, as additional evidence that the two populations were not highly connected and thus consisted of two discrete units. The commenter stated that "The documented 1999 strong year class was evident in the southern portion of the California Current System. The presence

of a strong year class in northern portions of their range has not been documented." The commenter also stated that the bocaccio length-frequency data reported in Drake *et al.* (2008) do not support the conclusion that successful recruitment is occurring in the Puget Sound and that the presence of mature individuals and many size (age) classes supports a viable population in the region.

Response: We agree with the commenter that the bocaccio recruitment event documented in 1999 was for the California portion of the stock. Thus it could be problematic to conclude that the bocaccio 1999 year class was also strong off the coast of Washington and British Columbia. We therefore do not rely on this factor to conclude that Georgia Basin bocaccio are discrete from coastal bocaccio.

In response to the comment regarding length-frequency data for bocaccio, the BRT conducted an additional analysis to include an examination of the coherence of other year-classes and modified the status report to show the results of this analysis (Drake *et al.,* 2010). Overall, there appears to be little correspondence between age structure of bocaccio inside and outside of the Puget Sound region (referring to the San Juan, Eastern Straits of Juan de Fuca, North Sound, Central Sound, South Sound and Hood Canal regions). This distinction in age structure suggests demographic isolation, which provides additional evidence of discreteness for the Puget Sound/Georgia Basin DPS designation.

Comment 2: One reviewer stated that the genetic data from other rockfish species in Puget Sound provide a reasonable template for the possible genetic structure of yelloweye rockfish, canary rockfish and bocaccio, while another reviewer and one commenter stated that a finding of discreteness was questionable for each species given the lack of genetic data. One of the commenters also noted that bocaccio have unique larval characteristics, and canary rockfish and bocaccio have adult characteristics that distinguish them from the four rockfish species for which we do have genetic information, making it inappropriate to draw inferences from the genetic information for those four species.

Response: While we lack genetic data for yelloweye rockfish, canary rockfish and bocaccio within each DPS, there is substantial additional evidence for each species to support a conclusion, in conjunction with inferences from genetic data available for other rockfish species, that each population in the Georgia Basin is discrete from its coastal counterpart. Regarding bocaccio, we continue to conclude that the best interpretation of all the available scientific information is that bocaccio in the Georgia Basin are discrete from coastal bocaccio. Although adult bocaccio have a greater ability to move over long distances than some other rockfish species, in general, bocaccio life history mirrors the life histories of the four species for which we do have genetic information—live-bearing of young, pelagic larval and juvenile stages, and eventual settlement to benthic habitats. Though larval bocaccio do remain in the pelagic environment longer than some other rockfish species, they are subjected to the same environmental factors within the Georgia Basin that generally limit dispersal as other rockfish species. The retentive circulation patterns of currents within the Puget Sound make it likely that a significant fraction of larvae released by bocaccio (especially in more inland portions of the Sound) are retained within the Sound. Other evidence that Georgia Basin bocaccio populations are discrete from coastal populations includes: The difference in age structure between coastal and inland populations, which suggests the two groups are demographically independent, and the size frequency data from bocaccio in the Puget Sound, which reveals the presence of individuals large enough to be sexually mature.

Regarding canary rockfish, we continue to conclude that the best interpretation of all of the available scientific information is that fish within the Puget Sound/Georgia Basin are discrete from coastal canary rockfish. Although adult canary rockfish have a greater ability to move over long distances than some other rockfish species, in general, canary rockfish life history mirrors the life histories of the four species for which we do have genetic information—live-bearing of young, pelagic larval and juvenile stages, and eventual settlement to benthic habitats. Larval canary rockfish are subjected to the same environmental factors within the Puget Sound/Georgia Basin that generally limit dispersal as other rockfish species. The retentive circulation patterns of currents within the Puget Sound make it likely that a significant fraction of larvae released by canary rockfish (especially in more inland portions of the Sound) are retained within the Sound.

For yelloweye rockfish unpublished genetic studies comparing fish from coastal waters and the waters between Vancouver Island and British Columbia (Withler, personal communication, July 2008) show differentiation between the two groups. Several other lines of evidence support a conclusion that yelloweye rockfish in the Georgia Basin are discrete from coastal populations of yelloweye rockfish. Two aspects of the life history of yelloweye rockfish suggest genetic and potentially demographic isolation from coastal populations: (1) Both as adults and juveniles, yelloweye rockfish are most abundant near rocky substrata. Rocky substrates are infrequent and patchy in distribution in North Puget Sound and the Georgia Strait, and are very rare in Puget Sound proper (waters east of Admiralty Inlet); (2) yelloweye rockfish show very limited movement as adults. These two aspects of their life history, combined with the retentive patterns of circulation of the Georgia Basin, support a conclusion that yelloweye rockfish in the Georgia Basin are discrete from coastal populations of yelloweye rockfish.

Comment 3: One commenter noted a recent report by Field *et al.* (2009) which showed evidence that bocaccio do not show strong population structure within coastal waters, which could serve as evidence that bocaccio within the Puget Sound are likely to be a component of coastal stocks instead of a Puget Sound/Georgia Basin DPS.

Response: We agree that studies of coastal bocaccio populations have found little genetic differentiation over large geographic distances, as reported in Field *et al.* (2009). The report by Field *et al.* (2009) did not conduct genetic analysis of bocaccio from the Georgia Basin. Field *et al.* (2009) did conclude, however, that despite an apparent lack of genetic differentiation, there are sufficient demographic differences between northern and southern populations of Pacific coastal bocaccio to suggest they are demographically independent. This demographic independence of southern and northern coastal bocaccio provides further evidence of population structure, and also supports an inference that Georgia Basin bocaccio populations are discrete from coastal populations.

Comment 4: One commenter stated "* * *whether [Puget Sound/Georgia Basin] bocaccio and canary rockfish constitute self-sustaining populations may be questionable. Their early life stages have not been confirmed in Puget Sound (Garrison and Miller, 1982) and their documented occurrence in Puget Sound proper is restricted to less than 24 locations compared to hundred of records for copper, quillback, and brown rockfish (Washington, 1977; Miller and Borton, 1980).

Response: We agree that juvenile bocaccio rockfish have not been documented within the Puget Sound region, but note that a small number of juvenile canary rockfish were reported by Weispfenning (2006) near the San Juan Islands. Most surveys were conducted after the bocaccio population size was already very low. Given the extremely episodic nature of bocaccio recruitment (Tolimieri and Levin, 2005) and their apparently very low population size, the probability of seeing a juvenile bocaccio is extremely low. Habitats that feature rock and microalgae (kelp species) are most readily used by juvenile bocaccio (Love *et al.,* 1991), and relatively few studies have assessed fish assemblages within these habitats within the region. Thus, it is difficult to draw conclusions from the absence of post-settlement bocaccio in surveys.

We acknowledge that bocaccio and canary rockfish have been documented in fewer areas of the Georgia Basin compared to other rockfish species. However, as an example of their past distribution we note that Moulton and Miller (1987) reported that 222 bocaccio rockfish were recorded in recreational fisheries in 1975, and 327 in 1985. The precise locations where these fish were caught were not reported by Moulton and Miller, though they did identify that all fish were caught in the eastern Strait of Juan de Fuca, the Central Sound, and South Sound. Moulton and Miller (1987) also report that 1,035 canary rockfish were recorded in recreational fisheries in 1975 and 934 in 1985. These fish were caught in the Gulf/Bellingham, San Juan Islands, Hood Canal, Central Puget Sound, South Puget Sound and the eastern Strait of Juan de Fuca regions. In addition, canary rockfish have been reported as bycatch from salmon and bottom fishermen in 2004 to 2007 catch statistics in 6 of the 9 Marine Catch Areas within the DPS (WDFW, unpublished data). Similarly, canary rockfish have been documented as part of the assemblage of fishes in the Puget Sound region for as long as there have been formal fisheries surveys, dating back to at least the 1930s (Williams *et al.,* in press).

Appropriateness of the Scope of the Proposed Rule and Assessment

Comment 5: Several reviewers and commenters discussed our assessment of extinction risk as it related to rockfish abundance data. One reviewer stated that "* * * abundance data for the individual species are not sufficient for independent [extinction] analysis * * *". The same reviewer also noted that the lack of data was further confounded by an overall lack of abundance numbers from fishery independent sources. Another commenter stated that "Given the data gaps identified in the proposed listing rule, it does not seem certain here that the threshold for listing has been met."

Response: The analysis of extinction risk for yelloweye rockfish, canary rockfish and bocaccio was based upon a host of considerations in addition to species abundance. In assessing risk, it is often important to include both qualitative and quantitative information. In previous NMFS status reviews, we have used a "risk matrix" as a method to organize and summarize the professional judgment of a panel of knowledgeable scientists. This approach is described in detail by Wainright and Kope (1999) and has been used in Pacific salmonid status reviews (*e.g.,* Good *et al.,* 2005; Hard *et al.,* 2007), as well as in reviews of Pacific hake, walleye pollock, and Pacific cod (Gustafson *et al.,* 2000), Puget Sound rockfishes (Stout *et al.,* 2001b), Pacific herring (Stout *et al.,* 2001a; Gustafson *et al.,* 2006), and black abalone (Butler *et al.,* 2008). The BRT used this approach here as well.

In this risk matrix approach, the collective condition of individual populations is summarized at the DPS level according to four demographic risk criteria: Abundance, growth rate/productivity, spatial structure/connectivity, and diversity. These viability criteria, outlined in McElhany *et al.* (2000), reflect concepts that are well founded in conservation biology and are generally applicable to a wide variety of species. These criteria describe demographic risks that individually and collectively provide strong indicators of extinction risk. The summary of demographic risks and other pertinent information obtained by this approach is then considered in determining the species' overall level of extinction risk.

When making ESA listing determinations, we must use the best available scientific and commercial data available. The BRT employed the Forest Ecosystem Management Team (FEMAT) voting methodology to address any uncertainties about the subject rockfish DPSs. The FEMAT methodology allows each BRT member to distribute 10 likelihood points among DPSs scenarios, reflecting their view of the probability that the particular category correctly reflects the true DPS status. This method has also been used in all recent status review updates for federally listed Pacific salmon and steelhead (*Oncorhynchus mykiss*) Evolutionary Significant Units (such as Good *et al.,* 2005) as well as reviews of killer whales (Krahn *et al.,* 2002; 2004) and herring (Gustafson *et al.,* 2006).

Despite the general lack of population data from non-fishery sources, the weight of evidence demonstrates that these DPSs abundances have been greatly reduced from historic levels and abundance trends are negative. The analysis of each species status was, in part, determined by available data that shows the relative decline of yelloweye, canary and bocaccio rockfish catch in fishery statistics over the past several decades (FR 18516; April 23, 2009). The analysis of fishery catch data show each species declining at rates faster than the overall rockfish populations in the Puget Sound region. In the case of bocaccio, no fish have been observed in fishery catch statistics since the late 1990s. We agree that fishery independent data for each species, such as the use of drop cameras and remotely operated video surveys, provide important information regarding rockfish status. In particular, fishery independent data from each of the major regions of the DPSs would enhance our understanding of abundance, spatial structure, and demographic profiles (such as the size and relative age structure) of each species. However the available data—including genetic studies from other rockfish and fish species, strong evidence of decline from fisheries data, and unique environmental conditions within the Georgia Basin as viewed through the methodologies and assessments utilized by the BRT (Drake *et al.,* 2010), support the extinction risk assessments that inform this final rule.

Comment 6: Several reviewers and commenters questioned our assessment and conclusions of the overall abundance trends of rockfish within the Puget Sound region as they relate to fishery catch statistics and catch frequencies for yelloweye rockfish, canary rockfish and bocaccio. They also remarked that this assessment was further confounded by fishing regulation changes that may have obscured recent catch statistics. One reviewer stated that "Changes in gear and switches in the targeted species should tend to prolong elevated catch levels in a multispecies time series, so an observed decline in overall catch probably reflects steeper declines in the actual abundance of individual fishes." The reviewer stated that the BRT's analysis of fishery catch data "should produce a conservative estimate of the trend for each species (*i.e.,* the actual trend is probably more negative than identified)." One commenter concurred

with the general population trend analysis that shows that each species was more common in early time series of species compositions and that catch rates and relative abundances of each species have declined. The same commenter noted that early time series data may be obscured by the difficulty of correctly identifying rockfish by untrained samplers.

Response: We recognize that the trend in the aggregate rockfish population does not equate to species specific trends of yelloweye rockfish, canary rockfish and bocaccio. Additionally, the early time series species' compositions were likely obscured by the difficulty of correctly identifying rockfish to species. Because of the lack of time series data, we focused on total rockfish trends and trends in the species composition of the total rockfish assemblage, but also considered information on trends during discrete time periods for each species. Total rockfish abundance has declined and yelloweye rockfish, canary rockfish and bocaccio have become a smaller proportion of the total rockfish assemblage. This analysis allowed the BRT to use the trends in total rockfish as an upper bound on the trends for each species. We agree that this approach should produce a conservative estimate of the overall trend for each species because over time there have been changes in fishing gear and locations (in response to localized depletion of stocks), which may have prolonged harvest rates for each species. In other words, when local rockfish aggregations were fished out, anglers would move to new locations and fishery statistics will not necessarily show these localized depletions (Yamanaka and Lacko, 2001). The available fisheries data do show a reduction of the proportion of yelloweye rockfish, canary rockfish and bocaccio compared to the overall rockfish catch data, and we agree with the reviewer that the reduction in overall abundance may be greater than reflected in the available data.

Comment 7: A commenter stated that the draft status report (Drake *et al.,* 2008) did not "evaluate potential adverse impacts to low abundance rockfish populations due to depensation, especially the sub-set of depensatory mortality factors commonly known as Allee effects."

Response: Allee effects, as applied by the commenter to rockfish populations, is a term to characterize additional viability risks when populations are at very low abundance and cannot find mates (Courchamp *et al.,* 2008). We agree that Allee effects are likely a risk factor for yelloweye rockfish, canary rockfish and bocaccio in all or portions of the Puget Sound/Georgia Basin DPSs. The final status report was clarified to more explicitly discuss the risk from Allee effects (Drake *et al.,* 2010).

Comment 8: Three commenters asked that we assess in more detail existing regulatory programs that may serve to protect rockfish, including habitat protection and fishery management.

Response: In the proposed rule we described our consideration of the effects of existing programs on extinction risk of the three species (FR 18516; April 23, 2009). In response to these comments, we describe the following additional details about these programs. A number of agencies within Washington State have regulatory authority over actions that affect rockfish habitat. The Washington State Departments of Ecology, Natural Resources, Fish and Wildlife, and the Puget Sound Partnership (PSP) are agencies that collectively have various authorities to prevent habitat degradation and loss from a variety of activities, manage aquatic lands, provide technical and planning assistance, fund restoration efforts, and conduct monitoring. The Department of Ecology oversees the State Shoreline Management Act that mandates that each County develop and update policies on the use and protection of the shoreline. Assessing the effectiveness of regulatory programs designed to protect water quality and habitat for rockfish is complicated by the general lack of systematic monitoring that occurs related to specific development and permitting activities. From 2006 to 2008, an additional five miles of bulkheads were constructed along Puget Sound shorelines (Cornwall and Mayo, 2008). These types of shoreline developments can impact nearshore habitat conditions for macroalgae used by juvenile rockfish, and degrade forage fish spawning habitat (Rice, 2006), potentially decreasing food sources of rockfish.

Recently, the PSP released a "State of the Sound" report (PSP 2010) that, in part, assessed the status of the Puget Sound ecosystem through a series of indicators. Of the indicators most closely related to rockfish, their habitat and prey, herring spawn biomass and eelgrass coverage each declined, while the amount of flame retardant chemicals within herring (and harbor seals) showed an increasing trend. One water quality indicator (polycyclic aromatic hydrocarbons levels in Elliot Bay) improved, while another (extent of dissolved oxygen in the Puget Sound) had no clear trend. Additionally the report stated that the "shoreform" indicator, which is the overall condition of the Puget Sound shoreline, also had no clear trend (PSP 2010).

Washington State has a variety of marine protected areas managed by eleven Federal, state, and local agencies (Van Cleve *et al.,* 2009), though some of these areas are outside of the range of the rockfish DPSs. The WDFW has established 25 marine reserves within the DPS, and 16 host rockfish (Palsson *et al.,* 2009), though most of these reserves are within waters shallower than those typically used by adult yelloweye rockfish, canary rockfish, or bocaccio. The WDFW reserves total 2,120.7 acres of intertidal and subtidal habitat. Aside from the WDFW reserves, the Washington State Department of Natural Resources operates an Aquatic Reserve Program that is intended to protect habitat through their statutory ownership authority.

Management objectives and allowed activities within the reserves in the Puget Sound region and along the Pacific coast are diverse (Van Cleve *et al.,* 2009) and there is no comprehensive monitoring program to assess the collective effects of existing protected areas within the Puget Sound region. A recent report identified several impediments to implementing effective monitoring of existing marine protected areas including large areas of the environment to cover, expenses to conduct survey work, insufficient funding for data management and analysis, the challenge of avoiding harm to species or habitats while conducting research, and narrow agency mandates (Van Cleve *et al.,* 2009). The total percentage of the Puget Sound region within reserve status is unknown, though Van Cleve *et al.* (2009) estimate that one to five percent of the Puget Sound region is within a reserve. Compared to fished areas, studies have found higher fish densities, sizes, or reproductive activity in the assessed WDFW marine reserves (Palsson and Pacunski, 1995; Palsson, 1998; Eisenhardt, 2001; 2002; Palsson, 2004). However, since they were established over several decades with unique and somewhat unrelated ecological goals, and encompass relatively small areas (average of 23 acres), the net effect of existing reserves to yelloweye rockfish, canary rockfish and bocaccio abundance, productivity and spatial structure are probably very small. In general, the characteristics of a network of reserves that are relevant to enhancing populations of yelloweye rockfish, canary rockfish and bocaccio include sites in each of the major regions of the DPS, and sites that provide some connectivity to each other

(for larvae). Finally the sites would need to be large enough to collectively encompass diverse habitats that facilitate productivity of individual fish and reserve resiliency to outside disturbances and stressors (Sobel and Dahlgren, 2004).

In 2007, the Canadian government designated approximately 135 rockfish conservation areas that encompasses 30 percent of the area of the inside waters of Vancouver Island. These reserves do not allow directed commercial or recreational harvest for any species of rockfish, nor do they allow harvest of marine species that may incidentally catch rockfish. Since the Canadian reserves were recently established, the effects to rockfish populations are unknown. However, the attributes of these reserves that include the overall size of the network, which encompass a variety of habitats distributed throughout the northern portion of the DPS, will likely provide substantial benefit to rockfish populations. However, the lack of an analogous network in the southern portion of the Georgia Basin still leaves a possible gap in the survival and recovery potential of yelloweye rockfish, canary rockfish and bocaccio.

Consideration of these additional details did not change our extinction risk analysis for yelloweye rockfish, canary rockfish and bocaccio within this final listing determination. The programs and protective efforts described about do not alter the risk factors identified by Drake *et al.* (2010), and discussed in the proposed rule (74 FR 18516, April 23, 2009).

Comment 9: One commenter questioned how future recovery planning could occur given the general lack of precise abundance data, stating "listing these three species at this stage will make it difficult, if not impossible, to establish accurate delisting and recovery criteria."

Response: Future recovery planning efforts for yelloweye rockfish, canary rockfish and bocaccio will incorporate the best available information regarding each species' abundance and spatial structure within the DPS. For instance, we expect that additional abundance data for each species will be available from studies by the WDFW prior to the development of the recovery plan. In addition, the recovery plan itself will identify data gaps that warrant further research. Beyond just identifying delisting criteria, we expect that the recovery plan for each species will also identify specific management actions necessary to achieve recovery of the species.

Biological or Other Relevant Data Concerning Any Threats to Each DPS

Comment 10: Two commenters discussed the role of water quality as it relates to the status of yelloweye rockfish, canary rockfish and bocaccio. Referring to our proposed listing, one commenter stated that "* * * the characterization of nutrient issues and dissolved oxygen problems in Puget Sound is exceedingly broad" One commenter stated that "The impact of hypoxia as a risk to the petitioned rockfish in southern Puget Sound may be overstated in that historical documented occurrences of canary, bocaccio, and yelloweye rockfish do not correspond to areas of poor water quality in southern Puget Sound."

Response: We agree that elevated nutrient levels and low dissolved oxygen levels (causing hypoxia) are not uniformly distributed across the DPS, and that some areas of rockfish habitat are more likely to be affected than others. Specifically, periods of low dissolved oxygen are becoming more widespread in portions of Hood Canal and south of the Tacoma Narrows.

Comment 11: Two commenters discussed contaminants. One commenter noted that our proposed listing adequately characterized what is known and not known regarding the impact or threat of toxic contaminants on each species, and added that "If pelagic prey dominate the diet of a petitioned species it may experience greater exposure to persistent bioaccumulative toxins (PBTs) across a greater spatial range (not just urban areas). Pelagic prey such as herring in Puget Sound have unusually high body burdens of PBTs * * * If petitioned species consume herring or similar pelagic prey, we believe that PBT contamination may have played a role in their decline, and is a risk factor for their recovery."

One commenter asked that we provide additional detail regarding "the level of scientific consensus on the emerging topics of reproductive dysfunction and other sub-lethal affects as a result of contaminant exposure."

Response: We agree that contaminants within forage fish such as herring distribute contaminants across a greater spatial range than just urban areas. The long life span and residency of rockfish in the Georgia Basin increase the risk of exposure and bioaccumulation in individual fish. Although risks from contaminants can affect all life history stages of rockfish, few studies have investigated the effects of toxins on rockfish ecology or physiology. Contaminants may influence growth rates of rockfish. For example, Palsson *et al.* (2009) describe a case in which male rockfish have lower growth rates than females—an unusual pattern for rockfish since males typically grow faster than females. The explanation may be that male rockfish tend to accumulate PCBs, while female's body burden does not increase with time since they lower their toxin level when they release eggs. Thus, the observed difference in growth rate may result from the higher contaminant concentration in males versus females. The full effect of contaminants on rockfish remains unknown, but there is clearly a potential for impact and that warrants further research efforts.

Comment 12: One commenter questioned whether rocky habitat loss has occurred as stated in the proposed rule (74 FR 18516, April 23, 2009). Instead, the commenter stated that "habitat may be degraded due to derelict fishing gear or impaired water quality."

Response: We agree that rocky habitat loss is rare, and other factors have likely reduced rocky habitat suitability in some areas, but note that the loss of rocky habitat has occurred near the Skagit River delta as a result of sedimentation from the Skagit watershed (Grossman *et al.*, in review). We also concur that lost commercial fishing nets and commercial and recreational crab pots (collectively referred to as derelict fishing gear) may be having a large impact on rockfish habitat suitability. Lost gear generally catches on bottom structure such as rocky reefs and large boulders that are also attractive to rockfish (NRC, 2007). Derelict nets trap fine sediments out of the water column, making a layer of soft sediment over rocky areas that changes habitat quality and suitability for benthic organisms (NRC, 2007). This gear covers habitats used by rockfish for shelter and pursuit of food and likely causes a depletion of food sources. For instance, a study of several derelict nets in the San Juan Islands reported an estimated 107 invertebrates and 16 fish (of various species) entangled per day (NRC, 2008). One net had been in place for 15 years, entangling an estimated 16,500 invertebrates and 2,340 fish (NRC, 2008). Though these estimates are coarse, they illustrate the potential impacts of derelict gear within the DPS. In shallower waters used by juvenile rockfish, this gear can reduce kelp overstory coverage and growth.

Comment 13: One commenter requested "* * * that the listing decision process incorporate direct characterization and consideration of climate change effects on rockfish."

Response: The draft and final status report analyzed the effects of climate variability and change on the extinction risk of yelloweye rockfish, canary rockfish and bocaccio rockfish (Drake *et al.*, 2008; 2010). In general, variable ocean conditions (exacerbated by climate change) may increase extinction risk for each species. Marine, estuarine, and freshwater habitat in the Pacific Northwest has been influenced by climate change over the past 50 to100 years and global patterns suggest the long-term trend is for a warmer, less productive ocean regime in the California Current and the Transitional Pacific. Projections for the consequences of climate change in the Georgia Basin include: Continued rise of air and marine water temperatures, altered river and stream flows, increase of winter runoff with decrease in water stored as snow pack, increased river flooding, and continued sea level rise (NMFS, 2007). Related consequences to the Georgia Basin will likely consist of changes to water quality, circulation patterns, biological productivity, habitat distributions, populations of sensitive species, rates of harmful algal blooms, surface wind patterns, and coastal upwelling regimes. In addition, ocean acidification harms invertebrate calcification, photosynthesis, nitrogen fixation and reproduction (Doney *et al.*, 2009). These types of impacts could fundamentally change food web dynamics that cascade to upper-level predators such as rockfish. These types of changes, collectively, could alter habitat conditions that are necessary for rockfish persistence.

Comment 14: A commenter stated that "By a wide margin, the highest bycatch mortality for rockfish occurs in the Puget Sound recreational fishery for the winter Puget Sound blackmouth [immature Chinook salmon]" and not within the lingcod fishery, as stated in Drake *et al.* (2008).

Response: The most recent fishery catch statistics do not show that yelloweye rockfish, canary rockfish and bocaccio bycatch from fishers targeting blackmouth (Chinook) salmon during the winter is high relative to other seasons. Rockfish catch data from 2004 to 2007 provided by the WDFW show that 100 percent of yelloweye rockfish and 95 percent of the canary rockfish bycatch associated with salmon fishing occurs within the May through August time periods (WDFW unpublished data).

Determination of Species Under the ESA

The ESA defines species to include subspecies or a DPS of any vertebrate species which interbreeds when mature (16 U.S.C. 1532(16)). The FWS and NMFS have adopted a joint policy describing what constitutes a DPS of a taxonomic species (61 FR 4722; February 7, 1996). The joint DPS policy identifies two criteria for making DPS determinations: (1) The population must be discrete in relation to the remainder of the taxon (species or subspecies) to which it belongs; and (2) the population must be significant to the remainder of the taxon to which it belongs.

A population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions: (1) "It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation"; or (2) "It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D)" of the ESA.

If a population segment is found to be discrete under one or both of the above conditions, its biological and ecological significance to the taxon to which it belongs is evaluated. This consideration may include, but is not limited to: (1) "Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon; (2) evidence that the loss of the discrete population segment would result in a significant gap in the range of a taxon; (3) evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; and (4) evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics."

The ESA defines an endangered species as one that is "in danger of extinction throughout all or a significant portion of its range," and a threatened species as one that is "likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range" (Sections 3(6) and (20) of the ESA). Section 4(a)(1) of the ESA and NMFS's implementing regulations (50 CFR 424) state that we must determine whether a species is endangered or threatened because of any one or a combination of the following factors: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or man-made factors affecting its continued existence. We are to make this determination based solely on the best available scientific and commercial information after conducting a review of the status of the species and taking into account any efforts being made by states or foreign governments to protect the species.

Summary of Factors Affecting the Puget Sound/Georgia Basin DPSs

The primary factors responsible for the decline of the three DPSs of rockfishes are overutilization for commercial and recreational purposes, habitat degradation, water quality problems including low dissolved oxygen and elevated contaminant levels, and inadequacy of existing regulatory mechanisms. The factors for decline are addressed collectively in the following section due to their similarity for each species. This section briefly summarizes findings regarding threats to the three DPSs of rockfishes. More details can be found in the status report (Drake *et al.,* 2010), Palsson *et al.,* (2009), and the proposed listing determination (74 FR 18516; April 23, 2009).

The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

The BRT identified habitat degradation as a threat to these rockfish. In particular, degradation of rocky habitat, loss of eelgrass and kelp, introduction of non-native species that modify habitat, and degradation of water quality were identified as specific threats to rockfish habitat in the Georgia Basin. Though each species has been documented along areas of high relief and non-rocky substrates such as sand, mud and other unconsolidated sediments (Washington, 1977; Miller and Borton, 1980), it is very likely that densities of bocaccio, canary rockfish, and yelloweye rockfish are highest near rocky habitats. Such habitat is extremely limited in Puget Sound, with only 10 km^2 (3.8 sq miles) of such habitat in Puget Sound Proper, and 207 km^2 (80 sq miles) in North Puget Sound (Palsson *et al.*, 2009). Rocky habitat is threatened by, or has been impacted by, derelict fishing gear, construction of bridges, sewer lines and other structures, deployment of cables and pipelines, and burying from dredge spoils and natural subtidal slope movement (Palsson *et al.*, 2009).

Juvenile bocaccio and canary rockfish utilize nearshore waters with substrates of rock or cobble compositions, and/or

kelp species (Love *et al.,* 1991; Love *et al.*, 2002). Habitats with these features likely offer a beneficial mix of warmer temperatures, food and refuge from predators (Love *et al.*, 1991). Areas with floating and submerged kelp species (Families Chordaceace, Alariaceae, Lessoniacea, and Costariaceae, and Laminaricea) support the highest densities of most juvenile rockfish species (Carr, 1983; Halderson and Richards, 1987; Matthews, 1989; Hayden-Spear, 2006). Kelp cover is highly variable and has shown long-term declines in some regions, while kelp beds have increased in areas where artificial substrate provides additional kelp habitat (Palsson *et al.*, 2009). Threats to kelp communities include toxins such as petroleum products which lower photosynthesis and respiration, activities associated with oyster culture and boat operations, and harvest (Mumford, 2007). Indirect stressors to kelp include low dissolved oxygen, eutrophication, and changes in trophic structure resulting from harvest of organisms that feed upon kelp (Mumford, 2007).

Shoreline development has occurred along approximately 30 percent of the Puget Sound (Broadhurst, 1998), and has increased in recent years (Cornwall and Mayo, 2008). Development along the shoreline has been linked to reduced invertebrate abundance and species taxa diversity (Dugan *et al.*, 2003), and reduced forage fish egg viability (Rice, 2006). These are examples of food web changes that may alter forage fish prey composition or abundance for these rockfish.

Non-indigenous species are an emerging threat to biotic habitat in the Puget Sound region. *Sargassum muiticum* is an introduced brown alga that is now common throughout much of the Sound (Drake *et al.*, 2010). The degree to which *Sargassum* influences native macroalgae, eelgrass, or rockfish themselves is not presently understood. Several species of non-indigenous tunicates have been identified in the Puget Sound region. For example, *Ciona savignyi* was initially seen in one location in 2004, but within two years spread to 86 percent of sites surveyed in Hood Canal (Puget Sound Action Team, 2007). The exact impact of invasive tunicates on rockfish or their habitats is unknown, but results in other regions (*e.g.*, Levin *et al.*, 2002) suggest the potential for introduced invertebrates to have widespread impacts on rocky-reef fish populations.

Over the last century, human activities have introduced a variety of toxins into the Georgia Basin at levels that may affect rockfish populations or the prey that support them. Several urban embayments in the Sound have high levels of heavy metals and organic compounds (Palsson *et al.*, 2009). About 32 percent of the sediments in the Puget Sound region are considered to be moderately or highly contaminated (Puget Sound Action Team, 2007). Organisms that live in or eat these sediments are consumed, thus transferring contaminants up the food web to higher level predators like rockfishes, and to a wider geographic area.

Not surprisingly, contaminants such as polychlorinated biphenyls (PCBs), chlorinated pesticides (*e.g.*, DDT), and polybrominated diphenyl ethers (PBDEs) appear in rockfish collected in urban areas (Palsson *et al.*, 2009). While the highest levels of contamination occur in urban areas, toxins can be found in the tissues of fish in all regions of the sound (Puget Sound Action Team, 2007). Rockfish collected in rural areas of the San Juan Islands revealed high levels of mercury and hydrocarbons (West *et al.*, 2002).

Although few studies have investigated the effects of toxins on rockfish ecology or physiology, other fish in the Puget Sound region that have been studied do show a substantial impact. As an example English sole is a demersal fish in the Puget Sound that lives in somewhat similar habitats as rockfish, and reproductive impairment has been documented in individuals from contaminated areas. This reduction effectively decreases the productivity of the species (Landahl *et al.*, 1997). Reproductive function of rockfish is also likely affected by contaminants (Palsson *et al.*, 2009), and other life history stages may be as well (Drake *et al.*, 2010). Some areas with good habitat structure for rockfish are also located in areas that are now subject to high levels of contaminants. This is evidenced by the fact that rockfish were historically captured in great numbers in these areas (Palsson *et al.*, 2009 and Puget Sound Action Team, 2007).

In addition to chemical contamination, water quality in the Puget Sound region is also influenced by sewage, animal waste, and nutrient inputs. The Washington Department of Ecology has been monitoring water quality in the Puget Sound region for several decades. Monitoring includes fecal coliform, nitrogen, ammonium, and dissolved oxygen. In 2005, of the 39 sites sampled, eight were classified as highest concern, and 10 were classified as high concern. Hood Canal has seen persistent and increasing areas of low dissolved oxygen since the mid 1990s. Typically, rockfish move out of areas with dissolved oxygen less than 2 mg/l; however, when low dissolved oxygen waters were quickly upwelled to the surface in 2003, about 26 percent of the rockfish population was killed (Palsson *et al.*, 2009). In addition to Hood Canal, periods of low dissolved oxygen are becoming more widespread in waters south of Tacoma Narrows (Palsson *et al.*, 2009).

Overutilization for Commercial, Recreational, Scientific or Educational Purposes

Our status report (Drake *et al.*, 2010) and the WDFW (Palsson *et al.*, 2009) identify overutilization for commercial and recreational purposes as the leading cause of decline to yelloweye rockfish, canary rockfish and bocaccio in the Puget Sound/Georgia Basin. The evidence is clear that historic overfishing has played a major role in the declines of rockfish in the Puget Sound region (Palsson *et al.*, 2009; Drake *et al.*, 2010; Williams *et al.*, in press). Moreover, the life histories of yelloweye rockfish, canary rockfish and bocaccio make them highly susceptible to overfishing and, once populations are at a low level, recovery can require decades (Parker *et al.*, 2000; Love *et al.*, 2002). In particular, rockfish grow slowly, have a long life span and low natural mortality rates, mature late in life, often have sporadic reproductive success from year to year, may display high fidelity to specific habitats and locations, and require a diverse genetic and age structure to maintain healthy populations (Love *et al.*, 2002). Estimates of rockfish harvest in the Puget Sound region are available for the last 87 years (Palsson *et al.*, 2009). Commercial harvest was very low prior to World War II, rose during the War, and then averaged 125,000 pounds (56,700 kg) between 1945 and 1970. In the 1970s, harvest increased dramatically, peaking in 1980 at 880,000 pounds (399,200 kg). Catches remained high until the early 1990s and then declined dramatically (Palsson *et al.*, 2009). From 1921 to 1970 a total of 3,812,000 pounds (1,729,000 kg) of rockfish were landed in the Puget Sound region, while nearly this same level of harvest (3,968,000 pounds; 1,800,000 kg) was achieved in only 7 years (from 1977 to 1983). The average annual harvest from 1977 to 1990 was nearly four times pre–1970 levels.

Palsson *et al.* (2009) provide a rough estimate of the total rockfish biomass in the Puget Sound region during the 1999 to 2004 time period of 3,205,521 pounds (1,454,000 kg), less than the total harvest from 1977 to 1983. For comparison, exploitation rates for

canary rockfish during the 1980s and 1990s along the U.S. Pacific Coast ranged from 5 to 19 percent (Stewart, 2007), bocaccio ranged from 5 to 31 percent (MacCall, 2008), and yelloweye rockfish ranged from less than 5 percent to about 17 percent (Wallace, 2007). In each of these cases, these high exploitation rates were followed by dramatic declines in population size (Stewart, 2007; Wallace, 2007; MacCall, 2008).

Fishery removals can affect both the absolute abundance of rockfish as well as the relative abundance of larger fish. Palsson *et al.* (2009) examined studies comparing rockfish populations in marine reserves in the Puget Sound region to populations outside reserves, and related this information to long-term trends in rockfish catch data, to draw conclusions about the effects of fishing on rockfish in the Puget Sound region. They noted that rockfish in marine reserves in the Puget Sound region generally are at higher densities than rockfish outside reserves. They considered this information in the context of steep declines in the catch of rockfish after the early 1980s to conclude that the current low abundance of rockfish in the Puget Sound region is likely the result of overfishing. They further noted that rockfish in marine reserves in the Puget Sound region are larger than rockfish outside the reserves.

Coupled with information that the size of rockfish in the Puget Sound region has declined in recent decades, they concluded that fishing has also likely altered the age structure of rockfish populations by removing larger older individuals. Age truncation (the removal of older fish) can occur at even moderate levels of fishing for rockfish (Berkeley *et al.*, 2004). Age truncation has been widely demonstrated for rockfish populations all along the west coast (Mason, 1998; Harvey *et al.*, 2006), even for species not currently categorized as overfished by the Pacific Fishery Management Council. It can have "catastrophic" effects for long-lived species such as rockfish (Longhurst, 2002). For yelloweye rockfish, canary rockfish and bocaccio in the Georgia Basin, it is likely that the age truncation effects of past overfishing are long-lasting and constitute an ongoing threat, particularly because older and larger females are likely to be more fecund and their offspring may have higher survival rates. In addition, fishing can have dramatic impacts on the size or age structure of the population, with effects that can influence ongoing productivity.

Because most rockfish females release larvae on only one day each year, the timing of parturition (giving birth) can be crucial in terms of matching favorable oceanographic conditions for larvae. Larger or older females release larvae earlier in the season compared to smaller or younger females in black, blue, yellowtail, kelp, and darkblotched rockfish (Nichol and Pikitch, 1994; Sogard *et al.*, 2008). Maternal effects on larval quality have been documented for black, blue, gopher, and yellowtail rockfish (Berkeley *et al.*, 2004; Sogard *et al.*, 2008). The mechanism for maternal effects on larval quality across species is the size of the oil globule provided to larvae at parturition, which provides the developing larvae with energy insurance against the risks of starvation (Berkeley *et al.*, 2004; Fisher *et al.*, 2007), and in black rockfish enhances early growth rates (Berkeley *et al.*, 2004). An additional maternal effect in black rockfish indicates that older females are more successful in producing progeny that recruit from primary oocyte to fully developed larvae (Bobko and Berkeley, 2004). In a broad span of species, there is evidence that age or size truncation is associated with increased variability in recruitment. Examples include Icelandic cod (Marteinsdottir and Thorarinsson, 1998), striped bass (Secor, 2000), Baltic cod (Wieland *et al.*, 2000), and many species of California Current fishes (Hsieh *et al.*, 2006). For long-lived species, reproduction over a span of many years is considered a bet-hedging strategy that has a buffering effect at the population level, increasing the likelihood of some successful reproduction over a period of variable environmental conditions (Longhurst, 2002). When reproductive effort is limited to younger ages, this buffering capacity is lost and populations more closely follow short-term fluctuations in the environment (Hsieh *et al.*, 2006).

In summary, it is likely that past overfishing has reduced the abundance of the yelloweye rockfish, canary rockfish and bocaccio DPSs, leading to the current low abundance levels that place their future viability at risk. In addition, it is likely that past overfishing has reduced the proportion of large females in yelloweye rockfish, canary rockfish and bocaccio, harming the productivity of the populations and affecting their ability to recover from current low levels of abundance. Ongoing fisheries also create risks for these DPSs, and are discussed below under the "Inadequacy of Existing Regulations" section.

Disease or Predation

The status report identified predation as a threat to each species (Drake *et al.*, 2010). Rockfish are important prey items of lingcod (Beaudreau and Essington, 2007). Populations of lingcod have been low in the Puget Sound region, but are increasing in recent years (Palsson *et al.*, 2009). Predation by pinnipeds may be locally significant. Four pinniped species are found in the waters of the State of Washington: Harbor seals, California sea lions, Steller sea lions, and northern elephant seals. Harbor seal populations have increased to more than 10,000 (Jeffries *et al.*, 2003). The harbor seal is the only pinniped species that breeds in Washington waters, and is the only pinniped with known haul-out sites in the San Juan Islands (Jeffries *et al.*, 2000). In the Puget Sound region, harbor seals are opportunistic feeders that consume seasonally and locally abundant prey (Olesiuk *et al.*, 1990; London *et al.*, 2001). About 2,000 Steller sea lions occur seasonally in Washington waters, with dozens found in the Puget Sound region, particularly in the San Juan Islands (Palsson *et al.*, 2009). About 8 percent of the Steller sea lion diet is rockfish (Lance and Jeffries, 2007). Though not abundant, their large size and aggregated distribution suggest that their local impact on rockfish could be significant. Fifteen species of marine birds breed along the Washington coast; seven of these have historically been found breeding in the Puget Sound region (Speich and Wahl, 1989). The predominant breeding marine birds in the San Juan Islands are pigeon guillemots, double-crested cormorants, pelagic cormorants, and members of the western gull/glaucous-winged gull complex (Speich and Wahl, 1989). The first three species are locally abundant. Although these avian predators can consume juvenile rockfish, whether they have a significant impact on rockfish populations is unknown.

Rockfish are susceptible to diseases and parasites (Love *et al.*, 2002), but the extent and population consequences of disease and parasite impacts on the yelloweye rockfish, canary rockfish and bocaccio DPSs are not known. Palsson *et al.* (2009) suggest that stress associated with poor water quality may exacerbate the incidence and severity of naturally occurring diseases to the point of directly or indirectly decreasing survivorship of rockfish.

The Inadequacy of Existing Regulatory Mechanisms

Sport and Commercial Fishing Regulations

Significant efforts to protect rockfish in the Puget Sound region from overharvest began in 1982 when the Washington Department of Fisheries

(now the WDFW) published the Puget Sound Groundfish Management Plan. This plan identified rockfish as an important commercial and recreational resource in the Sound and established acceptable biological catch levels to control harvest (Palsson *et al.*, 2009). The acceptable biological catch levels were based on recent average catches and initially set at 304,360 kg (671,000 total pounds) of rockfish for the Puget Sound region. This plan emphasized recreational fisheries for rockfish while limiting the degree of commercial fishing. During the 1980s, the WDFW continued to collect information on rockfish harvest with an emphasis on increasing the amount of information available on rockfish bycatch in non-targeted fisheries (e.g., salmon fishery). In response to a reduction in catches, rockfish recreational harvest limits were reduced from 15 fish to 10 fish in North Puget Sound and to 5 fish in South Puget Sound in 1983. The 1982 Groundfish Management Plan was updated in 1986 and extended the preference for recreational fisheries over commercial fishing for rockfish to the San Juan Islands and the Strait of Juan de Fuca (Palsson *et al.*, 2009). During this same time, the WDFW received a Federal grant to monitor recreational catches of rockfish and collect biological data on rockfish populations in the Sound. Information was collected, and new management scenarios for rockfish were developed but never implemented. In 1991, the WDFW adopted a significant change in strategy for rockfish management in Puget Sound. The strategy, called "passive management," ended all monitoring of commercial fisheries for groundfish and collection of biological data and increased their reliance on anecdotal information (Palsson *et al.*, 2009). The switch in strategy was at least partially due to the closing by the State legislature of commercial bottom fishing in Puget Sound south of Foulweather Bluff. The termination of monitoring created a data gap in rockfish biological data for the 1990s. In 1994, the recreational daily bag limit for rockfish was reduced to five fish in North Puget Sound and three fish in South Puget Sound. In addition, the WDFW adopted regulations to close remaining trawl fisheries in Admiralty Inlet. In 1996, the Washington State Fish and Wildlife Commission established a new policy for Puget Sound groundfish management. The policy stated that the commission would manage Puget Sound groundfish in a conservative manner in order to minimize the risk of overharvest and to ensure the long-term health of the resource. During the next two years, the WDFW developed a groundfish management plan (Palsson *et al.*, 1998) that identified specific goals and objectives to achieve the commission's precautionary approach (Palsson *et al.*, 2009). The plan also called for the development of species-specific (including many rockfishes) conservation and use plans. The WDFW is currently developing a Rockfish Conservation Plan, which is designed as a comprehensive management plan for all rockfish species within the Puget Sound and Strait of Juan de Fuca regions. The plan provides policy-level directions for future recovery efforts, monitoring, fisheries management, habitat protection and enhancement and research. The plan also notably calls for the designation of rockfish reserves within the region.

In response to dwindling rockfish populations, in 2000, the WDFW established a one rockfish daily bag limit for the entire Puget Sound region, and in 2002 and 2003, prohibited the retention of canary and yelloweye rockfishes. Though these series of bag limit restrictions improved protective efforts for rockfish, they nonetheless were enacted after a large drop in rockfish abundance that occurred prior to the 1980s. In retrospect, they did not prevent the severe reduction of rockfish abundance within the Georgia Basin.

In 2004, the WDFW promulgated additional protective regulations limiting harvest of rockfish to the open salmon and lingcod seasons, prohibiting spearfishing for rockfish east of Sekiu, and only allowing the retention of the first rockfish captured. Monitoring of recreational fisheries has also increased, with estimates of total rockfish catches by boat-based anglers now available. Bycatch and subsequent discarding of rockfish is currently thought to be quite high in the recreational fishery (Palsson *et al.*, 2009). The WDFW reported bycatch rates of greater than 20 percent (20 percent of rockfish caught are released) prior to the 1980s, but in recent years bycatch rates are in excess of 50 percent. The recent increase is likely the outcome of the reduction in the allowable daily catch of rockfish (Palsson *et al.* 2009). Palsson *et al.* (2009) reports that for every rockfish landed in the Puget Sound region, 1.5 are released. From 2004 to 2007 canary and yelloweye rockfish were reported as bycatch in recreational salmon and bottomfish fisheries in each of the major regions of the Puget Sound (WDFW unpublished data). The vast majority of these fish were released, though the mortality levels of these fish were likely high due to barotrauma (Palsson *et al.*, 2009). No bocaccio were reported in the 2004 to 2007 time period (WDFW unpublished data), though a number of rockfish were reported as unknown species. The status report assessed recreational and commercial fisheries as a "high" or "very high" threat to each species (Drake *et al.*, 2010).

Fishers targeting other species of rockfish or other types of popular fishes such as salmon and lingcod are likely to hook the occasional yelloweye rockfish, canary rockfish or bocaccio. This is because all of the aforementioned fishes' distributions overlap within the Georgia Basin. They also consume similar or identical prey items, making them vulnerable to fishing lures or baits imitating these prey items. Although fishers may return rockfish to the water, the mortality rate of these fish is extremely high (Parker *et al.*, 2006). There are some methods available that could lower the mortality rates of discarded rockfish (summarized by Palsson *et al.*, 2009), though application of these methods in the Puget Sound region fishery would be difficult (Palsson *et al.*, 2009). The WDFW considers bycatch of rockfish to be a "high impact stressor" on rockfish populations (Palsson *et al.*, 2009).

Recently the State of Washington adopted regulations that ban the retention of all rockfish species within Marine Catch Areas 6 to 13, which roughly overlap with the rockfish DPSs. In addition, a prohibition of fishing for bottomfish (except halibut) in waters deeper than 120 feet (36.6 m) was adopted. Because most yelloweye rockfish, canary rockfish and bocaccio reside in waters between 40 to 250 meters (Love *et al.*, 2002), the 120-foot rule will likely reduce the numbers of incidentally caught rockfish by fishers targeting bottomfish. Bycatch will still occur in the bottomfish fishery in waters shallower than 120 feet (36.6 m), and in the halibut fishery. Bycatch will also continue to occur in recreational salmon fisheries because anglers targeting salmon are not subject to the 120-foot (36.6 m) depth restriction and also incidentally catch yelloweye rockfish, canary rockfish, and bocaccio. Though the state law requires all rockfish to be released, most are killed by the effects of barotrauma. Thus, bycatch remains an ongoing threat to each species.

Commercial catch data do not include information on bycatch, and there is no effective program to make direct observations of bycatch aboard fishing vessels operating in Puget Sound region. Given the very high mortality rate of discarded rockfish (Parker *et al.*, 2006), and the low resiliency of rockfish populations to exploitation, recent

levels of bycatch are an important threat to yelloweye rockfish, canary rockfish and bocaccio (Drake *et al.*, 2010).

Though there are some marine reserves within the Puget Sound region, as previously discussed, they cover a relatively small area, and not all encompass rockfish habitat. While existing reserves support localized increased biomass of rockfish (Palsson, 2004), they were not established to serve as a regional network and do not alter our conclusions regarding extinction risk for each species.

Tribal Fishing

Several species of rockfish have been historically harvested by Native Americans. Since 1991, rockfishes harvested by tribal fishers have represented less than two percent of the total Puget Sound region rockfish harvest (Palsson *et al.*, 2009). Information from the Northwest Indian Fisheries Commission indicates that total reported rockfish catches by member tribes from 2000 to 2005 ranged between 10.9 and 368 kg (24 and 811 pounds). Tribal regulations in the Puget Sound region vary by tribe from a ban on commercial harvest of rockfish to a 15 fish bag limit for personal use. The currently low rockfish abundance in this area has significantly decreased the interest in harvest of rockfish by tribal fishers (W. Beattie, Northwest Indian Fisheries Commission, personal communication).

Other Natural or Manmade Factors Affecting Its Continued Existence

Rockfishes are known to compete interspecifically for resources (Larson, 1980). Harvey *et al.* (2006) documented the decline of bocaccio in the California Current, and used bioenergetic models to suggest that recovery of coastal populations of bocaccio may be inhibited by other more common rockfishes. In the Puget Sound region, more abundant species such as copper and quillback rockfish likely eat some juvenile yelloweye rockfish, canary rockfish and bocaccio and may compete for food sources. These interactions could limit the ability of the petitioned species to recover.

Chinook and coho salmon consume larval and juvenile rockfish, and they also compete for prey with small size classes of rockfish (Buckley, 1997). Although it is uncertain how detrimental the effect may be, releases of hatchery salmon have the potential to influence the population dynamics of the petitioned species.

Derelict fishing gear can continue "ghost" fishing and is known to kill rockfish (Palsson *et al.*, 2009). There is an ongoing program run by the Northwest Straits Initiative to remove derelict gear throughout the Puget Sound region, mostly concentrated in waters less than 100 feet (33 meters) deep. Nets and other gear in waters deeper than 100 feet have been incidentally encountered in habitat surveys, though the overall extent and impact of nets in deeper waters is unknown. In addition, during removal efforts nets have been documented to drape over slopes deeper than 100 feet, but current guidelines require the net to be cut off at 100 feet. Current guidelines also do not allow "mechanical advantage," such as grappling hooks attached to vessel hydraulic systems, to remove nets that are too entangled in bottom substrate or rock for hand removal. Because habitats deeper than 100 feet are most readily used by adult yelloweye rockfish, canary rockfish and bocaccio, there is an unknown but potentially large impact from deepwater derelict gear on each population within the DPS. Approximately 20 percent of lost nets reported by fishermen are not recovered because the net drifts away and becomes submerged before responders arrive (J. June, Natural Resource Consultants, personal communication, November 2009). There are no devices installed on nets to track their location after they are lost, further complicating the recovery effort.

As previously discussed, climate change could alter habitats within the Georgia Basin. Patterns of circulation and productivity in the Puget Sound region are influenced by climate conditions. Changes in the timing of freshwater input affect stratification and mixing in the Sound, while changes in wind pattern influence the amount of biologically important upwelled water that enters the Strait of Juan de Fuca from the coast (Snover *et al.*, 2005). Direct studies on the effect of climate variability on rockfish are rare, but all the studies performed to date suggest that climate plays an extremely important role in population dynamics (Drake *et al.*, 2010). The negative effect of the warm water conditions associated with El Niño appear to be common across rockfishes (Moser *et al.*, 2000). Field and Ralston (2005) noted that recruitment of all species of rockfish appeared to be correlated at large scales and hypothesized that such synchrony was the result of large-scale climate forcing. Exactly how climate influences the yelloweye rockfish, canary rockfish and bocaccio in the Georgia Basin is unknown; however, Tolimieri and Levin (2005) report that bocaccio recruitment off of California is correlated with specific sets of climate patterns. Given the general importance of climate to the Georgia Basin and to rockfish, it is likely that climate influences the dynamics of each species. Any future changes in climate patterns could affect the ability of yelloweye rockfish, canary rockfish and bocaccio within the Puget Sound/Georgia Basin DPSs to recover.

Efforts Being Made To Protect the Rockfish DPSs

Section 4(b)(1)(A) of the ESA requires the Secretary to make listing determinations solely on the basis of the best scientific and commercial data available after taking into account efforts being made to protect a species. Therefore, in making ESA listing determinations, we first identify factors that have led to a species' decline and assess the level of extinction risk. We then assess efforts being made to protect the species to determine if those measures ameliorate the risks faced by the DPS(s). To do this, we follow the guidance in the joint NMFS—FWS "Policy for Evaluation of Conservation Efforts When Making Listing Decisions" (68 FR 15100, 28 March 2003). This section summarizes the protective efforts described in the proposed rule (FR 18516; April 23, 2009).

Yelloweye rockfish, canary rockfish and bocaccio indirectly benefit from many Federal, state and tribal regulatory and voluntary aquatic habitat improvement programs aimed at other species. Rockfish require water quality that facilitates their growth, movement and reproductive potential. Federal programs carried out under laws such as the Federal Clean Water Act (CWA) of 1972 help to ensure that water quality is maintained or improved and that discharge of fill material into waterways is regulated. Several sections of this law, such as section 404 (discharge of fill into wetlands), section 402 (discharge of pollutants into water bodies), and section 404(d) (designation of water quality limited areas), regulate activities that might degrade rockfish habitat. Although programs carried out under the CWA are well funded and enforcement of this law occurs, the Puget Sound region nonetheless continues to receive daily input of water quality pollutants from a variety of sources (PSP, 2010). The Washington State Department of Ecology (Ecology) estimates that Puget Sound receives between 14 and 94 million pounds of toxic pollutants per year, which include oil and grease, PCBs, phthalates, PBDEs, and heavy metals that include zinc, copper and lead (Ecology 2010). This level of pollutant loading has been documented to bioaccumulate in many

fishes and marine mammals in the Puget Sound (Collier *et al.*, 2007). Forecasted population growth are likely to exacerbate these toxic inputs (Collier *et al.*, 2007). This indicates that although current programs provide some protection, they are not sufficient to fully protect rockfish habitat.

Section 10 of the Rivers and Harbors Act prohibits placement of any structure in any navigable waterway of the United States without approval from the Army Corps of Engineers. Most or all rockfish habitat in the United States is considered to be navigable, and it is not expected that any major obstructions to migration would be constructed within their range.

The Coastal Zone Management Act and Coastal Zone Act Reauthorization Amendments of 1990 encourage states and tribes to preserve, protect, develop, and where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. Despite these provisions, the status of rockfishes and other species continues to decline.

In the Puget Sound region and elsewhere along the west coast, governments and non-governmental organizations are working to restore depressed salmon stocks. Rockfish in the Puget Sound region benefit from these efforts indirectly, primarily through improved water quality in streams that flow into the Puget Sound region. As part of these efforts, the State of Washington established the Puget Sound Partnership in 2007, a new agency consisting of an executive director, an ecosystem coordination board, and a Puget Sound science panel. The Partnership was created to oversee the restoration of the environmental health of Puget Sound by 2020, and in 2008 created a long-term plan called the 2020 Action Agenda (PSP, 2010).

Throughout the Puget Sound/Georgia Basin DPS, an array of Federal, State, tribal, and local entities carry out aquatic habitat restoration programs. These programs are generally intended to benefit other fish species such as salmon, but rockfish may also benefit from some projects, particularly those that occur within the nearshore environment (which could benefit juvenile rockfishes). Although these programs are too numerous to list individually, they include the Pacific Coast Salmon Recovery Fund and the Northwest Straits Commission, which organizes removal of derelict fishing gear.

Though these existing efforts and programs do ameliorate some risks to yelloweye rockfish, canary rockfish and bocaccio, their cumulative impacts are not sufficient to ensure survival and recovery of each species within the range of the Puget Sound/Georgia Basin DPSs (74 FR 18516; April 23, 2009).

Final Listing Determination

Section 4(b)(1) of the ESA requires that the listing determination be based solely on the best scientific and commercial data available, after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any state or foreign nation to protect and conserve the species. We have reviewed the petition, the draft and final reports of the BRT (Drake *et al.*, 2008; 2010), co-manager comments, peer review comments, public comments and other available published and unpublished information, and we have consulted with species experts and other individuals familiar with yelloweye rockfish, canary rockfish and bocaccio.

For the reasons stated above, and as summarized below, we conclude: (1) Yelloweye rockfish, canary rockfish and bocaccio inhabiting the Georgia Basin based on marked separation meet the discreteness and significance criteria for DPSs; (2) Georgia Basin bocaccio are in danger of extinction throughout their range; and (3) Georgia Basin canary rockfish and yelloweye rockfish are likely to become endangered throughout their ranges in the foreseeable future.

Bocaccio occurring in the Georgia Basin are discrete from other members of their species based on marked separation evidenced by the following: (1) Bocaccio exhibit similar larval and juvenile life history as all other rockfish species that demonstrate significant genetic differences between populations inhabiting coastal waters and inland marine waters of the Pacific Northwest; (2) the differences in age structure between coastal and inland stocks indicates that the two are demographically independent; and (3) given the unique habitat conditions and retentive circulation patterns of Puget Sound, a significant fraction of larvae released by bocaccio (especially the more inland portions of the Sound), could be retained within the Sound.

Yelloweye rockfish occurring in the Georgia Basin are discrete from other members of their species based on the following: (1) All other rockfish species for which genetic information are available have significant genetic differences between populations inhabiting coastal waters and inland marine waters of the Pacific Northwest. Similarly, information from yelloweye rockfish studies show genetic differences between rockfish inhabiting coastal waters and inland marine waters of Vancouver Island; (2) yelloweye rockfish generally remain sedentary as adults, limiting gene flow between populations and regions; and (3) given the unique habitat conditions and retentive circulation patterns of Puget Sound, a significant fraction of larvae released by yelloweye rockfish (especially the more inland portions of the Sound), could be retained within the Sound.

Canary rockfish occurring in the Georgia Basin are discrete from other members of their species based on the following: (1) Canary rockfish exhibit similar larval and juvenile life histories as all other rockfish species that demonstrate significant genetic differences between populations inhabiting coastal waters and inland marine waters of the Pacific Northwest; and (2) given the unique habitat conditions and retentive circulation patterns of Puget Sound, a significant fraction of larvae released by canary rockfish (especially the more inland portions of the Sound), could be retained within the Sound.

These DPSs meet the significance criterion because they occupy the unique ecological setting of the Georgia Basin. The current patterns of the inland marine waters, interactions between fresh and saltwater, the protection afforded by the land features of the Olympic Peninsula and Vancouver Island, and sill-dominated bathymetry make the Georgia Basin different from other coastal areas occupied by these species and likely lead to unique adaptations in these species.

Some ongoing efforts to protect Pacific salmonids, as described in the previous section, are likely to also benefit these rockfish species. However, these efforts do not comprehensively address the threats from degradation of benthic and nearshore habitats, fishery bycatch and degraded water quality.

Based on the best scientific and commercial information available, including the preliminary and final BRT reports, we have determined that the Puget Sound/Georgia Basin DPS of bocaccio is currently in danger of extinction throughout all of its range. Factors supporting this conclusion include: (1) Reduced abundance, to the point where the species is undetected in recent fishery surveys, thus raising concerns about successful reproduction and persistence; (2) infrequent recruitment events dependent on rare weather and ocean conditions; (3) high susceptibility to overfishing; (4) high mortality rate associated with any incidental capture in fisheries, despite

improvements (summarized in the previous sections) in current recreational fishing regulations; and (5) exposure to degraded water quality and other habitat perturbations within the Georgia Basin. Therefore, we are listing the Puget Sound/Georgia Basin DPS of bocaccio as endangered.

We have determined that the Puget Sound/Georgia Basin DPSs of canary and yelloweye rockfish are not presently in danger of extinction, but are likely to become so in the foreseeable future throughout all of their range. Factors supporting a conclusion that these DPSs are not presently in danger of extinction include: (1) These DPSs' abundances have been greatly reduced from historic levels, but fish are still present in significant enough numbers to be caught in recreational fisheries and research trawls; (2) large female members of these species are highly fecund and, if allowed to survive and reproduce successfully, can produce large numbers of offspring; and (3) the WDFW fishing regulations reduce potential for bycatch associated with bottomfishing. Factors supporting a conclusion that these DPSs are likely to become in danger of extinction in the foreseeable future include: (1) These DPSs' abundances have greatly decreased from historic levels and abundance trends are negative; (2) individuals of these species appear to be absent in areas where they were formerly abundant; (3) although these species were formerly abundant in the catch, they are less frequent now; (4) although current recreational fishing regulations have been changed to offer more protection to these DPSs, they are still vulnerable to being hooked in fisheries in the Georgia Basin and often die after release, further reducing population productivity and abundance; and (5) current protective measures for habitat in the Puget Sound region are not yet sufficient to ameliorate the threats to these species as evidenced by continuing water quality and nearshore and benthic habitat degradation. We are therefore listing the Puget Sound/Georgia Basin DPSs of yelloweye and canary rockfish as threatened.

Prohibitions and Protective Measures

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)). Take of Puget Sound/Georgia Basin DPS of bocaccio would be prohibited when this listing takes effect (see DATES section).

In the case of threatened species, ESA section 4(d) leaves it to the Secretary's discretion whether, and to what extent, 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 9(a) prohibitions apply to all individuals, organizations, and agencies subject to U.S. jurisdiction. We will evaluate protective regulations pursuant to section 4(d) for the DPSs of yelloweye and canary rockfish, and issue proposed regulations in forthcoming rules that will be published in the **Federal Register.**

Section 7(a)(2) of the ESA requires Federal agencies to confer with us on actions likely to jeopardize the continued existence of species proposed for listing or result in the destruction or adverse modification of proposed critical habitat. Once a species is listed as threatened or endangered, section 7(a)(2) requires Federal agencies to ensure that any actions they fund, authorize, or carry out do not jeopardize the continued existence of the species. Once critical habitat is designated, section 7(a)(2) also requires Federal agencies to ensure that they do not fund, authorize, or carry out any actions that are likely to destroy or adversely modify that habitat. Our section 7 regulations require the responsible Federal agency to initiate formal consultation if a Federal action may affect a listed species or its critical habitat (50 CFR 402.14(a)). Examples of Federal actions that may affect the yelloweye rockfish, canary rockfish and bocaccio DPSs include shoreline development, cable laying, tidal energy projects, dredging, dredge disposal, point and non-point source discharge of persistent contaminants, adoption of water quality standards, regulation of newly emerging chemical contaminants, research and monitoring, and fishery harvest and management practices.

Sections 10(a)(1)(A) and (B) of the ESA provide us with authority to grant exceptions to the ESA's Section 9 "take" prohibitions. Section 10(a)(1)(A) scientific research and enhancement permits may be issued to entities (Federal and non-Federal) for scientific purposes or to enhance the propagation or survival of a listed species. The type of activities potentially requiring a section 10(a)(1)(A) research/enhancement permit include scientific research that targets yelloweye rockfish, canary rockfish or bocaccio.

Section 10(a)(1)(B) incidental take permits may be issued to non-Federal entities performing activities that may incidentally take listed species, as long as the taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.

Effective Date of the Final Listing Determination

We recognize that numerous parties may be affected by the listing of the Puget Sound/Georgia Basin DPSs of yelloweye rockfish, canary rockfish, and bocaccio. To permit an orderly implementation of the consultation requirements applicable to threatened and endangered species, the final listing will take effect on July 27, 2010.

Critical Habitat

Section 3(5)(A) of the ESA defines critical habitat as "(i) the specific areas within the geographical area occupied by the species, at the time it is listed * * * on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed * * * upon a determination by the Secretary that such areas are essential for the conservation of the species."

Section 4(a)(3) of the ESA requires that, to the extent practicable and determinable, critical habitat be designated concurrently with the listing of a species. Designation of critical habitat must be based on the best scientific data available and must take into consideration the economic, national security, and other relevant impacts of specifying any particular area as critical habitat.

In determining what areas qualify as critical habitat, 50 CFR 424.12(b) requires that we consider those physical or biological features that are essential to the conservation of a given species including "space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing of offspring; and habitats that are protected from disturbance or are representative of the historical geographical and ecological distribution of a species." The regulations further direct NMFS to "focus on the principal biological or physical constituent elements * * * that are essential to the conservation of the species," and specify

that the "Known primary constituent elements shall be listed with the critical habitat description." The regulations identify physical and biological features as including, but not limited to: "Roost sites, nesting grounds, spawning sites, feeding sites, seasonal wetland or dry land, water quality or quantity, host species or plant pollinator, geological formation, vegetation type, tide, and specific soil types."

In our proposal to list yelloweye rockfish, canary rockfish and bocaccio, we requested information on the identification of specific areas that meet the definition of critical habitat defined above. We also solicited biological and economic information relevant to making a critical habitat designation for each species. We have reviewed the comments provided and the best available scientific information. We conclude that critical habitat is not determinable at this time for the following reasons: (1) Information is not currently available to assess impacts of designation, (2) information is not currently available regarding the physical and biological features essential to conservation.

Classification

National Environmental Policy Act (NEPA)

ESA listing decisions are exempt from the requirements to prepare an environmental assessment or environmental impact statement under the NEPA (*see* NOAA Administrative Order 216–6.03(e)(1) and *Pacific Legal Foundation* v. *Andrus,* 657 F. 2d 829 (6th Cir. 1981)). Thus, we have determined that this final listing determination for the Puget Sound/Georgia Basin DPSs of yelloweye rockfish, canary rockfish, and bocaccio is exempt from the requirements of NEPA.

Executive Order (E.O.) 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 E.O. 12866. This final rule does not contain a collection-of-information requirement for the purposes of the Paperwork Reduction Act.

E.O. 13084—Consultation and Coordination With Indian Tribal Governments

E.O. 13084 requires that if NMFS issues a regulation that significantly or uniquely affects the communities of Indian tribal governments and imposes substantial direct compliance costs on those communities, NMFS must consult with those governments or the Federal government must provide the funds necessary to pay the direct compliance costs incurred by the tribal governments. This final rule does not impose substantial direct compliance costs on Indian tribal governments or communities. Accordingly, the requirements of section 3(b) of E.O. 13084 do not apply to this final rule. Nonetheless, we will continue to inform potentially affected tribal governments, solicit their input, and coordinate on future management actions.

E.O. 13132—Federalism

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific directives for consultation in situations where a regulation will preempt state law or impose substantial direct compliance costs on state and local governments (unless required by statute). Neither of those circumstances is applicable to this final rule. In keeping with the intent of the Administration and Congress to provide continuing and meaningful dialogue on issues of mutual state and Federal interest, the proposed rule (74 FR 18516, April 23, 2009) was provided to the relevant state agencies in each state in which the species is believed to occur, and these agencies were invited to comment. We have conferred with the State of Washington and their comments and recommendations have been considered and incorporated into this final determination where applicable.

References

A list of references cited in this document is available upon request (*see* **ADDRESSES**) or via the Internet at *http://www.nwr.noaa.gov*. Additional information, including agency reports and written comments, is also available at this Internet address.

List of Subjects

50 CFR Part 223

Endangered and threatened species, Exports, Imports, Transportation.

50 CFR Part 224

Endangered and threatened species, Exports, Reporting and recordkeeping requirements.

Dated: April 23, 2010.

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 MARINEAND 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) *et seq.*

■ 2. In § 223.102, in the table, amend paragraph (c) by adding paragraphs (c)(26)), and (c)(27) to read as follows:

§ 223.102 Enumeration of threatened marine and anadromous species.

* * * * *

Species [1]		Where listed	Citation(s) for listing determination(s)	Citation(s) for critical habitat designation(s)
Common name	Scientific name			
*	* *	*	* *	*
(c) * * *	.....	.....	.....	
(26) Rockfish, Yelloweye—Puget Sound/Georgia Basin DPS.	*Sebastes ruberrimus*	U.S.A.-Washington, and British Columbia, including Puget Sound and Georgia Basin.	[*Insert FEDERAL REGISTER page and date citation*].	[*Insert FEDERAL REGISTER page and date citation*].
(27) Rockfish, Canary—Puget Sound/Georgia Basin DPS.	*Sebastes pinniger*	U.S.A.-Washington, and British Columbia, including Puget Sound and Georgia Basin.	[*Insert FEDERAL REGISTER page and date citation*].	[*Insert FEDERAL REGISTER page and date citation*].

Species [1]		Where listed	Citation(s) for listing determination(s)	Citation(s) for critical habitat designation(s)
Common name	Scientific name			
*	*	*	*	*

PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES

■ 3. 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.*

■ 4. Amend the table in § 224.101(a), by adding an entry for "Puget Sound/Georgia Basin- Bocaccio" at the end to read as follows:

§ 224.101 Enumeration of endangered marine and anadromous species.

* * * * *

(a) * * *

Species [1]		Where listed	Citation(s) for listing determination(s)	Citation(s) for critical habitat designation(s)
Common name	Scientific name			
*	*	*	*	*
Puget Sound/Georgia Basin DPS—Bocaccio.	*Sebastes paucispinis*	U.S.A., Washington, and British Columbia, including Puget Sound and Georgia Basin.	[*Insert FEDERAL REGISTER page and date citation*].	[*Insert FEDERAL REGISTER page and date citation*].

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[FR Doc. 2010–9847 Filed 4–27–10; 8:45 am]

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