



7 October 2005

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

Krill Harvest Ban Option 3 Endorsed

At the November 2004 meeting the Council initiated action to protect krill: “Based primarily on the advice of NMFS, 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* (http://www.pcouncil.org/bb/2004/1104/nmfsrpt_h4b.pdf). The Council also included a specific alternative for analysis that would prohibit directed krill fisheries within waters of West Coast National Marine Sanctuaries.”

<http://www.pcouncil.org/decisions/1104decisions.html>. We appreciate and applaud the Council’s intent to protect krill.

However we strongly disagree with the Council’s choice of Option 2 as the means to achieve that protection. Option 2 in fact creates the legal structure leading to the establishment of a krill fishery. It will lead to the removal of krill from the ecosystem, and will threaten the viability of many recreationally important fisheries. Rather than protect krill, it likely will have exactly the opposite effect. We must reject Option 2 as a viable option.

Option 3 (http://www.pcouncil.org/bb/2004/1104/nmfsrpt_h4b.pdf) is much more likely to achieve the desired protection, by designating krill as forage under one or more FMPs and prohibit, outright, fishing for krill. This designation would protect this important forage species for recreationally important fisheries. This option is much more direct and specific (than Option 2) in its intent and in its actions. Rather than encourage and then attempt to regulate an emergent krill fishery (as in Option 2) this Option would ban development of a krill fishery altogether. This is a much stronger and much preferred approach; consistent with the intent, desires, and actions of each of the three Pacific States, and with the principles of ecosystem management.

The Coastside Fishing Club is greatly concerned about the negative impacts of possible emergent krill fisheries inside the Pacific EEZ. We cannot state strongly enough that krill are an important forage species for our recreational fisheries, and deserving of the highest measures of protection. Any action that threatens to reduce the availability of krill, by any amount, is a direct threat to recreationally important fisheries, including salmon and rockfish. In an era where so few Klamath River salmon constrain an entire fishery, removal of forage fish will only exacerbate the problem.



Coastside Fishing Club

666 Brighton Road, Pacifica, CA 94044

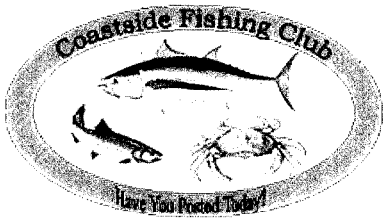
In an era where a few critical rockfish stocks constrain millions of recreational fishermen, an emergent krill fishery will have devastating impacts.

The ecosystem implications of an emergent krill fishery are immense. These animals serve as an essential food source for fish, many marine mammals including whales and seals, and seabirds. Specifically they are an essential food source for Canary Rockfish and Bocaccio, two fish stocks that control nearly all Pacific Coasts recreational rockfishing, and for dozens of other rockfish species. (Love, et al, The Rockfishes of the Northeast Pacific, 1989) Krill occupy a unique niche in the ocean's ecology. "Feeding on phytoplankton and small zooplankton, krill populations expand and become a critical link in many marine systems. Krill convert energy from the primary producer level into a form that is useable by animals in the upper levels of the marine food web. Krill often are referred to as "keystone" species because they ... are a major food source for salmon... rockfish, seabirds, and a myriad of lesser known species The main reason humpback and blue whales visit the (Cordell) Bank in the summer is to fatten up on krill to prepare for the rigors of the coming year.... Krill are a critical source of energy for seabirds, penguins, seals, sharks, octopus, and many species of whales." (Dan Howard, *Krill in Cordell Bank National Marine Sanctuary*.) Removal of any amount of such a critical element at the base of the food chain will likely have impacts on the entire health of the ocean.

An emergent krill fishery cannot be managed as a single species, whereby an MSY can be computed on the basis of the survivability of the species; rather this fundamental element of the food chain must be viewed as a critical element of the entire ocean ecosystem. Ecosystem management is not a catch phrase for krill, but an absolute necessity. While a management error relating to the top predators (most commercial and recreational fishes) may have dire implications for that fishery, the effects may largely be confined to that fishery. However a management error relative to krill may have dire effects relative to the health of the entire ocean ecosystem and to all of the commercial and recreational fisheries. We cannot afford to take that risk.

The lack of data on the present and historical biomass of krill, on its overall role in the ecosystem, on its significance to specific recreational fisheries, and on the likely impacts of an emergent krill fishery, create a situation in which attempts to manage an emergent Krill fishery are certain to lead to disaster: a disaster that is likely to have immense and negative impacts to the entire ecosystem of the Pacific fisheries. "Scientific management of the krill fishery requires that we know a great deal about the biology of krill. To date it has proved extremely difficult to study these oceanic animals since they will not adapt well to laboratory conditions" (Dr. Stephen Nicol, *Time to Krill*.) Management requires data, and an ability to react to, and to control potential outcomes. In the absence of data, control is not possible. In today's data poor environment, the only appropriate action is to create an outright ban on a krill fishery, not to encourage an emergent fishery and then attempt to manage it.

Specifically, as a faction of the recreational fishing community, the Coastside Fishing Club urges the PFMC to fully consider and adopt Option 3 (protect krill as a forage species within an existing FMP – such as Salmon and/or Groundfish) as the approach to protect oceanic ecosystems, ensure



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the long-term sustainability of coastal fisheries, assure the protection and recovery of threatened or endangered marine species, maintain consistency with management policies already adopted by Washington, Oregon and California, and lead the Council towards adoption of an ecosystem-based management approach to marine resources.

The Coastside Fishing Club is an all volunteer, California non profit organization with more than 10,000 members, dedicated to improving the recreational fishing experience for all Californians.

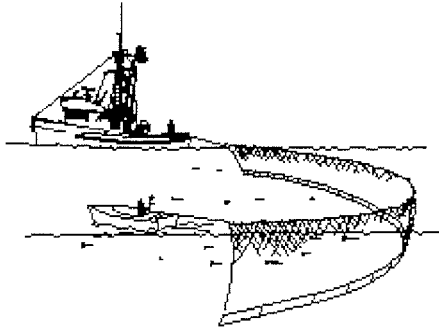
Dan Wolford

Orig /s/ Dan L Wolford

Science Director
Coastside Fishing Club

Copies to

Mike Burner
John DeVore
Chuck Tracy
Carolyn Porter
Sandra Krause
Bob Franko
Darrell Ticehurst
Chris Hall
Mike Giraudo
Ben Sleeter
John Vietor



CALIFORNIA WETFISH PRODUCERS ASSOCIATION

Representing California's Historic Fishery

October 24, 2005

Dr. Don McIsaac, Executive Director
Mr. Don Hansen, Chair
Members of the Pacific Fishery Management Council
7700 NE Ambassador Place #200
Portland, OR 97220-1384

RE: Agenda Items D.1.d SARDINE STOCK ASSESSMENT and HARVEST GUIDELINE and
D.2.d ALTERNATIVES FOR KRILL MANAGEMENT

Dear Dr. McIsaac, Chairman Hansen and Council members,

These comments are submitted on behalf of the California Wetfish Producers Association, which represents the majority of wetfish processors and fishermen in Monterey and southern California. We appreciate this opportunity to present our views and concerns regarding the CPS agenda items noted above.

Re: D.1.d – Pacific Sardine Stock Assessment and Harvest Guideline, we fully support the statement of the CPS Advisory Subpanel, with emphasis on the underlined portions:

The CPSAS supports the recommended preliminary HG, which is based on the harvest formula, defined in the Coastal Pelagic Species (CPS) Fishery Management Plan (FMP). However, the CPSAS voiced unanimous and strong concern that research on Pacific Northwest (PNW) sardine has not been adequately incorporated in the model to date. Furthermore, additional research is needed to evaluate the migration rates, spawning contribution, and relationship of PNW sardine to the spawning biomass as a whole.

The CPSAS is encouraged about plans for a synoptic survey of the sardine resource in April 2006. The CPSAS recommends that data collected during research surveys in the PNW be analyzed and included in the assessment model for the next year's stock assessment.

And:

The CPSAS recommends the Council encourage National Marine Fisheries Service to continue to fund comprehensive annual CPS research, including the survey off the PNW and explore a possibility to encourage similar surveys in Canada and Mexico.

The CPSAS continues to strongly believe that coordinated international management of CPS fisheries is essential to avoid the potential for coastwide overfishing. Moreover, the CPSAS also agrees that inclusion of complete Mexican catch statistics is vital to the CPS assessment process.

We would greatly appreciate the Council's continued appeals to the NMFS and the State Department, stressing the critical importance of trilateral sardine research and transboundary cooperative management to avoid overfishing the Pacific sardine resource.

Re: D.2.d. – Alternatives for Krill Management

As a member of the Coastal Pelagic Species Advisory Subpanel, I supported the CPSAS statement presented to the Council on this issue. However, because I'm unable to attend the November Council meeting in person, I appreciate this opportunity to offer the following clarification of the CPSAS statement from the perspective of CWPA and California's wetfish industry.

First, CWPA members agree that krill is critically important to the ecosystem as forage for other marine life, and in order to avoid potentially negative effects to other species, the Council should explore measures to protect krill from overharvest. However, we're concerned that implementing a ban on krill fishing through the CPS Fishery Management Plan, with scant information on the resource, could set a potentially damaging precedent for other CPS fisheries.

We understand that, to date, the Council has received no proposals to begin a krill fishery off the west coast. We further understand that all three west coast states have longstanding prohibitions against landing krill in any west coast port. Thus the recent interest in regulating krill is driven by a fear that a fishery could develop at some future time, through a loophole in the "national" list of fisheries at 50 CFR 600.725 that provides a general category of "fishing with trawl gear" for unspecified species among the fisheries listed by NMFS for waters under the jurisdiction of the PFMC. Thus, someone wanting to engage in fishing for krill with trawl gear (the principal gear used in other krill fisheries) off the West Coast would not need any permits from NMFS and, as with a factory-trawl catcher-processor vessel, could avoid landing the catch on the west coast.

We understand and support the Council's interest in acting to protect krill from the unintended consequence of unregulated fishing. However, we also agree with and support the concern expressed by the CPSAS re: diverting funding and resources to krill management at a time when considerable work and research on other CPS, specifically sardine, have been repeatedly requested and are currently under-funded and incomplete.

If there could be some benefit to including krill within the CPS FMP, especially with regard to providing additional resources to enhance research on the complex of species including sardine, we could support the proposal to amend the CPS FMP to include krill. However, we also agree with and reiterate the CPSAS recommendation that krill be included under a third category of management rather than as an "active" or "monitored" species. This third category, such as a research category, would need to be created.

Our first preference, however, is to investigate other examples of alternative categories or strategies that may have utility for krill management on the West Coast.

Perhaps the most direct and immediate action would be to close the existing loophole by amending the list of fisheries to clarify that the general category of "fishing with trawl gear" for unspecified species does not include krill. Then anyone wanting to engage in krill fishing with any other gear (e.g., purse seine) would be required to notify the Council 90 days in advance. The Council would have opportunity at that time, based on real, rather than hypothetical, interest, to advise NMFS on how to control the activity.

We have read with interest the public comment submitted in support of prohibiting fishing on krill by listing it as forage in other FMP-managed fisheries. While we appreciate the concern expressed for krill's importance in the ecosystem, we also agree with the conclusion reached in the alternatives analysis that many species could be so categorized – in fact, virtually every organism in the marine environment is forage for something else. We suggest that perhaps the most direct and immediate approach is to clarify the list of fisheries, which would buy additional time to further investigate the best solution to regulate krill.

Thank you very much for your consideration of these comments.

Best regards,

Diane Pleschner-Steele
Executive Director



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October 25, 2005

Delivered via facsimile: (503) 820-2299 / (206) 526-6426 and email:
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Seattle, WA 98115-0700

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

RE: Agenda Item D-2: Alternatives Analysis For Krill Management

Dear Mr. Lohn and Mr. Hansen:

Oceana urges the Pacific Fishery Management Council and NOAA Fisheries to continue to pursue the goal of protecting the health of the ecosystem by prohibiting directed fishing for all krill in the Pacific EEZ. The PFMC has demonstrated their commitment, authority and responsibility to take this important conservation action. Prohibiting directed fishing for all krill in the Pacific EEZ would be consistent with the principles of ecosystem-based management, as well as actions taken by West Coast member states and the Alaska region.

In June 2004, the PFMC acknowledged the role of krill in the marine environment, "initiated consideration of prohibiting [emphasis added] directed fisheries for krill" and directed Council staff to "develop information on the procedural mechanisms for prohibiting fishing for krill and other forage species within the Pacific coast EEZ."¹ The draft alternatives analysis does include an alternative that would meet the Council's requested analysis of prohibiting directed fishing for krill species in the Pacific EEZ. The other management options leave the door open to directed krill fisheries and are fraught with peril. Selection of any alternative that permits the pioneering of a new fishery on a keystone species would require a full-blown Environmental Impact Statement, a more

¹ McIsaac, D.O. December 16, 2004. Letter to Mr. McInnis and Mr. Fox, NMFS. RE: The process for developing restrictions on the directed harvest of krill within the Pacific coast Exclusive Economic Zone. Pacific Fishery Management Council. Agenda Item G.2.a. March 2005.



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Mr. D. Robert Lohn
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time-consuming, complex, and expensive path than the one the Council is currently on to act precautionarily to preclude a fishery.

As you are aware, krill act as “keystone species” in the California Current Large Marine Ecosystem because of the essential role they play as prey for a wide diversity of marine life. Krill are a major food source for many fishes including rockfish, hake, herring, threatened and endangered salmon, plus seabirds and endangered baleen whales. Krill populations exhibit great natural variability in abundance and areas of high krill density are patchily distributed. This increases the potential for any directed fishery to cause localized depletions of krill and krill-dependent marine life. When krill disappear, as they did last summer when upwelling currents failed to materialize, there are serious and direct consequences. Seabird die-offs were the most immediately reported result, and other ecosystem effects will undoubtedly be discovered.

The only responsive management approach in the alternatives analysis is outlined in section 2.3.1, which would amend prohibit directed fishing for two krill species throughout the Pacific EEZ. The alternatives analysis finds this approach would provide the maximum protection for krill and krill-dependent predators, ensuring natural levels of prey for endangered marine life such as whales and commercially important fish. The analysis states that this alternative would be “relatively simple to carry out,” and that it is “precautionary” and “consistent with West Coast states’ laws.”² Additional approaches to accomplish the same objective worthy of consideration would be revision of the list of fisheries (50 C.F.R. § 600.725), or preparation of a generic amendment to designate all krill as a “prohibited species.”

The alternatives analysis highlights the many difficulties associated with managing a krill fishery. The analysis notes the extreme variability in abundance of krill, the lack of standardized surveys and the poor available information on krill distribution coast wide. Further, the analysis highlights the critical link krill provide in the food web and the certain negative impacts a fishery would have on krill-dependent predators, commercial fish and squid and federally protected marine mammals and birds. Recognizing these facts, the Coastal Pelagic Species Management Team stated: “Given the lack of baseline scientific information on abundance and stock structure, and the recognized importance of krill to many marine predators, the CPSMT agrees that management measures to prevent development of directed krill fisheries would be prudent.”³

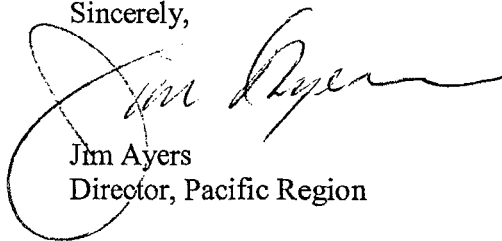
² NMFS 2005. Alternatives Analysis. Management of Krill Fishing off the U.S. West Coast, at 76.

³ CPSMT Report. October 17, 2005. Pacific Fishery Management Council. Agenda Item D.2.c. November 2005.

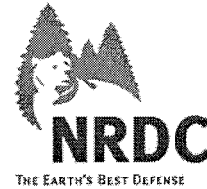
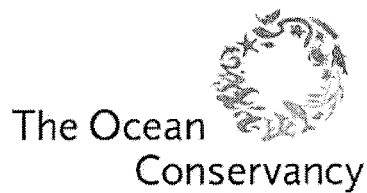
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While the alternatives analysis looks at several options for managing krill, the only responsive and responsible option is to prohibit directed krill fishing throughout the federal waters of the Pacific EEZ. We urge the Council to select the alternative that prohibits fishing for all krill in the Pacific EEZ as the preferred management approach.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Ayers", written over a large, loopy circular flourish.

Jim Ayers
Director, Pacific Region



October 25, 2005

Mr. Donald K. Hansen
Chair, Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 200
Portland, OR 97220

Dear Chairman Hansen and Council Members:

On behalf of the Natural Resources Defense Council and The Ocean Conservancy and our more than one million members and activists, we write to continue our support a prohibition on krill harvesting in the EEZ off of California, Oregon & Washington. We ask the Council to adopt a ban by designating krill as a biological component of EFH or by developing a forage fish amendment.

We see absolutely no justification for developing a krill fishery, particularly when so many state and federal resources are focused on rebuilding species which feed on krill. We strongly disagree with the Council's approach of designating krill as a management unit species under the Coastal Pelagic Species Fishery Management Plan (CPS FMP). Any action the Council takes on krill should be done with the sole goal of prohibiting krill fishing. Placing krill into a category generally reserved for target species sends the wrong message and forces the Council into the convoluted path of designing measures to ensure a species produces maximum sustainable yield, when in reality krill should yield no landings at all.

The November 2004 NMFS report to the Council on krill states that amending the CPS FMP (then Option 2) "would be relatively straightforward, though it also would take some dedication of Council resources". We recognize that any FMP amendment takes time and resources, but in reviewing the current Alternatives Analysis it would appear that this is an understatement. Pursuing a krill ban through EFH amendments, or a forage fish amendment, do not appear to require any more time or resources than will need to be dedicated to figuring out measurable overfishing criteria or EFH for krill.

More importantly, EFH or a forage fish amendment approach are more appropriate tools for the task at hand. Krill truly is an essential biological component of the ecosystem and an important forage species. We urge the Council to recognize this by rejecting the proposal to make krill a management unit species under the CPS FMP.

Sincerely,

Kate Wing
NRDC

Kaitilin Gaffney
The Ocean Conservancy