



BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[Docket No. 130702582-3582-01]

RIN 0648-XC747

Endangered and Threatened Species; 90-Day Finding on Petition to Delist the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon under the Endangered Species Act

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

ACTION: Notice of 90-day petition finding.

SUMMARY: We, NMFS, announce a 90-day finding on a petition to delist the Southern Oregon/Northern California Coast (SONCC) Evolutionarily Significant Unit (ESU) of coho salmon (*Oncorhynchus kisutch*) under the Endangered Species Act (ESA). We find that the petition does not present substantial scientific or commercial information indicating that the petitioned action may be warranted.

ADDRESSES: Copies of the petition are available at: <http://www.nmfs.noaa.gov/pr/> or upon request from the Assistant Regional Administrator, Protected Resources Division, NMFS, Southwest Regional Office, 501 West Ocean Blvd, Suite 4200, Long Beach, CA 90802.

FOR FURTHER INFORMATION CONTACT: Craig Wingert, NMFS, Southwest Region Office, (562) 980-4021; or Dwayne Meadows, Office of Protected Resources, (301) 427-8403.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the ESA (16 U.S.C. 1533(b)(3)(A)) requires that we make a finding as to whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. The Secretary has delegated the authority for these actions to the NOAA Assistant Administrator for Fisheries. ESA implementing regulations define “substantial information” as the “amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)(1)). In determining whether a petition presents substantial scientific or commercial information to list or delist a species, we take into account information submitted with, and referenced in, the petition and all other information readily available in our files. To the maximum extent practicable, this finding is to be made within 90 days of the receipt of the petition, followed by prompt publication in the Federal Register (16 U.S.C. 1533(b)(3)(A)). ESA implementing regulations state that a species may be delisted only if the best scientific and commercial data available substantiate that it is neither endangered nor threatened for one or more of the following reasons: the species is extinct; the species is recovered; or subsequent investigations show the best scientific or commercial data available when the species was listed, or the interpretation of such data, were in error (50 CFR 424.11(d)).

On May 30, 2013, we received a petition from the Siskiyou County Water Users Association (SCWUA) requesting that we delist the threatened Southern Oregon/Northern California Coast (SONCC) coho salmon Evolutionarily Significant Unit (ESU) pursuant to the ESA. This ESU includes all naturally spawning populations of coho salmon in coastal streams between Cape Blanco, Oregon and Punta Gorda, California, as well as three artificially produced

hatchery stocks (70 FR 37160; June 28, 2005). The SCWUA has previously submitted several petitions to us requesting that we delist this ESU. We analyzed each of those petitions and found they did not present substantial scientific or commercial information indicating that delisting of the ESU may be warranted. Negative 90-day findings were published for these petitions on October 7, 2011 (76 FR 62375), January 11, 2012 (77 FR 1668), and September 10, 2012 (77 FR 55458).

SCWUA Petition

In this new petition, the SCWUA asserts that our original listing of the SONCC coho salmon ESU as threatened under the ESA (62 FR 24588; May 6, 1997) was unlawful, arbitrary and capricious because the primary causative factor for the low abundance of coho salmon at the time of listing in 1997 was poor ocean conditions in the North Pacific Ocean, rather than human-caused activities (e.g., dams, agriculture, etc.). The SCWUA petition bases the assertion that our 1997 listing determination for this ESU was in error because it did not consider a 1997 scientific paper (Mantua et al., 1997) that describes an interdecadal climate oscillation pattern in the Pacific Ocean (named by the authors as the Pacific Decadal Oscillation or PDO) and its impact on salmon abundance in the North Pacific. The SCWUA petition does not provide a summary of the actual Mantua et al. (1997) paper, but does provide an internet link to an article on our Northwest Fisheries Science Center (NWFSC) website that summarizes research conducted by Dr. Nathan Mantua and his colleagues about the PDO and its relationship to the survival and abundance of salmon populations in the Pacific Northwest. A key point made in the NWFSC web article is that the listing of many salmon stocks as threatened and endangered under the ESA in the 1990s coincided with a prolonged period of poor ocean conditions and low salmon

abundance. The SCWUA petition simply repeats verbatim the article on the NWFSC website with no analysis or interpretation of how ocean conditions or other factors (e.g., habitat degradation, hatchery practices, harvest, etc.) influence the abundance of coho salmon populations, or why the SONCC coho salmon ESU should be delisted. The SCWUA petition implies, however, that we did not consider information about the relationship between ocean conditions and salmon abundance when we listed the SONCC coho salmon ESU as threatened under the ESA in 1997. The SCWUA petition does not provide any information on the status (i.e., past or present information on abundance or distribution) of the SONCC coho salmon ESU, any new information or analysis of the threats to the ESU, or any analysis of why the ESU should be delisted based on a consideration of the ESA section 4(a)(1) listing factors.

Previous Reviews of SONCC coho salmon ESU under the ESA

We have evaluated the status of the SONCC coho salmon ESU under the ESA on three separate occasions (62 FR 24588, May 6, 1997; 70 FR 37160, June 28, 2005; and 76 FR 50447, August 15, 2011). As part of each review, we fully considered the effects of ocean productivity on coho salmon populations in this ESU based on the best available information at the time. The following discussion provides an overview of our past listing decisions for this ESU, with special emphasis on how ocean productivity was considered, including consideration of Mantua et al., 1997.

We published our original determination to list the SONCC coho salmon ESU as threatened on May 6, 1997 (62 FR 24588). In this determination, we concluded that coho salmon populations in this ESU were very depressed from historic levels, that anthropogenic threats to these populations were numerous and varied (e.g., habitat degradation, harvest, and

artificial propagation) and that anthropogenic threats likely exacerbated the adverse effects of natural environmental variability caused by drought, flooding and ocean productivity conditions. In our analysis of factors affecting the ESU, we concluded that long-term trends in rainfall and marine productivity associated with atmospheric conditions in the North Pacific Ocean likely had a major influence on coho salmon production, but that it was unclear whether the climactic conditions causing population declines represented a long-term change that would continue to adversely affect coho salmon stocks in the future or whether the conditions were short-term and could be expected to reverse themselves in the near future. Mantua et al. (1997), which described the PDO phenomenon and its relationship to abundance of salmon populations in the North Pacific, was published after our review was completed, and so we did not consider it in our analysis of whether the ESU was threatened or endangered. However, we did consider many other sources of information regarding the relationship between ocean productivity in the North Pacific and salmon population abundance in the analysis of the ESA section 4(a)(1) listing factors that informed our final listing determination. In our review of the effects of ocean productivity and El Nino events on salmon populations, we found that several researchers had suggested mechanisms linking atmospheric and ocean physics and ocean fish populations (e.g., Rogers, 1984; Nickelson, 1986; and several others) and that others had tried to correlate the production and survival of salmon with environmental factors (e.g., Pearcy, 1992; Neeley, 1994). We also cited studies that had reported on the relationship between salmon survival and sea surface temperatures and salinity during the first few months that salmonids are at sea (Vernon, 1958; Holtby and Scrivener, 1989; Holtby et al., 1990) and others that had found relationships between salmon production and sea surface temperatures (Francis and Sibley, 1991; Roger,

1984; Cooney et al., 1993). We also cited studies that had tried to link salmon production to oceanic and atmospheric climate change (Beamish and Bouillon, 1993; Ward, 1993) and reported that Francis and Sibley (1991) and Francis et al. (1992) had developed a model linking decadal-scale atmospheric variability and salmon production. Finally, we cited studies by Scarnecchia (1981) that suggested nearshore ocean conditions during the spring and summer along the California coast may dramatically affect year class strength of salmon populations from this area and by Bottom et al. (1986) that suggested coho salmon populations along the California and Oregon coasts might be especially sensitive to upwelling patterns because the region lacks extensive bays and estuaries such as those found further north.

In response to the 1991 U.S. District Court decision in the Alsea Valley Alliance v. Evans, 161 F.Supp.2d 1154 (D. Or. 2001), appeal dismissed, 358 F.3d 1181 (9th Cir. 2004), and several petitions, we conducted updated status reviews of all west coast salmon and steelhead ESUs, including the SONCC coho salmon ESU, in the early 2000s (Good et al., 2005).

Following completion of this review and development of a new policy for considering hatchery populations in our listing decisions, we published listing determinations in 2005 for 16 ESUs of west coast salmon, including the SONCC coho salmon ESU (70 FR 37160; June 28, 2005). We determined that this ESU continued to warrant listing as threatened. In the proposed listing determination for west coast salmon and steelhead ESUs (69 FR 33102; June 14, 2004), we specifically reviewed marine productivity and its relationship to the abundance of salmon populations. We concluded there was evidence demonstrating that recurring, decadal scale patterns of ocean-atmosphere climate variability in the North Pacific (Mantua et al., 1997; Zhang et al., 1997) were correlated with salmon population abundance in the Pacific Northwest and

Alaska (Hare et al., 1999; Mueter et al., 2002) and that survival rates in the marine environment are strong determinants of salmon and steelhead population abundance. In addition, we recognized that many salmon and steelhead populations in the Pacific Northwest had experienced low ocean survival during a period of unfavorable ocean conditions from approximately 1977-1997 and that there was evidence of an important change in the PDO starting in 1998 that likely resulted in increased salmon survival and population abundance through the early 2000s. Although we found that the relationship between ocean productivity, ocean survival and salmon population abundance appeared to be well established, we concluded that our ability to predict future changes in ocean-climate regimes and their influence on salmon productivity and population abundance was limited. For this reason, we were reluctant to make any assumptions or predictions about the future behavior of ocean-climate regimes or their effects on the distribution and abundance of salmon populations in our listing determinations. Although we recognized that salmon populations would likely respond positively to favorable ocean-climate regimes and increased ocean productivity, we felt such population increases might only be temporary and that they could mask the adverse impacts of underlying threats such as habitat degradation and loss, harvest impacts and adverse hatchery impacts, all of which are recognized as threats to west coast salmon and steelhead ESUs, including the SONCC coho salmon ESU. We concluded our analysis by indicating that our principal concern was not if and how salmon and steelhead populations would respond to favorable ocean conditions, but rather how they would respond during periods of poor ocean survival when their freshwater and estuarine habitat was degraded.

In 2011 we completed a 5-year review of the SONCC coho salmon ESU that concluded

its status had worsened because of continued low population abundance levels, ongoing anthropogenic threats, and other factors including poor ocean conditions (Williams et al., 2011; 76 FR 50447, August 15, 2011). Although the 5-year review did not specifically cite Mantua et al. (1997), it did cite and rely upon Good et al. (2005), which discussed that paper. In addition, we specifically considered the effects of ocean conditions on marine survival and abundance of coho salmon in this ESU as part of our analysis of the ESA section 4(a)(1) listing factors. Our analysis of ocean conditions indicated that marine survival for coho salmon from the Cole Rivers hatchery in Oregon varied substantially between 2000 and 2006. Survival averaged approximately 2.2 percent from 2000 to 2004, but was extremely low for the 2005 and 2006 broodyears (0.05-0.07 percent). We found that strong upwelling in 2007 resulted in better ocean conditions (MacFarlane et al., 2008; Peterson et al., 2010) and that marine conditions were also favorable in 2008 and 2009 (NWFSC, 2011). However, despite the favorable ocean conditions in 2007 and 2008, we also determined that 2005 and 2006 broodyears experienced poor marine survival. We concluded that improved ocean conditions had not resulted in improved marine survival and increased abundance of coho salmon populations as expected, and that poor marine survival had contributed to recent population declines, which were a significant threat to the ESU.

Petition Finding

We carefully analyzed the information in the SCWUA petition and our record associated with past listing determinations for the SONCC coho salmon ESU. Based on this review, we conclude that our listing determinations for the SONCC coho salmon ESU have fully evaluated the relationship between ocean conditions, the PDO, and coho salmon abundance using the best

scientific and commercial data available and that the SCWUA petition does not provide any additional substantial scientific or commercial information that we ignored or did not consider in our listing determinations. The SCWUA petition does not present any additional substantial scientific or commercial information related to whether the SONCC coho salmon ESU is recovered; extinct; or the best scientific or commercial data available when the species was listed, or the interpretation of such data, were in error. Moreover, none of the information in the petition modifies the underlying scientific basis for our original determination to list the SONCC coho salmon ESU or causes us to re-evaluate our analysis of delisting petitions that were previously submitted by the petitioner. Accordingly, we find that the SCWUA petition does not present substantial scientific or commercial information indicating that the petitioned action to delist the SONCC coho salmon ESU may be warranted.

References Cited

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

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

Dated: July 26, 2013.

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

[FR Doc. 2013-18444 Filed 07/30/2013 at 8:45 am; Publication Date: 07/31/2013]