

# FLORIDA PANTHER

*A victim of habitat loss, overkill, and the vagaries of a shrunken gene pool, this subspecies requires extraordinary conservation measures.*

## *From Abundant to Endangered*

The Florida panther (*Felis concolor coryi*) is a subspecies of cougar, a creature with many common names which vary regionally throughout the United States: catamount, puma, mountain lion, and red lion, among others. This particular subspecies of cougar, now restricted to the southern end of Florida, numbers roughly 60 adults. These cats are all that remains of native cougars that officially occur east of the Mississippi River.

The puma was not always so isolated in the East. During the Colonial era, the clawless footprints of the mountain lion could be found throughout all of North America. The big cat's characteristic scream rang throughout the eastern woodlands, from New England mountainsides to southeastern swamps. Cougars were so common in Pennsylvania that many early settlers lined the walls of their cabins with the cats' hides for warmth.

At that time, the *coryi* subspecies ranged throughout the Southeast, from east Texas to the Atlantic and north to parts of Tennessee and South Carolina. Today, the only known self-sustaining population lives primarily in southwest Florida, though individual panthers have been found in at least eight Florida counties and as far north as Florida's St. John's River drainage. The Florida panther was federally listed as endangered in 1967.

Unlike many large carnivores, which form cooperative packs to hunt large hoofed animals, cougars are solitary hunters, equipped by evolution to kill deer and other prey unaided. They hunt by stealth, often waiting along game trails to leap upon unsuspecting prey.



Photo courtesy of Darrell Land, Florida Fish and Wildlife Conservation Commission

Like the wolf, the cougar was persecuted because it was presumed a threat to livestock. As the growing population of settlers depleted the cougar's natural prey through market hunting and habitat destruction, the cougar was forced, in some instances, to feed on livestock despite its preference for deer and other more familiar game. In addition to being killed as vermin, the cougar was also chased with dogs and shot for sport until the 1950s. Direct persecution of the cats, combined with a loss of prey and habitat, eliminated panthers from the eastern United States and reduced their range to more remote and rugged areas. The remaining wild mountains and deserts of the West have formed a bastion for the cougar, and it has remained numerous in some parts of the western United States and Canada. In southern California, it has even adapted somewhat to the massive human intrusion of megacities, living within sight and sound of Los Angeles.



## *Rescuing a Rare Cat*

The Endangered Species Act requires that the federal government seek to recover listed species through study, management, and habitat protection. In the early 1980s, scientists began to trap panthers and collar them with radio transmitters. By monitoring the cats electronically, scientists learned that the panther uses a wide variety of habitats, from forested uplands to cypress swamps. The critical factor is cover, particularly forested uplands in southwest Florida, which the panthers need for hiding and for stalking their primary prey: deer and feral hogs.

In 1987, the U.S. Fish and Wildlife Service (FWS) approved a recovery plan for the Florida panther under the guidelines of the Endangered Species Act. The plan called for the establishment of three self-sustaining populations within the cat's historic range. To achieve this goal, conservationists are working to protect existing panthers and habitat, build public support for the cats, and reestablish them in suitable areas.

## *Extreme Problems, Extreme Solutions*

Today, the panther continues to be a victim of habitat loss, environmental contaminants, motor vehicle collisions, prey scarcity, and even immune deficiencies. Wildlife managers in Florida have tested a variety of tactics to eliminate these problems, such as setting aside land for panther habitat and building passes under highways where panthers are most often killed. Biologists have also struggled to staunch the loss of genetic viability in the remaining panther population, a potentially significant threat to its survival which results from its low numbers. Reduced to a handful of individuals that have been isolated from other cougars for a century or more, panthers have been inbreeding for decades. With the declining diversity of the subspecies' gene pool, problems such as infertility and heart abnormalities increased. Such a genetic bottleneck occurs only in the most jeopardized and rarest of species and poses nearly insurmountable odds of recovery.

In 1989, data collected from 29 radio-collared panthers indicated that the population was losing genetic diversity at a rate of three to seven percent yearly. Researchers believed that the gene pool would continue to erode even if the population stabilized, leading to extinction within 40 years. Three years later, with the health of the population continuing to decline, biologists made a controversial decision. In an effort to increase genetic diversity, wildlife managers introduced several female Texas cougars—the closest remaining cougar population that had historically shared the panther's range—into the panther population in 1995. Several hybrid litters have since been produced, and the introduction seems to have corrected some of the problems experts generally attribute to inbreeding. Experts are still debating the role of the Texas cougars in panther recovery.

Despite the success of this effort, panthers are still at great risk of extinction. The loss of habitat to urban, industrial, and agricultural development is the most critical threat to the panther's survival. Road kills on Florida's highways and territorial conflicts between the cats are two major causes of death; both of these threats reflect the impacts of ever-shrinking habitat on these wide-ranging, solitary cats. Conserving the panther will require aggressive protections for remaining wild lands in south Florida as well as conservation efforts on private lands.

Another major conservation challenge for the panther is reestablishing the species in other portions of its historic range. Field studies have indicated an adequate prey base and appropriate habitat in some areas of its historic range in the Southeast. While there is widespread popular support for panther reintroduction in Florida, some people are still concerned about introducing the cat to new areas, fearing the panther will bring with it restrictions on private property uses and potential interactions with livestock, pets, or human safety. Addressing public concerns will be important to any efforts to reintroduce these elusive cats, a critical step in recovering them over the long term.