

reduce dispersal of the translocation sea otters.

DATES: This rule takes effect on September 27, 1988.

ADDRESSES: The complete file for this final rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service (Service), Ventura Endangered Species Recovery Office, 2140 Eastman Avenue, Suite 100, Ventura, California 93003.

FOR FURTHER INFORMATION CONTACT: Jeffrey D. Opdycke, Field Supervisor, at the above address (805-644-1766 or FTS 983-6039).

SUPPLEMENTARY INFORMATION:

Background

Pursuant to Pub. L. 99-625, the original regulations found at 50 CFR 17.84(d) provided for a four-stage plan for the translocation of southern sea otters (*Enhydra lutris nereis*) from a parent population on the central California coast to a Translocation Zone around San Nicolas Island, California. The process described in the original regulations included techniques for capture, transport, holding, and release. During the first year of translocation, under the original regulations, it became apparent that the techniques could be improved to enhance survival and reduce dispersal of the translocated sea otters, and that improved techniques can be expected to have a lesser impact on the parent population.

Authorization of the translocation enabled the Service to translocate up to 70 sea otters a year, totaling no more than 250 sea otters in a 5-year period. According to the original translocation regulations up to 20 of the animals translocated each year were to be adults; the remainder were to be weaned, immature sea otters. The capture was restricted to the period between August and mid-October, during which time the weather in Southern California is mostly passive.

After capture, the animals were to be inspected by veterinarians and tagged for identification. Each year, up to thirty sea otters were to be captured prior to translocation and surgically implanted with radio transmitters. They were then to be released back into the parent population. Of the thirty radioed sea otters up to fifteen were to be recaptured and translocated to San Nicolas Island.

All of the translocated sea otters were to be transported from their place of capture to be held and observed in specially constructed holding facilities.

A minimum of 20 sea otters were to be translocated at each time; therefore, the captured sea otters were to be held in captivity until at least 20 individuals had been captured. After each sea otter was determined to be fit-to-travel, the group was to be transported by truck, then flown by airplane to San Nicolas Island.

Once at the island, the sea otters were to be transferred to a stationary floating pen, where they were to be held for up to 5 days. Male and female sea otters were to be held separately, and no more than ten sea otters were to be held in any pen. After allowing time for the sea otters to acclimatize to their new surroundings, the nets were to be removed from the pens and the animals allowed to leave at will.

The translocated sea otters were to be monitored to determine the population growth rate, behavior, impact on the marine environment, and dispersal tendencies. Sea otters from either population were to be restricted to their current range on the mainland coast north of Point Conception or to the Translocation Zone around San Nicolas Island. Any sea otter found in the "no otter" Management Zone was captured using non-lethal means and transported back to the Translocation Zone or the current mainland range.

Problems arose with the translocation during the first year of the project. The difficulties occurred primarily because sea otters became wary and increasingly difficult to capture after exposure to capture activities in their home territories. This affected the ability of the Service to select specific individuals for translocation. It also affected the time needed to obtain the correct number and composition of sea otters. As a result, the age ratio of translocated sea otters was very difficult to predetermine, as was the recapture of sea otters with radio transmitters. In addition, the stress imposed upon the animals while awaiting translocation in holding pens on the mainland resulted in several mortalities.

Another problem arose when the sea otters were held in floating pens at the translocation site. Instead of calming the animals and allowing them time to adjust to the new environment, the additional holding period increased stress and unduly agitated the sea otters. As a result, three sea otters died.

The final amendments to the regulations improve the probability for sea otter survival by minimizing stress, thereby enhancing the establishment of the population at San Nicolas Island.

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Technical Amendments to the Sea Otter Translocation Regulations

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: This rule amends the Translocation Regulations for southern sea otters, a threatened species of marine mammal, that were published in the *Federal Register* on August 11, 1987. The original regulations were promulgated for the translocation of southern sea otters to San Nicolas Island pursuant to Pub. L. 99-625.

The amendment rectifies certain technical problems identified during the first year of the translocation project. The problems concerned the age and number of animals released at any one time, the number of animals with radio transmitters to be captured, the reason for capture, and the retention of animals in temporary holding pens. The changes are expected to promote survival and

The changes are intended to: (1) provide more flexibility in selecting the ages of sea otters for translocation; (2) eliminate the restriction to capture sea otters only within the August to mid-October time-frame; (3) eliminate the requirement to surgically implant up to thirty sea otters with radio transmitters; (4) provide flexibility to either immediately transport sea otters or hold them on the mainland before release at San Nicolas Island; and (5) eliminate the restriction to translocate a minimum of 20 sea otters at a time. All other aspects of the translocation, including administration of the "no-otter" Management Zone, remain the same as stated in the original rule.

Pursuant to 5 U.S.C. 553(d)(3), the Service finds that good cause exists to have this rule take effect upon publication. It is essential to the success of this year's translocation that it commence during the period in which weather conditions are most likely to be favorable.

Summary of Comments and Recommendations

The proposed rule was published in the **Federal Register** on August 19, 1988 (53 FR 31722), at which time all interested parties were invited to comment on the proposal during the comment period that extended through August 29, 1988. Written comments on the proposal were received from the following organizations: Friends of the Sea Otter, Save Our Shellfish, and the Central California Council of Diving Clubs (Council). Friends of the Sea Otter supported the second year phase of the translocation and all procedural modifications, as proposed. Save Our Shellfish and the Council did not support the proposed changes and provided comments on the proposed rule, as well as comments of a general nature concerning the translocation project or responding to an annual report on the project.

The Marine Mammal Commission recommended in a comment on the Service's application for a permit for the translocation project under the Endangered Species Act that future status and progress reports should include assessments of the impacts of the reintroduction effort on the parent sea otter population in California. Since 1982, biologists from the Service and the California Department of Fish and Game have conducted spring surveys on the parent sea otter population in California. These data are provided below:

SUMMARY OF SPRING SURVEYS OF THE SEA OTTER POPULATION IN CALIFORNIA, 1982-88

Year	Independent	Pups	Total
1982.....	1,124	222	1,346
1983.....	1,131	120	1,251
1984.....	1,181	123	1,304
1985.....	1,124	236	1,360
1986.....	1,345	225	1,570
1987.....	1,430	220	1,650
1988.....	1,505	219	1,724

The Service plans to continue these spring surveys in future years. Based on the 1988 spring survey, compared to previous spring surveys, there is no evidence of any impact on the mainland population from translocating sea otters to San Nicolas Island.

Responses to all comments responding to the proposal are presented below:

Comment 1: The comment period of 10 days for the proposed rule was inadequate.

Response: The proposed rule explained why the Service limited the public comment period to only 10 days. The best time to capture sea otters for the translocation is during late summer and early autumn before the winter storm systems start to arrive on the central California coast. In addition, the availability of sea otters of the size required for the translocation is best during this same time period. Therefore, the implementation of a decision to carry out the second year of the translocation would have to begin as soon as possible to maximize the chances of establishing a new colony of sea otters at San Nicolas Island.

Comment 2: The Fish and Wildlife Service's containment program for the 1987/88 experiment has been inadequate.

Response: The containment program is a cooperative effort between the Fish and Wildlife Service and the California Department of Fish and Game and has been in effect since the first sea otters were released at San Nicolas Island on August 27, 1987. A Containment Strategy Plan developed and implemented by the Service outlines the program operation. The Service's Ventura Endangered Species Recovery Office has the lead for surveillance of the Management Zone, primarily by aerial and land-based surveys. All reports of sea otters in the Management Zone are validated by the Ventura Office biologists. If otters are found, their activity is closely monitored preparatory to mounting a capture effort. California Department of Fish and Game biologists comprise the principal

capture team at this time with support from the Service's management and research biologists. Transportation, release, and post-release monitoring of captured otters is accomplished primarily by Service biologists. Service biologists are expected to receive training in the use of rebreathers this year after which they will also participate more intensively in capture operations. As of late July 1988, 37 reports of otters have been received, only 15 of which proved to be sea otters. A female and her pup were captured and returned to the mainland range. No otters have become established in the Management Zone.

Comment 3: The rule should specify improvements to the containment process.

Response: The existing rule does not limit or restrict containment operation beyond the requirement to use non-lethal means. The Service and/or the California Department of Fish and Game can implement new non-lethal procedures within the Management Zone without proposing a rule change. Improvements are currently being implemented. For example, Service biologists are expected to receive training in the use of rebreathers this year to augment future capture operations. Such improvements to the containment program do not need to be covered in any rule change in order to be implemented.

Comment 4: The rule should be augmented to specify attachment of radio transmitters or transponders to all translocated otters.

Response: The existing rule does not limit or restrict the use of flipper tag transmitters, therefore it need not be included in the proposed rule change. The Service requested and was granted an amendment to its Federal permit to use radio flipper tags. All otters translocated to San Nicolas Island this year will be flipper-tagged with a transmitter or transponder.

Comment 5: The statement that younger sea otters are less likely to disperse is not supportable.

Response: While several of the animals that returned to their mainland range were juveniles, in the opinion of the Service large or old sea otters are more likely to leave San Nicolas Island than are small or young animals. As of late July 1988, the average weight of the 14 sea otters that returned to the mainland (dead or alive) was 39 lbs. The average weight of 16 sea otters remaining at San Nicolas Island (four of the 20 individuals at the Island could not be individually identified, and thus their weights were now known) was 32 lbs.

These mean weights are significantly different (probability is less than 0.05; Student's t-test). The smallest animal that left the Island weighed 24 lbs. Of the 14 sea otters that left San Nicolas Island by late July, only 4 (29%) weighed less than 35 lbs., whereas of the 16 animals with known weights remaining at the Island, 12 (75%) weighed less than 35 lbs. These data clearly illustrate that small or young animals are more likely to remain at San Nicolas Island.

Comment 6: Future severe winter storms will tear out kelp beds and disperse sea otters.

Response: The Service agrees that severe storms will tear out some kelp beds and may also result in the dispersal of some otters. There is no indication such storms at San Nicolas Island will result in a failure of otters to colonize the island. San Nicolas Island differs from the mainland range of the sea otter in California in that there is always some part of the island that is protected from the full force of a storm. One of the worst winter storms on record occurred in southern California during January 1988. This storm caused considerable damage to the kelp beds around San Nicolas Island. However, there were still large amounts of kelp remaining after the storm.

Comment 7: The El Nino oceanic phenomenon will cause sea otters to disperse from San Nicolas Island, and as pelagic crabs become abundant as a result of El Nino, this forage base will assist in the dispersal of sea otters.

Response: There are no data to support this comment. Based on the behavior of sea otters at San Nicolas Island last winter, they will seek refuge in kelp that remains undamaged nearshore and on the protected side of the island. In addition, all the evidence from the first year indicates that the sea otters are "homing," rather than "dispersing." There is no evidence from the containment program that any of the sea otters have dispersed into the "no otter" Management Zone and become residents. Instead, all sea otters that have returned to the mainland have either been accounted for back in the parent population (homing) or they have disappeared (they have either died, not been resighted yet, or lost their tags and are not identifiable). It is unlikely to make much difference whether there is an increase in the abundance of pelagic red crabs, since the sea otters seem capable of reaching the mainland without the pelagic crabs. The sea otters that are leaving San Nicolas Island are not remaining between the islands, around the islands, or in the Management Zone, but rather passing through the Management Zone on their

way back to the parent population. It is unlikely that pelagic red crabs would alter this strong homing behavior.

Comment 8: The Fish and Wildlife Service failed to radio tag all sea otters translocated to San Nicolas Island.

Response: It was never proposed or planned to radio-tag all the sea otters reintroduced to San Nicolas Island. The original plan was to recapture and translocate about 15 sea otters that had been previously implanted with intraperitoneal transmitters. It turned out to be very difficult to recapture these sea otters; only three were translocated to San Nicolas Island. However, transmitters mounted on flipper tags were used on several of the sea otters taken to the island toward the end of the first year. It has been proposed that all sea otters translocated to the island in the future be fitted with flipper-mounted transmitters.

Comment 9: Any success gained by introducing young sea otters to San Nicolas Island will be short lived and likely undone in a short period of time as a result of the problems mentioned in the comments above.

Response: Comment Noted. In the opinion of the Service, there is good indication that with the proposed changes the translocation program will be a success, as examined in an environmental assessment prepared in August 1988 in connection with the adoption of these amendments.

Comment 10: One comment expressed skepticism that, with or without the proposed amendments, the Service would be able to capture a sufficiently large number of otters to establish a colony of 70 at San Nicolas. The respondent estimated that over 400 otters would have to be captured to provide the 250 they may eventually be translocated, and maintained that increased wariness of otters would hamper captures.

Response: The objectives of the changes in the translocation procedures are to reduce sea otter mortality associated with the capture and transport processes and to reduce the number of animals leaving San Nicolas Island. Based on an analysis of weights in relation to sea otters that have returned to the mainland population from San Nicolas Island, the number of homing sea otters will be significantly reduced by the proposed changes since it is likely that some animals died from stress after being released at San Nicolas Island, the proposed changes in the transport and release procedures should result in more sea otters being successfully established at the Island and thus somewhat reduce the number that need to be translocated.

Nevertheless, the Service recognizes that many more otters may have to be captured than are translocated, particularly since the Service will concentrate on translocating younger otters, so that the proportion released at capture will likely be greater during the second year. Due to recruitment, a large number of sea otters in the 25 to 35 pound range become available each year for capture. Given the multi-year time span of the translocation project, the Service is confident that it will be possible to capture a large enough number of otters.

Comment 11: Prior to translocation, the Fish and Wildlife Service stated there was sufficient knowledge concerning sea otter behavior to support a successful relocation. The failures of the first year appear to demonstrate that it has been a "learn as you go/on the job training program funded at great public expense."

Response: According to criteria established in the Translocation Plan, the first year's translocation effort is not a failure. Although the first year did not go as well as had been hoped, the results are sufficiently encouraging to continue with the project. Furthermore, as identified in the Translocation Plan, the purpose of the project is essentially twofold: (1) a recovery action; and (2) a research project to establish an experimental population of sea otters. From the beginning, the Service expected to gain new and important insights into the factors that determine a successful translocation as well as information on sea otter behavior and ecological relationships. These goals were presented as an integral component of the Translocation Plan.

Comment 12: Aircraft used for overflights should always be equipped with the proper receiving equipment to detect radio-tagged otters.

Response: This past year the Service has equipped survey aircraft with proper receiving equipment whenever searching for otters with radio transmitters that are missing from San Nicolas Island. This procedure will continue this second year. Radio tracking equipment has been ordered by the Ventura Field Office and will be used during all surveillance flights over the Management Zone.

Comment 13: The annual report excludes traffic other than fishing boats in assessing boat traffic in the vicinity of San Nicolas.

Response: Table 2 of the annual report on the sea otter translocation does not exclude vessels other than fishing boats. A kelp cutter and research and military vessels have been observed and

recorded off San Nicolas Island and are included in Table 2 under the category "Other Vessels." As indicated in the table, fishing activity accounts for the majority of the vessels at San Nicolas Island, and the number and frequency of island visits by "Other Vessels" is relatively small. For this reason kelp cutting, research, and military vessels were included in a single category. Should the activities of these or any other vessels increase and become significant, such activities will also be specifically identified.

Comment 14: How many otters remain at San Nicolas?

Response: As of the distribution date of the annual report in mid-August 1988, 20 sea otters had been consistently sighted at San Nicolas Island (see Page 3 of annual report). Since then, as the kelp beds were expanded, the otters have moved farther off-shore and consequently are more difficult to locate. This phenomenon also occurs on the mainland—autumn counts are always lower than spring counts. Surveys over the past few weeks have identified at least 14 otters in the nearshore waters around San Nicolas Island.

Comment 15: The Service promised not to restrict access to the vicinity of the island, but then imposed restrictions.

Response: In 1985, the Project Leader for the Office of Sea Otter Coordination, Sacramento, California, stated that the Service did not intend to restrict public access for otherwise legal activities at San Nicolas Island. Activities known to be harmful to sea otters, such as gill and trammel net fishing, were to have been restricted. The Service has not restricted or closed off any public access to San Nicolas Island, although it has assisted, at the request of the Navy (see pages 9–10 of annual report), with enforcement of preexisting Federal regulations promulgated in 1965 that close certain areas around the island to non-military vessel activity. Service Wildlife Officers have assisted the navy with informing vessel operators when they are in violation of Federal law.

Comment 16: One flying survey per month is inadequate to monitor the presence of otters in the Management Zone.

Response: In the opinion of Service biologists responsible for managing the containment program, a single aerial survey a month is adequate to determine if otters are becoming established in the Management Zone. In addition to this survey, the Service relies heavily on public reporting of sea otters and, in fact, most reports of sea otters received by the Service have been from the public. A "watch dog" committee has

been established by the fishing community to report sea otters observed in the Management Zone and to stay with the sea otters until the Service can arrive at the site for validation, monitoring and capture. Also, the California State Department of Fish and Game conducts monthly aerial surveys over portions of the Management Zone and reports to the Service any sea otters that are observed. Furthermore, State Law Enforcement Wardens patrol the Channel Island with several vessels and report sea otters if they are observed. Last, the Service has requested the National Park Service, National Marine Fisheries Service, State Department of Parks and Recreation and County Parks and Beaches to report any sea otters that are observed.

Comment 17: The annual report contains no information on observations of otter behavior, but considerable detail on observations of fishermen. The Service has placed more emphasis on observing fishermen than biological study of sea otters.

Response: The Service has in fact been gathering information on the behavior of otters. As an example, a preliminary analysis of 561 sea otter foraging dives at San Nicolas Island indicates the following proportion of food items in their diet: 51% sea urchins, 18.5% unknown, 9% mole crabs, 7% crabs, 4.5% black abalone, 2% snails, 1% lobster, and 7% of other known species.

Comment 18: The report is biased because it compares the San Nicolas translocation with the 1969–70 Washington State translocation, but not with an unsuccessful translocation in Oregon at about the same time.

Response: The discussion in the annual report centers around the initial decline, but eventual success, of a translocated population of sea otters. The Washington State reintroduction was a good example of what might be expected from a successful sea otter translocation. If the San Nicolas Island experimental translocation fails, then a comparison with the failed sea otter translocation in Oregon would be appropriate.

Executive Order 12291, Paperwork Reduction Act and Regulatory Flexibility Act

The Service has determined that this is not a major rule as defined by Executive Order 12291, that the rule will not have a significant economic effect on a substantial number of small entities as described in the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, and that the rule does not contain any information collection or recordkeeping requirements as defined in the

Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* These conclusions were reached after an analysis that is documented in a Determination of Effects of Rules, which is on file and available for public review at the address listed under **ADDRESSES**, above.

The effects of the amendments will not be significantly greater than those of the original rule. Since the establishment of the sea otter population at San Nicolas Island is not proceeding as rapidly as had been originally expected, effects to commercial and sport fisheries will occur later than had been projected. Projected increases in commercial kelp harvest may also be delayed.

National Environmental Policy Act

An Environmental Assessment pertaining to this proposal has been prepared and is available for inspection at: Ventura Endangered Species Recovery Office, (see **ADDRESSES** above). It has been determined that this is not a major Federal action significantly affecting the quality of the human environment within the meaning of section 102(2)(C) of the National Environmental Policy Act of 1969.

Author

The primary author of this final rule is Teresa Nichols, Ventura Endangered Species Recovery Office (see **ADDRESSES**, above).

Final Regulation Promulgation

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations is amended as set forth below:

PART 17—[AMENDED]

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*); Pub. L. 99–625, 100 Stat. 3500 (1986), unless otherwise noted.

2. Section 17.84 is amended by revising paragraphs (d)(2), (d)(3)(i), (d)(3)(ii) and (d)(3)(iii) to read as follows:

§ 17.84 Special Rules—vertebrates.

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(d) * * *
(2) *Description of experimental population.* The experimental population of southern sea otters shall include all southern sea otters found within the translocation zone or the management zone. The Service will translocate no more than 70 southern sea otters during the first year, supplemented as

necessary with up to 70 otters per year in subsequent years from the parent population to the translocation zone. Although a maximum of 250 southern sea otters may be moved from the parent population in order to establish the experimental population in the translocation zone, it is not likely that supplemental translocation after the initial 70 will involve more than small numbers of southern sea otters, although under this plan a maximum of 70 could be moved if needed in each year up to a total of 250. The majority of animals translocated each year will be weaned, immature sea otters with a sex ratio of about 4 to 1, females to males. Of the adult sea otters selected for translocation, approximately 3 out of every 4 animals will be female.

(3) *Translocation process*—(i) *Capture*. Capture locations will be selected primarily from the southern third of the range of the parent population. Sea otters will be captured using diver-held devices, dip nets, surface entangling nets, or other methods which may be proven to be safe and effective in the future. All captured otters will be tagged and examined by a veterinarian experienced in treating marine mammals.

(ii) *Transport*. All animals to be translocated will be transported directly to the translocation zone or held in specially constructed holding facilities prior to their movement to the translocation zone. Access to and care of animals will be restricted to Federal and State personnel and designated agents directly involved with the translocation. Each captured animal will be placed in a carrying cage and transported by truck to the local airport, from which point they will be flown to the translocation zone. From there they will be trucked to the release site.

(iii) *Release*. The animals will be released directly into the wild from their transport cages, or held for up to 5 days in secured floating pens at the release site. No more than 10 individuals will be held in any pen, and adult males will be

held separately. When held in floating pens the animals will be released passively by opening the floating pens and allowing animals to leave at will.

* * * * *

Dated: September 21, 1988.

Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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