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Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

Los Angeles, February 6, 2015

**RE:**

Dear Chair Lowman and Council Members,

I am writing as the President of the Ocean Conservation Society, a California nonprofit organization responsible for conducting marine mammal research and educational programs leading to the conservation of our oceans. Whales and dolphins are among the world's fondest sea creatures, and deserve to be protected as they are admired. Since our inception in 1998, we have worked on various projects and campaigns that promote the conservation and protection of ocean ecosystems and their inhabitants. Ocean Conservation Society works on multiple fronts, from intensive scientific study to stakeholder education and coordination. We understand the importance of discovery and are committed to collaborating with other researchers and organizations to establish a more complete picture of the marine environment.

At its upcoming March meeting, I strongly support the Council's final action to protect currently unmanaged forage fish. The Council has already made great strides toward establishing regulatory protections, and I applaud its persistent efforts to incorporate ecosystem principles into fishery management decisions. Anchovies, sardines, herring, krill and other kinds of forage fish are the primary food source for marine mammals. For instance, humpback whales, which are seasonal visitors to the California coast, can consume anywhere from 4000 to 6000 pounds of forage fish per day. Because marine food webs are highly complex, multiple levels of protection will be necessary to ensure that all species can thrive. The Council's decision on a final preferred alternative that designates forage fish as ecosystem component species and prohibits new directed fisheries without robust prior review will be a momentous step forward.

Being closer to the bottom of the food chain does not make forage fish any less important than the species at the top.

Establishing basic, precautionary management for forage fish is vital in the transition to ecosystem-based fishery management. In doing so, the Council will fulfill the first initiative of its visionary Fishery Ecosystem Plan, which gained unanimous approval in 2013. By protecting forage fish as a key link in the marine food web, the Council can help to ensure that future Ocean Conservation Society studies reveal a flourishing ocean community.

Thank you for your ongoing commitment to a vibrant and productive Pacific Ocean.

Sincerely,

*Maddalena Bearzi Saylan*

Maddalena Bearzi  
Ocean Conservation Society, President

February 9, 2015

Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

**RE: Agenda Item E.4 - Protecting Unmanaged Forage Fish**

Dear Chair Lowman and Council Members:

Oceana is writing in continued support of the Pacific Fishery Management Council's Ecosystem Initiative 1 to protect currently unfished and unmanaged forage species. At its September 2014 meeting, the Council confirmed its preliminary preferred alternative, Alternative 2, which would amend all four of the Council's Fishery Management Plans (FMPs) "to bring unmanaged forage species into the FMPs and to prohibit future directed commercial fisheries for those species from developing without scientific information on harvest sustainability and potential ecological effects of the fisheries."<sup>1</sup> At your March 2015 meeting, we ask that the Council take final action to adopt Alternative 2. In this letter we also provide specific comments on the draft FMP amendment language and draft Council Operating Procedure (COP) 24.

Protecting forage species from the development of new fisheries is consistent with the forward thinking and precautionary action of the PFMC in 2006 to protect all species of krill throughout the U.S. West Coast EEZ. Like the action to protect krill, this is essential for the long-term health of the California Current ecosystem and for the sustainability of the existing fisheries whose target species depend on a healthy prey base.

The draft Environmental Assessment (EA) for this action describes the ecological importance of the forage species being considered for protection--round and thread herring, mesopelagic fishes, Pacific sandlance, Pacific saury, Silversides, Osmerid smelts and Pelagic squids (other than Humboldt squid).<sup>2</sup> As the EA describes, these important forage species are prey for numerous managed species including tunas, salmon, groundfish and coastal pelagic species. They are also ecologically important as prey for whales, elephant seals, sea lions, dolphins and seabirds. Importantly, forage species like those under consideration in this action have a greater indirect monetary value as prey than their direct value in commercial forage fish catch. As the Lenfest Forage Fish Task Force found, globally, the supportive value of forage fish to other commercial

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<sup>1</sup> McIsaac, D.O., (Executive Director, PFMC) Letter to reviewers of Draft FMP Amendment for Unfished and Unmanaged Forage Fish Species. October 21, 2014. Located at: Pacific Fishery Management Council, Informational Report November 2014.

<sup>2</sup> PFMC. 2014. Comprehensive Ecosystem-based Amendment 1: Protecting unfished and unmanaged forage fish species of the U.S. portion of the California Current Ecosystem. Draft EA. Agenda Item H.1a Attachment 1. September 2014.

fishing catch is twice the value of directed forage fish fisheries. What is more, the supportive value of forage fish is even greater in upwelling ecosystems like the California Current.<sup>3</sup>

The process of getting to this final action has been nothing short of deliberate, open and transparent. In June 2012, the Council declared that for currently unexploited forage fish, the “objective is to prohibit the development of new directed fisheries on forage species that are not currently managed by our Council, or the States, until we have an adequate opportunity to assess the science relating to the fishery and any potential impacts to our existing fisheries and communities.”<sup>4</sup> Subsequently, in April 2013, the Council adopted its first ever Fishery Ecosystem Plan for the California Current Large Marine Ecosystem, launched “Ecosystem Initiative 1,” and in September 2013 the Council adopted a specific list of unmanaged forage species being considered for protection under this action. In April 2014 the Council unanimously adopted a revised purpose and need statement as well as a Preliminary Preferred Alternative to protect forage species as part of what is now the Comprehensive Ecosystem-Based Amendment 1 for protecting unfished and unmanaged forage species.<sup>5</sup> Then the Council confirmed its preliminary preferred alternative in September 2014 to protect these forage species. Now, at the March 2015 meeting, the Council is poised to take final action and we request that you do so by adopting Alternative 2.

### **Comments on the draft FMP Amendment Language**

#### **1. Prohibited Harvest for Shared Ecosystem Component Species**

The Council’s preliminary preferred alternative would place the seven currently unmanaged forage species/ groups in each of the Council’s four Fishery Management Plans as “shared ecosystem component [EC] species” and prohibit directed harvest, while allowing for small amounts of the species to be taken as bycatch. The draft fishery management plan amendment language for each of the four plans states the amendment:

prohibits future development of commercial fisheries for the suite of EC species shared between all four FMPs (Shared EC Species) until and unless the Council has had an adequate opportunity to both assess the scientific information relating to any proposed directed fishery and consider potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem.<sup>6</sup>

We support the addition of this language as it is consistent with the Purpose and Need statement for this action adopted by the Council at its April 2014 meeting and the objective of the Council adopted in June 2012.

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<sup>3</sup> Pikitch, E., Boersma, P.D., Boyd, I.L., Conover, D.O., Cury, P., Essington, T., Heppell, S.S., Houde, E.D., Mangel, M., Pauly, D., Plagányi, É., Sainsbury, K., and Steneck, R.S. 2012. Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs. Lenfest Ocean Program. Washington, DC. 108 pp.

<sup>4</sup> PFMC. 2012. Agenda G.1.d. Supplemental REVISED Final Council Action. June 2012

<sup>5</sup> PFMC. 2014. April 2014 Council Meeting Decision Summary Document.

<sup>6</sup> See draft FMP Amendment language for CPS Amendment 15, Groundfish Amendment 25, HMS Amendment 3 and Salmon FMP Amendment 19. Pacific Fishery Management Council, Informational Report, November 2014.

## 2. Incidental Catch Allowance for Shared EC Species

The Coastal Pelagic Species FMP amendment includes a new section allowing for incidental catch of shared EC species. First, we recommend this section be added to each of the four FMPs, not just the CPS plan. The other amendments are silent on this issue. Second, we recommend changes to this language to indicate that only very low levels of bycatch are allowed, and to clarify that the bycatch is only allowed consistent with federal regulations. Third we recommend monitoring and periodic review of shared EC species bycatch. Our recommended language, below, is underlined.

“De minimis or trace amounts of shared EC species could continue to be taken incidentally, to the extent consistent with applicable law, without violating Federal regulations, unless regulated or restricted for other purposes, such as with bycatch minimization regulations for eulachon recovery. The targeting of Shared EC species is prohibited. Shared EC species bycatch will be monitored and periodically reviewed to ensure such take does not exceed trace amounts.”<sup>7</sup>

This change would be consistent with the Council’s April 2014 and September 2014 motions to allow for *de minimis* amounts of bycatch, without specifying an exact threshold. This language would also be consistent with the NMFS final rule implementing the prohibition on the directed harvest of krill but allowing for “*de minimis*” levels of bycatch.<sup>8</sup> The main point is to articulate that directed harvest is prohibited and only very low levels of bycatch are allowed, while indicating that any significant or persistent increases in bycatch will be reviewed and scrutinized by the Council.

## 3. Jacksmelt

The Council requested comments specific to jacksmelt, noting that jacksmelt are an existing EC species in the CPS FMP and that they are also proposed for inclusion as shared EC species as a member of the Silverside family. We agree with and support the removal of jacksmelt from the existing EC species category in the CPS FMP in recognition of their inclusion in the shared EC species list as a Silverside. Doing so will avoid duplication, it will avoid confusion among the different FMPs as to the status of jacksmelt, bycatch will continue to be monitored, and it will provide for the conservation and management of jacksmelt as a shared EC species.

### **Comments on draft Council Operating Procedure 24 – Protocol for Consideration of Exempted Fishing Permits for Shared Ecosystem Component Species**

Adoption of Alternative 2 by the PFMC would prohibit commercial harvest on the suite of identified shared EC species until and unless the Council has had the opportunity to assess the

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<sup>7</sup> PFMC Draft FMP Language for Public Review (*supra* note 1), modifying ‘Incidental catch allowance for Shared EC species’, at page 4.

<sup>8</sup> 74 Fed Reg. 33372, 33373 (July 13, 2009). NMFS “recognizes that *de minimis* or trace amounts of krill may be retained by fishermen while targeting other species; such inadvertent action is not intended to be the subject of this prohibition.”

science relating to the directed fishery and until the Council has given consideration to the potential impacts to existing fisheries, fishing communities and the greater marine ecosystem. Thus any experimental fishing for a shared EC species would require an exempted fishing permit (EFP) and any new fishery would require an FMP amendment. The draft COP 24 outlines the process for an EFP and the considerations that will be part of any EFP review. We offer the following recommended changes to the EFP protocol.

1. Section A.1, Submission Protocol. Clarify that the Council and its advisory bodies “will” or “shall” review EFP proposals rather than the current language, “should” review. Also, clarify that the public will be given the opportunity to review and comment on EFP proposals.
2. Section B.1.c, Proposal Content. Change “Council-managed resources” to “Council-managed resources and other federally managed resources,” in order to cover things like ESA-listed species and marine mammals that are important for conservation and management but not necessarily directly managed by the Council.
3. Section B.2.h. Alter the last phrase to read: “description should include harvest and take estimates of overfished species and protected species;” This is important because the “harvest” of most protected species is not legal.
4. Section C.3.b.ii: Strike the word “other” in front of “ESA-listed species” because the preceding species groups in that list are not necessarily ESA-listed.
5. Section D.1, Other considerations: The way this is currently worded, it could be interpreted to be an exclusive list of the grounds on which an EFP candidate of applicant could be denied a future EFP permit. In other words, unless they’ve been convicted of a fishing violation or assessed a penalty, they could not be denied a permit. One way to fix this possible misinterpretation is to add a subsection 6 under Section C that says “An EFP permit may be denied if it is determined that the application fails to satisfy any of the considerations or required content listed above” and then adding the word “also” to D.1 – as in, “EFP candidates or participants may also be denied future EFP permits...”

Thank you for advancing the conservation of forage species and ecosystem-based fishery management. Please take final action by adopting Alterative 2 and amend the draft FMP and COP 24 language accordingly as described in this letter.

Sincerely,



Ben Enticknap  
Pacific Campaign Manager and Senior Scientist

February 9, 2015

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
1100 NE Ambassador Place, #101  
Portland, OR 97220

**RE: Agenda Item E.4 (Unmanaged Forage Fish Protection FPA)**

Dear Chair Lowman and Council Members:

Thank you for the opportunity to comment on the important role of forage fish in Ecosystem Based Management of our Pacific waters, and on the Pacific Fishery Management Council's work to protect and conserve this role.

The Association of Northwest Steelheaders, with 1,600 members in Oregon and Washington, has a long and broad history of protecting and enhancing sport fisheries since it was founded in 1960. While our members spend thousands of volunteer hours improving habitat and opportunity in our inland waters, we recognize the importance of marine forage fish in providing robust returns of salmon and steelhead.

We applaud the Council for your consideration of the sport fishing community's interests in protecting unmanaged forage species and helping to ensure adequate prey for the upper levels of the food web.

We fully support incorporating unmanaged forage fish as Ecosystem Component species into each of the Council's existing fishery management plans, prohibiting new directed fisheries without rigorous review and management measures being in place beforehand, and allowing limited bycatch in existing fisheries. This will ensure that unregulated directed fisheries for these forage species do not develop while existing fisheries are not negatively impacted.

We ask that the Council finalize these protections at its March meeting by adopting a final preferred alternative that prohibits new directed fisheries for these forage species without a full analysis. In doing so, the Council will acknowledge the vital role these species play in the marine food web and ensure that role is maintained should fisheries for these species be considered in the future.

In March, the Council should take this last step toward fulfilling its goal of prohibiting new forage fisheries until it can evaluate how directed harvest would affect existing fisheries; it should do so by incorporating forage fish into each of its fishery management plans as Ecosystem Component species with management measures that protect their vital role in the ecosystem.

Thank you for your exemplary work to maintain a healthy and productive Pacific Ocean.

Sincerely,



Bob Rees  
Executive Director

Pacific Fisheries Management Council  
Dorothy M. Lowman, Chair  
7700 N.E. Ambassador Place, Suite 101  
Portland, Oregon 97220-1384

February 10, 2015

RE: Agenda Item E.3. Ecosystem -- Unmanaged Forage Fish Protection Final Preferred Alternative (FPA)

Dear Chair Lowman and Council Members:

Audubon Washington and Audubon chapters across Washington would like to thank you for adopting the Fishery Ecosystem Plan in 2013, and your continued efforts to see the plan implemented. We were pleased with the Council's support of the Ecosystem Trophic Pathway – Option 2.2.1 at your April 2014 meeting in Vancouver, Washington, and the Council's decision to draft amendatory language to designate unmanaged forage fish as ecosystem component species at your September 2014 meeting. The decision to incorporate currently unmanaged forage fish as ecosystem component species within each of the Council's existing Fishery Management Plans recognizes the clear value that forage fish hold in the marine ecosystem.

During your upcoming March meeting in Vancouver, Washington, Audubon encourages the Council **take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.** In combination, these actions will ensure that existing fisheries minimize impacts to unmanaged forage fish and prevent unregulated directed fisheries for these forage species from developing.

Audubon recognizes the value of forage fish to seabirds and other marine life and is concerned about the degree to which overfishing of forage fish species has contributed to the decline of seabirds around the world. Not only do seabirds require substantial quantities of prey for survival and reproduction, they are extremely sensitive to changes in prey abundance<sup>1</sup>. As noted in the Ecosystem Working Group's March 2014 report, "Ecosystem Initiative 1: Protecting Unfished and Unmanaged Forage Fish Species," under subsections 3.2.1 through 3.2.7 of the report **each and every unmanaged forage fish group serves as prey for seabirds**<sup>2</sup>. For example, as the report indicates at 3.2.3, some of the most recognized seabirds here in the Northwest are known to subsist substantially on sand lance, including the Rhinoceros Auklet and the Marbled Murrelet<sup>3</sup>.

Audubon Washington is working together with our Audubon counterparts in Oregon, California and Alaska to help facilitate the protection of marine birds and their forage fish food resources at the flyway-ecosystem scale. As such, Audubon Washington supports fisheries policies and management actions that recognize the value of forage fish in the California Current Ecosystem

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<sup>1</sup> Cury, P. M. et al. (2011). Global Seabird Response to Forage Fish Depletion – One-Third for the Birds. *Science* 334 : 1703-1706

<sup>2</sup> Available at: <http://www.pccouncil.org>.

<sup>3</sup> Gutowsky, S. et al. (2009). Concurrent declines in nestling diet quality and reproductive success of a threatened seabird over 150 years. *Endangered Species Research* 9: 247-254.

(CCE). Audubon scientists from Alaska and California collaborated with scientists and local communities to identify and designate over 200 offshore marine Important Bird Areas (IBA) along the Pacific Flyway that provide benefits for over 150 species and 33 million seabirds between Barrow, Alaska and Baja California.<sup>4</sup> Additionally, Audubon Washington oversees a system of 75 IBAs across Washington including 10 coastal IBAs that have been designated to protect the foraging and nesting habitats that are vital to seabirds and other marine birds in this portion of the California Current Ecosystem.

Audubon chapters in Washington have worked on a wide range of coastal stewardship issues, from oil spill prevention and preparedness to education and engagement around marine birds and nearshore habitat. In addition, many of our chapter members volunteer in citizen science efforts designed to advance our understanding of marine bird population trends and the mechanisms driving their distribution patterns.

We believe that the protection of the complex food web within the California Current Ecosystem **requires taking a precautionary approach – such as you are poised to do at your March meeting in Vancouver – and that managing our forage fish as an ecosystem component (EC) species for all FMPs is the right pathway to take.** Taking these proactive steps will serve to sustain not only forage fish but the millions of birds and other fish and wildlife that rely on them.

Thank you for your consideration.

Sincerely,



Dr. Trina Bayard, Director of Bird Conservation  
Audubon Washington

Sam Merrill, Conservation Chair  
Black Hills Audubon Society

Dan Streiffert, Conservation Chair  
Rainier Audubon Society

Pete Marshall, Conservation Chair  
Eastside Audubon Society

Susan North, Conservation Manager  
Seattle Audubon Society

Marcie Daines, Conservation Chair  
Lower Columbia Basin Audubon Society

Krystal Kyer, Executive Director  
Tahoma Audubon Society

Pam Borso, President  
North Cascades Audubon Society

Randy Smith, President  
Vashon-Maury Audubon Society

Mary Porter-Solberg, Conservation Chair  
Olympic Peninsula Audubon Society

Susan Bennett, Conservation Chair  
Whidbey Audubon Society

Kathleen Snyder, President  
Pilchuck Audubon Society

Steve Puddicombe, Conservation Chair  
Willapa Hills Audubon Society

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<sup>4</sup> Nur, N. et al. (2011). Where the wild things are: predicting hotspots of seabird aggregations in the California Current System. *Ecological Applications*, 21: 2241-2257.

# ONE MARKET

R E S T A U R A N T

Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, Oregon 97220

**February 2015**

**RE: Agenda Item E.4 Unmanaged Forage Fish Protection Final Action**

Dear Chair Lowman and Councilmembers,

I am writing to you as the Chef and Partner at One Market Restaurant, located along the San Francisco Embarcadero. Our location in San Francisco's eastern waterfront puts us in a unique position to appreciate the importance of forage fish as economic drivers for our coastal communities. Science and the public both recognize that forage fish serve as the critical middle link in the ocean food web. Species like salmon and tuna rely on forage fish as a source of food, and we must take care to ensure that enough are left in the water for them to feed on.

I have been publicly weighing in on unmanaged forage fish protections for nearly two years now, since June 2013. It has been extremely motivating to see the great strides the Council has taken to not only protect forage fish, but to look at management of our fisheries from a more comprehensive approach. I know I am not alone when I say that I support the Council's final action, which is due at the upcoming PFMC Meeting next month in Vancouver. Along with the thousands of other concerned citizens who have weighed in over the last three years, I ask that the Council follow through on the first initiative of its Fishery Ecosystem Plan by adopting a final preferred alternative that designates forage fish as ecosystem component species.

Thank you for your work to incorporate ecosystem principles into fishery management decisions. I applaud you for your ongoing commitment to the health and vibrancy of our Pacific Ocean and its fisheries.

Sincerely,



Mark Dommen  
Chef & Partner, One Market



C A F E

Flicka McGurrin

Dorothy Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, OR 97220

**RE:**

Dear Chair Lowman and Council Members,

I write to you on behalf of Pier 23 Cafe, a restaurant located on the edge of the San Francisco Bay. Pier 23 Cafe is a family owned establishment and has provided patrons with a special dining experience for 31 years. We offer fresh seafood, unique cocktails and live music in a greater effort to preserve the rich cultural history of the San Franciscan waterfront. Our menu is centered around sustainable seafood, and we try our best to incorporate local ingredients into all of our dishes. Endowed with the bounty of the Pacific Ocean, we would like to continue to share our passion for food with the San Francisco area for years to come.

At its upcoming March meeting, we strongly support the Council's final action to protect currently unmanaged forage fish. The Council has already made great strides toward establishing regulatory protections for currently unmanaged forage fish species, and we applaud its persistent efforts to incorporate ecosystem principles into fishery management decisions. Pier 23 Cafe is one of the many Northern California restaurants that benefit from the area's diverse coastal waters. We understand that a healthy marine ecosystem upholds a complex marine food web, and that sustainable fishing practices are crucial for ensuring continued abundance. By adopting a final preferred alternative that designates forage fish as ecosystem component species and prohibits new directed fisheries without robust prior review, the Council can provide meaningful protections for these important little fish while helping to ensure that predator species, such as salmon, tuna, whales and seabirds, also have enough sustenance to thrive.

Establishing basic, precautionary management for forage fish is an important step in the transition to ecosystem-based fishery management. In doing so, the Council will fulfill the first initiative of its Fishery Ecosystem Plan, a visionary document that the Council approved unanimously in 2013. We hope that the Council will help us continue to serve the kind food that celebrates San Franciscan cuisine. By protecting forage fish as a key link in the marine food web, we can maintain a healthy ocean ecosystem that supports the valuable fisheries we rely upon.

Thank you for your ongoing commitment to a vibrant and productive Pacific Ocean.

McGurrin Leibert

Pier 23 Cafe ■ The Embarcadero ■ San Francisco 94111 ■ (415) 362-5125

Ms. Dorothy M. Lowman  
Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, Oregon 97220-1384

**RE: Agenda Item Agenda Item E.4 Unmanaged Forage Fish Protection Final Action**

Dear Chairman Lowman and Council Members:

Thank you for your work over the past two-plus years in increasing the use of ecosystem-based management principles, and in particular for working on protection of forage fish species.

I am writing to you on behalf of Living Sea Images, a multimedia company that is dedicated to bringing the beauty of the ocean into the comfort of the home. Living Sea Images has published multiple volumes of my coffee-table series of books, Wonders of the Sea, and continues to manage the sale of my stock photography and fine art prints. Appreciating the ocean, whether in reality or printed format, is the first step toward supporting its preservation. My passion for marine life photography began when I first learned to dive in 1978. What once was a hobby has since evolved, for me, into a way to serve as an ambassador for the underwater world and its inhabitants. I have participated in the founding of two marine conservation organizations and served on the panel that established California's first series of marine reserves. In the course of my career, I have tried my best to portray the magnificence of the ocean and I hope that my photography can motivate people, who might otherwise never know, to preserve it.

At your upcoming March meeting, I strongly support the Council's final action to protect currently unmanaged forage fish. The Council has already made great strides toward establishing regulatory protections, and I applaud its persistent efforts to incorporate ecosystem principles into fishery management decisions. Over the last 37 years, I have become increasingly concerned about habitat degradation in our marine environments. It has been a privilege to witness the wonders of the ocean and I believe that we have a responsibility to preserve such beauty for future generations. Photographs are ideal for retaining memories, but old pictures should not be the only evidence of a healthy Pacific Ocean. I have photographs from the 1980s and 90s that document Schools of fish in places they have become rare, and fish in those schools of a size that have become rare. Ecosystem based management can help restore those schools. But all components of the marine ecosystem must be acknowledged and protected. The Council's decision on a final preferred alternative that designates forage fish as ecosystem component species and

prohibits new directed fisheries without robust prior review will be a momentous step forward. From anchovies to humpback whales, every species in the marine food web carries an important role.

Thank you for your ongoing commitment to a vibrant and productive Pacific Ocean.

Respectfully Submitted,

A handwritten signature in black ink that reads "Marc Shargel". The script is fluid and cursive, with the first letters of "Marc" and "Shargel" being capitalized and prominent.

Marc Shargel  
Living Sea Images

Author of *Wonders of the Sea: North Central California's Living Marine Riches*  
and *Wonders of the Sea Volume Two: Marine Jewels of Southern California's Coast and Islands*  
and *Wonders of the Sea Volume Three: Hidden Treasures of California's Far North Coast*  
and *Yesterday's Ocean: A History of Marine Life on California's Central Coast*

February 11, 2015

Ms. Dorothy M. Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, #101  
Portland, OR 97220

RE: Agenda Item E.4: Comprehensive Ecosystem-Based Amendment 1 – Unmanaged Forage

Dear Chair Lowman and Council Members:

Ocean Conservancy<sup>1</sup> appreciates the Council's work to finalize and implement Comprehensive Ecosystem-Based Amendment 1 (CEBA-1), which would establish protections for unmanaged forage species and bring measures from Initiative #1 of the Council's Fishery Ecosystem Plan (FEP) into force within the Council's Fishery Management Plans (FMPs). With the support of the Ecosystem Work Group and advisory bodies, the Council has developed and received public comments on CEBA-1 environmental review and FMP amendatory language, and has adopted and affirmed a preliminary preferred alternative. Pending final input from advisory bodies, **Ocean Conservancy urges final action on these important ecosystem-based measures by adopting a final preferred alternative.**

Ocean Conservancy is aware of suggestions from advisory bodies regarding specific language that would incorporate shared ecosystem component forage species into FMPs in slightly different ways than proposed under the Council's preliminary preferred alternative. We recognize the importance of full consultation with advisory bodies and reaching a level of comfort with language affecting the FMPs these groups help implement. We also appreciate that alternative language suggestions are minor and appear to fulfill the intent of CEBA-1. Our chief concern is ensuring that each shared ecosystem component species identified in the preliminary preferred alternative receives the intended protection from directed harvest prior to Council review and authorization. We also wish to confirm our support for applying these protections *only* to species not currently managed by state or federal agencies. Ocean Conservancy supports use of draft Council Operating Procedure 24 for guiding proponents of potential new directed fishing on subject forage species, and for continued work to refine dockside monitoring and classification of landed species to aid both in the Council's monitoring of CEBA-1 and ongoing management of landings and incidental catch.

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<sup>1</sup> Ocean Conservancy is a non-profit organization that educates and empowers citizens to take action on behalf of the ocean. From the Arctic to the Gulf of Mexico to the halls of Congress, Ocean Conservancy brings people together to find solutions for our water planet. Informed by science, our work guides policy and engages people in protecting the ocean and its wildlife for future generations.

Again, we sincerely appreciate the thorough work of the Council, work groups, and advisory bodies both in developing important safeguards for key drivers of health of the California Current Ecosystem, and in advancing the Fishery Ecosystem Plan as a platform to guide and inform the transition to a more ecosystem-based approach to fisheries management.

Yours



Greg Helms  
Manager, Pacific Fish Conservation Program



Ivy Fredrickson  
Staff Attorney, Conservation Programs



February 12, 2015

Ms. Dorothy Lowman, Chair  
Pacific Fishery Management Council  
70 NE Ambassador Place, Suite 101  
Portland, OR 97220

*via email: [pfmtc.comments@noaa.gov](mailto:pfmtc.comments@noaa.gov)*

***Re: Agenda Item E.3 – Unmanaged Forage Fish Protection***

Dear Chair Lowman and Council Members:

The Pacific Fishery Management Council is about to take the national lead in protection of unmanaged and unfished forage fish. **We support the council's preliminary preferred alternative, Comprehensive Ecosystem-Based Amendment 1 (CEBA 1) Alternative 2, that will bring the listed unmanaged forage fish into all four of the Council's Fishery Management Plans as Ecosystem Component Species, to prevent new fisheries from developing without scientific information on harvest sustainability and potential ecological effects, while allowing the continuation of incidental retention in existing fisheries.**

The council's commitment to maintaining the prey-base of the CCE aligns with our goal of keeping the oceans wild to preserve fishing opportunities for the future. We represent conservation-minded fishermen who support a broad, ecosystems approach to fisheries management, concentrating on maintaining resilient food-webs and habitat essential to the survival of marine fish, seabirds, sea turtles and marine mammals.

The council has identified the following species and species groups as subject to the unmanaged forage initiative: Round herring (*Etrumeus teres*) and thread herring (*Opisthonema libertate* and *O. medirastre*); Mesopelagic fishes of the

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families *Myctophidae*, *Bathylagidae*, *Paralepididae*, and *Gonostomatidae*; Pacific sand lance (*Ammodytes hexapterus*); Pacific saury (*Cololabis saira*); Silversides (family *Atherinopsidae*); Smelts of the family *Osmeridae*; and Pelagic squids (families: *Cranchiidae*, *Gonatidae*, *Histioteuthidae*, *Octopoteuthidae*, *Ommastrephidae* (except Humboldt squid, *Dosidicus gigas*), *Onychoteuthidae*, and *Thysanoteuthidae*).

These diminutive, but ecologically important fish are not targeted by the commercial fleet, but remain vulnerable to future fishing impacts due to the increasing global demand for forage fish. Such small, schooling fish are targeted in other parts of the world to satisfy escalating demand for fish meal and fish oil used in aquaculture and pet feeds. In the CCE they occupy a key place in the food-web, transferring energy from plankton to valuable commercial and recreational fish. The benefits of protecting forage fish are even greater when taking into account their enormous value to non-consumptive (e.g., bird-watching, whale-watching) and non-use benefits (e.g., protecting the health of marine ecosystems).

We support the council's proposal to add these forage as ecosystem component (EC) species in each of the council's four Fishery Management Plans, including Amendment 15 to the Coastal Pelagic Species FMP, Amendment 25 to the Pacific Coast Groundfish FMP, Amendment 3 to the Highly Migratory Species FMP, and Amendment 19 to the Pacific Coast Salmon FMP. Their designation as EC species acknowledges the nexus between managed and unmanaged species across FMPs. Importantly, this action will help sustain the long term health and stability of FMP species by preventing future forage fisheries from developing without scientific understanding on harvest sustainability and ecological effects, including the impact on FMP species.

Under this alternative, no new directed fishing could begin for these EC species without a council process to develop an experimental fishing permit and the assessment of the scientific information relating to any proposed directed fishery and consideration of potential impacts to existing fisheries, fishing communities, and the greater marine ecosystem. In order to facilitate this evaluation, **we recommend that the council begin development of a forage status indicator as Initiative 2 to the FEP** to help us better assess the impact of forage fisheries on the health of the overall forage base and on the ecosystem.

We agree that the council should continue to allow for the incidental take of EC species, as it is consistent with the purpose of this action: to prevent the development of new directed fisheries on unfished and unmanaged forage species unless and until we can assess the impact on the ecosystem. However, CEBA 1 does not define incidental take. We urge the council to provide clarity for enforcement and prevent incidental catch from expanding into directed catch. The council could direct either staff or an advisory body to review data from

existing monitoring efforts periodically to ensure that incidental catch is consistent with the council's intent for the initiative and recommend any additional management or monitoring measures needed to address the amount and disposition of incidental catch.

We can see the finish line. In March, the council will adopt a final preferred alternative and amendatory language for incorporating protection to unmanaged forage fish into council FMPs. This is the last hurdle the council must jump to establish a model and precedent for practical implementation of unmanaged forage fish protection. Protecting the base of the marine food web will provide long-term benefits to the diverse and productive California Current Large Marine Ecosystem, users of ocean resources, and current and future generations. We look forward to celebrating your success.

Sincerely,

A handwritten signature in black ink, appearing to read "Theresa Labriola". The signature is fluid and cursive, with a large initial "T" and a long, sweeping underline.

Theresa Labriola  
West Coast Fisheries Project Director

Pacific Fisheries Management Council  
Dorothy M. Lowman, Chair  
7700 N.E. Ambassador Place, Suite 101  
Portland, Oregon 97220-1384

February 12, 2015

Agenda Item E.3. Ecosystem -- Unmanaged Forage Fish Protection Final Preferred Alternative (FPA)

Dear Chair Lowman and Council Members:

**\*\*\* Thank you \*\*\***

The Audubon Society of Portland and Audubon chapters across Oregon would like to thank you for adopting the Fishery Ecosystem Plan in the spring of 2013. We appreciate the deliberative work you and your staff have accomplished since that time to begin implementing the plan by focusing on protection of unmanaged forage fish as your first ecosystem-based initiative.

Most recently, at the September 2014 meeting, we were pleased with the Council's decision to draft amendatory language to designate unmanaged forage fish as ecosystem component species to continue to move your efforts to conserve these prey species. We believe incorporating currently unmanaged forage fish as ecosystem component species within each of the Council's existing Fishery Management Plans makes good conservation sense. Doing so clearly recognizes that forage fish provide important linkages within an interconnected ecosystem that includes upper trophic level species of seabirds, whales and other marine mammals that are of great interest and concern to our Audubon members.

**\*\*\* Please take the final step in Vancouver \*\*\***

During your upcoming March meeting in Vancouver, **Audubon encourages the Council to take final action in protecting unmanaged forage fish by adopting the final preferred alternative (Alternative 2) that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.** This action will ensure that unregulated directed fisheries for these forage species do not develop and that existing fisheries are not negatively impacted.

**\*\*\* About Audubon and our coastal work \*\*\***

For years Audubon has been investing in a range of efforts to improve conditions for birds and their habitats. Seabird populations, in particular, are of critical conservation concern with more than half of the world's seabird species currently in decline.<sup>1</sup> Audubon has been working with scientists and local communities to identify and designate over 200 offshore marine Important Bird Areas (IBA) along the Pacific Flyway that provide benefits for over 150 species and 33 million seabirds between Barrow, Alaska and Baja California.<sup>2</sup> Additionally, the Audubon Society of Portland oversees a system of 97 IBAs across Oregon including 36 coastal IBAs that

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<sup>1</sup> Croxall, J. P., et al. (2012). Bird Conservation International 22: 1–34.

<sup>2</sup> Nur, N. et al. (2011). Where the wild things are: predicting hotspots of seabird aggregations in the California Current System. Ecological Applications, 21: 2241-2257.

have been designated to protect the foraging and nesting habitats that are vital to seabirds in this portion of the California Current Ecosystem (CCE).

Audubon chapters in Oregon have helped establish a system of marine reserves and marine protected areas along the West Coast. Coupled with our Audubon Sanctuaries – including at Ten Mile Creek near Yachats, Oregon -- we're protecting the land-sea connection that is critical for seabirds, including the imperiled Marbled Murrelet that relies on forage fish including the Pacific sand lance, squid and osmerid smelt, which are specifically under consideration here. In fact, Pacific sand lance are a key food source for Marbled Murrelets during the breeding season<sup>3</sup> when they're feeding hungry chicks. Oregon's most common breeding seabird species, the Common Murre, also depends heavily on some of the forage fish that would be protected including smelt and sand lance<sup>4</sup>.

Audubon recognizes the value of forage fish to seabirds and other marine life at the top of the food chain and that overfishing of forage fish species has been a major contributor to documented declines of seabirds around the world. Not only do seabirds require substantial quantities of prey for survival and reproduction, they are extremely sensitive to changes in prey abundance<sup>5</sup>. As noted in the Ecosystem Working Group's March 2014 report, "Ecosystem Initiative 1: Protecting Unfished and Unmanaged Forage Fish Species," under subsections 3.2.1 through 3.2.7 of the report each and every unmanaged forage fish group serves as prey for seabirds. For example, as the report indicates at 3.2.3, some of the most recognized seabirds here in the Northwest are known to subsist largely on sand lance, including the Rhinoceros Auklet, Tufted Puffin and Pigeon Guillemot.

This is why we believe it is important for Audubon to engage in the fisheries management work of the Council and why **we urge you to take action in March by moving forward with final action to protect currently unmanaged forage fish by incorporating them into each FMP as ecosystem component species.**

We believe to adequately plan for the protection of the complex food web within the CCE **requires taking a precautionary approach – as the Council has been supportive of – and that managing our forage fish as an ecosystem component (EC) species for all FMPs is the right pathway to take.**

**\*\*\* In closing \*\*\***

In summary, to Audubon, these little fish ARE a big deal – especially for the health of our seabird populations along the Pacific Flyway. In March, the Council has an opportunity to advance a precautionary approach to management **by taking final action and adopting amendatory language to designate unmanaged forage fish as ecosystem component species.** Taking these proactive steps will serve to sustain not only forage fish but the millions of seabirds that rely on them further up the food chain. Thank you for your consideration.

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<sup>3</sup> Nelson, S. K. 1997. Marbled Murrelet (*Brachyramphus marmoratus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/276>. doi:10.2173/bna.276

<sup>4</sup> Suryan, R., et al. (2013). Yaquina Head seabird colony monitoring 2013 season summary. Unpublished Report. Oregon State University, Hatfield Marine Science Center, Newport, OR, 10pp.

<sup>5</sup> Cury, P. M. et al. (2011). Global Seabird Response to Forage Fish Depletion – One-Third for the Birds. *Science* 334 : 1703-1706

Sincerely,

Audubon Society of Portland

Joe Liebezeit & Paul Engelmeyer, Ocean  
Conservation Program

Audubon Society of Corvallis

Dave Mellinger & Jim Fairchild, Conservation  
Director & President

Audubon Society of Lincoln City

Jack Doyle, President

Cape Arago Audubon Society

Barbara Taylor, President

East Cascades Audubon Society

Sherri Pierce, President

Kalmiopsis Audubon Society

Ann Vileisis, President

Klamath Basin Audubon Society

Molly Russell, President

Lane County Audubon Society

Maeve Sowles, President & Debbie Schlenoff,  
Ph.D., Conservation Chair

Salem Audubon Society

Michael Babbitt, President

Umpqua Valley Audubon Society

Diana Wales, President



Ms. Dorothy M. Lowman, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, Oregon 97220-1384

South Coast Tours LLC  
27436 Hunter Creek Rd.  
Gold Beach, OR 97444  
[www.southcoasttours.net](http://www.southcoasttours.net)  
541-373-0487

Re: Forage fish protections

Dear Chair Lowman and council members:

As a coastal resident and business owner, I am writing today to express my support for continuing the forage fish protection efforts. As a kayak fishing and wildlife viewing business on the southern Oregon coast, my customers love to see whales, seals and other species when paddling in the ocean and in the wild rivers coast estuaries. My clients also enjoy catching various rockfish, which rely on healthy forage.

Please continue down the path of a more holistic approach to our fisheries. I am heartened with the preferred alternative and it's emphasis on an ecosystem based approach to how forage fish play into the larger fishery management situation.

My business relies on a healthy ocean ecosystem. From the bird nerds to the hardcore rockfishermen, we all want the forage fish to be around in abundances that support both commercial and recreational fishing as well as the animals that are so much fun to gawk at on my tours. South Coast Tours thrives when the ocean and it's inhabitants are also thriving. Please continue the good work.

Thank you for considering my comments.

Sincerely,

Dave Lacey  
Owner, South Coast Tours LLC

From: Diana Lynn Kekule <luvsea33@gmail.com>  
Date: Wed, Jan 28, 2015 at 10:45 AM  
Subject: UNMANAGED FORAGED FISH INITIATIVE  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

The Council should take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

Seabirds, whales, and other marine life depend on forage fish as a critical food resource.

Establishing basic, precautionary management for forage fish makes sense and is an important step in the transition to ecosystem-based fishery management.

THANK YOU FOR HELPING TO RAISE THE CONSCIOUSNESS OF HUMANITY.  
KEKULE BASTRON FAMILY AND FRIENDS

From: **Tricia Knoll** <[triciaknoll@gmail.com](mailto:triciaknoll@gmail.com)>  
Date: Wed, Jan 28, 2015 at 12:00 PM  
Subject: Forage fish  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

I just sold a house in Manzanita, Oregon. One reason was the decline of shorebirds...and other environmental changes I had seen in 25 years of living on the coast. Please do everything you can to protect forage fish. Take every precaution to protect this source of food for marine mammals and birds. We cannot keep losing everything we love.

Tricia Knoll  
8933 SW Lancelot Lane  
Portland, OR 97219

From: Sheila Forrette <[sforrette77@gmail.com](mailto:sforrette77@gmail.com)>  
Date: Wed, Jan 28, 2015 at 4:03 PM  
Subject: Unmanaged Forage Fish Initiative  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Firstly I would like to thank the Council for its work to protect currently unmanaged forage fish. The upcoming March 2015 is a golden opportunity to set good policies before fish stocks collapse.

Secondly, please take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis. Seabirds, whales, and other marine life depend on forage fish as a critical food resource. Establishing basic, precautionary management for forage fish makes sense and is an important step in the transition to ecosystem-based fishery management.

Thanks again for your work and your time.

Sheila Forrette

From: **Jim Boone** <[jameslboone@yahoo.com](mailto:jameslboone@yahoo.com)>  
Date: Tue, Feb 3, 2015 at 4:24 PM

Subject: March 2015 meeting

To: "[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)" <[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)>

Dear Management Council,

I want to thank the Council for its work to protect currently unmanaged forage fish which form the base of the ocean food web and are the cornerstone of the Pacific coast's marine ecosystem. Seabirds and other marine wildlife depend on them for their only food. In the past three years, the Council has made much progress toward providing stronger protections for forage fish, and we are now ready to cross the finish line and formally adopt this initiative.

Please pass the final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

Thank you for considering my comments.

Sincerely, James L. Boone 15633 NW Saint Andrews Dr. Portland OR 97229

From: **Jill** <[jinarozn@gmail.com](mailto:jinarozn@gmail.com)>

Date: Tue, Feb 3, 2015 at 1:06 PM

Subject: Unmanaged Forage Fish Initiative

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

- Pacific Fisheries Management Council should take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.
- Puffins, Seabirds, whales, and other marine life depend on forage fish as a critical food resource.
- Establishing precautionary management for forage fish is an important step in the transition to ecosystem-based fishery management.

▪  
Thank you,  
~Jill Narozny  
Portland, OR 97227

From: **Dianne Ensign** <[ensign@lclark.edu](mailto:ensign@lclark.edu)>  
Date: Tue, Feb 3, 2015 at 11:56 AM  
Subject: Forage fish  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Dear Council Members,

Thank you for your work to protect currently unmanaged forage fish. Please take advantage of the opportunity to set good policies before it is too late. Seabirds, whales, and other marine life depend on forage fish as a critical food resource, and growing global demand for inexpensive protein drives the call to open new fisheries on forage fish, posing a threat to wildlife.

The Council should take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis. Establishing basic, precautionary management for forage fish makes sense and is an important step in the transition to ecosystem-based fishery management.

Thank you for considering my comments.

Sincerely,

Dianne Ensign  
Portland, OR 97219

From: **Clair Klock** <[klockclair@yahoo.com](mailto:klockclair@yahoo.com)>  
Date: Tue, Feb 3, 2015 at 6:00 AM  
Subject: Forage Fish Initiative  
To: "[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)" <[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)>

I urge your adoption of the forage fish initiative that you are taking public testimony on March 9th. This is important primarily for the diversity of species and secondarily for tourism on the Pacific Coast of North America.

Thank you  
Clair Klock  
Klock Farm  
931 NE Salzman rd.  
Corbett, OR 97019

From: **Floyd and Tonya Nave** <[tonya.nave@comcast.net](mailto:tonya.nave@comcast.net)>

Date: Mon, Feb 2, 2015 at 8:15 PM

Subject: forage fish

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

We must attempt to restore and conserve our oceans resources. Overfishing is threatening to empty our seas permanently. Forage fish must be maintained for a balanced ocean environment and conservation is necessary if productive oceans are to be protected.

From: **Jeff and Laretta Young** <[jeffandlairettayoung@comcast.net](mailto:jeffandlairettayoung@comcast.net)>

Date: Mon, Feb 2, 2015 at 7:37 PM

Subject: Unmanaged forage fish

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Hello Pacific Fisheries Management Council,

I encourage you to support the initiative to protect the seven groups of unmanaged forage fish which are a critical food source for quite a wide variety of seabirds.

This initiative represents the critical understanding that these fish are vital for the survival of these seabirds who number in the many thousands along our Pacific Coast.

Thank you for considering this proposed initiative,  
Jeff and Laretta Young,  
14943 NW Koa Ct.  
Portland, Oregon 97229

From: **Stephen Karakashian** <[skarakashian@pobox.com](mailto:skarakashian@pobox.com)>

Date: Mon, Feb 2, 2015 at 7:15 PM

Subject: Please protect forage fish that are vital to seabirds.

To: "[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)" <[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)>

Stephen Karakashian

4160 SE Harvey Street

Milwaukie, OR 97222

From: **James Merritt** <[jimmerritt@aol.com](mailto:jimmerritt@aol.com)>

Date: Mon, Feb 2, 2015 at 6:45 PM

Subject: Forage Fish

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Please take action to preserve fish needed for foraging by seabirds and other animals. It is unwise and dangerous to waste this natural resource and food source for so many wildlife we are trying to preserve and encourage.

Thank you,

James E. Merritt

From: **Catherine Rutledge** <[rutledge5573@comcast.net](mailto:rutledge5573@comcast.net)>

Date: Mon, Feb 2, 2015 at 4:58 PM

Subject: Please adopt the initiative to protect critical food source for Tufted Puffin

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Hello,

I would like to ask you to please adopt the initiative to protect critical food sources for the Tufted Puffin.

Thank you,  
Catherine Rutledge

From: **George Alderson** <[george7096@verizon.net](mailto:george7096@verizon.net)>

Date: Wed, Feb 4, 2015 at 7:37 AM

Subject: Our comments for March 2015 meeting

To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Please accept this message as our comment for the council's March 2015 meeting. Although we live on the Atlantic coast, I (George) grew up in Oregon and enjoyed the plentiful fish that were available in grocery stores in the 1940s and 50s. I also appreciated the abundant marine bird life that is a wonderful part of the Oregon Coast experience. My sister still lives in Oregon and visits the southern Oregon coast on vacations. Our mother, who died in 1979, loved the birds and fish of the coast and asked us to scatter her ashes in the surf.

Placing all forage fish species under appropriate management is long overdue. They are the foundation for many of our food fish species and they are an essential food source for many species of marine birds and marine mammals.

We ask the council to adopt a final preferred alternative that designates the seven groups of currently unmanaged forage fish species as component species and bans any new directed fisheries for these species unless a complete analysis has been done.

We urge the council to put in place a fundamental precautionary management framework for forage fish. This is an essential step toward an ecosystem-based fishery management program that will be sustainable over the decades ahead.

Thank you for considering our thoughts.

Sincerely,  
George & Frances Alderson  
112 Hilton Ave.  
Catonsville, MD 21228

From: **Kimber Nelson** <[kimber\\_nelson@hotmail.com](mailto:kimber_nelson@hotmail.com)>  
Date: Wed, Feb 4, 2015 at 9:15 AM  
Subject: Unmanaged Forage Fish Initiative  
To: "[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)" <[pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)>

I appreciate the Council's work to protect currently unmanaged forage fish. This is so important to the whole marine ecosystem - seabirds, whales, and other marine life depend on forage fish as a critical food resource.

Please take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis. Establishing basic, precautionary management for forage fish makes sense and is an important step in the transition to ecosystem-based fishery management.

Thank you for your continued work on this issue  
Kimber Nelson  
Portland, OR

From: **William Percy** <[wgpearcy@coas.oregonstate.edu](mailto:wgpearcy@coas.oregonstate.edu)>  
Date: Thu, Feb 5, 2015 at 2:16 PM  
Subject: forage species protection  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

PMFC,

As a scientist working on fishes and squids and other marine animals for 50 years off Oregon, I laud the Council for taking precautionary actions to protect forage resources that are crucial for the growth and survival on many fishes, including managed fishery species. I am especially familiar with the importance of Northern Anchovy and smelts (osmerids) for salmonids and other coastal fishes, and the importance of Pacific saury to albacore along our coast. I endorse and encourage the proposed forage species protection.

WG Percy  
Professor Emeritus  
Oregon State University

From: MT Coast <[mtcoast@outlook.com](mailto:mtcoast@outlook.com)>  
Date: Thu, Feb 5, 2015 at 3:10 PM  
Subject: Comment on Unmanaged Forage Fish Initiative  
To: [pfmc.comments@noaa.gov](mailto:pfmc.comments@noaa.gov)

Subject: Unmanaged Forage Fish Initiative

Dear Council Members:

This letter is a follow-up to my previous comments supporting your efforts to take steps to include currently unmanaged forage fish into existing fishery management plans. I appreciate the work you and your staff have accomplished toward implementing protection of forage fish as your first ecosystem-based initiative. These are critical species in our ocean food web. It makes good business sense to take a precautionary approach to their management.

At your upcoming meeting in Vancouver, I urge you to take final action in protecting unmanaged forage fish by adopting a preferred alternative that designates these species as ecosystem component species. It should also ensure that fisheries directed at these species are not initiated without a full scientific analysis. The development of a precautionary management plan, if fishing is determined to be feasible, is also essential. These measures will ensure that current fisheries are not negatively impacted and unregulated fisheries directed at forage species do not develop.

My wife and I have lived in Florence, Oregon for 10 years, after I retired from a career with the USDA Natural Resources Conservation Service in Oregon. During our time here on the coast, I was involved for several years with the community team process for establishing Marine Reserves, focusing on the Cape Perpetua site. Most participants; fishermen, conservationists, business interests, and local community leaders, felt that protection for forage fish in Marine Reserves and Marine Protected Areas was essential. I am pleased that forage fish are now protected in all components of the newly established Cape Perpetua Marine Reserve/Protected Areas complex.

It is now time to extend careful management of these critical resources to all of our state and federal waters.

Sincerely,  
Mark Tilton  
Florence, Oregon

From: Eileen <ems45@comcast.net>  
Date: Wed, Feb 11, 2015 at 11:01 AM  
Subject: Protect fish for wildlife  
To: pfmc.comments@noaa.gov

Dear Pacific Fisheries Management Council Members:

Thank you for working to protect currently unmanaged forage fish. As a biologist I strongly urge the Council to take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

Humans do not need fish to survive, but wild species do! Seabirds, whales, and other marine life depend on forage fish as a essential food resource. Establishing basic, precautionary management for forage fish is an important step in the transition to ecosystem-based fishery management.

Sincerely,  
Eileen M. Stark  
Portland, OR

From: Amy <amyellio@gmail.com>  
Date: Wed, Feb 11, 2015 at 2:28 PM  
Subject: Thank you!  
To: pfmc.comments@noaa.gov

Thank you Council for your work to protect currently unmanaged forage fish by:

Taking final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis. Seabirds, whales, and other marine life depend on forage fish as a critical food resource.

Establishing basic, precautionary management for forage fish makes sense and is an important step in the transition to ecosystem-based fishery management.

In kind,  
Amy

From: wmorseth <wmorseth@gmail.com>  
Date: Wed, Feb 11, 2015 at 9:02 PM  
Subject: Forage fish  
To: pfmc.comments@noaa.gov

Sea birds that depend on fish cannot survive without them. Please protect forage fish from over harvesting, for the sake of the fish, and the birds and mammals that have no choice about what they eat.

Thank you,  
Wendy

From: Meg Ruby <megruby@gmail.com>  
Date: Wed, Feb 11, 2015 at 9:37 PM  
Subject: PFMC March 2015 - Final Action on the Unmanaged Forage Fish Initiative  
To: PFMC Comments - NOAA Service Account <pfmc.comments@noaa.gov>

Dear PFMC Council Members,

Over the last three years, I have tracked the Council's work to document the important ecosystem role played by unmanaged forage fish and to institute protections. Key players in the Californian Current food chain, and critical forage for seabirds, whales and other marine life, forage fish are at risk of overexploitation, with grave consequences for the entire Californian Current Large Marine Ecosystem.

I applaud the Council for endorsing management from an ecosystem perspective. I ask Council Members to 'close the loop' on this work by taking the following next steps on currently unmanaged forage fish:

The Council should adopt a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

The Council should establish basic, precautionary management for forage fish as a sensible step in the transition to ecosystem-based fishery management.

Thank you! I'm grateful for your leadership on the behalf of our healthy and productive Oceans.

Sincerely,

Meg Ruby, M.S.

3218 SE Tibbetts St. Apt. A

Portland OR 97213

From: jmpultz5 <jmpultz5@gmail.com>

Date: Wed, Feb 11, 2015 at 10:13 PM

Subject: Protect forage fish

To: pfmc.comments@noaa.gov

Please protect the bottom of the food chain for all of us.

Jennifer Pultz

From: Carol Pattee <tulip103@upwardaccess.com>

Date: Wed, Feb 11, 2015 at 10:46 PM

Subject: Forage Fish

To: pfmc.comments@noaa.gov

Dear Madam or Sir:

I urge you to take final action in protecting unmanaged forage fish by adopting a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis. Seabirds, whales and other marine life depend on forage fish as a critical food resource.

Please establish basic, precautionary management for forage fish because it makes sense and is an important step in the transition to ecosystem-based fishery management.

Thank you for doing the right thing.

Carol Pattee  
32705 SW Laurelview Rd.  
Hillsboro, OR. 97123

From: Linda Magnuson <lmagnuson1@gmail.com>  
Date: Thu, Feb 12, 2015 at 7:15 AM  
Subject: precautionary management  
To: pfmc.comments@noaa.gov

Hi All,

The Council should adopt a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

The Council should establish basic, precautionary management for forage fish as a sensible step in the transition to ecosystem-based fishery management.

Best Regards,  
Linda Magnuson

From: candace <acecandace@gmail.com>  
Date: Thu, Feb 12, 2015 at 8:02 AM  
Subject: Forage Fish Management  
To: pfmc.comments@noaa.gov

Dear PFMC Council Members:

Thank you for your work to protect currently unmanaged forage fish, a key resource in supporting the entire marine ecosystem, including whales, seabirds and other marine species. I am in full support of the "final preferred alternative" which designates these forage fish species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis, and I strongly encourage you to adopt this strategy at your March meeting. Thank you.

Sincerely,  
Candace Larson  
3957 SE Cora Street  
Portland, OR 97202

From: Amy D. Valentine <amydvalentine@comcast.net>  
Date: Thu, Feb 12, 2015 at 10:29 AM  
Subject: Meeting March 9th RE: Forage Fish

To: pfmc.comments@noaa.gov

Dear PFMC Council Members,

I am writing today concerning the issue of forage fish and their importance to the survival of seabirds, whales and other marine life, and the overall ecosystem of the California Current. Forage fish are key players in the Californian Current food chain and are at risk of overexploitation, with grave consequences for the entire Californian Current Large Marine Ecosystem.

I applaud the Council for endorsing management from an ecosystem perspective. I ask Council Members to 'close the loop' on this work by taking the following next steps on currently unmanaged forage fish:

The Council should adopt a final preferred alternative that designates these species as ecosystem component species and prohibits new directed fisheries for these species without a full analysis.

The Council should establish basic, precautionary management for forage fish as a sensible step in the transition to ecosystem-based fishery management.

I truly appreciate your leadership on the behalf of our healthy and productive oceans.

Respectfully,  
Amy D. Valentine, M. Arch.  
AV Projects  
CCB #164753  
2738 NE 9th Avenue  
Portland, OR 97212

From: Rowan Baker <watershedfishbio@yahoo.com>  
Date: Thu, Feb 12, 2015 at 11:19 AM  
Subject: My comments on Forage Fish Proposal before the Council  
To: pfmc.comments@noaa.gov

Dear PFMC,

Please consider the attached comments in support of the upcoming proposal to limit new fisheries on forage fish species. Keep up the good work!!

Sincerely,  
Rowan J. Baker  
watershedfishbio@yahoo.com  
(Member, NOAA-F and MAFAC Public/Advisory Task Force on Climate and Marine Resources)