



Mr. D. Robert Lohn
NOAA Fisheries Regional Administrator
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September 13, 2005

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SEP 16 2005

PFMC

Mr. Donald Hansen, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

Delivered via first-class mail, email: pfmc.comments@noaa.gov and facsimile (503)820-2299

RE: Krill management

Dear Mr. Lohn and Mr. Hansen:

Oceana and many others appreciate your attention to the importance of the forage fish, krill. We urge NOAA and the Pacific Fishery Management Council to take the necessary action to ban the commercial harvest of krill. As you know, **krill form the base of the marine food web**. Krill are a keystone forage species for much of the life in the California Current Large Marine Ecosystem, a significant portion of which falls within the Exclusive Economic Zone of the coasts of Washington, Oregon and California. By consuming phytoplankton, krill provide an essential link between primary production and higher trophic levels. These small crustaceans are a crucial food source for juvenile and adult salmonids, spiny dogfish, rockfish, Pacific hake, seabirds, sardine, herring, squid, baleen whales, and many other species.

Removing krill through commercial harvest would upset this balance and have significant and wide-ranging adverse effects. Krill occur in "patchy" distributions associated with upwelling zones. Patchily distributed populations are susceptible to localized depletion, as would occur with a commercial harvest. In addition, bycatch problems in a commercial krill fishery would occur on a micro-scale with macro-level effects. The fine mesh nets needed to sieve krill from the ocean will capture even the smallest larval fish. Additional strain on already taxed populations of overfished groundfish species is risky and unnecessary. The cumulative impacts of a commercial krill fishery would be severe. Pressure on overfished groundfish species, endangered seabirds, and endangered marine mammals would be exacerbated.

We've seen what can happen when krill disappear. Earlier this summer, upwelling currents failed to materialize off the California coast and subsequently so did the life-sustaining swarms of krill. Seabird die-offs were the most immediate reported result, and other ecosystem effects will undoubtedly be discovered. While this particular krill event was environmental in nature, it



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serves as an example of the cascading environmental effects fluctuations in krill biomass can cause and underscores the unnecessary risk a commercial catch would pose.

The Regional Fishery Management Councils have an opportunity to take a holistic ecosystem approach and provide protection for krill throughout U.S. waters. One of the Councils has taken such action. The North Pacific Fishery Management Council has taken action to protect krill and other forage fish in the North Pacific by creating a forage fish species category and banning the directed commercial harvest of krill.

The Pacific Fishery Management Council is discussing several options for krill management. We strongly urge the Pacific Fishery Management Council to take action to ban the development of a commercial directed fishery for krill. We support the adoption of a rule that specifically prohibits directed fishing for the forage fish krill at all times in federal waters of the Pacific. This action is necessary to conserve and manage the forage fish, krill, of the Pacific and further the goals and objectives of the Fishery Management Plans. We look forward to working with you on this issue.

Sincerely,



Jim Ayers
Director, Pacific Region

cc: PFMC members
Mr. Leonard Scardino
Dr. Donald McIsaac

Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220-1384

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SEP 27 2005

PFMC

Re: Request to Protect Krill as a Forage Species

Dear Pacific Fishery Management Council Members,

The West coast of the United States supports some of the world's most important commercial fisheries. These fisheries are made possible by the extremely productive waters of the California Current System off the coast of Washington, Oregon, and California and the Alaska Current in the Gulf of Alaska. Euphausiids, or krill, play a central role in these marine ecosystems. **Krill form a key link between phytoplankton and commercial and recreationally important fish, marine mammals, and seabirds. Most species (including humans) are only one or two feeding levels away from krill, and it is the primary prey of most of the commercial fish, marine mammal, and seabird species of Alaska, Washington, Oregon, and California.** Commercially important species that directly or indirectly depend upon krill include salmon, pollock, rockfish, hake, flatfish, squid, mackerel, sardine, and herring. The combined economic value of these resources exceeds \$5 billion annually.

Krill production in these waters support some of the most diverse fish, marine mammal and seabird communities in the world including 6 species of threatened or endangered marine mammals and 1 species of endangered seabird – all of which either directly or indirectly depend upon krill resources. As a group of fishermen, marine biologists, and conservationists we believe that krill is a trophic key for Pacific Coast ecosystems – for both fished and protected species. In order to effectively protect these important marine resources and the ecosystem upon which they depend, it is critical to protect the integrity and health of krill off the West coast of the United States. **Commercial and recreational fisheries can only recover if the ecosystems upon which they depend are intact.**

In recognition of its importance in marine food webs, krill fishing has been banned in the state waters of Washington, Oregon, and California. Recently the PFMC was asked to consider a similar ban for Federal waters. Based primarily on the advice of NMFS, at the November 2004 meeting, the Council

“directed staff to begin development of management measures to regulate directed fisheries for krill within Council-managed waters. These measures would be incorporated into an amendment to the CPS FMP as described in Option 2 of Options for Controlling Fishing for Krill (Agenda Item H.4.b, November 2004).” *PFMC decisions, November 2004, PFMC website.*

If formally adopted, this option (amending the CPS FMP for krill) could open the door for directed commercial krill fishing in Federal waters. It is not clear why the Council is tentatively adopting option 2 rather than option 3 – designating krill as forage under one or more FMPs and thereby prohibiting fishing for krill. This would a) protect this important forage species for commercially important and protected resources, b) be consistent with ecosystem management goals for the Pacific fisheries, and c) be consistent with the ban established by state regulatory authorities in Washington, Oregon, and California.

The Presidentially-appointed US Commission on Ocean Policy recommended that marine resources should managed on an ecosystem basis “to reflect the relationships among all ecosystem components,

including humans and nonhuman species and the environments in which they live.” (US Oceans Commission Report – Executive Summary, September 2004). Protecting krill resources is the most direct means to achieve such a policy. While fully protecting krill will have no economic impact on existing commercial or recreational marine resources, the initiation of a fishery may have severe impacts. While not particularly controversial, fully protecting krill will help preserve and maintain the health of the marine ecosystem upon which commercial and recreational users depend.

In its April 2005 meeting the Council:

“reviewed a progress update from National Marine Fisheries Service (NMFS) Southwest Region (SWR) on a proposed course of action for management of krill in the West Coast Exclusive Economic Zone and National Marine Sanctuaries under the auspices of the Coastal Pelagic Species FMP. The Council approved a draft outline for an alternatives analysis. The Council will provide guidance on a preferred schedule at the April meeting following a progress update from NMFS SWR on the alternatives analysis.” *PFMC decisions, March 2005, PFMC website.*

This decision resulted in the issuing of a Statement of Work for the development of a NEPA-consistent Alternatives Analysis for krill management (Agenda Item F.1.a NMFS Report 2 April 2005). It is not at all clear to us how the Council has decided to tentatively move forward with Option 2 of the Options for Controlling Fishing for Krill (Agenda Item H.4.b, November 2004) before the Alternatives Analysis that should provide the information upon which to base any management decision has been completed. This concern was underlined by PFMC and NMFS moving forward with a meeting that was held on June 6, 2005 at the Southwest Fisheries Science Center to:

“discuss the status, distribution, existing data sets and potential stock assessment methods, and management research needs for these two species in the EEZ. The Pacific Fisheries Management Council hopes to develop a program to regulate potential krill fishing in federal waters under the Magnuson-Stevens Act.” *Summary of a Meeting on California Current Krill off the U.S. West Coast, June 6, 2005. NMFS Southwest Fisheries Science Center, Large Conference Room.*

We strongly feel that Option 3 is the better management approach, and believe that any actions to develop a stock assessment analyses – tentative or otherwise – for krill management should not be made until the Alternatives Analysis described in Agenda Item F.1.a NMFS Report 2 April 2005 has been completed.

Specifically, as a group of researchers, commercial stakeholders, and non-government organizations, we would like to urge the PFMC to fully consider and adopt Option 3 (protect krill as a forage species) as the approach that a) protects coastal pelagic ecosystems, b) insures the long-term sustainability of coastal pelagic commercial fisheries, c) assures the protection and recovery of threatened or endangered marine species, d) is consistent with management policies already adopted by Washington, Oregon and California State regulatory authorities, and e) is a comparatively painless way for the Council to proactively enact an ecosystem-based management approach to marine resources . Thank you for your consideration.

Sincerely,

Donald A. Croll
Associate Professor
University of California, Santa Cruz

Leon Panetta
Director
Panetta Institute

Zeke Grader
Executive Director
Pacific Coast Federation of Fishermen's Associations

Susan Williams
Director, Bodega Marine Laboratory
University of California

Tim Eichenberg
Acting Director
Pacific Regional Office
The Ocean Conservancy

Jennifer Bloesser
Science Director
Pacific Marine Conservation Council

Rod Fujita
Scientist
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Caroline Karp
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Gary Griggs
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Roy Thomas
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Carmel River Steelhead Association

Darus Peake
Chairman
Oregon Salmon Commission
And
Commissioner President
Port of Garibaldi, Oregon

Mike McCorkle
President
Southern California Trawler's Association

Steph Dutton and Heidi Tiura
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Dan Wolford
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