September 12, 2011

To: Dr. Amber Mace, Executive Director, Ocean Protection Council, and OPC staff

Re: Ocean Protection Council Draft Strategic Plan 2012-2017

Dear Director Mace and OPC staff:

On behalf of our combined 227,715 members and supporters in California, Oceana and Audubon California thank the Ocean Protection Council for this opportunity to comment on the Draft Strategic Plan.

Overall, we urge the OPC to take a much stronger role in developing science and advancing policy around forage species conservation, by further developing and placing a higher priority on relevant Draft Plan Actions and Core Strengths (3.13, 4.14, 4.2). In addition, we encourage the OPC to identify Important Ecological Areas (IEAs) off the California coast to preserve the health, productivity, biodiversity and resilience of marine ecosystems. Identifying IEAs is a cross-cutting concept that directly applies to and builds upon issue numbers 2, 3, and 5 in the Draft Strategic Action Plan.

Forage Species

Forage species are defined as the key marine fish and invertebrate species that contribute to the diets of large fish, seabirds, whales, dolphins, sea lions, and sea turtles. Examples off our coast include market squid, herring, sardine, smelts, Pacific and jack mackerel, northern anchovy and krill.

We have a special responsibility in California to better understand and conserve our forage base. A recent study summarizing the results of 10 years of telemetry work on 23 species of tunas, sharks, whales, pinnipeds, seabirds and sea turtles through the Tagging of Pacific Pelagics initiative highlights the California Current Large Marine Ecosystem (CCS) as one of two most critical foraging zones for wide-ranging marine predators in the Pacific.[1] Yet, the first California Current Integrated Ecosystem Assessment released in April 2011 by the National Oceanic Atmospheric Administration found that top predatory marine fish off California have declined by roughly 75% percent since 2003[2].. Also, the forage species in our state and federal waters are pillars supporting California's $7 billion birdwatching and wildlife viewing[3] industry and the $12 billion coastal tourism, fishing and recreation sectors.[4]

At the same time, the distribution, abundance, and phenology of forage species is changing due to the effects of climate change and fishing. In the CCS, juvenile rockfish and other mid-trophic level fish are declining, ocean acidification is increasing and zooplankton biomass has declined.

[5,6]The ocean has become less predictable, which affects the timing and availability of food for California's marine wildlife. For example, at southeast Farallon Island, unusual ocean conditions in 2005 led to mass starvation of Brandt's Cormorant and Common Murre in Monterey Bay and the CCS[7], and caused unprecedented breeding failures in Cassin's Auklet at southeast Farallon Island.[8] Insufficient ocean food supply is among the factors linked to the loss of Sacramento River fall run Chinook salmon, and marine mammal mortality events over the last decade[9] [10].

Fisheries on forage species have been linked to seabird declines around the world[11], and a recent study estimates that fisheries for rockfish alone – just one seabird prey species – has decreased breeding success of Common Murre, Pigeon Guillemot and Rhinoceros Auklet by up to 30%.[12] In the 1950's Pacific herring used to be the dominant prey item for salmonids in the winter and early spring; now it is almost undetectable in their diets.[13]

Meanwhile, California does not recognize or even acknowledge forage species, nor call for management of forage species any differently from other fish. According to the Marine Life Management Act (MLMA) Lessons Learned Report, the MLMA is not meeting its intent to conserve, restore, and sustainably manage California's living marine resources. For example, according to the MLMA Lessons Learned report, "The Fish and Game Commission's process for adopting the Market Squid FMP, and its final content that eliminated capacity limits, raise questions about whether California has shifted from a short-term, harvest-based perspective to a long-term, sustainability perspective." [14]

Additionally the Department has produced only three fishery management plans, due to lack of funding and also to a lack of guidance of what "ecosystem-based management" means, or a framework for evaluating whether management is ecosystem-based. Finally, it is unclear whether California can prevent new fisheries on forage species from developing under current law. All of these facts are particularly alarming in light of the reality that two keystone forage species for seabirds and other marine life, squid and sardine, are now the most lucrative commercial species in California. Furthermore, as the result of declines in larger fishery species like salmon, rockfish, and tunas, forage species now make up 85% of California's commercial landings by weight, versus only 40% thirty years ago.[15]

For all of the above reasons, in 2011 twenty-five leading marine scientists signed a statement emphasizing the urgent need to shift to an ecosystem-based approach in order to conserve forage species in the California Current (see attached statement).

Important Ecological Areas

A cross-cutting concept for which the OPC is a prime entity to lead the charge is identification of Important Ecological Areas (IEAs). IEAs are geographically delineated areas which by themselves or in a network have distinguishing ecological characteristics, are important for maintaining habitat heterogeneity or the viability of a species, or contribute disproportionately to an ecosystem's health, including its productivity, biodiversity, function, structure, or resilience. Examples of IEAs include but are not limited to migration routes, important bird areas, sensitive

seafloor habitats, breeding and spawning areas, foraging areas, and areas of high primary or secondary productivity.

The goal of identifying IEAs is to preserve the health, productivity, biodiversity and resilience of marine ecosystems while providing for ecologically sustainable fisheries and other economic endeavors, traditional subsistence uses, and viable marine-dependent communities. Identifying, monitoring, and protecting IEAs can safeguard against the multitude of threats our oceans face from effects of climate change and ocean acidification to oil spills. In particular, the monitoring and ocean observing activities funded by the OPC would benefit from such a comprehensive approach. Ultimately, to protect our ocean we need to understand it. The OPC can use IEAs as the basis for long-term ocean observing and monitoring programs that provide the long-term consistent data we need across years.

Identifying IEAs would help the OPC to achieve the goals of several priority issues identified in the Draft Strategic Plan including issue 2 (ecosystem impacts of climate change), issue 3 (sustainable fisheries), and issue 5 (leveraging investments of the state's marine protected areas). These issue areas in the strategic plan should explicitly mention Important Ecological Areas.

Identifying IEAs also directly fills information gaps and supports critical findings identified in the WCGA Action Plan. The Action Plan specifically mentions the three West Coast states have not identified which habitat components contribute to a healthy ecosystem and that identification of important ecological areas will allow appropriate management measures and will support ecosystem-level policies to maintain healthy species populations. Identifying IEAs specifically supports two WCGA priority areas in particular (#2 and #6), while informing four other priority areas (#1, #3, #4, and #5).

The following are our recommendations supporting actions 3.1.3 (support innovative projects that promote sustainable fisheries); 4.1.4, (advance ecosystem-based fisheries management and consider how to incorporate climate change); and 4.2, (improve coordination and governance of California's fisheries, and Core Strength: strategically selecting issues and making policy recommendations that advance innovative approaches to improve resource protection and management. They also address the cross-cutting themes of issues 2, 3, and 5.

1. Policy

1.1 Forage species should be a top priority for any fisheries-related work of the OPC. Rank facilitating the transition to ecosystem-based management of forage species as the highest priority method for achieving ecosystem-based management of fisheries in California waters.

1.2 State explicitly in the strategic plan that the OPC recognizes the importance of forage species in the California Current marine ecosystem and supports an ecosystem-based approach to their management that explicitly takes into account the needs of their predators based on the best available science.

1.3 Implement priority issues and actions identified in the West Coast Governors' Agreement on Ocean Health (WCGA) on protection of species at the base of the food web (for California). One main goal of Priority Area 3 of the WCGA Action Plan is to "urge protection of species at the

base of the food web, such as krill, that support the health and functioning of marine ecosystems." According to Findings 3C and 3D respectively of the WCGA Action Plan, fishery management must no longer be based on a single-species approach but focus on the ecosystem as a whole and precautionary measures should be taken to ensure forage species protection.

2. Science

2.1 Help provide the Department of Fish and Game with a framework for ecosystem-based management of forage species. We would like to see the OPC coordinate with the Ocean Science Trust to bring together a group of scientific experts to develop a series of science guidelines for incorporating the ecological roles of forage species in their management. Having such a framework would be useful for both state and federal fishery management of the forage base, and help re-establish California as a leader in sustainable fisheries, and be a model for creating ecosystem-based frameworks for other fisheries.

2.2 Fund projects that provide key data necessary to implement ecosystem-based management: what affects productivity of forage species; how much forage needs to be left in the ecosystem.

2.3 Evaluate the long-term effects of alternative harvest strategies on available indicators of ecosystem structure and function (perhaps suggest as an additional action or as a metric to action 3.1.3)

2.4 Identify Important Ecological Areas within California state waters. Where possible coordinate with the states of Oregon and Washington to leverage such ongoing efforts in those WCGA partner states.

These recommendations complement OPCs desire to:

- Advance ecosystem-based fisheries management and consider how to incorporate climate change;
- Recommend policies that advance innovative approaches to improve resource protection and management;
- Fund innovative projects;
- Advance the use of science in governmental decision making; and
- Offer "targeted and tractable" solutions (ref) to complex problems facing our state's coast and ocean. (ref)

While it could be argued that forage species and Important Ecological Areas fit implicitly within the actions in the draft strategic plan, given their importance to California stakeholders and a healthy ocean we ask that they are explicitly stated in the final document, so as not to be overlooked.

Thank you for considering these comments, and we are very much looking forward to working closely with OPC on this issue as staff develops its final plan. We are particularly interested in helping to plan and convene the workshop referenced in recommendation 2.1. and in the identification of IEAs.

Sincerely,

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Director. Seabird Conservation Program, Audubon California

Geoffrey Shester, PhD
California Program Director, Oceana

Attachment: "Scientists' Statement: Protecting the Forage Base of the California Current Large Marine Ecosystem" July 12, 2011.

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