# Questions & Answers

***QUESTIONS AND ANSWERS***
*REGARDING THE*
***CACTUS FERRUGINOUS PYGMY-OWL DRAFT RECOVERY PLAN***

***JANUARY 2003***

**Q: What are recovery plans and how are they enforced?**
**A:** The Endangered Species Act mandates that recovery plans be completed and implemented for listed species unless such a plan will not promote the conservation of the species. The ESA authorizes the Secretary of the Interior to appoint recovery teams for development of recovery plans. Recovery Plans are to include – (i) a description of site-specific management necessary to achieve the plan's goal for the conservation and survival of the species; (ii) objective, measurable criteria which, when met, would ultimately recover the species so it can be removed from the list; and (iii) estimates of the time required and the cost to carry out those measures needed to achieve the plan's goals and to achieve intermediate steps toward those goals. A recovery plan is not a legal binding document, but a blueprint for actions needed to improve the status of a listed species to the point where it no longer needs the protection of the ESA. Recovery is a process by which the decline of an endangered or threatened species is arrested or reversed, and threats to its survival are neutralized, so that the long-term survival in nature can be ensured.

**Q: How was the Cactus Ferruginous Pygmy-owl Recovery team assembled and who is on it?**
**A:** In order to develop a scientifically based, yet attainable recovery plan, the U.S. Fish and Wildlife Service (Service) assembled a recovery team in September 1998 comprised of a seven-member Technical Group and a 29-member Implementation Group charged with developing and confirming that the activities prescribed are indeed executable and realistic. The Technical Group is comprised of scientists from academia, Federal and State agencies, species experts, and raptor biologists with a strong background in cactus ferruginous pygmy-owl ecology and conservation biology. Representatives of local affected parties, Tribal and State agencies, counties, municipalities, and special interest groups - including environmental, development, mining, ranching, and property rights - make up the Implementation Group.

**Q: How will the concerns and comments of people and interests outside of the Recovery Team be addressed before a final recovery plan is adopted?**
**A:** The draft recovery plan was developed with input from represents of local affected parties, Tribal and State agencies, counties, municipalities, and special interest groups - including environmental, development, mining, ranching, and property rights. The Technical Group addressed and/or incorporated their concerns during the planning process. Additionally, an earlier draft plan was peer reviewed by 11 experts in ornithology, pygmy-owl biology, Sonoran ecology, conservation biology, and land use planning. At this point, we are seeking comments from anyone with information on the feasibility and effectiveness of the draft plan, the effects of implementing the draft plan, or the biology of the pygmy-owl, its habitat ecology and the threats it faces. All comments will be considered by the Recovery Team and responded to in the a final recovery plan before it is adopted by the Service.

**Q: What are the threats to the pygmy-owl?**
**A:** Loss and fragmentation of habitat (resulting from urbanization, agricultural development, elimination or riparian vegetation (both stream-side and wash-side), and damming of rivers, etc.) are believed to be contributing reasons to the decline of pygmy-owls in the United States. Fragmentation has two main effects: (1) it reduces the total amount of habitat; and (2) it apportions remaining habitat into smaller, more isolated patches used less effectively by wildlife. Additionally, direct and indirect human-caused pygmy-owl mortalities (e.g.. window-, fence-, vehicle-strikes, and domestic cat predation) and disturbances (bird watchers, off-highway vehicles) are beginning to be documented in Arizona. Pygmy-owls are susceptible to predation form a wide variety of species. Disease, genetic isolation of populations, and the effects of various land use activities on pygmy-owl populations and habitat are areas of concern.

**Q: What are the objectives of the Draft Cactus Ferruginous Pygmy-owl Recovery Plan?**
**A:** The objectives of this Draft Plan are to: (1) identify information needed to achieve a pygmy-owl population in Arizona that either reaches a size or attains a rate of increase that ensures a high probability of persisting over the long-term. The target population size or rate of increase over a given period of time will be determined by population analyses to be conducted after essential, but currently missing, information has been collected; and (2) propose actions that will protect existing pygmy-owls and allow for expansion of the population and maintain management options for the future.

**Q: How many pygmy-owls will be required to determine that the Arizona population is no longer threatened with extinction?**
**A:** Downlisting the pygmy-owl to threatened, instead of delisting was chosen as an interim goal because of data limitations and potential uncertainties associated with the targets that will be developed for Criterion 1 (below). These targets have yet to be developed and will be based on relatively new and potentially scant information; thus, we believe downlisting is the most conservative and biologically defensible strategy to take in this Draft Plan until more comprehensive information is available. Pygmy-owls in Arizona should be considered for downlisting when the following three criteria are met:

(1) The pygmy-owl population in Arizona either reaches a size or achieves a rate of increase that ensures a high probability of persisting over the long-term. The target population size or rate of increase over a given period of time will be determined by population analyses to be conducted after essential, but currently missing, information has been collected.

(2) Pygmy-owls are successfully reproducing within Recovery Areas where appropriate habitat patches exist, and movement of individual CFPOs between population segments (i.e., Recovery Areas) within Arizona and between Arizona and Mexico is possible based on the availability of habitat and the capabilities of dispersing owls.

(3) Threats to the persistence of pygmy-owls have been substantially reduced or eliminated within Recovery Areas, so that the pygmy-owl is no longer in danger of extirpation overall or a significant portion of its range in Arizona.

The Draft Plan should be updated, revised, or appended whenever information warrants, but no more than five years should pass before it is re-evaluated. Revisions should be a part of the recovery planning process until more specific and quantitative recovery criteria are developed and met.

**Q: How will the goals of the Draft Cactus Ferruginous Pygmy-owl Recovery Plan be met?**
**A:** There are five tasks that, if implemented, will result in achieving the objectives of the Draft Plan. They are:

(1) Estimate the number and define the distribution of pygmy-owls in Arizona, and define their general distribution and abundance in Sonora, Mexico.
(2) Protect all currently known (since 1993) pygmy-owls in Arizona and those subsequently documented after this plan is finalized and the integrity of their territories, including adequate dispersal habitat. Identify and maintain an interconnected system of habitat extending from the northern portion of the historical range, south to areas in Mexico.
(3) Continue to gather information essential to the management of pygmy-owls, including habitat requirements, population demographics, dispersal capabilities, and genetics.
(4) Initiate the process for augmenting pygmy-owl subpopulations at critically low population levels and establishing pygmy-owls in areas that appear suitable, but are presently unoccupied, or into areas that have been modified to enhance some habitat characteristic for pygmy-owls.
(5) Develop an outreach and public education program to increase public awareness and understanding of the Draft Plan and to monitor and encourage its implementation.

These will be accomplished through voluntary assignments to State, Federal, Tribal, county, and municipal agencies. Habitat conservation and restoration tools include conservation easements, and other landowner incentives (e.g. mitigation banks), regional conservation plans, such as Pima County's Sonoran Desert Conservation Plan and similar efforts in Marana and the Altar Valley, and promoting land acquisition in through the Fish and Wildlife Act, Fish and Wildlife Coordination Act, and the Migratory Bird Conservation Act.

**Q: What is pygmy-owl habitat?**
**A:** Pygmy-owls nest in holes in trees and cacti, and historically were reported most commonly in Arizona in cottonwood-mesquite forest and mesquite woodlands. Stream- and wetland-side (mesic) riparian forests and the associated mesquite woodlands have been nearly eliminated in southern Arizona over the last 100 years, and the reduction of these forests and woodlands is thought to have contributed to a decline in pygmy-owls during that period. Remaining pygmy-owls in Arizona generally occupy wash-side (xeroriparian) and upland areas densely vegetated with trees and saguaro cacti.

**Q: What is the current status of the status of the cactus ferruginous pygmy-owl in Arizona?**
**A:** The cactus ferruginous pygmy-owl is federally listed as endangered in the State of Arizona as a distinct population segment. Critical habitat was designated on July 12, 1999. However, on September 21, 2001, the U.S. District Court vacated the final rule designating critical habitat for the pygmy-owl and remanded it for revision consistent with the court order. Critical habitat is being proposed presently. Only 41 adult pygmy-owls were known to exist in Arizona in 1999. More recently, 34 adult pygmy-owls were detected in 2000, 36 in 2001, and 18 in 2002. However, their total abundance and distribution in the state are unknown because much potential habitat has not been examined. Pygmy-owls in Arizona are on the northern edge of the geographic range of the subspecies. They also occur in southern Texas and Mexico.

**Q: To what extent does the Draft Recovery Plan call for the conservation of pygmy-owl habitat?**
**A:** The draft plan calls for the protection of all currently known pygmy-owls in Arizona and the habitat they occupy (since 1993 - when formalized surveys began). It also calls for identifying and maintaining

two interconnected systems of habitat; one extending from areas occupied by pygmy-owls in Mexico to the northern edge of the historical range near Phoenix and the other extending from the Mexican border at Organ Pipe Cactus National Monument into rural southwestern Maricopa and Pinal counties. These corridors bound the sovereign Tohono O'odham Nation – an area presumed to be important to pygmy-owl recovery. The draft plan outlines conservation suggestions and requests the Nation become an active partner in the pygmy-owl conservation.

**Q: What are "Recovery Areas" and how are they to be managed?**
**A:** The recovery team identified eight Recovery Areas based upon current owl survey data; proposed critical habitat; and the inclusion of Buenos Aries and Cabeza Prieta National Wildlife Refuges, Saguaro National Park, and Organ Pipe Cactus and Ironwood Forest National Monuments. The role of each Recovery Area and their management recommendations vary. The draft plan provides land management and development recommendations within Recovery Areas to preserve, acquire, and improve owl habitat. Recovery Areas are provided to help focus recovery efforts; it is not intended that entire Recovery Areas be set aside in perpetuity.

Inclusion of land in Recovery Areas does not automatically restrict the use of that land for other human-related purposes (e.g. grazing or development). Recovery Areas identified primarily to allow movement of pygmy-owls should have minimal social costs relative to restrictions on other human uses of the land. For example, when compared to existing development, the economic cost of maintaining movement corridors during new development should be relatively low. Even in Recovery Areas identified primarily as potential breeding habitat, restrictions on other land uses will not be uniformly high. If breeding owls are absent in an area, and it has not been identified as a potential site for introduction of experimental populations, then other land uses of that area are an option.

**Q: How were the Draft Plan's Recovery Areas determined?**
**A:** Limited historical and current data were utilized to determine habitat requirements of pygmy-owls. Historical data pointed to pygmy-owls occurring in river-, stream- and wetland-side ripaian forests and their surrounding are. However, only one pygmy-owl has been documented in this habitat type since 1993. Current information reveals that pygmy-owls rely on Arizona Upland desertscrub and wash (xeroriparian) vegetation. Therefore, when designating the Recovery Areas, we attempted to include areas likely to support owls by maximizing the amount of desertscrub and xeroriparian wash vegetation and included mesic riparian vegetation where historical information, current conditions and connectivity to adjacent habitats indicated it was appropriate.

We identified and seek to maintain two interconnected systems of habitat; one extending from areas occupied by pygmy-owls in Mexico to the northern edge of the historical range near Phoenix and the other extending from the Mexican border at Organ Pipe Cactus National Monument into rural southwestern Maricopa and Pinal counties.

We also attempted to minimize inclusion of private lands. The role of each Recovery Area varies depending on its size and type of vegetation it supports. Recommendations for management also vary among Recovery Areas, depending on the level and types of human activity currently taking place, or expected in the future.

**Q: What are Special Management Areas (SMAs) and will they be treated as pygmy-owl preserves?**
**A:** We have identified five locations within four of the Recovery Areas that are in need of special management because of current or potential threats to the recovery of the pygmy-owl (Altar Valley,

Tortolita Fan, Northwest Tucson, and the Silverbell and Superstition foothills). These areas are called Special Management Areas (SMAs). Management guidelines for each SMA are specified in the Draft Plan.

SMAs are not pygmy-owl preserves exclusive of other uses or development. Within SMAs, the highest quality habitat within project areas should be spared and configured in an interconnected fashion. Disturbed land could include a variety of development types from dispersed, low-density development to higher-density development, as long as high quality habitat is connected and spared to maximize owl use and movement in project areas and throughout SMAs. If a project must disturb significant valuable habitat, a developer could conserve "replacement" habitat at another location within the same SMA.

On private lands, setting aside land within SMAs through fee title, the use of voluntary conservation easements, and other landowner incentives (e.g. mitigation banks) have successfully been used in other parts of the United States for the conservation of endangered species habitat. Regional conservation plans, such as Pima County's Sonoran Desert Conservation Plan and similar efforts in Marana and the Altar Valley, can be instrumental in carrying out this draft plan. We will also promote land acquisition in Special Management Areas through the Fish and Wildlife Act, Fish and Wildlife Coordination Act, the Migratory Bird Conservation Act, and other funding sources.

**Q: If critical habitat is again designated, why are Recovery Areas needed?**
**A:** The Draft Recovery Plan and the called-for Recovery Areas are a nonbinding blueprint and schedule for the recovery of the pygmy-owl and conservation of its habitat. Agencies', government's and individual's participation is voluntary and designed to recovery the pygmy-owl. Critical Habitat is a land-based habitat designation that holds Federal agencies to a higher degree of responsibility to insure that their projects and the permits they issue don't appreciably modify habitat essential to the pygmy-owls survival. Both "tools" will be required to recover the pygmy-owl.

**Q: How are tribal lands treated under the Draft Cactus Ferruginous Pygmy-owl Recovery Plan?**
**A:** Tribal nations are sovereign entities and we are respectful of their members' religious and cultural attachments to the pygmy-owl. These Recovery Areas outlined in the Draft Plan bound the sovereign Tohono O'odham Nation – an area presumed to be important to pygmy-owl recovery. The draft plan outlines conservation suggestions and requests the Nation become an active partner in pygmy-owl conservation.

**Q: Are livestock grazing and prescribed fire a threat to pygmy-owls?**
**A:** Within the areas currently occupied by pygmy-owls, livestock grazing and fire affect semidesert grasslands, Sonoran desertscrub, and riparian vegetation in different ways, but the relationships between grazing, fire, and habitat conditions for pygmy-owls in these communities have not been formally investigated and are not well understood. In the Draft Plan we recommend general guidelines for grazing and fire be applied to all Recovery Areas. We believe these guidelines generally promote habitat conditions likely to favor pygmy-owls in all three vegetative communities and recommend they remain in effect until more specific management guidelines can be developed for each community.

Grazing and fire throughout all Recovery Areas should be managed to maintain or create the structure and composition of vegetation currently found in occupied pygmy-owl habitats. At a minimum, increases in the total number of cattle within any allotment should be discouraged until the relationship between grazing and the pygmy-owls is better understood. For fire, known nest sites should be protected during prescribed burning so that the nest structure and associated vegetation within 100 m are maintained.

Activity levels associated with burning should consider sensitive seasonal time periods such as nesting, fledging, and dispersal.

**Q: What does pygmy-owl population augmentation mean, and how and why is it being considered?**
**A:** Augmentation refers to a variety of tools that can be utilized to improve pygmy-owl, genetics, distribution, and abundance. The Draft Plan considers augmentation of pygmy-owl populations through the use of nest boxes, moving birds into suitable unoccupied habitat, adding new owls to genetically isolated populations, stimulating birds to produce additional eggs, and captive rearing. Adopting any of these strategies would be conducted only after extensive review and input by the Technical (biological) and Implementation (local interest groups) groups of the Cactus Ferruginous Pygmy-owl Recovery Team and the Arizona Game and Fish Department. In some cases, a full public participation process will be utilized.

**Q: Who will perform the tasks suggested in the Draft Cactus Ferruginous Pygmy-owl Recovery Plan?**
**A:** Recovery plans are not binding documents, but rather prescribes activities that can recover a threatened or endangered species. Once comments to the draft recovery plan are addressed and the Service finalizes and approves it, it will serve as a blueprint of steps necessary to conserve the pygmy-owl and a compass for the development of Service and hopefully other Federal, State, Tribal and local governmental policies on conservation and management of the species. On private lands, setting aside land within SMAs through fee title, the use of voluntary conservation easements, and other landowner incentives (e.g. mitigation banks) have successfully been used in other parts of the United States for the conservation of endangered species habitat. Regional conservation plans, such as Pima County's Sonoran Desert Conservation Plan and similar efforts in Marana and the Altar Valley, can be instrumental in carrying out this draft plan. The U.S. Fish and Wildlife Service, together with the Cactus Ferruginous Pygmy-owl Recovery Team, will be responsible for coordinating and documenting the implementation and completion of recovery tasks. The Recovery Team calls for assembling a group to develop a participation plan, coordinate education, and public outreach efforts, including community participation in research and information gathering where appropriate. Development of economic incentives for conservation and recovery will be vital to success and ensure that adaptive management is practiced.

**Q: How much will the recovery of the pygmy-owl cost and who will pay for it?**
**A:** The Recovery Team developed a 5-year implementation schedule and prioritization of recovery tasks and identified agencies that could contribute to those task. The 5-year cost estimate to carry out tasks to prevent extinction is $3.6 million and projected costs to recover the pygmy-owl are estimated at $5 million. Participants may include Federal, State, Tribal and local government agencies including the U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, Forest Service, Arizona Game and Fish Department, Arizona State Parks, Arizona State Land Department, Tohono O'odham Nation, Pima, Pinal, and Maricopa counties, IMADES (Mexico), and others.

**Q: Will the final recovery plan set conservation direction that may conflict with new discoveries regarding the pygmy-owl conservation and threats?**
**A:** The Draft Plan calls for exercising "adaptive management" – the linking of management with monitoring within a research framework. It is learning by doing, and on-going monitoring and research are important ways of learning how to efficiently manage ecosystems.

This Draft Plan is based on the best scientific information available today. However, many important

aspects of the pygmy-owl's ecology and management have yet to be studied and are not well understood. Continued research identified in this Draft Plan in conjunction with adaptive management is a crucial component. We recommend that if information becomes available that invalidates an approach recommended in this draft plan, or provides new management options, that the new information immediately be incorporated in management and planning efforts. Mechanisms for informing the public of changes resulting from adaptive management could include directly contacting consultants, permit holders, and agency biologists involved in pygmy-owl issues, publishing changes in local newspapers and the *Federal Register*, and dissemination of new information. Other changes in management activities, less critical to the long-term survival of pygmy-owls in Arizona, should be incorporated into an updated Recovery Plan to be completed in no less than 5 years.

**Q: How do I submit my comments and concerns regarding the Draft Cactus Ferruginous Pygmy-owl Recovery Plan?**

**A:** The Service seeks public review and comments on the draft recovery plan through April 9, 2003. The draft recovery plan is available on the Internet at http://arizonaes.fws.gov/. Requests for the draft plan and comments should to submitted to Steve Spangle, Field Supervisor, Arizona Ecological Services Office, U.S. Fish and Wildlife Service, 2321 West Royal Palm Road, Suite 103, Phoenix, Arizona 85021, by mail, fax (602-242-2513) or email (cfpo_recovery@fws.gov).

**Q: Where can I find additional information regarding the cactus ferruginous pygmy-owl, its habitat and its management?**

**A:** The full draft recovery plan, proposed critical habitat information, and other documents pertaining to pygmy-owl biology and management are available on the Internet at http://arizonaes.fws.gov/ or by contacting the Fish and Wildlife Service at the above address or by calling (602) 242-0210.