

Claimed attacks will be evaluated for practicality.

### C.2 Cost

C.2.1 Computational efficiency: The evaluation of computational efficiency will be applicable to both hardware and software implementations.

Computational efficiency essentially refers to the throughput of an implementation. NIST will use the optimized software of each submission (discussed in B.2 above) on a variety of platforms and analyze their computation efficiency for a variety of message lengths. The data in the submission packages and any public comments on computational efficiency will also be taken into consideration.

C.2.2 Memory requirements: The memory required for hardware and software implementations of the candidate algorithm will be considered during the evaluation process.

Memory requirements will include such factors as gate counts for hardware implementations, and code size and RAM requirements for software implementations.

NIST will use the optimized software of each submission (discussed in B.2 above) on a variety of platforms and test their memory requirements for a variety of message lengths. The data in the submission packages and any public comments on memory requirements will also be taken into consideration.

### C.3 Algorithm and Implementation Characteristics

C.3.1 Flexibility: Candidate algorithms with greater flexibility that meet the needs of more users are preferable. Some examples of "flexibility" include (but are not limited to) the following:

- i. The algorithm is parameterizable, e.g. can accommodate additional rounds.
- ii. Implementations of the algorithm can be parallelized to achieve higher performance efficiency.
- iii. The algorithm can be implemented securely and efficiently in a wide variety of platforms, including constrained environments such as smart cards.

C.3.2 Simplicity: A candidate algorithm will be judged according to relative simplicity of design.

Dated: January 16, 2007.

**James E. Hill,**

*Acting Deputy Director.*

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**BILLING CODE 3510-CN-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

[Docket No. 070108002-7002-01; I.D. 122706A]

#### Listing Endangered and Threatened Species and Designating Critical Habitat: Petition to List Copper and Quillback Rockfishes in Puget Sound (Washington) as Threatened Species under the Endangered Species Act

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

**ACTION:** Notice of finding.

**SUMMARY:** We, NMFS, have received a petition to list copper rockfish (*Sebastes caurinus*) and quillback rockfish (*S. maliger*) in Puget Sound (Washington) as threatened or endangered species under the Endangered Species Act (ESA). We find that the petition does not present substantial scientific or commercial information indicating that the petitioned actions may be warranted.

**ADDRESSES:** Copies of the petition and related materials are available on the Internet at <http://www.nwr.noaa.gov/Other-Marine-Species/PS-Marine-Fishes.cfm>, or upon request from the Chief, Protected Resources Division, NMFS, 1201 NE Lloyd Boulevard, Suite 1100, Portland, OR 97232.

**FOR FURTHER INFORMATION CONTACT:** Dr. Scott Rumsey, NMFS, Northwest Region, (503) 872-2791; or Marta Nammack, NMFS, Office of Protected Resources, (301) 713-1401.

#### SUPPLEMENTARY INFORMATION:

##### Background

On September 18, 2006, we received a petition from Mr. Sam Wright (Olympia, Washington) to list the Puget Sound Distinct Population Segments (DPSs) of copper and quillback rockfish as endangered or threatened species under the ESA. Copies of this petition are available from NMFS (see **ADDRESSES**, above).

##### ESA Statutory and Policy Provisions

Section 4(b)(3) of the ESA contains provisions concerning petitions from interested persons requesting the Secretary of Commerce (Secretary) to list species under the ESA (16 U.S.C. 1533(b)(3)(A)). Section 4(b)(3)(A) requires that, to the maximum extent practicable, within 90 days after receiving such a petition, the Secretary make a finding whether the petition

presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Our ESA implementing regulations define Asubstantial information@ as the amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted. In evaluating a petitioned action, the Secretary considers whether the petition contains a detailed narrative justification for the recommended measure, including: past and present numbers and distribution of the species involved, and any threats faced by the species (50 CFR 424.14(b)(2)(ii)); and information regarding the status of the species throughout all or a significant portion of its range (50 CFR 424.14(b)(2)(iii)).

Under the ESA, a listing determination may address a species, subspecies, or a DPS of any vertebrate species which interbreeds when mature (16 U.S.C. 1532(15)). On February 7, 1996, we and the U.S. Fish and Wildlife Service (USFWS) adopted a policy to clarify the agencies' interpretation of the phrase "Distinct population segment of any species of vertebrate fish or wildlife" (ESA section 3(15)) for the purposes of listing, delisting, and reclassifying a species under the ESA (51 FR 4722). The joint DPS policy established two criteria that must be met for a population or group of populations to be considered a DPS: (1) The population segment must be discrete in relation to the remainder of the species (or subspecies) to which it belongs; and (2) the population segment must be significant to the remainder of the species (or subspecies) to which it belongs.

A species, subspecies, or DPS is "endangered" if it is in danger of extinction throughout all or a significant portion of its range, and "threatened" if it is likely to become endangered within the foreseeable future throughout all or a significant portion of its range (ESA Sections 3(6) and 3(19), respectively).

##### *Life History of Copper and Quillback Rockfish*

*Copper Rockfish* - Copper rockfish are found from the Gulf of Alaska southward to central Baja California (Eschmeyer *et al.*, 1983; Stein and Hassler, 1989; Matthews, 1990a; Love, 1991), including in Puget Sound (Buckley and Hueckel, 1985; Quinzel and Schmitt, 1991). Adult copper rockfish are found in nearshore waters from the surface to 183 m deep (Eschmeyer *et al.*, 1983; Stein and Hassler, 1989). Larval and small juvenile copper rockfish are pelagic for several months and are frequently found

in surface waters and shallow habitats (Stein and Hassler, 1989; Love *et al.*, 1996). Juveniles use bays as nursery areas (Stein and Hassler, 1989) and recruit to nearshore benthic habitats (Matthews, 1990b) with cobble or rocky substrata. They are often associated with crevices, aquatic plants, and kelp holdfasts (Patten, 1973; Love, 1991; Love *et al.*, 1996; Buckley, 1997). Adults inhabit natural rocky reefs, artificial reefs, and rock piles, are closely associated with submerged vegetation (Matthews, 1990c), and exhibit strong site fidelity (Stein and Hassler, 1989; Matthews, 1990c; Love, 1991).

In Puget Sound, copper rockfish males and females become sexually mature at three to four years of age (Stein and Hassler, 1989). They spawn once a year and, like all *Sebastes* species, are ovoviviparous (i.e., eggs are fertilized internally, eggs develop within the mother nourished by an egg-yolk sac, and larvae "hatch" internally or immediately after they are released). Mating occurs from March to May, embryos are mature by April, and larvae are released from April to June (DeLacy *et al.*, 1964; Matthews, 1990b). Adults move inshore to release their young (Matthews, 1990a), and larvae remain pelagic until they are 40 to 50 mm long (Stein and Hassler, 1989). Copper rockfish live up to 55 years (Matthews, 1990b) and can grow to 57 cm length (Eschmeyer *et al.*, 1983; Stein and Hassler, 1989).

**Quillback Rockfish** - Quillback rockfish are found from the northern Channel Islands in southern California (Stout *et al.*, 2001), to the Gulf of Alaska (Miller and Lea, 1972), including the Strait of Georgia, the San Juan Islands, and Puget Sound (Clemons and Wilby, 1961; Hart, 1973; Matthews, 1990a; Love, 1991). Adult quillback rockfish are found in subtidal waters to depths of 275 m (Hart, 1973; Love, 1991), but typically inhabit depths from 41 m to 60 m (Murie *et al.*, 1994; Love, 1991). Larval and juvenile stages occupy mid-water habitats before they recruit to sandy substrata in nearshore waters associated with eelgrass, bull kelp beds, natural rocky reefs, and artificial reefs ((Matthews, 1990b; West *et al.*, 1994). Adults are solitary, exhibit site fidelity (Petten, 1973), live at or near the bottom (Miller and Lea, 1972; Matthews, 1988; Rosenthal *et al.*, 1988; Love, 1991), and are associated with artificial and natural reefs, coarse sand, or pebble substrata with flat-bladed kelps (Love, 1991). In Puget Sound, most female quillback rockfish become sexually mature at 2 or 3 (Gowan, 1983). Mating takes place in March, and the larvae are released from April to July, with a peak early in the

season (Matthews, 1988, 1990b; Love, 1991). Female quillback rockfish probably move to non-reef habitats to release larvae (Matthews 1988). Quillback rockfish can live to be more than 50 years old (Gowan, 1983; Love, 1991), and can grow to 61 cm (Clemons and Wilby, 1961; Hart, 1973; Love, 1991). April 3, 2001, we concluded that these DPSs did not warrant listing as a threatened or endangered species. Although these DPSs had experienced declines over the last 40 years likely due to overharvest, we noted that the populations appeared stable over the most recent 5 years, and that reductions in the recreational fishery bag limit and the establishment of voluntary no-take marine reserves had reduced levels of fishing mortality (66 FR 17659).

### Analysis of Petition

We evaluated the information provided and/or cited in Mr. Wright's recent petition to determine if it presents substantial scientific and commercial information to suggest that the Puget Sound DPSs of copper and quillback rockfish may warrant listing under the ESA. Additionally, we reviewed other information readily available to our scientists (i.e., currently within agency files) to determine whether there is general agreement with the information presented in the petition. We addressed three questions in our analysis of the petition: (1) Does the petition or other information in our files present substantial information indicating that the delineated Puget Sound DPSs might warrant reconsideration?; (2) Does the petition present substantial information indicating that the 2001 extinction risk analyses or listing determinations might warrant reconsideration?; and (3) Does the petition present substantial information indicating that the DPSs are in danger of extinction (endangered), or likely to become endangered in the foreseeable future (threatened), throughout all or a significant portion of their ranges? Our Northwest Fisheries Science Center evaluated the scientific merits of the petition with respect to these three questions, concluding that the petition does not present substantial information indicating that the petitioned actions may be warranted, nor that would warrant a reevaluation of the conclusions of the 2001 BRT (Varanasi, 2006). Below are our summary and analysis of the information presented in the petition, organized according to the questions outlined above.

### *Does the Petition or Other Information in Our Files Present Substantial Information Indicating that the Delineated DPSs May Warrant Reconsideration?*

With respect to the delineation of Puget Sound DPSs of copper and quillback rockfish, the petitioner concludes "There does not appear [to] be any critical flaws in the original assessment or any compelling recent information from the past five years that would justify re-examination of the Puget Sound DPSs previously defined by Stout *et al.* (2001)." We agree with the petitioner's conclusion. For copper rockfish, the 2001 BRT cited genetic data and analyses from Seeb (1998), Wimberger (unpublished), and Buonaccorsi (in prep) for genetic information relevant to the DPS question. The Buonaccorsi data have since been published (Buonaccorsi *et al.*, 2002), and the conclusions and analyses in the final publication are consistent with the conclusions of the 2001 BRT. We are aware of no new genetic data available for copper or quillback rockfish. There is ongoing research at the University of Washington to analyze otolith microchemistry in quillback rockfish that, when complete, may provide useful data to help confirm or refine the 2001 BRT's DPS conclusions for this species.

### *Does the Petition Present Substantial Information Indicating That the 2001 Extinction Risk Analyses or Listing Determinations May Warrant Reconsideration?*

**Criticism of the 2001 BRT Approach** - The petitioner criticizes the general risk assessment approach used by the 2001 BRT. The petitioner contends that the approach relies on subjective and qualitative personal opinions and suggests that, with different membership, another BRT may have reached different risk conclusions. The risk assessment methods employed by the 2001 BRT are the same as those used in NMFS status reviews for West Coast species since 1998 including Pacific salmonids (*Oncorhynchus* spp.), Pacific cod (*Gadus macrocephalus*), Pacific hake (*Merluccius productus*), Pacific herring (*Clupea pallasii*), southern resident killer whales (*Orcinus orca*), and North American green sturgeon (*Acipenser medirostris*). These methods are described in detail by Wainwright and Kope (1999).

The petitioner points out some potential problems with this approach of using expert scientific panels to evaluate status information that often

includes incomplete and/or qualitative information. Such data limitations necessitate subjective evaluations of risk. The petitioner is correct that care must be taken to avoid or minimize the potential for status review conclusions to be affected by the composition of a given BRT. To minimize the risk of individual biases influencing a BRT's risk assessments, we endeavor to convene BRTs composed of several members (e.g., the 2001 BRT that reviewed the subject species was composed of six expert members) reflecting a diversity of expertise and perspectives. Our approach to risk assessment is also designed to apply a consistent and transparent methodology that makes use of the best available scientific data and analyses, including both quantitative and qualitative information. We agree with the petitioner that using a variety of appropriate methods to assess extinction risk is prudent, and this is the approach we have taken in our status reviews. In the subject 2001 status review, the BRT also evaluated extinction risk according to the method outlined by Musick *et al.* (2000). This approach is similar to the Wainwright and Kope (1999) method mentioned above, but evaluates risk relative to the reproductive potential and generation time of the species under consideration. The BRT considered the results from both the Wainwright and Kope (1999) and Musick *et al.* (2000) methods in reaching their conclusions that copper and quillback rockfish in Puget Sound are "neither in danger of extinction or likely to become so" (Stout *et al.*, 2001).

*Criticism of the BRT's Consideration of Age Structure and Longevity* - The petitioner also asserts, quoting extensively from Berkeley *et al.* (2004), that the 2001 BRT did not explicitly account for the "truncation" of the age structure of rockfish populations by overfishing, and, consequently, underestimated the extinction risk of these rockfish DPSs in Puget Sound. We do not believe that the findings of Berkeley *et al.* (2004), published since the 2001 status review, represent substantial information indicating that the 2001 BRT's risk assessments warrant re-evaluation, or that the DPSs may be endangered or threatened. The following paragraphs explain the information considered in reaching this conclusion.

Berkeley *et al.* (2004) demonstrated in the laboratory that larvae of black rockfish (*S. melanops*) born of older females survived longer in unfed conditions than larvae originating from younger fish. The mechanism ostensibly underlying this result is a greater

volume of the larval energy reserves (i.e., oil globule) at birth, which is strongly related to maternal age. The ability of larval fish to survive a period of starvation is often critical because of the temporal and spatial unpredictability of food resources. The results of Berkeley *et al.* (2004) suggest that older females will produce larvae having greater average survival, while younger females will produce progeny with the highest larval mortality rates (hereafter we refer to this as the "maternal-age effect"). Berkeley *et al.* (2004) argue that rockfish stock collapses may have resulted from an under-appreciation among fisheries managers of the maternal-age effect and the potentially disproportionate contribution of larger and older females to recruitment and maintaining sustainable rockfish populations over the long term.

Directly applying these laboratory findings to the wild populations of copper and quillback rockfishes in Puget Sound is problematic. First, the Berkeley *et al.* (2004) work did not actually measure differences in larval survival in the field. Moreover, even if there is a maternal-age effect, its population-level effect on recruitment will depend strongly on the population's age structure and age-at-maturity. For example, if the population is dominated by younger age classes, the survival advantage of larvae produced by older and larger females (which are few in number) is overridden by the larger number of females in younger age classes despite the relatively higher mortality of their progeny. The maternal-age effect may also be diminished depending on the age at which females become reproductively mature. In a recent study by O'Farrell and Botsford (2006) on black rockfish, researchers quantitatively investigated the fisheries implications of the Berkeley *et al.* (2004) maternal-age effect. O'Farrell and Botsford (2006) found that, although the youngest females produce progeny with the highest level of larval mortality, only a small proportion of the females in the youngest age class are sexually mature, and thus the youngest females represent a very small proportion of the total reproductive potential of the stock. For populations with similar life-history traits to the black rockfish, projections of population dynamics would be nearly identical whether the maternal-age effect was included (O'Farrell and Botsford, 2006). Age-specific abundance data for Puget Sound was not available to the 2001 BRT, and at present there are no data specifically addressing the

importance of the maternal-age effect for copper or quillback rockfish. However, given the similarity in life-history traits of these species to black rockfish, the subject of the O'Farrell and Botsford (2006) study, it seems unlikely that the maternal-age effect would alter the conclusions of the 2001 status review.

*Criticism of the Consideration of Fishing Impacts* - The petitioner also criticized the 2001 determinations not to list under the ESA for failing to adequately consider adverse genetic impacts from fishing. The petitioner notes that fisheries remove the largest and oldest fish in the targeted population, and thus may have the effect of selecting against those fish that are genetically predisposed to fast growth and late maturation. The petitioner asserts that this effect has been largely ignored by fisheries managers who allegedly assume that exploited populations maintain their inherent rates of productivity. The petitioner cites Olsen *et al.* (2004) and Hutchings (2004), suggesting that heavy and continuous fishing pressure, by removing fast-growing, late-maturing fish, can select for slower growing individuals and result in the permanent loss of genetically based traits. We agree that some decrease in the relative abundance of older spawners is an unavoidable consequence of fisheries. Although the 2001 BRT did not explicitly discuss the potential impacts of such a decrease, it is implicit in the historical decline observed in the overall abundance of the copper and quillback rockfish DPSs. In its conclusions, the BRT acknowledged the historical decline and the fisheries' likely contribution to that decline. noted that these DPSs appeared to be stable over the most recent 5 years preceding the 2001 status review, indicating that any reduction in the relative abundance of older spawners, and any potential genetic impacts, had not resulted in persistent declines in recruitment.

The petitioner also criticizes the management of rockfish fisheries by the Washington Department of Fish and Wildlife (WDFW), in particular asserting that WDFW's 2000 regulation reducing the daily bag limit for rockfish to one fish is an inadequate measure for conserving Puget Sound rockfish stocks. WDFW's rockfish fishing regulations, and their impacts as manifested in the status information for the Puget Sound copper and quillback rockfish DPSs, were considered in the 2001 status review. In addition to the establishment of voluntary no-take marine reserves, the 2000 reduction in the recreation fishery bag limit was noted in the 2001 determinations not to list as a measure

that had reduced historical levels of fishery mortality. The petitioner further asserts that a 2004 regulation restricting spear and recreational fishing for rockfish to periods when fisheries were open for lingcod and/or Pacific salmon inadequately limits fishing effort and mortality during the open fishing periods. We recognize that the petitioner believes that WDFW could enact regulations to further protect Puget Sound rockfish stocks. However, the fishing regulations the petitioner criticizes represent a reduction in previous fishing levels, and do not portend an increasing threat due to fishing for the copper and quillback rockfish Puget Sound DPSs.

*Does the Petition Present Substantial Information Indicating That the DPSs May be Endangered or Threatened?*

The petitioner presents no new data or information regarding the abundance, trends, productivity, or distribution for these species. With respect to the maternal-age effect discussed above, the petitioner presents no substantive evidence that the age composition of these stocks has actually been truncated, or that the maternal-age effect is an important determinant for copper or quillback rockfish recruitment. Similarly, we do not have any new data on hand relevant to assessing the status of copper and quillback rockfishes in Puget Sound.

We are aware that WDFW is in the process of compiling new abundance data and finalizing a status report for these species. As yet, the new data and analyses are not available.

#### Petition Finding

After reviewing the information contained in the petition, as well as information readily available to our scientists, we determine that the petition fails to present substantial scientific or commercial information indicating the petitioned actions may be warranted.

**Authority:** 16 U.S.C. 1531 *et seq.*

Dated: January 17, 2007.

**Samuel D. Rauch III,**

*Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.*

[FR Doc. E7-943 Filed 1-22-07; 8:45 am]

**BILLING CODE 3510-22-S**

#### DEPARTMENT OF COMMERCE

##### National Oceanic and Atmospheric Administration

##### Oceanic and Atmospheric Research; National Sea Grant Review Panel

**AGENCY:** National Oceanic and Atmospheric Administration, Commerce.

**ACTION:** Notice of public meeting.

**SUMMARY:** This notice sets forth the schedule and proposed agenda of a forthcoming meeting of the Sea Grant Review Panel. The meeting will have several purposes. Panel members will discuss and provide advice on the National Sea Grant College Program in the areas of program evaluation, strategic planning, education and extension, science and technology programs, and other matters as described below.

**DATES:** The announced meeting is scheduled for: February 21–22, 2007.

**ADDRESSES:** Headquarters of the Consortium for Oceanographic Research & Education (CORE), 1201 New York Avenue, NW., 4th Floor Conference Room, Washington, DC 20005.

**FOR FURTHER INFORMATION CONTACT:** Mr. Joseph Brown, National Sea Grant College Program, National Oceanic and Atmospheric Administration, 1315 East-West Highway, Room 11717, Silver Spring, Maryland 20910, (301) 734-1088.

**SUPPLEMENTARY INFORMATION:** The Panel, which consists of a balanced representation from academia, industry, state government and citizens groups, was established in 1976 by Section 209 of the Sea Grant Improvement Act (Pub. L. 94-461, 33 U.S.C. 1128). The Panel advises the Secretary of Commerce and the Director of the National Sea Grant College Program with respect to operations under the Act, and such other matters as the Secretary refers to them for review and advice.

A link to the agenda for the meeting can be found on the web at [http://www.seagrants.noaa.gov/leadership/review\\_panel.html](http://www.seagrants.noaa.gov/leadership/review_panel.html).

If you do not have access to the internet, please contact Joe Brown at the address above for a hard copy.

This meeting will be open to the public.

Dated: January 16, 2007.

**Mark E. Brown,**

*Chief Financial Officer, Oceanic and Atmospheric Research, National Oceanic and Atmospheric Administration.*

[FR Doc. E7-848 Filed 1-22-07; 8:45 am]

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#### DEPARTMENT OF COMMERCE

##### National Oceanic and Atmospheric Administration

[I.D. 011707D]

##### New England Fishery Management Council; Public Meeting

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

**ACTION:** Notice of a public meeting.

**SUMMARY:** The New England Fishery Management Council's (Council) Vessel Monitoring Systems (VMS)/Enforcement Committee will meet to consider actions affecting New England fisheries in the exclusive economic zone (EEZ).

**DATES:** The meeting will be held on Tuesday, February 6, 2007, at 8 a.m.

**ADDRESSES:** The meeting will be held at the Sheraton Harborside, 250 Market Street, Portsmouth, NH 03801; telephone: (603) 431-2300.

*Council address:* New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

**FOR FURTHER INFORMATION CONTACT:** Paul J. Howard, Executive Director, New England Fishery Management Council; telephone: (978) 465-0492.

**SUPPLEMENTARY INFORMATION:** The items of discussion in the committee's agenda are as follows:

1. Introduction: safety, regulation compliance, and familiarizing industry with proper use of VMS.
2. Presentation by Office for Law Enforcement: the capabilities and limitations of VMS as an enforcement tool.
3. Comments and recommendations from the public, VMS users, state agencies, and the Coast Guard. The committee received the following request:
  - a. Safe harbor notification, to suspend fishing trip, due to storms or other emergencies;
  - b. Declaration in/out of a fishery while at sea, rather than in port;
  - c. Closed area transit notification, to replace gear stowage requirement.
4. Industry and law enforcement dialog on VMS usage, and how it can be improved.
5. Closed session: selection of new advisors and any other issues the committee finds pertinent.

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically