CLIFFSIDE SEAT
by Margaret Owings

"We are the only species in nature working toward its own destruction... Whatever man is doing against wildlife and its chances of survival, he does against himself and his own future."  Romain Gary

The window is open, this fine weather day, and from my cliffside seat, the prospect drops 600 feet to the living and moving sounds below — the surf on rock, the swaying kelp beds, sea lions fraternizing, elephant seals bellowing near the quiet tipping and floating of a cluster of sea otters. Eleven, we count, and one with a pup! "A line in time", says Roger Tory Peterson, "in which every single species is a line in evolution."

Try, just try to perceive the million or more years in which this development, this evolution of the living elements in the sea below my window, took place. And try, try to grasp the frightening speed with which this work of evolution can be undone by man! During 61 years (1786-1847) some 175,000 sea otter skins were smuggled, poached or legally recorded as taken along the California coast. Their population diminished — until there were none. (That’s what the fur hunters thought — but a few stoic animals survived.) Prescott Sullivan (San Francisco Examiner, 1/15/75) refers to this survival as "the sea otter’s struggle to get its head above water." "But new forces", he observes, "are at work to swat him down".

And since the otter has returned, even his place in the long stream of time, is questioned. Man’s point of view tends to be limited to how the moment serves himself — with a measuring rod of days, weeks or months. He is quick to angrily judge 46 otters reoccupying old territories at Sunset Beach — as an “otter population explosion!” Yet these otter movements outside the confines of their existing range tend to be deliberate, try-and-return-try again, in character. Since the establishment of the Refuge in 1957, otters have moved (approximately) 30 miles to the north of its boundaries and 30 miles to the south — but their population itself is not showing strong trends of increase. From the perspective of my cliffside seat — the slow expanding range of the sea otter is simply the build-up of growth of living things in space and time.
HUMAN PRESSURES ON SHELLFISH
Judson Vandevere

The doubling of California's human population since 1948 and the development of increased skin diving expertise and technical aids has subjected the state's shell fishery resource to extreme pressure. Although the Department of Fish and Game has closed areas to permit shellfish populations to recover, these closed areas have been much poached by both commercial and sport fishermen. Sportsmen often exceed legal bag limits and often remove excessive quantities of sub-legals. The Department is considering a plan to permit slightly undersized abalone to be taken when removed for measurement. Injured abalone usually bleed to death, and those that survive are repeatedly removed for measurement by other divers until they succumb.

Examples of man's impact follow:

The number of sport divers taking abalones on commercial boat charters increased 400% between 1965 and 1974 and the abalones taken increased from 12,996 to 24,416 between 1965 and 1970.

Abalone taken by shore pickers in Marin, Sonoma and Mendocino Counties has increased 200% in the past 12 years and many areas that formerly were highly productive have become depleted.

The abalone fleet increased from 75 in the 1950's to the present 200 boats.

The number of skin divers who utilize the area from Pt. Arguello to Oregon increased 540% between 1960 and 1972.

The Diablo Canyon nuclear power plant's effluent killed 2,000 to 10,000 black abalone and 2,000 to 3,000 red abalone.

The catastrophic decline in the dungeness crab catch off San Francisco may be attributable to the considerable quantities of DDE found in the ovaries and eggs of female crabs.

The levels of DDT in the sediments of Monterey Bay increased at an average rate of 168% per year from 1971 to 1973.

Oil spills, sewer sludge containing heavy metals and other toxic substances from ocean discharges, and thermal warming by industrial cooling systems are additional examples of human caused pollution problems which affect the state's shellfish resource.

OBSERVATIONS FROM A BIKE
by Rick Ostfeld
Student

A bicycle is an excellent vehicle with which to perform a sea otter census. It's slow enough so that it is not inconvenient to stop frequently, trying not to miss a single otter, and fast enough so that it keeps up with a swimming otter. I have been studying an area, near the southernmost part of the otters' range, cycling over Monteña de Oro State Park and with special permission, the private estate immediately south (north of Pismo Beach). In addition to frequent censusing, I have been recording data on feeding behavior. Otters most frequently come up with large red and black abalones, apparently using a rock as a tool to loosen the abalone's grip on the ocean floor. The next most common foods are sea urchins and crabs.

Recently, a raft has formed outside a cove in Monteña de Oro. The otter count for this cove, and for the rest of the park has increased in the past five weeks. In recent censuses I have counted 26 to 40 otters off Monteña de Oro.

The private estate just to the south has been blessed with higher numbers, reaching 108 on April 8, although usually between 74 and 88, most of them rest in a large raft north of Lion Rock. On three successive censusing occasions, at about the same hour, 10:30 a.m., the same small fishing boat sped past within a few yards of the otters causing them to panic and dive to escape. I thought at first that the operators might be unaware of the disturbance they were causing. However, on the third occasion, the boat circled back and cruised right through the area where the otters had been resting.

One of the two men on board raised something
pointing it at the fleeing otters. Through binoculars, to my relief I saw him holding a camera with a telephoto lens. The boat remained for several minutes, churning up kelp. By that time the otters were far away.

Most of the visitors to Montaña de Oro who walk the bluff paths have expressed delight in seeing otters. Only rarely has anyone indicated resentment or distaste, although obviously these anti-otter sentiments exist. Also unfortunately, a lack of regard for the law exists. Worse, some people have little sense of respect for Nature or the home of one of Her animals.

This sea otter work is my off-campus study project. Friends World College which I attend, is a unique college for which a journal is required. Here is a quote from the most recent entry.

"... I am interested in the kind of research and technology which is put at the feet of Nature to serve Her. I get very distressed when I learn about different ways we are destroying the Earth and its inhabitants. It is all interrelated because everything in Nature is interrelated and interdependent and the consequences of each of our acts against Her are universal... When the otters are removed from the kelp bed, the sea urchins take over and smother or consume much of their normally diverse life. Nature has remarkable self-healing abilities but they are exhaustive... it becomes possible to put modern science at Her service to assist in Her constant drive to reestablish Her normal balance and health."

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**SEA OTTER RESEARCH by U. C. SANTA CRUZ STUDENTS**

The first academic course devoted solely to sea otters was given this past winter quarter by Dr. John Pearse, Associate Professor of Biology, at the University of California Santa Cruz. Dr. Pearse assigned his students to research and develop a "Formulation and Evaluation of a Policy on Sea Otters in California."

As part of the research for this project, several students wrote Dr. Betty S. Davis, Zoologist, requesting a variety of information on the sea otter. In response to questions by two students about the "conservationists' viewpoint and the ethics that led to that stand," Dr. Davis expressed the following thoughts:

"My own personal feeling is that a change is needed in human attitudes and values concerning wildlife. We must stop competing with nature and consider ourselves part of it before it is too late."

"My husband and I view the otter-abalone-man conflict as a classic confrontation between man and beast -- a real test case, with man (not the otter) on trial! Here is an animal, the otter, just beginning to stabilize after a return from near extinction. It poses no threat to the continued existence of any resources -- abalones, urchins, clams, crabs or lobsters -- as the otter's forage does not eliminate breeding stocks."

"... Will man, a top predator who does nothing to enhance the marine environment but much to deteriorate and exploit it, check his greed, examine his values, and allow a natural predator that belongs in and enhances this ecosystem to go on its way without human interference? We believe this is a question of great import and significance to man at this critical time in his history."

"... In summary may I pose this question to you: At a point in time when we humans are just beginning to understand and appreciate the preciousness of all the environment and the interrelationships involving all living and non-living portions of it, can we afford to risk manipulation of an important functioning element such as the southern sea otter, which is still making its way back from near extinction and whose important role in the nearshore marine environment is just beginning to become evident?"

---

**WE NEED SEA OTTER PHOTOGRAPHS**

**IN BLACK and WHITE**

For use in the OTTER RAFT and for press use. We receive requests from book publishers and authors. For these, the photographer would arrange his own fee.

We will pay $5.00 for first quality photographs.

8" x 10" – glossy prints

Send photographs for consideration. We will return those we cannot use and purchase those we select. (We cannot use colored photographs at this time.)
The sea otter-man-resource conflict is a complex situation without a simple solution but one thing is definite — more facts are needed! The southern sea otter is beginning to reoccupy areas where it existed over a million years before humans arrived along the California shoreline. En route, it is feeding upon a large number and variety of marine organisms within kelp forests. The otter is not endangering the survival of any invertebrate species but it is limiting the numbers and sizes of certain ones, while enhancing the numbers and growth of others.

The otter's beneficial role in influencing the biota of coastal waters is just beginning to be recognized. Its profound effects on productivity, structure, and dynamic relationships within kelp communities are complex and incompletely understood. Investigations indicate, however, that by preying on grazers -- such as sea urchins, abalones, crabs, and snails - otters enhance primary production by benthic algae. This enhancement leads to particularly rich kelp forests in terms of species diversity of biota present and increased shelter and nourishment provided.

Since otters appear to be especially important in maximizing the biotic potential of kelp forests and in maintaining their stability by controlling major grazers, a careful assessment of the otters' ecological role is mandatory before any decision is made about restricting their range. Detailed baseline studies of kelp communities before and after man and otter have an impact, as well as long-term investigations to determine the effects of otters on kelp, fisheries, and adjacent shorelines are also necessary.

In addition, research on the biology and population dynamics of the southern sea otter is critically needed. Observations of animals tagged for individual field recognition are imperative for obtaining accurate data on the population dynamics of otters in various sections of their range -- including movements, age-sex ratios, mortality rates and survival of young -- all data necessary for the translocation of a well-balanced reserve colony! Tagged animals could also provide basic information on live weights and metabolic rates of otters in the marine environment, and their time-energy budgets in different parts of the range.

A comparison of otter and human impact on all shellfisheries of California, correlating declines in areas outside, and to a certain extent inside, the otter’s range with increased use by man is also needed to bring matters into better perspective.

With these and other studies, the otter’s story will continue to unfold... we’ve just had a glimpse so far!

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**CENSUSES**

California Department of Fish & Game biologists conduct a range-wide sea otter census each June. 926 otters were counted from their plane in June 1974. Continuous references by Department spokesmen to a population explosion appear irresponsible when one compares this count with their June 1971 census of 959 and their all-time high count in January 1972 of 1,060.

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**CLAIRE T. DEDRICK**

Appointed
Secretary of the Resources Agency of California

Long involved in the conservation field, Mrs. Dedrick served as a Director and First Vice President of the Sierra Club, Founder and Director of the Peninsula Conservation Center and played a forefront role in many of the key environmental battles. We are proud to report that she joined us as a Friend of the Sea Otter in 1969 and has been following our work over the last 5 years.

**CHARLES FULLERTON**

Appointed
Director of the California Department of Fish & Game

Mr. Fullerton has been with the Department since 1947. He served as Deputy Director to Ray Arnett from 1969 to 1975. Now, in the key position of the Department, we will be looking toward constructive avenues of communication and the hope that a new direction will be provided for the southern sea otter.
Reg. Pajaronian - 2/8/75

As otters arrive, clams disappear

By BOB LEVY

State biologist Dan Miller says that because of the sea otter, a year from now there will be no more clamming on the beaches of Monterey Bay.

A group known as the Friends of the Sea Otter says, "So what."

Thus are drawn the battle lines of a hot environmental war being fought along California's Central Coast. But it's an environmental war with a twist, with issues more subtle than most.

It does not pit a meanie developer against a group chained to a tree to stop the advancing bulldozer. The differences between the Friends of the Sea Otter and the state Department of Fish and Game (DFG) — and the thinking these two groups represents — are really much finer than that.

In fact, in some areas there are no differences at all.

For example, Miller, who lives in Aptos and works at the DFG's Monterey office, and is one of the "bad guys" as far as the Friends of the Sea Otter are concerned, calls the otter the "cutest animal on earth" — and means it.

And Dr. James Mattison of Salinas, a frequent spokesman for the Friends, acknowledges that "sea otters compete with man" for shellfish.

But Mattison a physician, goes on to say — and here is the nitty-gritty of the controversy — that "if it's something that would require a choice between the sea otter and the human shellfish harvest, the shellfish would be secondary."

6 San Francisco Chronicle Thurs., April 17, 1975

Abalone Poachers Fined, Lose Licenses

Two commercial fishermen who were caught poaching abalone at the south end of the Point Reyes National Seashore in January were stripped of their licenses for three years and fined yesterday.

HERB CAEN

S.F. Chronicle-Examiner - 2/9/75

When it comes to sea otters vs. abalone, I have to go with the otters.

Sunshine, minus tide bring thousands here

Warm, sunny weather and minus tides drew sunbathers and clammers by the thousands to Santa Cruz County parks and beaches over the weekend.

Harold Bradshaw, area manager for the state Department of Parks and Recreation, called it "an excellent weekend ... good crowds ... a safe weekend." Only one incident was reported, that of a near drowning at Sunset State Beach. Otherwise, it was a nice weekend for all concerned.

Bradshaw said this morning he hadn't received exact counts on the number of people who came to the county to use the parks and beaches, but said campgrounds at Seacliff, Sunset and New Brighton were full and campers had to be turned away. Some of those camped along road sides and others pitched camp at Manresa Beach in spite of regulations against it. Manresa is a day-use facility with overnight camping not allowed.

The weather has been so good this year — from a camping standpoint — that attendance figures at the parks and beaches are soaring, Bradshaw reported. "Attendance last month was extremely heavy," he said, up almost 17 percent over January a year ago. "It may go as high as 20 to 25 percent over a year ago."

Bradshaw said if the present trend continues, over 4.5 million people will have used the state parks and beaches by the end of the fiscal year in June. Last year the figure was 3.4 million.

Another factor in this weekend's high crowd count was the low tide, Bradshaw said. This brought in large numbers of clammers seeking the tasty bivalves. "We had to issue a few citations for undersize clams," he said, because the clammers were reluctant to put those under 5 inches back. "It's kind of a thin crop," he said.

"There are a lot of small clams, but I have seen some good-sized ones, too, up to 8 inches," he added. "They're more serious threat than the otters," Bradshaw declared.

There is a place for otters

To the editor:

It is with a determined hand that I attempt to express my feelings concerning the place of the bequiling sea otter in our society. The sea otter is but one of a multitude of creatures which have manifested themselves upon the surface of our life-giving planet since time began. If there is a place for them, then there is certainly a place for him. We all must live in proper relation to one another in order to survive, so let us focus our attention upon these unique relationships.

3. Fishing in an accumulation of unfished stocks during the 1950s and early 1960s has adjusted to a lower annual yield in recent years.
4. Sea otters have depleted abalones along a 130-mile coastline.
5. Environmental degradation along some coastal areas.

6. URBAN ENCROACHMENT, increasing competition
7. Inadequate nursery habitat in some coastal areas.
8. Loss of fishing area due to closures near some islands.
9. Illegal activities by a few fishermen. This, the report said, is not widespread.

Sea otters: can people share the shellfish?

Watsonville Register-Pajaronian

Abalone depletion will be discussed

THE THREE researchers said that there are at least nine reasons that the abalone harvest has decreased so drastically:

1. Excessive picking pressure on sublegal abalones. The undersized ones thrown back suffer higher mortality in the handling.
2. The present size limits are too large to allow for optimum use of pink, white and green abalones.

Aptos Voice - Feb. 19, 1975

San Jose Mercury - 3/5/75
CALIFORNIA COASTAL COMMISSION NOTES IMPORTANCE OF SEA OTTER IN MARINE ECOSYSTEM

The people of California, by direct initiative in 1972, voted into law historic land use legislation entitled the Coastal Zone Conservation Act. The Coastal Commission was then created to prepare a plan for long-range conservation of resources in the California coastal zone.

The recently released Draft Coastal Plan provides for the “permanent protection of the remaining natural and scenic resources of the coastal zone” (p.1). This comprehensive plan (weighing two pounds) includes the sea otter as an important marine resource.

The Plan states: “Many important marine biological communities thrive (in the State tidelands of the Central Coast Region): the California sea otter, once nearly extinct, now ranges north of its official refuge well into Monterey Bay.” Further, “Valuable kelp beds support fish, invertebrates, and otters;” therefore, “protection and improvement of water quality are vital to all uses of coastal waters.” (pp.350-351)

A special area study for Monterey Bay is recommended to set policy guidelines for particular problem areas including: “openwater sewage discharges from local or regional sources, (and) expansion or restriction of the sea otter habitat.” (p. 351)

The sea otter’s impact on kelp beds is also noted: “Some Human Activities Have Caused Kelp Bed Losses.

Although California’s kelp beds vary radically over time in response to natural changes in ocean water temperature and currents, they appear to have declined since the turn of the century from about 100 to 75 square miles. Some of this reduction is attributed to human activities with several possible causes: sewage discharges that smother the sea bottom, reduce water clarity needed for photosynthesis, and may contribute to a rise in the population of sea urchins that feed on kelp; exploitation of the sea otter population (a natural predator of the sea urchin); thermal waste discharges that may raise the water temperature beyond the plant’s point of tolerance; or toxic discharges such as DDT and heavy metals.” (p.20)

Public hearings will be held during May 1975 in each coastal county. As a result of these hearings, final changes in the Draft Plan will be made and the Plan will be submitted to the Governor and state legislators in December 1975.

The Coastal Commission encourages public comments and support for this monumental endeavor to conserve our natural

CONSIDERATIONS ON A PROPOSED CRUDE OIL PORT AT ESTERO BAY

“Visualize the logical outcome of such installations inserted at the heart of a prime national asset. In its first phase, the crude oil port proposed for Estero Bay and its relatively invisible onshore operations, would produce less than a ripple on the surface of the gentle rhythm of life. But what do these innocent beginnings set in motion? An industrial complex, a San Pedro of the central coast?

We will have to strive to retain our inheritance of oceans, coasts and lands. The inheritance does not come to us free. Nothing is free but the exquisite beauty of the rare places of earth, given freely to us by the labor of millions of years of diligent nature.”

Emily Polk

THE OTTERS ARE GRATEFUL

We would like to operate our organization by the use of limpet shells for currency! In this way, the otters’ highly skilled “hands” could help. But alas, our otters are not trained otters and we must rely on the generosity of our friends to carry on our work.

Once again, we are filled with gratitude for our donors, some of whom have recently joined us as new LIFE MEMBERS ($100.00) while others who have been generous to us before have continued making SUSTAINING GIFTS ($100.00 and more). In addition we have our new category of PATRONS ($50.00). We list herewith, these friends of the otters with warmth and appreciation:

Mr. & Mrs. Edward Bassett, Mill Valley, Ca., Dr. & Mrs. Douglas R. Berg, Los Gatos, Ca., Marcelyn Cremer, Oakland, Ca., Mrs. Oscar Foley, Tacoma, Wa., Jessamine Goddard, Lambertville, N.J., Mrs. Sally Green Hart, Dallas, Tx., Katharine Boyd Hunt, Tucson, Az., Mrs. Lincoln S. Harris, Carmel Valley, Ca., Mrs. Dimock Heath, Gloucester, Va., Mrs. F. Waldo Jewell, Arvada, Co., Mr. & Mrs. Brooks McCormick, Chicago, Ill., Mrs. Eleanor B. Moore, San Francisco, Cal., Mrs. Thomas Ireland O’Connor, Pebble Beach, Ca., Jean M. Smith, Portage, Wi., Mrs. Sara E. Straus, San Francisco, Ca., Mrs. Helen Vandevere, San Francisco, Ca., Mr. & Mrs. Paul D. Verady, Santa Monica, Ca., Campbell Weir, West Chester, Pa., Mrs. John Welborn, Cora, Wy. Others, who have sent smaller gifts adding up to substantial contributions: Mrs. Ellie Schiff, Castro Valley, Ca., Mrs. Brewster Sewall, Kennebunk, Me., Mr. & Mrs. John Scott, Pasadena, Ca., Mrs. Eugene Shurtleff, San Francisco, Ca., Marjorie Yourcenar, North Harbor, Me.

SEA OTTER TOY

Stuffed Otter Toy

Carefully handmade by a friend of the Friends of the Sea Otters.

Immensely appealing to children (and adults!)

Large otter — $18.00 (18 inches long)
Baby otter — $12.00 (12 inches long)
Mother otter holding baby in her arms — $30.00

Send check with order (please include 6% Calif. sales tax)

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Carmel, Calif. 93921

SEA OTTER POSTER
photographed by — Daniel Gunther
(24” x 37”)

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Lynn Robinson
165 Roble Road
Oakland, Calif. 94618
"It seems that the more artificially complex man's affairs become, the more he yearns for the fundamentals – the things of the earth."

(Reflection from Roger Tory Peterson)

"I live in an area of Los Angeles County where a high-density population exists, to the direct mental and physical and even spiritual detriment of all our lives. How much more ugly it would be to know that there is no escape... The preservation of the sea otter is personally important to me – and frankly, I do not even claim to have seen them in the wild. My contact was through a one-way glass at Sea World and in short movies, etc. I want to know that they are safe; I want to know they will be safe; and feeling as I do, I also want to help insure that they will continue to regain lost ground."

Barbara Louise Smith,
San Gabriel, California

"I think that if God did not want the otter here, he would not have created them. So I think that it would be best to leave them alone."

David Smith,
Foothill High, Bakersfield, Calif.

"My grandmother, Mrs. Harry B. Allen, is a fond supporter of sea otters. She speaks of them, as she speaks of many things along this coast, as part of her circle of relatives and friends."

Sara Straus,
San Francisco, Calif.

"No one who has watched people watching otters along the Monterey coast can doubt that they are a tourist attraction. That must be worth something economically, if we look at everything with a money bias. Esthetically, there's no question that otters win over abalone! (I have dedicated my lifetime share of abalone to the sea otters."

Lynn Thompson,
Chico, Calif.

"I am writing for my children. We visited Monterey early one morning and saw an otter. He was floating on his back, swaying back and forth with the waves. The beautiful animal made us realize how sad the world would be if there were no animals such as this."

Lila DeAnn Kotoff,
San Jose, Calif.

"To hold the sea otter responsible for bringing about an imbalance of nature is something we aren't buying anymore – than we're buying abalone steaks at $7.50 a pound. Man is the real culprit."

Prescott Sullivan,
San Francisco Examiner,
Jan. 15, 1975
Hunters, the Russian sea otter fur against the Russian sea otter fur

came in art form. The Tlingits definded
in which the entire environment be-
the sea otter (and otterin) beloved in the
sea otter (and otterin) beloved in the

C. B. Gravel, Vancover, B.C.