

**STATEMENT OF GEORGE J. MANNINA, JR.
ON BEHALF OF THE CALIFORNIA SEA URCHIN COMMISSION
AND THE FISHERIES AND SEA OTTER CONSERVATION COALITION
BEFORE THE SUBCOMMITTEE ON FISHERIES, WILDLIFE, AND OCEANS
April 24, 2008**

On behalf of the California Sea Urchin Commission and the Fisheries and Sea Otter Conservation Coalition, I am very pleased to appear before the distinguished members of this Subcommittee regarding H.R. 3639.

The Sea Urchin Commission came into being after the industry advocated state legislation in California to authorize the formation of an industry commission under the oversight of the California Department of Food and Agriculture. The Commission was established in 2004, following an overwhelming vote of all industry participants. The Commission is governed by a body of industry representatives elected by industry members. Five sea urchin divers and five sea urchin processors are elected for two year terms. In addition, one public member selected by the Commission is appointed to the Commission by the California Secretary of Agriculture.

Among the activities the Commission is undertaking, or has undertaken, are a diver-based data collection program to increase knowledge of the sea urchin resource; adoption of “Best Practices” to improve the quality of sea urchins in the market; improved diver-processor coordination; and the promotion of regulatory improvements to support the economic and biological sustainability of the fishery. In addition, the Commission has funded a 16-year study of sea urchin larval development that provides significant new information that may suggest habitat modifications that can protect young sea urchins, enabling them to reach maturity before facing sea otter predation.

The California Sea Urchin Commission, a leader in fishery conservation issues in the State of California, later formed a Coalition to coordinate efforts in finding a way to recover the sea otter while simultaneously protecting the shellfish resources in the state which are prey to sea otters.

The Fisheries and Sea Otter Conservation Coalition includes nine organizations, the California Sea Urchin Commission, West Coast Seafood Processors Association, Recreational Fishing Alliance, California Trap and Lobster Association, California Wetfish Producers Association, Southern California Trawlers Association, Ventura County Commercial Fishermen's Association, Los Angeles Commercial Fishermen's Association, and the California Fisheries and Seafood Institute.

Today, the sea urchin fishery is an important part of California's coastal economy. The fishery includes approximately 300 divers, 180 vessels, and 14 processors, which employ almost 900 persons. While initially sea urchin product was mostly exported to Japan, in recent years domestic sales have increased to approximately 45% of the \$22 million annually in *wholesale* value (retail sales value would be many times this amount). Other shellfish fisheries that likely will be directly impacted by sea otters represent approximately \$261 million in *retail* sales value.

In addition, the Coalition represents the interests of the wetfish industry (approximate retail value, of \$163 million), seafood processing companies in California, Oregon, and Washington which collectively process the majority of Pacific groundfish, Dungeness crab, and cold-water shrimp landed in these states, and the one million saltwater anglers in California.

The Fisheries and Sea Otter Conservation Coalition welcomes the opportunity to appear before the Subcommittee because this hearing, and this legislation, provides a critically important opportunity to focus on key issues regarding southern sea otter conservation and

recovery. At the outset, let me say that the Fish and Wildlife Service (“FWS”), using existing authority under Sections 4(f) and 7(a)(1) of the Endangered Species Act (“ESA”), already has the authority to develop and implement a sea otter recovery plan thereby fulfilling many of the objectives of H.R. 3639. Pursuant to this statutory authority, as well as authority provided under the Marine Mammal Protection Act (“MMPA”), FWS could fully implement the requirements set forth in H.R. 3639 without additional legislative authority if FWS had the desire, the will, and the funding to do so.

The larger question brought to the fore by H.R. 3639 is the issue of what research needs to be undertaken. We believe there are two principal answers to that question, both of which involve the important issue of ecosystem management.

The first ecosystem management issue which could benefit from a more focused research initiative involves the impact of water quality on sea otter conservation and recovery. The facts are that the current southern sea otter population is estimated at 3027. The existing southern sea otter recovery plan states that the sea otter can be considered for delisting when the population reaches 3,090 over a three-year period. The significance of these two numbers is that between 250-300 sea otters are stranded and die each year. If the mortality associated with these strandings is eliminated, the sea otter population can reach the threshold for delisting within one year.

Although the factors causing sea otter strandings are not understood with absolute certainty, the consensus is that degraded water quality is the principal causal factor. Indeed, a study conducted by Dr. David Jessup, a research scientist with the California Department of Fish and Game, and others, published in December 2007, reported on the trends of sea otter strandings and on the results of autopsies on recovered carcasses. Dr. Jessup and his colleagues

found that during the early to mid-1990s approximately 40% of stranded sea otters died of infectious or parasitic diseases originating from land-based sources. That number increased to 50% in the years 1998-2001. If all forms of disease (infectious and non-infectious) are considered, disease accounted for almost two thirds of the sea otter stranding deaths from 1998-2001. Significantly, researchers found a clear association between the proximity of fresh water inputs into the ocean and higher levels of sea otter strandings. Indeed, in 2003, FWS and NMFS declared an unusual mortality event with respect to southern sea otters when deaths significantly exceeded the ten year average. The likely cause of this spike in strandings and deaths was toxic algae blooms caused by nutrient runoff into the marine environment. As the existing sea otter recovery plan states: “The depressed population growth rate for the southern sea otter population is largely due to elevated mortality.... Infectious disease is the single most important known cause of mortality.”

This conclusion is supported by numerous other reports, including a report prepared by the California Department of Fish and Game, Wildlife Health Center at the University of California, and Applied Marine Sciences. That report, submitted to the California Regional Water Quality Control Board, Region 3 (Central Coast) in June 2007, further documented the concentration of persistent organic pollutants in sea otters. It demonstrated there is a clear linkage between sea otter deaths and both fresh water discharges and municipal wastewater discharges.

Another report by Dr. P.A. Conrad Davis of the University of California and others, published in 2005 in the International Journal for Parasitology, documents the effect *Toxoplasma gondii* has had on sea otter mortality. Toxoplasmosis, a parasitic disease, is a major cause of southern sea otter mortality. Analyses have shown that 52% of tested beachcast sea otters and

38% of live sea otters sampled along California's coast between 1998 and 2004 were infected with *T. gondii*. The report concludes that areas with high *T. gondii* exposure were predominately sandy bays near urban centers with fresh water runoff.

In their December 2007 report, Dr. Jessup and his colleagues pointed to a number of steps which can be taken to mitigate these water quality pollution problems. Included among these steps are tracing non-point pollution sources to their origins, identifying point sources, and enforcing Clean Water Act regulations on discharges. Other suggestions for action included improving the treatment capacity of sewage treatment plants and septic systems, improving agricultural practices, and minimizing sewage disposal from recreational and commercial vessels. Similarly, the June 2007 report by the California Department of Fish and Game recommended improved enforcement as an important step in protecting sea otters.

An enhanced research program regarding southern sea otters should further identify both the sources of the problem and the steps that can be taken to address those problems. Indeed, an enhanced research program could provide a foundation for identifying activities that are "taking" sea otters, as that term is defined in the ESA. That information, in turn, provides an additional factual basis for enforcing the no-take provisions of the ESA and for the development of habitat conservation plans pursuant to Section 10 of the ESA. Additional research could also provide a further basis for invoking the Section 7 consultation requirements of the ESA with respect to activities that are permitted, funded, or otherwise authorized by federal agencies and that impact water quality.

While H.R. 3639 directs research toward identifying the sources and effects of contamination, it does not direct that enforcement and control strategies be undertaken to ensure tangible and immediate benefits to sea otters. With that addition, H.R. 3639 could well provide a

more complete road map and action plan for implementation of conservation requirements that will improve water quality in the California waters inhabited by southern sea otters.

The Fisheries and Sea Otter Conservation Coalition believes that a significant amount of data already exists and that this data justifies implementation of many of the conservation activities identified above. In fact, absent a coordinated program to address this water quality issue, the Coalition, together with other organizations, is contemplating the merits of using existing authority under the ESA to institute legal action to require that FWS engage in a consultation under the ESA regarding the impact of federally authorized activities on sea otters and to also invoke the no-take provisions of the ESA.

The second ecosystem management issue that will benefit from research such as that contemplated under H.R. 3639 is the interrelationship between recovery efforts for the threatened southern sea otter and the environmental requirements for the recovery of the endangered white abalone. For example, FWS is considering the merits of allowing unlimited range expansion for the sea otter as a means of allowing population growth. A central premise of this idea is to allow sea otters to move into areas which may be less polluted by inland runoff. Leaving aside for the moment whether FWS is ignoring the real problem of degraded water quality, the range expansion strategy raises important ecosystem management issues because the areas into which the threatened southern sea otter would expand may impact primary habitat areas for the endangered white abalone.

There is no doubt that abalone are a principal prey of sea otters. There is also little doubt that sea otters forage at depths in which white abalone are found. Indeed, the State of California's Abalone Recovery and Management Plan concludes that white abalone recovery could be seriously threatened by sea otter range expansion.

White abalone are generally found at depths of 25-60 meters. Data from time depth recorders shows sea otters foraging in large numbers in waters deeper than 25 meters and often at depths of between 65-88 meters. Other studies and actions further document the overlap of sea otter foraging depths and the depth at which white abalone are found. For example, California adopted regulations to limit the accidental drowning of foraging sea otters by prohibiting the setting of gill and trammel nets on the ocean bottom in waters less than 109 meters throughout the sea otter's current range. The State took this action because of clear and convincing evidence that sea otters are foraging at those depths. One piece of that evidence was systematic surveys documenting large numbers of sea otters beyond the 90 meter depth contour.

In considering this data showing the overlap of white abalone habitat and sea otter foraging, it is also important to recognize that other data suggest that optimal white abalone habitat may occur at depths less than 25 meters and that white abalone may need to expand into these areas in order to recover. This optimal habitat is at depths indisputably subject to sea otter predation. Further, there is a complete overlap of the historic ranges of white abalone and sea otters. The white abalone's range extended from Point Conception into the Baja Peninsula in Mexico. The historic range of the sea otter extended from northern California or Oregon into the Baja Peninsula in Mexico.

Thus, an FWS strategy to allow unrestricted range expansion of sea otters may pose a serious threat not only to the recovery of the endangered white abalone but also to its continued existence. While white abalone populations have existed historically in the presence of sea otters, the impact of a new source of mortality in the form of sea otter predation on a species listed as endangered is an altogether different situation.

The significance of this data can also be seen in the fact that California's Abalone Recovery and Management Plan notes that sea otter predation decimated healthy abalone populations in central California, reducing red abalone densities by more than 90%. Red abalone depth distribution overlaps the white abalone depth distribution. Further complicating the issue of balancing the needs of the endangered white abalone and the threatened sea otter is the fact that in January of this year, NMFS proposed to list black abalone as an endangered species. The comment period on this proposal closed on April 10, 2008.

Additional research focused on the southern sea otter would be enormously beneficial in addressing how to balance what may be the competing needs of various species listed under the ESA. In the absence of any real focus by FWS on this important ecosystem management issue, the Fisheries and Sea Otter Conservation Coalition, together with other organizations, is contemplating the merits of instituting legal action under the ESA to force FWS to consult under Section 7 of the ESA on the impact of its sea otter conservation program on abalone so that the needs of these two species can be considered together, rather than singly, using the principles of ecosystem management.

In closing, I would like to raise one final issue regarding H.R. 3639. If the Subcommittee decides to proceed with H.R. 3639, we suggest that the composition of the Sea Otter Recovery Implementation Team and the Scientific Advisory Subcommittee include a balance of fishery representatives and fishery scientists as well as persons with expertise in water quality control and enforcement. We would be pleased to suggest specific amendments to address these matters. If we are going to seek solutions that address the needs of the sea otter and the abalone, that address the need to improve water quality, and that address the need to preserve California's shellfish resources, we need to have all of the affected parties participating in the process.

The California Sea Urchin Commission and the Coalition commend Congressman Farr and this Subcommittee for providing an important focus on the needs of the southern sea otter and on the need to address ecosystem management issues involving the relationship between sea otters and other species and the relationship between water quality and sea otter recovery. We thank you for this opportunity to appear and will be pleased to answer any questions the Members of the Subcommittee may have.