

resident or wanderers ("Fact 13"). A bull found in the United States was obviously a wanderer from Canada ("Fact 15"). At the time of listing there was no herd in Idaho, so the population in Idaho was extinct ("Fact 14").

**Service Response.** As to questions about the historical range of caribou in the western United States, it is well-documented that it was once more extensive than it is today. Caribou once occurred as far south as the Salmon River in Idaho and as far east as the North Fork of the Flathead River in Montana (Evans 1960). Before 1910, they occupied the Selkirk, Cabinet, Purcell, and Bitterroot Mountains (Evans 1960, Layser 1974). By the 1950's, caribou were reduced to about 100 animals occupying about 1,000 square miles in the Selkirk Mountains, with remnant bands in the Cabinet and Yaak Mountains (Flinn 1956, Evans 1960). Although by 1983 most caribou use in the Selkirk Mountains occurred in British Columbia, some caribou also used, and continue to use, habitats in the United States. Regarding the argument that there was no herd in Idaho at the time of listing, hence it should be considered extinct in Idaho, the Service did not distinguish the caribou population by State, but by the United States population. Caribou movement within home ranges may cross political boundaries but that does not change the fact that the Selkirk population was in danger of extinction at the time it was listed, nor that it is still in danger of extinction.

**Assertion 4.** Old growth forest was "not established as a requirement" for caribou habitat ("Point 5").

**Service Response.** As to the assertion that old growth forest is not a requirement by caribou for forage, seasonal habitat use patterns and forage requirements of caribou have been documented by research in northern Idaho and British Columbia. Occasionally, caribou have been observed feeding on succulent, newly emerging vegetation in clearcuts during the spring. However, data show that, even during spring, caribou preferentially use old-growth and mature forest habitats as a source of forage (Wakkinen *et al.* 1992, Allen-Johnson in prep.). As to use of old-growth during other seasons of the year, caribou nearly exclusively use old-growth forest during early winter through late spring (Scott and Servheen 1984).

**Assertion 5.** Most of the poaching occurred in Canada, so it is erroneous to imply that the Act contributed to the reduction of poaching, since Canada is not subject to our Act ("Point 6").

**Service Response.** Cases of poaching in the United States have been documented before and after the caribou listing, and there is no information to indicate that poaching in the United States is no longer a threat.

**Assertion 6.** It is normal for population trends of caribou to increase and decrease ("Point 12").

**Service Response.** It is true that population numbers are often cyclic in ungulates; however, the United States woodland caribou population significantly declined by 1900, has continued to decline since then, and has not begun to recover. The Service cannot assume that a prolonged population decline is part of a natural cycle, and that the population will rebound. Furthermore, its numbers are so low, that the population is close to extinction.

**Assertion 7.** No "environmental impact statement was prepared for the listing" ("Point 3", "Fact 16").

**Service Response.** The petitioner is correct in stating that an environmental impact statement was not prepared. As stated in the **Federal Register** on October 25, 1983 (48 FR 49244), the Service determined that an Environmental Assessment need not be prepared in connection with regulations adopted pursuant to section 4 of the Act.

**Assertion 8.** "Listing is inappropriate because there are thousands of woodland caribou existing in Canada" ("Point 1c," "Fact 2").

**Service Response.** There are thousands of northern ecotype caribou in northern Canada and Alaska. However, the mountain ecotype caribou are far less numerous. The listed population of woodland caribou in the Selkirk Mountains is in danger of extinction throughout its range.

The Service maintains that the listed population of woodland caribou continues to require the protection of the Act. The Service concludes that no new information was provided in the petition that would support the removal of the woodland caribou from the List of Endangered and Threatened Wildlife.

#### References Cited

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#### Author

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#### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

**Authority:** 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

Dated: November 10, 1993.

**Richard N. Smith,**  
*Acting Director, U.S. Fish and Wildlife Service.*

[FR Doc. 93-29101 Filed 11-26-93; 8:45 am]  
 BILLING CODE 4310-65-P

#### 50 CFR Part 17

RIN 1018-AC10

#### Endangered and Threatened Wildlife and Plants; Proposed Rule To List the Flat-tailed Horned Lizard as Threatened

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) proposes to list the flat-tailed horned lizard (*Phrynosoma mcallii*) as a threatened species pursuant to the Endangered Species Act of 1973, as amended (Act). The Service is taking this action because of documented and anticipated population declines associated with widespread habitat loss, fragmentation, and degradation due to human activities such as agricultural developments, urban expansion, off-highway vehicle use, energy developments, and military activities. Pesticide spraying from adjacent agricultural areas may have reduced ant populations, the primary prey of the flat-tailed horned lizard.  
**DATES:** Comments from all interested parties must be received by January 28, 1994. Public hearing requests must be received by January 13, 1994.

arrangements can also offer significant benefits in reducing excess capacity and promoting efficiency.

In assessing the benefits of any of these agreements, however, the Commission need not wear blinders. If, in applying its expertise, the Commission establishes that reasonable and commercially proven alternative arrangements will provide most or all of the essential benefits without the same anticompetitive impact, it may weigh this fact in its decision calculus. The conferees agree, however, that this standard does not represent a return to existing law, under which proponents may have been compelled to show that no less anticompetitive alternative was available to obtain the benefits of the Act.

The Conferees intend that ocean carriers be free to structure their own affairs, except when such structuring violates specific statutory provisions or the new, more narrowly drawn, general standard. Even when an agreement raises potential issues under the general standard, the Conferees believe that the procedural framework for application of that standard will give carriers maximum flexibility. Carriers will be able to obtain a prompt ruling from the Commission under the new provisions for expedited review. If the Commission objects to an agreement under the general standard, the filing party may withdraw it, modify it, or force the Commission to make its showing in court. Even after such a court proceeding is initiated, the filing party retains the option of withdrawing or settling the matter with the Commission.

In sum, the general rules of operation and approval of agreements have been developed by the Congress with full awareness of the realities of international ocean carriage: a general standard has been retained to provide the necessary flexibility to deal with the unusual or severe cases not addressed by other prohibitions in the Act.

[FR Doc. 93-29072 Filed 11-26-93; 8:45 am]

BILLING CODE 6730-01-W

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

#### Endangered and Threatened Wildlife and Plants; Notice of 90-Day Finding on Petition To Delist the Selkirk Mountains Woodland Caribou

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of petition finding.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) announces a 90-day finding on a petition to delist the endangered population of woodland caribou (*Rangifer tarandus caribou*) located in the Selkirk Mountains of northern Washington, northern Idaho, and southern British Columbia. The

Service finds that the petition has not presented substantial scientific or commercial information indicating that the petitioned action may be warranted.

**DATES:** The finding announced in this document was made on November 10, 1993. Comments and materials related to this petition finding may be submitted to the Field Supervisor at the address below until further notice.

**ADDRESSES:** Data, information, comments, or questions concerning this petition should be submitted to the Boise Field Office, U.S. Fish and Wildlife Service, 4696 Overland Road, Room 576, Boise, Idaho 83705. The petition finding, supporting data, and comments are available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Dr. Charles H. Lobdell at the above address (telephone 208/334-1931).

#### SUPPLEMENTARY INFORMATION:

##### Background

The U.S. Fish and Wildlife Service received a petition on December 10, 1992, to delist the endangered population of woodland caribou (*Rangifer tarandus caribou*) located in the Selkirk Mountains of northern Washington, northern Idaho, and southern British Columbia. The petition was received from Peter B. Wilson representing the Greater Bonners Ferry Chamber of Commerce, Bonners Ferry, Idaho. The petition, dated December 9, 1992, clearly identified itself as a petition, and contained the name, signature, and address of the petitioner.

The petition and other documentation have been reviewed to determine if substantial information has been presented to indicate that the requested action may be warranted. Section 4(b) of the Endangered Species Act of 1973, as amended (Act), requires that listing determinations be made ". . . solely on the basis of the best scientific and commercial data available. . . ."

The petition to delist the woodland caribou is based on 16 "Facts," 7 "Points," and a "Conclusion," as stated by the petitioner. These statements can be synthesized into eight main assertions, which are summarized below, and followed by the Service's response.

**Assertion 1.** "No biological reason or need for the listing has been established by research and conclusion" ("Point 1a," "Fact 6"). The determination to list and maintain the listing of the caribou is based solely on conjecture ("Point 7") and "inadequate research" ("Conclusion").

**Service Response.** Determinations to list are made on the basis of the best scientific and commercial data available. The assertion that listing the woodland caribou is based solely on conjectures is based on the petitioner's interpretation of the draft revised Recovery Plan. The Recovery Plan stated a number of unknowns about caribou biology, population factors, and habitat variables. These statements are made in the context of the scientific process and not of a legal debate. Though it is true there is much to learn about the caribou, the Service had and continues to have enough information to warrant the listing of the caribou, including substantial information on habitat fragmentation, poaching, and a genetic bottleneck.

**Assertion 2.** "Biologically there is no distinction between the mountain and woodland caribou" ("Fact 1"). The mountain and woodland caribou ranges overlap ("Fact 4"). The woodland, not mountain caribou "have been transplanted to the Selkirk mountains for the purposes of increasing the existing herd and creating new herds from distinctly different locations in Canada—Revelstoke and Williams Lake area, Anaheim Lake area" ("Fact 5"). "The transplant of woodland caribou will ultimately taint, and thereby destroy, the 'distinct' herd of mountain caribou indigenous to the Canadian Selkirks" ("Point 1b").

**Service Response.** Woodland caribou (*Rangifer tarandus caribou*) occur in two distinct ecotypes: the northern ecotype caribou and the mountain ecotype caribou. The endangered population of woodland caribou in the Selkirk Mountains is of the mountain ecotype. Transplants occurred within the mountain ecotype range, from the Revelstoke population to the Selkirk population. Transplants also occurred from the northern ecotype range to the mountain ecotype range, as the Anaheim population is a northern ecotype caribou. No caribou were transplanted from the Williams Lake area. Chesser *et al.* (in prep) state that the addition of Anaheim and Revelstoke animals to the Selkirk Mountains population would allow for additional genetic information while preserving alleles and genetic variation in the Selkirk Mountains caribou population.

**Assertion 3.** It was not determined if the continental United States ever had a resident herd, and if so, if such herd was extinct before transplants began ("Fact 3," "Point 4"). There is inconsistent documentation on whether Montana ever had a resident population ("Point 2"). There is no evidence that the caribou in Idaho in the 1950's were

**ADDRESSES:** Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, 2140 Eastman Avenue, Suite 100, Ventura, California 93003. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address. The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Ventura Field Office, U.S. Fish and Wildlife Service, 2140 Eastman Avenue, Suite 100, Ventura, California 93003 (805/644-1766).

**FOR FURTHER INFORMATION CONTACT:** Mr. Craig Faanes, Field Supervisor at the above address or at 805/644-1766.

**SUPPLEMENTARY INFORMATION:**

**Background**

The flat-tailed horned lizard was originally described as *Anota M'callii*, a monotypic genus (Hallowell 1852 in Johnson and Spicer 1985). The holotype was taken from the western Sonoran desert between Camp Yuma and Vallecito. Girard (1858 as cited by Bryant 1911) rejected the name *Anota* in favor of *Doliosaurus*, and included two other species in this genus. Cope (1866 as cited by Johnson and Spicer 1985) changed the name to *Phrynosoma macallii*. Cope (1900 as cited by Johnson and Spicer 1985) later returned the species to the genus *Anota*, along with other species of horned lizards. Bryant (1911) removed the other species from this genus, again leaving the flat-tailed horned lizard in the monotypic genus *Anota*. Norris and Lowe (1951 as cited by Johnson and Spicer 1985) placed the species in the genus *Phrynosoma*, again with other species of horned lizards. Funk (1981) clarified the spelling of the specific epithet as *mcallii*.

The flat-tailed horned lizard is a small, cryptically colored iguanid lizard that is restricted to flats and valleys of the western Sonoran desert. It has the typically flattened body shape of horned lizards, a dark mid-vertebral stripe, a somewhat flattened tail, relatively long head spines or horns, and two rows of fringed scales on each side of the body. Dorsally, the flat-tailed horned lizard is pale gray to light rusty brown; the animal's ventral surface is white and unmarked. Maximum length, excluding the tail, is about 3.2 inches (Stebbins 1985).

The range of the flat-tailed horned lizard includes the Coachella Valley in Riverside County, California; the Imperial and Borrego Valleys in Imperial and extreme eastern San Diego Counties, California; northeastern Baja

California Norte east of the Sierra de Juarez, Mexico; south of the Gila River and west of the Gila and Tinajas Altas Mountains in Yuma County, Arizona; and north and west of Bahia de San Jorge in northwestern Sonora, Mexico (Johnson and Spicer 1985, Rorabaugh *et al.* 1987, Stebbins 1985, and Turner and Medica 1982). Within this range, the flat-tailed horned lizard typically occupies sandy, desert flatlands with sparse vegetation and low plant species diversity, but it is occasionally found in low hills or areas covered with small pebbles or desert pavement. Habitat with the greatest relative densities of flat-tailed horned lizards is characterized by surface soils containing some loose or windblown sand, but this species rarely occurs in dunes (Rorabaugh *et al.* 1987, Turner *et al.* 1980b).

Turner and Medica (1982) identified four areas of optimal habitat in California where flat-tailed horned lizard relative abundance indexes were relatively high. Three of those are located entirely within Imperial County, including southern East Mesa, southeastern Yuha Desert, and the Superstition Mountain area; and the fourth is located primarily within eastern San Diego County in the vicinity of Benson Dry Lake near Ocotillo Wells. In Arizona, an area southeast of Yuma also registered a relatively high abundance index (Rorabaugh *et al.* 1987).

About 29 percent of the lizard's historic range is in Mexico, but its distribution is not well known there. In Baja California Norte, flat-tailed horned lizards have been collected near the International Boundary, near Laguna Salada, and Mexicali, but its distribution is limited by extensive agriculture that extends from Mexicali to the Colorado River and by the wetland and riparian communities of the Colorado River Delta, the Rio Hardy, and Laguna Salada. South and east of San Luis, Sonora, and extending to the Gulf of California is a broad sandy plain that is similar to and contiguous with flat-tailed horned lizard habitat in Arizona. Records for the species exist from this area and at sandy flats near Puerto Penasco. Between these two areas is a region dominated by the large dune system of the Gran Desierto and volcanic or montane terrain in the Sierra Pinacate region, an area from which few locality records exist, and which probably has limited and patchy habitat for flat-tailed horned lizards (Gonzalez-Romero and Alvarez-Cardenas 1989, Johnson and Spicer 1985).

In California, remaining habitat is primarily administered by the Bureau of

Land Management (43.4 percent), private landholders (42.2 percent), Department of the Navy (6.9 percent), and California Department of Parks and Recreation (5.8 percent) (Bolster and Nicol 1989). In Arizona, land supporting the species is administered by the Bureau of Reclamation, Bureau of Land Management, Department of the Air Force, State of Arizona, and private individuals.

The Service included *P. mcallii* as a category 2 candidate for listing in its original Review of Vertebrate Wildlife, published in the *Federal Register* of December 30, 1982 (47 FR 58454). Category 2 species are those for which data in the Service's possession indicate listing may be appropriate, but for which additional biological information is needed to support a proposed rule. This species was again included in category 2 in the Service's revised Vertebrate Notice of Review of September 18, 1985 (50 FR 37958). Subsequently, the status of the flat-tailed horned lizard was elevated to category 1 on January 6, 1989 (54 FR 554) as new data on this species became available (Carlson and Mayhew 1988; Olech, undated; Rorabaugh 1987). Substantial information supporting the biological appropriateness of this proposed rule now exists (Bolster and Nichol 1989, Bureau of Land Management 1991).

**Summary of Factors Affecting the Species**

Section 4 of the Endangered Species Act (16 U.S.C. 1533 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal list. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the flat-tailed horned lizard (*Phrynosoma mcallii*) are as follows:

**A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range.**

Human impacts have resulted in the loss of roughly 34 percent of the historic flat-tailed horned lizard habitat. In California's Imperial and Coachella Valleys, a large portion of the flat-tailed horned lizard's habitat has been converted to urban or agricultural use or was flooded by the filling of the Salton Sea from 1905 to 1907 (Johnson and Spicer 1985, Rado 1981). The precise extent of this lizard's historic habitat cannot be quantified, because filling of

the Salton Sea and much of the agricultural development predates most collections of flat-tailed horned lizards. However, assuming that the flat-tailed horned lizard was well distributed within the areas of the Imperial Valley that are now occupied by agriculture, urban development, and the Salton Sea, about 40 percent of the flat-tailed horned lizard's habitat in California has been converted to other uses and no longer supports this species. Approximately 23 to 27 percent of the historic habitat in Arizona has been lost due to human uses (J. Rorabaugh, U.S. Fish and Wildlife Service, pers. comm., 1988). In Mexico, no estimates of habitat loss are available, but in Sonora less than 10 percent of the habitat has been converted to agriculture, urban, or other uses. Most of the impacts in Sonora are confined to the San Luis Valley. In Baja California Norte, Mexico, considerable habitat loss has occurred primarily in the Mexicali Valley where urban and agricultural development extends from Mexicali to the Colorado River.

Ninety-five percent of the remaining optimal habitat in California is threatened by one or more impacts including agricultural and urban development, off-highway vehicle use, geothermal development, sand and gravel operations, military maneuvers, and construction of roads and utility corridors (Carlson and Mayhew 1988). Urban growth is an important component of these threats. The 1990 human population estimate for the Coachella Valley was 227,000, which includes the Palm Springs metropolitan area and the northern portion of the flat-tailed horned lizard's range. The Coachella Valley Association of Governments (Lester Cleveland, pers. comm., 1993) projects that by the year 2010 over 497,000 people will reside in the Coachella Valley, plus 165,000 to 200,000 seasonal residents. In 1989, the population of Imperial County was 116,000. The cities of El Centro, Imperial, and Calexico all grew by about one-third between 1980 and 1989 (Bureau of Reclamation 1991). In addition to urban growth, a number of proposed projects threaten flat-tailed horned lizard habitat in California, including a planned prison, waste disposal sites, utility corridors, groundwater recharge projects, canal construction, and road construction associated with all the above. Gold mining and pesticide spraying are also potential threats (Bolster and Nicol 1989).

Of the remaining habitat in Arizona, 36 percent is threatened by various human impacts (Johnson and Spicer 1985). The Marine Corps Air Station at

Yuma is proposing to locate a large munitions storage facility in flat-tailed horned lizard habitat. The communities of San Luis, Yuma, and The Foothills are expanding into the habitat of this species. Agricultural development and road construction continues to expand from the South Gila, Yuma, and San Luis valleys to the south and east to adjacent upland areas occupied by flat-tailed horned lizards (Johnson and Spicer 1985, Turner *et al.* 1980a). A sewage sludge disposal site, State of Arizona prison facility, groundwater well field, and a desalinization sludge disposal site have been recently constructed in flat-tailed horned lizard habitat southeast of Yuma. A landfill and a new highway to connect San Luis and The Foothills are also proposed. In addition, the Marine Corps Air Station conducts limited ground maneuvers at the southwest end of the Barry Goldwater Range, and the U.S. Border Patrol patrols this area intensively and often travels off-road to follow tracks and intercept illegal aliens (C. Bates, Marine Corps Air Station, pers. comm., 1992).

Activities that adversely affect the lizard and its habitat in the United States also occur in Mexico, albeit to a lesser degree. Cooperative farms or ejidos, geothermal development, groundwater pumping, sand and gravel removal, and off-highway vehicle activity have contributed to habitat destruction or degradation in Mexico. Johnson and Spicer (1985) estimated 66 and 14 percent of the remaining habitat in Baja California Norte and Sonora, respectively, were threatened with destruction.

The flat-tailed horned lizard has usually been described as uncommon or rare (Klauber 1932, Turner and Medica 1982, Turner *et al.* 1980b, Rorabaugh *et al.* 1987). However, evidence suggests it was once more abundant. In the early 1960's this species was one of the most common lizards along Highway 78 in East Mesa, Imperial County, California (Carlson and Mayhew 1988, Mayhew 1965). However, this area was identified as supporting low densities of flat-tailed horned lizards during more recent surveys (Turner and Medica 1982). Norris (1949) speculated the species was fairly common in an area of the Coachella Valley where, currently, flat-tailed horned lizards occur in low densities (Barrows 1986, Turner *et al.* 1980b).

Declining relative abundance indexes have been documented at one of the four flat-tailed horned lizard optimal habitat areas in California—the Yuha Desert (Bureau of Land Management 1991; Gavin Wright, Bureau of Land

Management, pers. comm., 1993). Relative abundance is stable at two other areas in California, but data are inadequate to evaluate trends at the fourth area in California and in those areas in Arizona. Recreational off-highway vehicle activity, utility corridor construction, sand and gravel extraction, geothermal development, Border Patrol activity, and highway maintenance work are implicated in the declines of the flat-tailed horned lizard (Bolster and Nicol 1989, Bureau of Land Management 1991).

The Benson Dry Lake area was described by Turner *et al.* (1980b) as the most remarkable of the four optimal habitat areas in California. This area is managed by California Department of Parks and Recreation, and although not subjected to many of the impacts that occur on Bureau of Land Management lands, it is located within the Ocotillo Wells State Vehicular Use Area, and off-highway vehicular use there may be responsible for observed declines in flat-tailed horned lizards (Bolster and Nicol 1989). California Department of Parks and Recreation is in the process of expanding the Ocotillo Wells State Vehicular Use Area onto an additional 45 square miles of flat-tailed horned lizard habitat, currently under management by the Bureau of Land Management (California Department of Parks and Recreation 1986; K. Nicol, California Department of Fish and Game, pers. comm., 1992).

Habitat loss and other impacts have caused fragmentation of this species' distribution. Agricultural and urban development in the Imperial Valley have isolated populations in East Mesa from those west of the Salton Sea, in the Yuha Desert, and in the Superstition Mountain area. Flat-tailed horned lizards in the Coachella Valley may be geographically isolated from lizards in the Imperial Valley because of the filling of the Salton Sea and conversion of habitat to croplands (Turner *et al.* 1980b). The All American and Coachella Canals are likely barriers to movement, and major highways such as Interstate 8 in Imperial County and Interstate 10 in Riverside County further fragment populations. The importance of habitat fragmentation in determining the status of this species is linked to the insular properties of isolated populations (Shafer 1990). Fragmentation creates isolated populations that, because of reduced population size, have an increased probability of extirpation (Wilcox and Murphy 1985). Once a local population is extirpated, recolonization of that area by individuals from adjacent

populations is rendered unlikely due to its isolation (Frankel and Soule 1981).

*B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

Horned lizards have been popular in the pet trade for many years, but generally do poorly in captivity (Stebbins 1985). The extent to which this factor has contributed to the decline of the flat-tailed horned lizard is unknown. The cryptic nature of this species makes it difficult to find, thereby eliminating collection as a major factor in this species' decline (Bolster and Nicol 1989).

*C. Disease or Predation*

Parasitism by nematodes and red mites has been observed in some flat-tailed horned lizards (Norris 1949), but this is not believed to be a threat to the species (Bolster and Nicol 1989). Bolster and Nicol (1989) suggested that predation of flat-tailed horned lizards near agricultural areas and urban areas may be elevated because of the presence of house cats in urban areas and the abundance of loggerhead shrikes and other predatory birds in croplands.

*D. The Inadequacy of Existing Regulatory Mechanisms*

The States of California and Arizona prohibit the collection of flat-tailed horned lizards except by permit. Arizona has further designated the flat-tailed horned lizard as a threatened species, which includes "species or subspecies whose continued presence in Arizona could be in jeopardy in the near future. Serious threats have been identified and populations are (a) lower than they were historically or (b) extremely local and small" (Arizona Game and Fish Department 1988). Nevertheless, no State regulations protect the habitat of this species. State listing in Arizona has no regulatory requirements, but is used as a planning aid to prevent further population declines.

In California, the flat-tailed horned lizard occurs in several special management areas where it receives varying levels of protection. The Bureau of Land Management has designated three Areas of Critical Environmental Concern (ACEC) for protective management of the flat-tailed horned lizard and its habitat. These include the East Mesa, Yuha Desert, and West Mesa (Superstition Mountain area) ACECs. The East Mesa and Yuha Desert ACECs also fall within the boundaries of wildlife habitat areas that require preparation of habitat management plans to address protection of special

status species, such as the flat-tailed horned lizard. This species also occurs within the boundaries of the San Sebastian Marsh ACEC and two wilderness study areas (WSAs): The North Algodones Dunes and South Algodones Dunes WSAs. In eastern San Diego County, the flat-tailed horned lizard occurs within the boundaries of Anza Borrego Desert State Park where resource protection is a high priority. In Riverside County, the flat-tailed horned lizard occurs at the Coachella Valley Preserve, an area managed jointly by the Bureau of Land Management, Fish and Wildlife Service, California Department of Fish and Game, and The Nature Conservancy for the preservation of the Coachella Valley fringe-toed lizard, a federally listed threatened species.

The ACEC and wildlife habitat area designations by the Bureau of Land Management have had limited success in protecting flat-tailed horned lizard habitat. ACEC management goals include a provision to: "Provide for other uses in the designated areas compatible with the protection and enhancement of the significant natural and cultural resources" (Bureau of Land Management 1980). Although management prescriptions for the ACECs include measures such as restricting off-highway vehicle use, a variety of human uses are allowed and the relative abundance of the flat-tailed horned lizard has declined in the Yuha Desert ACEC (Bureau of Land Management 1991; Gavin Wright, pers. comm., 1993).

The two WSAs in the Algodones Dunes are managed by the Bureau of Land Management under "interim management policy guidelines" that require these areas be managed "so as not to impair the suitability of such areas for preservation as wilderness" (Section 603(c), Federal Land Policy Management Act of 1976—43 U.S.C. 1782(c)). Limited habitat for the flat-tailed horned lizard exists in these two wilderness study areas, with the species probably afforded some protection by these designations. The flat-tailed horned lizard is not well represented or abundant in either Anza Borrego Desert State Park or the Coachella Valley Preserve (Turner *et al.* 1980b). Habitat in these areas is relatively well protected from human-caused impacts. Although human activities are regulated, habitat degradation and population declines continue.

In Arizona, the flat-tailed horned lizard occurs within the boundaries of the Gran Desierto Dunes ACEC. The Yuma Desert habitat management plan addresses protection of most flat-tailed horned lizard habitat on the Barry

Goldwater Range. Implementation of management prescriptions in these areas is complicated due to joint management by the Bureau of Land Management and the Department of the Air Force.

In Sonora, Mexico, the species occurs within the Pinacate Protective Zone, an area administered by the Mexican government, and with use restrictions similar to a National Park in the United States. However, the boundaries of this area are not well established, enforcement of regulations is minimal, and the distribution and abundance of the flat-tailed horned lizard is not well known in this area. The Pinacate Protective Zone is primarily a volcanic zone that contains limited habitat for flat-tailed horned lizards (C. Wilson, Organ Pipe National Monument, Arizona, pers. comm., 1992; Johnson and Spicer 1985).

*E. Other Natural or Manmade Factors Affecting Its Continued Existence*

The California Department of Food and Agriculture has sprayed pesticides in flat-tailed horned lizard habitat in East Mesa and the Yuha Desert to control the beet leafhopper (*Circulifer tenellus*), an agricultural pest. The extent of pesticide treatment varies annually depending upon the predicted severity of the infestation, but treatment of any one area generally occurs every 3 to 5 years (California Department of Food and Agriculture 1991). Pesticide treatments in East Mesa and the Yuha Desert have occurred over a period of more than 30 years and have consisted of aerial spraying of DDT mixed with diesel oil, and in later years, aerial application of malathion (Bolster and Nicol 1989). These pesticide treatments may contribute to the observed decline of the flat-tailed horned lizard, particularly in East Mesa (Bolster and Nicol 1989, Edwards 1979, Olech 1984, Carlson and Mayhew 1988, Rado 1981). Populations of the blunt-nosed leopard lizard (*Gambelia silus*), a federally listed threatened species of the San Joaquin Valley in California have declined due to pesticide applications (Snow 1972). Of particular concern is the effect aerial pesticide application may have on harvester ants, which are the primary prey item of the flat-tailed horned lizard from May through July (Carlson and Mayhew 1988, Muth and Fisher 1991, Turner and Medica 1982). Pesticide drift from croplands may also adversely affect flat-tailed horned lizards in adjacent desert lands (Bolster and Nicol 1989). Recently proposed changes in the beet leafhopper control program may reduce impacts to the flat-tailed horned lizard and its prey base (California

Department of Food and Agriculture 1991).

Precipitation has been correlated with insect abundance and lizard densities (Mayhew 1965, Pianka 1986, Wisdom 1991, Turner *et al.* 1982). Within the range of the flat-tailed horned lizard, rainfall, particularly summer rainfall, is highly unpredictable both temporally and spatially (Turner and Brown 1982). Localized areas may experience long-term drought, which, in turn, may result in decreased local lizard populations. Because of the fragmented distribution of the flat-tailed horned lizard, this unpredictability in precipitation increases the chance of localized extirpations.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to this species. Based on this evaluation, the preferred action is to list the flat-tailed horned lizard as threatened. The Act states that the term "threatened species" means any species likely to become an endangered species within the foreseeable future. The Act defines an "endangered species" as one that is in danger of extinction throughout all or a significant portion of its range. Much of the habitat of this species has been lost, fragmented, or degraded by human use, and relative densities of this lizard have declined in at least one of five optimal habitat areas. In addition, current regulatory mechanisms and special management actions by the Bureau of Land Management and others have been inadequate in stemming habitat loss or reversing these declines. However, flat-tailed horned lizard relative abundance is apparently stable in two optimal habitat areas in California, and although relative abundance trend data does not exist for Arizona, the habitat in Arizona is less threatened than in California, and threats are minimal in much of Sonora. The Service, therefore, believes the flat-tailed horned lizard meets the definition of a threatened species under the Endangered Species Act.

#### Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species that is considered to be critical habitat at the time the species is determined to be endangered or threatened. Furthermore, the Service is to designate critical habitat on the basis of the best scientific and commercial data available after taking into consideration the economic and other relevant impacts of specifying an area as critical habitat (16 U.S.C. 1533(b)(2)).

The Service finds that proposing critical habitat for the flat-tailed horned lizard is not determinable at this time. Designation of critical habitat must take into account the economic impact of specifying particular areas as critical habitat. The data to evaluate economic impacts resulting from such designation are not currently available. In addition, although five areas of optimal habitat have been identified (which could be appropriate as critical habitat), the data necessary to define boundaries are, in some cases, dated particularly in the case of the Benson Dry Lake area. In Arizona, data are lacking to clearly define an eastern boundary of any proposed critical habitat there. A delay in the proposed listing of the species to gather additional information and perform analyses would not serve the needs of this species. The Service will continue to gather information on the flat-tailed horned lizard and will publish a determination on the designation of critical habitat at a later date.

#### Available Conservation Measures

Conservation measures for species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, county, and private agencies; groups; and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated prior to listing, conditions permitting. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the

continued existence of such a species or to destroy or adversely modify its critical habitat. If a proposed Federal action may affect a listed species, the responsible Federal agency must enter into formal consultation with the Service.

Federal agencies likely to be affected by this proposal to list the flat-tailed horned lizard include the Bureau of Land Management, which administers most of the habitat in California, Bureau of Reclamation, Border Patrol, and Departments of the Air Force and Navy.

The Department of the Navy manages several withdrawn parcels in the Imperial Valley, including lands in the Superstition Mountain area, southwest end of the Salton Sea, and East Mesa. Luke Air Force Base and the Bureau of Land Management jointly manage flat-tailed horned lizard habitat on the Barry Goldwater Range in Arizona. The Marine Corps Air Station at Yuma uses the western portion of the Barry Goldwater Range where the flat-tailed horned lizard occurs. The Bureau of Reclamation administers much of the habitat in Arizona west of the Barry Goldwater Range, as well as scattered parcels in the Imperial and Coachella Valleys. Most of these lands are managed jointly with the Bureau of Land Management. The Border Patrol does not administer any Federal lands, but carries out patrol and enforcement activities on lands along the international border in both California and Arizona.

The Act and its implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take (including harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or attempt any such conduct), import or export, transport in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with

otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. Requests for copies of the regulations and inquiries regarding them may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 432, Arlington, Virginia 22203-3507, (703) 358-2104.

**Public Comments Solicited**

The Service intends that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, any comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning any aspect of this proposal are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the flat-tailed horned lizard;

(2) The location of any additional populations of this species and the reasons why any habitat should or should not be determined to be critical habitat for the flat-tailed horned lizard as provided by section 4 of the Act;

(3) Additional information concerning the range, distribution, and population density of the flat-tailed horned lizard; and

(4) Current or planned activities in the subject area and their possible impacts on the flat-tailed horned lizard.

Any final decision on this proposal will take into consideration the comments and any additional information received by the Service, and such communications may lead to adoption of a final regulation that differs from this proposal.

The Endangered Species Act provides for a public hearing on this proposal, if requested. Requests must be filed within 45 days of the date of the proposal. Such requests must be made in writing and addressed to the Fish and Wildlife Service (see ADDRESSES section).

**National Environmental Policy Act**

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 48244).

**References Cited**

A complete list of all references cited herein, as well as others, is available upon request (see ADDRESSES section).

**Authors**

The primary authors of this proposed rule are Jim Rorabaugh and Judy

Hohman, U.S. Fish and Wildlife Service, 2140 Eastman Avenue, Suite 100, Ventura, California 93003 (805/644-1766); and Karla Kramer, U.S. Fish and Wildlife Service, Eastside Federal Complex, 911 NE 11th Street, Portland, Oregon, 97232 (503/231-6131).

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

**Proposed Regulation Promulgation**

Accordingly, the Service hereby proposes to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

**Part 17—[AMENDED]**

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

**Authority:** 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500, unless otherwise noted.

2. Section 17.11(h) is amended by adding the following in alphabetical order under "Reptiles" to the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
<b>Reptiles</b>							
Lizard, flat-tailed horned.	<i>Phrynosoma mcallii</i>	U.S.A. (CA, AZ), Mexico.	Entire .....	T	.....	NA	NA

Dated: November 8, 1993.  
**Richard N. Smith,**  
*Acting Director, Fish and Wildlife Service.*  
 [FR Doc. 93-29102 Filed 11-26-93; 8:45 am]  
**BILLING CODE 4310-55-P**

**50 CFR Part 17**

**RIN 1018-AC14**

**Endangered and Threatened Wildlife and Plants; Proposed Reclassification of the Plant *Eryngium constancei* (Loch Lomond Coyote-thistle) From Endangered to Threatened Status**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** The Fish and Wildlife Service (Service) proposes to reclassify *Eryngium constancei* (Loch Lomond coyote-thistle) from endangered to threatened status. This action is proposed due to substantial improvement in the status of this species. The only known location of this plant is now owned by the California Department of Fish and Game and, therefore, its habitat is largely protected from dredging and off-road vehicle traffic, the primary threats that