Lawsuit Threatening Survival of Southern Sea Otter Dismissed
by Don Mooney, Environmental Attorney, Davis, CA

In the last several years, large groups of up to 150 otters have periodically moved south of Point Conception into the Santa Barbara Channel, before returning north to their established range. These animals represent a bright spot in an otherwise bleak picture for this threatened species. At a time when the failure of the California sea otter translocation program—that sent 140 sea otters to San Nicolas Island—has failed to provide protection against a catastrophic oil spill that could imperil the species, the otters may be able to solve this problem on their own if given the opportunity to naturally expand their range. The purpose of the translocation program was to distribute the population over a greater portion of their historic range, so that a smaller percentage of animals would be vulnerable to any single catastrophic event. Despite the failure of the translocation program and the otter population’s continuing decline, the otters have been expanding their range, making them less vulnerable to a catastrophic event.

However, a lawsuit brought by the Commercial Fishermen of Santa Barbara (CFSB) and others threatened this bright spot of range expansion. The lawsuit challenged the United States Fish and Wildlife Service’s (Service) decision not to capture and remove southern sea otters that had migrated into the area designated as a no otter zone, or the Management Zone, south of Point Conception. CFSB’s lawsuit posed a serious threat to the recovery and survival of the southern sea otter.

Fortunately, this past July, CFSB agreed to dismiss its lawsuit and wait for the Service’s final decision to modify or terminate the California sea otter translocation program. The Service expects to complete its evaluation and issue a final decision by December 2002. Dismissal of the lawsuit removes any immediate threat that the otters in the management zone will be captured or removed in the interim.

Friends of the Sea Otter (FSO), Defenders of Wildlife, and the Ocean Conservancy (formerly the Center for Marine Conservation), intervened in the action to defend the Service’s decision not to capture and remove sea otters in the Management Zone. The Humane Society of the United States and the Animal Protection Institute participated as amici curiae. FSO and the other groups were concerned that any effort to capture and remove sea otters would result in otter fatalities, impede recovery efforts, threaten the species’ survival, and violate the Endangered Species Act.

Although CFSB filed the lawsuit in April 2000, there had been little activity in the litigation. At a March 2001 status conference before Judge Margaret Morrow, it became apparent to the Court and the parties that the Service’s ongoing evaluation of the translocation program would be completed about the same time as the court would rule on issues in litigation. Due to the size of the administrative record (over 30,000 pages) and the time needed to brief the matter, Judge Morrow and the parties agreed on a May 2002 hearing date. Judge Morrow then expressed concern that regardless of how she may rule in the litigation, the Service was in the process of evaluating the program and regulations upon which she would base her decision. If the Service significantly modified or terminated the translocation program—as it seems that it must to protect the species—then any ruling from the court would immediately become meaningless. Judge Morrow will entertain a motion to dismiss or, in the alternative, encourage

Continued on page 5
President's Report
By Kim A. Beals, FSO President

The dream turned real this morning,
As soft edges in the shimmering haze
Became knife-sharp,
And beauty walked right through the open window.

“The Dream”
Margaret Wentworth Owings

Friends of the Sea Otter is just that, a dream turned
real. Due to the marvelous vision of Margaret
Wentworth Owings and Dr. James Mattison, the
preservation and protection of sea otters is
established around the world. On July 30, 2001, the
dream, vision, and hard work of several
individuals—including FSO—secured the Dismissal
of the lawsuit filed by fishermen in Santa Barbara
against the U.S. Fish and Wildlife Service (Service).
The lawsuit filed by the fisheries sought to force the
Service to capture and remove sea otters found
south of Point Conception in Santa Barbara County.
The fisheries’ argument was that removal of the
otters from this no otter zone would allow them to
catch more abalone and sea urchins, the otter’s
primary diet. It is well established that translocation
of these fragile creatures causes an immense amount
of stress. Further, the attempt to translocate
approximately 140 sea otters on San Nicolas Island
by the Service between 1987–1990 was a failure;
only a small fragment remains—approximately 20.

The Dismissal of the fisheries’ lawsuit has, for at
least the time being, provided an additional window
of time for further research and development of an
effective recovery plan for the sea otter. FSO
continues to be vigilant in our efforts to keep check
on these developments, advising our members and
friends by publication of The Raft, meetings, and
our website. FSO would like to extend our gratitude
to the tireless efforts of our attorneys, Donald
Mooney of Davis, California and Donald Baur of the
Washington D.C. law firm of Perkins Coie.

Another recent lawsuit challenged the federal
government’s approval of 36 leases for oil and gas
drilling or well reworking operations. On June 20,
2001, United States District Judge Claudia Wilken
signed an Order granting the Plaintiffs’ Motion for
Summary Judgment. FSO, among others, joined the
lawsuit—arguing that this activity created a threat of
serious, irreparable, or immediate environmental
harm which clearly could impact an already-fragile
population of sea otters. An oil spill, possible at any
time, could cause catastrophic results to an already-
fragile population. The Motion for Summary
Judgment resulted in the setting aside of the federal
government’s approval of the 36 leases. In
conjunction with this Order though, the Court
directed the approval of a lease suspension for a
sufficient time for the Mineral Management Service
to provide the State of California with a consistent
determination in compliance with the Coast Zone
Management Act and its implementing regulations.
Again, FSO will keep our members and friends
apprised as matters progress.

Finally, FSO is continuing in its efforts with
research development in Washington State. We are
currently awaiting proposals, coordinated through
Ron Jameson of U.S. Geological Survey, pertaining
to the shore monitoring of radio-tagged sea otters or
research of environmental contaminants. FSO
recognizes the need to address sea otter concerns,
not only in Washington State, but also the sea otter
population in Alaska.

FSO would like to invite anyone interested in
learning more about FSO or sea otters to join us at
our Annual Meeting, October 13, 2001. We sincerely
thank all contributors to our organization for their
dedication, time, money, and—above all—their
continued assistance to keep the dream alive.

Call for Board Members and Volunteers

There is currently an opening on the FSO Board
of Directors. If you are interested in serving on the
board, please give Kim Beals, Board President,
a call at (831) 373-2747.

FSO is looking for enthusiastic volunteers.
If you would like to help at the
Education Retail Center, in the administrative
office, or on other projects, please contact
Esther Trosow at (831) 642-9037.
Education Update 2001

By Mailee Flower, Outgoing FSO Education Director

FSO is proud to announce that we now offer two of our educational handouts, How Can I Help the Sea Otter and Southern Sea Otter Fact Sheet, in Spanish. They are available through our website, at the Education Retail Center, and at the Pajaro Valley Arts Council. To request materials for classes, please call (831) 373-2747 or e-mail education@seaotters.org. In the future, we hope to have all of our materials available in Spanish.

Here at FSO we receive many requests from all over the world for sea otter information. As part of a new feature in The Raft, we will be printing some of our favorite letters and/or drawings that we receive (see page 10). In addition, we will also be featuring some of our favorite letters and drawings on our website in the Kids Area. We really enjoy hearing from people concerned with the plight of the sea otter, so please keep the letters coming.

On August 25th, FSO attended the Ocean Festival 2001 at Watsonville Plaza. The event, organized by the Pajaro Valley Arts Council and For the Seventh Generation, was a complete success. The Monterey Bay Aquarium provided rubber stamp activities along with a huge blowup interactive squid, and Save Our Shores put on a bilingual puppet show. At the FSO booth, children were provided with Otter Pup coloring books, crayons, and stickers. We were touched by many of the donations we received from young children. The next community event FSO will be attending is the Shark Festival and Sanctuary Celebration on September 30th at the Santa Cruz Wharf from 11:00 a.m. to 4:00 p.m., so we hope to see you out there!

Meet Tom Kieckhefer
New FSO Education Director

As of September, Tom Kieckhefer will be taking over as the Education Director for FSO. Mailee Flower has chosen to take some time for an extended road trip of the United States and Baja. Although it is hard leaving FSO behind, she is looking forward to the adventures in store. She feels good leaving things in the hands of Tom, who is highly qualified and has a great deal of experience doing non-profit education.

Tom is the president and a co-founder-director of the Pacific Cetacean Group. He received his Master’s degree in marine science through Moss Landing Marine Laboratories/San Jose State University. He has researched several marine species—from humpback whales, killer whales, bottlenose dolphins, Dall’s porpoises, elephant seals, and sea otters, down to schooling fish and krill. He has over 15 years of research experience in marine biology from which to draw ideas: he co-established an outreach education program called Reach Out Marine Mammal Program (ROMMP) and developed a marine mammal sound kit for teachers and students of all ages. To complement these educational programs, he is currently working on several marine mammal research projects, including a sea otter ecology project in Elkhorn Slough and a humpback whale feeding ecology project in Monterey Bay. His special fields of interest are the study of marine ecology, diving physiology, bioacoustics, communication, and predator-prey relationships. He looks forward to educating the public about the protection and survival of sea otters.

Friends of the Sea Otter 2001 Annual Meeting Weekend
October 13–14, 2001

Saturday, October 13, 2001
4:00–5:00 p.m. Silent Auction/Wine Tasting at the FSO Education Retail Center (To include work by local photographer, Brad Cole)
6:15–6:45 p.m. Private Sea Otter Feeding at the Monterey Bay Aquarium
6:50–9:00 p.m. Annual Meeting at the Monterey Bay Aquarium.
Speakers will include:
Fred Keeley—(California State Assembly Speaker pro Temp)
Melissa Miller—(Fish and Game Veterinarian and Wildlife Pathologist)
Andy Johnson—(Monterey Bay Aquarium Director of Sea Otter Research and Conservation Program).

Sunday, October 14, 2001
9:00 a.m. and 12:30 p.m. Otter Spotting at the Elkhorn Slough Safari Nature Tour. Cost is $20.00 per person. Reservations are required, and seating is limited to 22 people per boat.

Check our website for updates to the schedule: www.seaotters.org/Events/
Dr. Dan Doak, my conservation biology professor, said: “The best tool to save an endangered species is a good understanding of its biology.” This is true for any managed species and especially for the southern sea otter (*Enhydra lutris nereis*). One useful way to understand the biology of the sea otter is to count calories. In other words, knowing how an otter obtains energy and how it uses energy is useful in understanding it.

John Priestly is the great-grandfather of modern physiology and bioenergetics. In 1774, he established that a candle in a closed chamber made the air unfit for a mouse, just as a mouse made the air unfit for a candle flame. Dr. Max Kleiber of U.C. Davis poetically linked the candle flame to energy use in animals, writing the classic work *The Fire of Life*. This is an apt metaphor, because almost all living things have a slow fire, taking up oxygen to burn sugar, giving off carbon dioxide, and producing energy for jogging, *Monopoly*, swimming, or flying. In fact, burning sugar will produce the same amount of heat as eating and metabolizing the sugar.

The oxygen consumed or the carbon dioxide given off by an animal is one way to measure metabolism. It is easy to do when your animal is sedentary and can be kept in an enclosed space. This measurement is the basal metabolic rate, or the energy required for maintenance of the animal. This is a benchmark in studies of energy use and is helpful when comparing animals of the same species or animals of different species.

Measuring the energy use, or metabolism, of an otter is very important to estimate food consumption. The basal metabolic rate of a sea otter is twice as high as a mammal of comparable size—you could say otters burn the candle at both ends. This is very likely an adaptation to their aquatic existence. Water will remove heat from an otter 25 times faster than air. Demonstrate this to yourself by comparing 70° water to 70° air: the water will feel much colder. A constantly elevated metabolic rate is unusual even among marine mammals. Otters are one of the smallest marine mammals, and this means they have more surface area to lose heat for each kilogram of heat-producing tissue. In addition, otters rely solely on fur for insulation and do not have insulating blubber. All this means otters must stoke their internal fires to stay warm.

An elevated metabolic rate requires a lot of food. Otters eat 25% of their body weight, while sea lions or dolphins eat 7% of their body weight in one day. This explains why so much of otters’ time is spent eating and foraging—and also grooming. Otters groom quite often, and a clean coat is crucial to stay warm. There was a tragic example of this in Prince William Sound after the Exxon Valdez oil spill. Most otters did not die of the toxic effects from the oil, but died of hypothermia after their coats became dirty and no longer provided good insulation.

One physiological trick otters may employ can be seen in your own metabolism. Try this: take your pulse immediately before a large meal and then again several hours later. Your pulse after the meal will be higher, a result of the extra energy it takes to digest the meal. Called the *heat increment of feeding*, it lasts about six hours in otters and substitutes for their normally elevated metabolism. During this time, otters typically rest or groom. Dr. Daniel P. Costa, of U.C. Santa Cruz, suggests that otters employ this strategy from indirect evidence, and Laura Yeates, also of U.C. Santa Cruz, is testing this hypothesis.

The best illustration of the utility of bioenergetics is the study of food choice in otters. Otters have a huge number of options for a meal: crab, urchins, abalone, snails, mussels, etc. But what is the best option? We know that when otters move into an area previously uninhabited by otters, they will eat abalone and crab rather than urchins, turban snails, or mussels. Why is this? The key is the net gain of energy for each prey item.

The various food items take different lengths of time to find and eat. Each item also has a different caloric value. This information is summarized in *Table 1*, comparable to a list ranging from ice cream at 7-Eleven (abalone) to rice cakes in your cupboard (urchins). Abalone (ice cream), although hard to find, has a big pay-off, while turban snails (rice cakes) are easy to find but have few calories. It is not surprising that otters choose abalone first, switching to less “profitable” species as the number of preferred items decline.

There are many other ways to study the energetics of sea otters. The average metabolic rate over several days can be determined.
with stable isotopes of water. The cost of a single foraging dive can be found using trained otters in the open ocean. All of these things help us understand the sea otter, and to quote the Senegalese conservationist, Baba Dioum, "In the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught."

For this reason, FSO actively supports research education. Research expands our knowledge of this species, and education teaches the value of sea otters. With this approach, informed citizens and biologists can inspire the best management decisions for the recovery of the sea otter.

<table>
<thead>
<tr>
<th>Prey Item</th>
<th>Mean energy per prey item (Calories)</th>
<th>Time to find and eat one prey item (minutes)</th>
<th>Rate of energy gain (Calories/minute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abalone</td>
<td>151.2</td>
<td>3.7</td>
<td>40.9</td>
</tr>
<tr>
<td>Crab</td>
<td>97.2</td>
<td>3.0</td>
<td>32.4</td>
</tr>
<tr>
<td>Turban snails</td>
<td>3.6</td>
<td>0.3</td>
<td>12.0</td>
</tr>
<tr>
<td>Mussels</td>
<td>1.4</td>
<td>0.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Purple urchins</td>
<td>0.8</td>
<td>1.0</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Table 1: Summary of caloric information for selected sea otter food species. Energy is in Calories, the same as found on food labels. Which would you eat?

Lawsuit Dismissed, continued from page 1

CFSB to consider dismissing its action pending completion of the Service's review of the translocation program. At a follow-up status conference in July, CFSB recognized that the lawsuit and the Service's review were on parallel tracks and agreed to dismiss its lawsuit.

The Service began its current evaluation of the translocation program in August 1998. At that time, the Service informally indicated that it would not capture and remove sea otters from the Management Zone, pending a final decision on its evaluation. In March 1999, the Service issued a draft Evaluation of the Translocation Program recommending that the Service declare the translocation program a failure because less than 25 otters remained at San Nicolas Island. On January 17, 2001, the last week of the Clinton Administration, the Service issued a Notice of Policy Regarding Capture and Removal of Southern Sea Otters in a Designated Management Zone (66 Federal Register 6649 'January 22, 2001'). The Notice formally advised the public that the Service had determined that it would not "capture and remove southern sea otters from the southern California sea otter management zone pending completion of" the Service's ongoing southern sea otter translocation program. The Service's ongoing review includes the preparation of a Supplemental Environmental Impact Statement and release of the final evaluation of the translocation program.

Continued on page 11
Memorial Gifts

A though we are saddened at the passage of our friends, our hearts are lighter with the knowledge that their loved ones have chosen to honor their memory with a lasting gift—assistance in the preservation of a rare and threatened species, the southern sea otter. We proudly acknowledge these gifts in memory of:

Edris Magee from Edris Hollister

Glen McCroskey from Mrs. Mona Lange McCroskey

Andrew Meyer from June C. Johnson

Elizabeth Walbroehl from Isabelle Entrikin

Nathan Wolfson from Barry Z. Stone

New Philanthropist

Yih Family Foundation
Alamo, CA

New Benefactor

Mr. Andrew Laurence
Alameda, CA

New Patrons

George Darlington
Bossier City, LA

Constance de Chevalier
Fremont, CA

Bob Harju
Purcellville, VA

Roberta Marchand
Carmel, CA

Michele Steele
San Jose, CA

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Joan Bauer
Philadelphia, PA

Mindy Bothwell
Napa, CA

Joan Daley
Marion, OH

Cathy Johnson Delaney
Edmonds, WA

Margaret F. Fuy
Cincinnati, OH

Valerie Gustaveson
Claremont, CA

Mrs. Robert Hampton
Carmel, CA

Lisa Karpf
Long Beach, CA

Julie Kerbaugh
Bridgeville, PA

Debbie Kirkwood
Amarillo, TX

Susan Landess
Belvedere, CA

Gay Lumsden
Arroyo Grande, CA

Diane McGeoch
Pittsburg, CA

Lorraine Mitchell
Victoria, Australia

John O'Keefe
Cary, NC

Jerry Pacheco
Newcastle, CA

Dale Phelps
San Jose, CA

Dorothy Jean Romano
Fountain Valley, CA

New Supporting Members

Lynn Ann Childs
Queensland, Australia

Don Davis, MD
Big Sur, CA

Katherine C. Klein
Felton, CA

Victoria Marsh
Stamford, CT

“The flow of time, obliterating yet containing all that has gone before—the sea’s eternal rhythms, the tides, the beat of the surf, the pressing rivers of currents... the stream of life flowing as inexorably as any ocean current from past to unknown future.”
Mrs. Leslie Andrews  
Santa Cruz, CA

Natasha Antonovich  
Montebello, CA

J.J. Bagnani  
Woodside, CA

Gary M. Baum  
San Jose, CA

Sarah Beeler  
Hampton, VA

Dr. Georgette Bellucci  
Pittsburgh, PA

William J. Betts  
Morton, WA

Jennifer Bocchino  
Ridgefield, CT

M.S. Bordwell  
Wheat Creek, CA

Gina Caps  
Half Moon Bay, CA

Paul Chrostowski  
Tacoma Park, MC

Leslie L. Close  
Pebble Beach, CA

Barbara T. Collett  
Eagle, CO

Dr. Ed Conrow  
Redondo Beach, CA

Marcelyn Cremer  
Alameda, CA

Stephen E. Crowell  
Sequim, WA

Marion De Groff  
Baltimore, MD

Cathy Johnson Delaney  
Edmonds, WA

Mr. & Mrs. Frank Delfino  
Castro Valley, CA

Ellie Eargle  
Granview, TX

Mark Eisner, Jr.  
Annapolis, MD

Betty Ellet  
Pacific Grove, CA

Karen Ellington  
Maryville, TN

Happy Fitzgerald  
Incline Village, NV

Marjorie Fontana  
Twain Harte, CA

Gregory Fowler  
Mountain View, CA

Mrs. Arthur W. Gardner  
Washington, DC

Chris Gebel  
Rocklin, CA

Nancy M. Glenn  
Sausalito, CA

Jeanine Goldberg  
Los Angeles, CA

Valerie Gordon  
Bedford, NY

Dr. & Mrs. Richard Greaney  
Arcata, CA

Marilyn Greenblat  
San Rafael, CA

Joel Greenwalk  
Terrance, CA

Jeff Grossman  
Needham, MA

Robert R. Harrison  
Novato, CA

Walter Helser  
Sisters, OR

Helen Herold  
Seminole, FL

Dan E. Hicks  
El Cajon, CA

Geraldine R. Jackson  
La Conner, WA

Patricia Jacques  
San Francisco, CA

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Long Beach, CA

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Norfolk, VA

Jacqueline Kaufer  
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Mr. & Mrs. Kern  
San Francisco, CA

Debbie Kirkwood  
Amarillo, TX

Hal Lahey  
Clarkson, MI

Mr. & Mrs. Kent H. Landsberg  
Santa Monica, CA

Barbara C. Landt  
San Francisco, CA

Amy Lane  
Castle Rock, CO

Mr. Andrew Laurance  
Alameda, CA

Helen Lustig  
San Mateo, CA

Colin Ma  
Portland, OR

Mimi MacDonald  
La Mesa, CA

Mr. & Mrs. William Marchiano  
Carmel, CA

Douglas Arthur Martin  
Greenville, OH

Bradford D. McCanna  
Shoreview, MN

Elise R. Meehan  
Wellington, Ontario, Canada

David Mendel  
Springdale, CA

Wendy Morgan  
Washington, DC

John F. Mortland  
Case Grande, AZ

Lifton Family Foundation  
Heltonville, IN

Brian Pallasch, CAE  
Washington, DC

Mrs. John B. Paxson  
Edinboro, PA

Rudolph Peterson  
Piedmont, CA

Ann Peterson  
San Diego, CA

Werner Pogebek  
Valencia, CA

Sherley M. Ridding  
Newport News, VA

Roma Philbrook Rentz  
Lake San Marcos, CA

Ann Rogers  
Santa Barbara, CA

Mary R. Rosenberg  
Murphysboro, IL

Karen Rossiter  
Stongsville, OH

Dr. & Mrs. Richard Schieffelin  
Port Angeles, WA

Ellie Schiff-Bernard  
Los Angeles, CA

Ted Schulze  
San Bruno, CA

Elmina Sewall  
Kennebunk, ME

Marilyn G. Seyler  
Mansfield, OH

Thomas J. Sharp  
Sherman Oaks, CA

Shawn M. Shawhan  
Seattle, WA

Shirley Sheffer  
Coral Springs, FL

Margot Sisler  
Carmel, CA

Marian Chase Snow  
Santa Clara, CA

Mrs. J.J. Sonderleiter  
Vacaville, CA

Sharon Soutter  
Bountiful, UT

Barbara L. Spaulding  
Saddle River, NJ

Donna Sprinkle  
Long Beach, CA

Judith Stanton  
Almaden, CA

Jeanne C. Stephenson  
Richmond, VA

Donna M. Swayze  
San Marino, CA

Mr. & Mrs. J. Sweitzer  
Orinda, CA

Michael Tulper  
San Rafael, CA

Charles E. Wadsorth  
Cranberry Isles, ME

William P. Wentworth  
Walnut Creek, PA

Susan J. Willey  
Carmel, CA

Jodie Williams  
San Diego, CA

Gerald D. Wilson  
Covina, CA

Warren L. Worthington  
Salinas, CA

Photo courtesy of Warren Worthington

The Silver Circle

We associate the widening circles from an otter's dive with the growing accomplishments of our work and the growing needs of our organization. Many of our Life Members and Benefactors continue to make substantial contributions, thus helping the circles to expand. On this page are members who added another circle to the otter's dive.

All contributions received prior to July 31, 2001

The Otter Raft • Fall/Winter 2001
Marine Life Protection Act: 
The Problems Facing California's Ocean Ecosystem

By Kaitlin Gaffney, The Ocean Conservancy, California Central Coast Program Manager

For far too long we have taken our oceans for granted, assuming them to be infinite resources incapable of exhaustion. On the West Coast, we are currently seeing the unmistakable signs of this long legacy of abuse and neglect.

- Already listed as “threatened” under the Endangered Species Act (ESA), the California sea otter populations have declined in five out of the past six years.
- Seven of 13 actively managed Pacific groundfish species have been declared overfished; the status of the other 50 groundfish species remains unknown.
- A panel of scientists recently found 14 marine fish off California to be at risk of extinction.
- This year, white abalone were listed under the ESA; and bocaccio, a rockfish, was petitioned for listing.
- Fish population declines have cut so deeply into commercial fishing income that the governors of California, Oregon, and Washington asked the Secretary of Commerce to declare a groundfish disaster.

Many human activities affect the oceans, including coastal development, offshore oil and gas development, and urban and agricultural runoff. However, a study by several distinguished marine scientists—recently published in the journal, Science—concluded that overfishing is the single most pervasive form of human disturbance to coastal ecosystems. The study noted that the impacts of fishing were not limited to targeted species, but affected the entire coastal ecosystem. Clearly, if we are going to turn the tide on mismanagement of the marine environment, we must begin by addressing the impacts of fishing.

Marine Reserves Are an Important Part of the Solution

Marine life reserves protect places in the ocean and all the life within them, as parks and wilderness have done for decades on land. All forms of fishing and other harmful activities are banned in marine reserves. As a result, fish are allowed to reach their full size and reproductive potential, ecosystems function with minimal disturbance, and a wide array of creatures are preserved.

The science behind marine reserves is clear—a recent National Research Council report found marine reserves to be an important tool for protecting biodiversity and managing fisheries. Scientists believe marine reserves are one of the few measures that can bring back depleted rockfish. In February 2001, 161 of the nation's preeminent marine scientists signed a consensus paper concluding that marine reserves result in long-lasting increases in the abundance, diversity, and productivity of marine organisms, and that a network of marine reserves will be necessary for long-term conservation of fisheries and biodiversity.

In spite of the strong scientific evidence regarding the effectiveness of marine reserves, currently less than two tenths of a percent of California's ocean waters enjoy full protection from harmful activities such as overfishing.

California's Marine Life Protection Act

In 1999, recognizing the need for additional ocean protection, Governor Davis signed the Marine Life Protection Act (MLPA), a law designed to create a coordinated network of fully protected marine life reserves and other types of protected areas representing the varied habitats and sea life communities in state ocean waters (from shore to three miles out). The goals of the MLPA are to protect biodiversity and special places, help sustain and rebuild fisheries, and improve opportunities for study and public enjoyment of intact ocean ecosystems.

The MLPA is truly landmark legislation. Unlike fisheries management laws designed to ensure continued supply of commercial or recreational fish stocks, one of the primary goals of the MLPA is to "protect representative and unique marine life habitats in California waters for their intrinsic value."

The MLPA created a team of scientists to assist the Department of Fish and Game (DFG) and other agencies in preparing a master plan for marine protected areas, including new sites and improvements to existing ones. In June and July of 2001, the team released preliminary draft siting plans for each of four regions of the state. The initial proposals identify only a very small percentage of coastal waters to be placed completely off limits to fishing with additional areas given less stringent protections. In spite of the modest nature of the initial DFG proposal, the MLPA
facing strong opposition from some quarters. Under the MLPA, the Department of Fish and Game is required to submit a draft master plan to the DFG Commission for approval next year.

**What You Can Do to Help**
The MLPA's success depends on public support. The Governor and the DFG need to hear that you support full protection for some areas of California ocean ecosystems. Write to DFG and voice your support for a substantial network of marine reserves. Specific recommendations for areas warranting protection are particularly useful.

Address your letters to:

Paul Reilly, DFG,  
20 Lower Ragsdale Drive, Suite 100,  
Monterey, CA 93940  
FAX: (831) 649-2894  
E-mail: preilly@dfg.ca.gov

Send a copy of your letter to:

Governor Davis  
1st Floor State Capitol Bldg.  
Sacramento, CA 95814  
FAX: (916) 455-4633  
E-mail: graydavis@governor.ca.gov

Messages to include:

- Marine reserves protect biodiversity and healthy ecosystems. I support protecting California's coastline with a substantial network of marine life reserves.
- Special places in the ocean deserve full protection, just as they do on land. I urge you to create fully protected reserves off Big Sur, in the Farallones underwater pinnacles, off Point Reyes Headlands, and in other scenic or diverse underwater spots.
- Many marine species are in trouble. The marine reserve network should be big enough to help these populations recover and provide insurance against disasters and management mistakes.

For more information on the MLPA, visit the Department of Fish and Game's Marine Life Protection Act web page at http://www.dfg.ca.gov/mrd/mlpa/ or contact Kaitlin Gaffney at The Ocean Conservancy at (831) 425-1363 or kgaffney@psinet.com.
Dear Friends of the Sea Otter,

The purpose of this letter is to inform you what we did for the California Sea Otter. My name is Alexandra Simone Dew. I started my own Marine Mammal club. I called it the Marine Action Club, or MAC. Today was our second meeting. We went up to a popular hiking and biking place near my house. We sold homemade lemonade and cookies to raise money for the California Sea Otter. We raised $44.60. We would like these funds to go to the conservation of the California Sea Otter. We would also appreciate it greatly if you sent us some information on the depletion of the California Sea Otter and what else we can do to help. We thank you for working to save the California Sea Otter. We hope one day there will be an ample population of California's Sea Otters.

Yours truly,

Alexandra Dew
The Marine Action Club
Alexandra Dew, President
Age 10 1/3

MY FAVORITE ANIMAL

The Southern Sea Otter is my favorite animal. It's amazing to me how these mammals have adapted to life in the sea and now rarely come on land. They are one of the few animals that use tools. One of the most interesting things to me about sea otters is that once they were almost hunted to extinction, but then they made a slow comeback. Sea otters are still a threatened species and they need our help. This year their population has gone down for the fourth year in a row.

There are some things I do to try to help the Southern Sea Otter. I saved my allowance and joined the Friends of the Sea Otter. This year for my birthday I asked my parents if we could go to the Friends of the Sea Otter annual meeting. They said yes. We're also going to visit Elkhorn Slough. At school, I always bring otter stuff for sharing. Pretty soon other people in my class started bringing me otter stuff they found. Even my teacher brought in a toy sea otter. I also tell kids that they shouldn't wear fur to look good. I remember how lots of otters were killed for their fur.

When I grow up I want to work at the Monterey Bay Aquarium to save sea otters. Now I study otters by reading about them. One of my favorite books is called Sea Otters by Marianne Riedman. It has lots of facts and good photographs of otters. I'm studying to be a marine biologist.

Natalie Neale, Age 7
Lafayette, California

By Mary Heather Fakowry
Age 8
Warrenton, VA
A drawing from her school journal
Lawsuit Dismissed, continued from page 5

Public Law 99-625, passed by Congress in 1986, provided the Service the authority to translocate southern sea otters from their then-current range to another location. P.L. 99-625 included containment provisions designed to keep the otters in one place so they would be more likely to establish a breeding colony and could be more easily protected, as well as to provide mitigation measures for commercial shellfisheries. The Service picked San Nicolas Island as the breeding colony and created a no otter zone or Management Zone south of Point Conception (except for the water surrounding San Nicolas Island). The containment program provides for the capture and removal of otters within the Management Zone through non-lethal methods. The captured sea otters would then be relocated back to San Nicolas Island or to the parent population along the central coast of California.

The Management Zone was developed as a compromise that allowed the translocation of up to 150 sea otters to San Nicolas Island. At that time, it was believed that a separate breeding colony of otters at San Nicolas would provide the species protection from a catastrophic event such as an oil spill along the central coast of California. The Service expected that by now a successful breeding colony of 400 otters would inhabit the waters surrounding San Nicolas Island. Unfortunately, the translocation program has been an absolute failure. The Service’s own failure criteria provide that a program shall be deemed a failure if within three years from the original translocation less than 25 otters remain. Since the early 1990s, there have been less than 25 otters at San Nicolas Island, and there is currently no expectation that the population will increase to meet the goal of a successful breeding colony.

The Service’s previous attempts to capture and remove sea otters resulted in high mortality rates. P.L. 99-625’s containment provisions require non-lethal means of capture and removal. The Service’s last effort to capture and remove—done in the mid-1990s—resulted in a 16% mortality rate. Thus, any effort to remove otters would violate the non-lethal containment provisions.

P.L. 99-625 clearly states that the Management Zone cannot include “the existing range of the parent population or adjacent range where expansion is necessary for recovery of the species.” Drawing up this Management Zone, the assumption was that this area would not be necessary for sea otter range expansion. It now appears that the area south of Point Conception is critical for the recovery of the southern sea otter.

The Service’s July 19, 2000 final biological opinion evaluating the containment of sea otters—including the capture and removal of sea otters from the Management Zone—supports the decision not to capture and remove sea otters from the Management Zone. This opinion concludes that the containment of sea otters, including the capture and removal of sea otters from the Management Zone, likely jeopardizes the continued existence of the southern sea otter. According to the biological opinion, due to food limitations, social requirements, and/or the health of the ecosystem within the main part of the sea otter range, sea otters need this extension of their range in order to recover their population. Continuation of the Management Zone precludes the necessary expansion into areas that the southern sea otter historically occupied. As the range of the southern sea otter becomes larger, the likelihood that a single stochastic event could cause irreparable damage to the population decreases.

Thus, a continued range expansion is necessary for the recovery of the southern sea otter and should result in a redistribution of population that reduces the incidence of disease and exposure to contaminants. Moreover, if the containment program continues, it would exacerbate the current decline of the southern sea otter by artificially restricting its range to a relatively small area where the adverse effects of oil spills, stochastic events, and disease are likely to affect a greater percentage of the population.

The Dismissal of CFSB’s lawsuit eliminates the immediate risk that otters within the Management Zone will be captured and removed under a translocation program that failed from the beginning and has no realistic hope of ever achieving its goals. The quid pro quo for containment under P.L. 99-625—establishment of a successful southern sea otter colony at San Nicolas Island—has not come about. The translocation program has failed, and any effort at containment now jeopardizes the individual sea otters that are captured and relocated, as well as those within the parent population. FSO continues to support the Service’s declaration that the translocation program is a failure and urges abolition of the Management Zone.

In agreeing to dismiss its lawsuit, CFSB reserves the right to challenge the Service’s final decision whether the translocation program, including the containment program and Management Zone, should be modified or terminated completely. The Dismissal also allows the Service to use its limited resources completing its evaluation of the translocation program (rather than defending its interim decision to act in the best interests of the sea otters). The Service expects to issue a Draft Supplemental Environmental Impact Statement in the winter of 2002 and issue a final decision by December 2002.

Don Mooney, an environmental attorney, has been an advocate for FSO for over eight years. Previously with Stuart & Stomach, Don Mooney is now in private practice providing his assistance and expertise to FSO on a predominantly pro-bono basis. Thank you Don for all of your superlative work.
Our Mission

Friends of the Sea Otter (FSO) is a not-for-profit organization founded in 1968 dedicated to the protection of a rare and threatened species, the southern sea otter, as well as sea otters throughout their north Pacific range, and all sea otter habitat.

Photo courtesy of Leora Worthington