THE FIRST ISSUE

This first issue of the OTTER RAFT marks a year since FRIENDS OF THE SEA OTTER become an organization. We commence this news sheet as a report to the membership on our activities and outlook -- as the sea otters raft, dive and feed along the California coast.

The membership has passed the 500 mark this month -- with 400 members in California and 110 from out of state. The response has been generous and reassuring. We are moving ahead with a Research Program, led by Dr. Richard Peterson at the University of Calif. in Santa Cruz -- to understand the biology of the otter, thus gaining knowledge that can be used for conservation and protection of a rare species.

This research team is working closely with the State Fish & Game transplant operation, involving the relocation of 20 otter from the southernmost herd (close to commercial Abalone fishing waters) north some 40 miles into the center of the Otter Refuge. 20 members of FRIENDS OF THE SEA OTTER have volunteered as "otter watchers," to observe and report otter behavior and aid in the otter census carried out each month by the Department of Fish and Game.

Commencing this winter, a census taken by Fish & Game's low flying plane has repeatedly shown a marked increase in otter count from the 1966 official report which was previously indicated to this membership. This new meticulous method of counting assures us a larger population than we had formerly known, and we are gratified.

Yet safety is not totally dependent upon numbers when a total population is concentrated along 75 coastal miles now subject to increasing pollution, contamination and oil spillage. No otter can survive in a poisoned marine habitat.

Margaret Owings

ADVISORY COUNCIL

Dr. Richard S. Peterson - Marine Biologist, U.C. at Santa Cruz
Dr. James Mattison, Jr. - Underwater naturalist and photographer
Vernal Yadon - Director, Museum of Natural Hist., Pacific Grove
Michael Johnson - Fishery Biologist
Margaret Owings - Conservationist, Big Sur
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Thomas Galli - Former naturalist, Point Lobos Reserve
William Watson - Conservationist, L.A.
PROBING THE SECRETS OF OTTERS THROUGH BIOLOGICAL STUDY

Do sea otters' feeding habits vary with the season? Do otters eat different food in different parts of their range? When slit limits, are otters able to find food? Do mother otters care for their young for a year or longer? How much do otters move about within their range?

These and other questions are occupying and fascincating those involved this year in sea otter research. Four of us from the UC at Santa Cruz have been studying the basic questions concerning the biology of Enhydra lutris (the sea otter's Latin name) with an aim to provide significant information upon which a sound conservation plan can be based. Calling to the attention of legislators the endearing qualities of our small, valuable otter resource is important — but sound biological data on growth of the herd and its feeding behavior should be more effective in the formulation of intelligent laws.

In each issue of The Otter Report, one of us will write about the work we are doing. I have been analyzing the feeding habits of otters in the Big Creek area, near Lucia, a region long used by otters. Of prime interest is the frequency of abalone use. Of 424 animals I have seen eaten by otters, 54 were abalones. Other items eaten were 4 urchins, 56 mussels, 19 crabs, 11 kelp crabs, 5 turban snails, 5 common starfish, 16 sea squirts and 25 tube worms. The amount of time and energy spent in obtaining an abalone appears to be greater than for a mussel — but mussels probably contain fewer calories of food energy than abalone.

Because of the relationship between energy expended in obtaining food and that contained in the food itself, I keep accurate records of the time spent diving prior to feeding. At the Big Creek area, otters (on the average) make between 3 and 6 dives between each abalone, but often bring up a smaller item on every dive. Small foods are difficult to identify through a telescope.

Judson Vandevere

HOW MANY CALIFORNIA SEA OTTERS?

A central question in the abalone-otter controversy has been, How many sea otters live in California? Many estimates have been made from airplanes, with observers "counting noses" between Morro Bay and Seaside. A few observers have driven along the area and scanned the ocean with telescopes. The resulting counts have varied considerably, but it seems clear that the population has been growing. A count of 254 was recorded in 1953. In the 1960's Fish & Game's aerial censuses ran between 500 and 600. In November, 1968, 664 were counted, a new record, but in March, 1969 the record was again broken: 931. Of the 931, 61% were within the Sea Otter Refuge.

How accurate are aerial censuses? Simultaneous counts from the air and from shore may provide an estimate. Generally, more otters are observed from shore than from the air. Probably the aerial observer does not distinguish a female and her young as two animals, since the juvenile may be resting on the female's abdomen.

In summary it appears that there may be about 25% more otters than counted from the air. A current estimate of the total is thus 1,200, but this is subject to change as techniques improve.

Richard S. Peterson

MOVING DAY FOR OTTERS

20 sea otters will be netted, transported in special cages, and released 40 miles from home by the Dept. of Fish & Game this year. Why?

Initially, a translocation project was proposed by the Calif. Senate to help reduce the conflict between the abalone industry and sea otters. The basic premise was that otters could simply be removed from the conflict area without harming them and released elsewhere. People who have observed certain dolphin movements, guess that the translocated animals would immediately migrate back to their home territory. The question, then, was how valid is the suggestion of reducing the conflict by moving otters? The answer to this problem may well provide some interesting information on the lives of otters and aid in their conservation.

To an avid conservationist, any wild animal should be allowed to occupy its natural "niche." Realistically, however, he knows that circumstances prevail which threaten the very existence of animals. The recent oil spill in Santa Barbara is a good example. If such a disaster should strike the Monterey-San Luis Obispo coastline, the entire otter population might quickly be exterminated. Several populations, scattered widely along the coast, would better insure survival of the species. "Transplanting" otters might, thus, aid in their survival.

A program which originally was intended to solve a political problem may, therefore, have positive value for sea otters if conducted as it has begun.

Dennis L. Judson
OTTER WATCHERS

On an afternoon late in April, in a small inlet north of Point Lobos, a lone otter slides quietly from a kelp-covered rock into the sea in search of food. His movement is not unnoticed. High on a bluff overlooking the cove stands volunteer "otter watcher" Dr. Albert Molen dyke. His binoculars follow the otter as it plunges and rolls through the green offshore water.

One of 20 volunteer watchers whose notes on otter behavior are recorded and studied by a team of experts from the University at Santa Cruz, Molen dyke now moves southward until he again raises his glasses. Below, an adult female otter is teaching her offspring to dive for food.

"While the young one watched, the mother dove and came up with a large, empty Abalone shell which she placed on her chest, pounded a couple of times — then dropped. The juvenile, went after it, placed the huge shell on its chest, started to hit the rough red outside, then finally dropped it," Molen dyke notes.

His observations, combined with the notes from other watchers, as well as Dept. of Fish & Game census reports are being included as an integral part of the ethological study being made by the UC research team.

Gene Warren

THE OTTER'S CAPACITY TO RE-ESTABLISH ITSELF

The first decline of the sea otter began in 1742 with the discovery of large herds of the animals by early explorers — Vitus Bering heading the Russian expedition. Their valuable fur brought a high price on the Chinese and London markets. By 1911 they had been hunted nearly to extinction. The Fur Seal Treaty of 1911 halted further exploitation of the remaining animals.

The otters lived and multiplied in the northern range (Aleutian and Commander Islands) and the southern group, at one time thought to be extinct, revived and increased from an estimated 300 animals in 1930 to over 900 animals at the present time. This increase in both regions occurred despite normal deaths from disease, natural enemies of sharks and killer whales, violent Pacific storms and illegal poaching by man. But the impact on his marine habitat by the present activities of man presents new fundamental threats that can defeat his ingenious capacity to survive.

James Mattissen, Jr., M.D.

POLLUTION PROBLEMS FACING THE SEA OTTER

The California sea otter survives in a precarious ecology. Direct predation by man is but one threat. They must also be protected from ever-increasing poisons, oil, sewage, industrial wastes and other pollutants.

A dying otter recently came ashore at Point Lobos Reserve with an extensive nose lesion which rendered the animal incapable of diving for food. The ulcerative lesion was found to contain harmful sewage organisms. Thus, conservationists should begin to clean up their sewage discharges.

The most deadly pollutant to otters is oil — which mats their insulating fur and causes death by exposure. A "Torrey Canyon" type disaster occurring even as far north as the Golden Gate, could completely destroy the California sea otter. The recent Santa Barbara catasrophe has demonstrated modern technology's inability to control major oil spills at sea. Senator Grunsky's recent bill to ban offshore oil drilling in the region of Monterey and Santa Cruz counties offers only slight protection to the otter without the addition of Marin, San Francisco, San Mateo and San Luis Obispo counties.

The most insidious threat, however, is a group of pesticides known as chlorinated hydrocarbons. Members of this group, such as DDT, are persistent, continually climbing the ecological ladder. Hopkins Marine Station studies have revealed extremely high levels of DDT in the marine life of Monterey Bay. Failure to ban the use of this group of pesticides could eventually result in extinction of the California sea otter.

If the oceans become so poisoned as to cause the extinction of the sea otter, what hope is there for mankind?

M.L. Johnson
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Big Sur, California 93920

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THAT THIS RARE SPECIES MAY SURVIVE
AND THRIVE

We are organized:

TO RESIST PRESSURES to introduce sea otter controls.

TO HALT ATTRITION by commercial abalone fishermen and poachers.

TO GUARD THE WATERS of the Sea Otter Refuge from pollutions of any type.

TO ACTIVATE RESEARCH and educate the public on the conservation of the sea otter and its ocean habitat.

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