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FLORIDA PANTHER UPDATE

(July 1994 - March 1995)

*Accounts of Florida panther (panther) and Texas cougar (cougar) activities presented in this update were developed from information obtained from personnel with the Florida Game and Fresh Water Fish Commission and the National Park Service.

*The period covered by this update began with 18 panthers being monitored via radio-telemetry (10 females & 8 males). The wild population remained at an estimated 30-50 adults. The captive population was comprised of 9 panthers (5 males & 4 females). Twelve radio-instrumented cougars (8 females & 4 males) made up the population for the experimental reintroduction study in the Osceola/Okefenokee candidate population reestablishment site.

RECOVERY PLAN

*The recovery plan's Implementation Schedule was updated to reflect the status of all recovery plan tasks through June 1994.

*A Recovery Team for the Florida panther was reactivated by the U.S. Fish and Wildlife Service (FWS) on August 23. The FWS's Southeast Regional Director selected as team members those individuals comprising the Florida Panther Interagency Committee's Technical Subcommittee. The Recovery Team is comprised of Jim Stevenson (Florida Department of Environmental Protection), Suzette Kimball (National Park Service), Tom Logan (Florida Game and Fresh Water Fish Commission), and Dennis Jordan (Team Leader/FWS). The team's initial task was to make minor revisions in the present recovery plan to incorporate a genetic management strategy. The technical/agency draft revised plan was made available for a 45-day public review and comment period on September 14, 1994. The final revised plan was approved by FWS on March 31. The next task for the Recovery Team is to undertake a complete revision of the recovery plan, scheduled for action this year.

Release

GENETICS

*The Florida Panther Interagency Committee (FPIC) met in Tallahassee, Florida on August 3 to take action on a proposed "plan of action" drafted by its Technical Subcommittee to achieve compliance with recent U.S. Fish and Wildlife Service (FWS) guidance dealing with the proposed genetic restoration strategy for the Florida panther. Major actions include National Environmental Policy Act compliance (preparation of a Environmental Assessment), revise the recovery plan, develop a genetic management plan, specify genetic profile of progeny, assure scientific control, and evaluate role of environmental contaminants. The FPIC targeted early 1995 for field implementation of the genetic restoration program.

*A workshop to develop the genetic restoration and management plan for the panther was facilitated by the Conservation Breeding Specialists Group of the IUCN under contract by the Florida Game and Fresh Water Fish Commission (GFC). The workshop was held September 11-13 and was hosted by Gilman Paper Company's White Oak Conservation Center, Yulee, Florida.

*A draft Environmental Assessment (EA) addressing genetic restoration and management options for the panther was made available for a 45-day public review and comment period on October 19. The final EA was approved by the FWS with the signing of a FONSI (finding of no significant impact) by the FWS's Southeast Regional Director on December 27. The proposed action is to restore gene flow (and eventually genetic health) to the panther population by strategically placing a limited number of individuals (up to 8 females) from a former contiguous population of *Felis concolor* into the present panther population.

*A draft Florida panther genetic restoration and management "Study Narrative" was developed by the GFC and sent to key entities for review and comment on February 1. The study narrative was finalized by the GFC on March 24. The document provides specific details for field activities associated with implementing and monitoring the genetic restoration and management program.

*The initial two Texas cougar females to be utilized in the genetic restoration program arrived in south Florida on March 28 and were transported to a temporary soft release facility set up within Fakahatchee Strand State Preserve in Collier County. Release was scheduled to occur in 7-14 days. However, while project personnel were providing water late in the afternoon on March 29, one escaped. Because she was already radio-instrumented, there was no compelling reason to capture and return her to the holding facility. Planned monitoring activities were activated by the GFC early the following morning. By the end of the month, movements of this individual had remained within approximately one mile of the release site. A media event was held on March 30 to provide details on the genetic restoration and management program and to respond to questions from the media. Two additional females have completed the 30 day quarantine period and have passed health/medical evaluations. It is expected that these two individuals will be shipped to

south Florida in early April. Up to four additional females will be utilized in the implementation phase of the genetic restoration program and will likely be released in May.

HABITAT/SECTION 7 CONSULTATION

*The American Farmland Trust began working on a joint project with the Florida Game and Fresh Water Fish Commission (GFC) in early 1994. The project is intended to "develop a spectrum of practical, incentive-driven techniques to assist all state and county land managing agencies improve cooperation with private landowners and work more in concert with them to carry out natural resource protection efforts". The program is to "focus on improving opportunities for survival of the Florida panther -- without taking land out of private ownership and without imposing punitive regulations on agricultural operations that could force them out of business". The project is being funded by a grant from the Florida Advisory Council on Environmental Education. Products produced during the period covered by this update have included: Draft - Implementation of Management Plans for Florida Panther Habitat Preservation on Private Lands in southwest Florida, Draft - Development of Conservation Plans for Florida Panther Habitat Preservation on Private Lands in southwest Florida (July 1994), Draft - Development of Plan Evaluation (July 1994), 3rd draft of Protecting Panther Habitat on Private Lands in South Florida: A Handbook (November 1994), 1st and 2nd drafts of Protecting Natural Resources and Florida Panther Habitat on Private Lands: A Field Manual (January & February 1995, respectively), and 4th draft of A Landowners' Strategy for Protecting Florida Panther Habitat on Private Lands in South Florida: A Status Report (January 1995).

*A Implementation Schedule was developed for the Florida Panther Habitat Preservation Plan. It identifies tasks and assignments considered important in accomplishing recommendations contained in the Plan. Copies of the Schedule, along with the initial quarterly progress report, were sent out on July 19.

*Copies of a draft study proposal to evaluate the role environmental contaminants may be playing in various physiological abnormalities observed in the panther were sent to Technical Subcommittee members for review and comment on September 22. The proposal was drafted by Charles Facemire/U.S. Fish and Wildlife Service (FWS) and is designed to fulfill one of the requisite actions stipulated by the Director/FWS in connection with the proposed genetic restoration strategy for the panther. Copies were also sent to the Florida Panther Technical Advisory Council for peer review and comment on January 19.

*The FWS issued a "would adversely affect the Florida panther, but would not jeopardize the continued existence of the species" Biological Opinion to the U.S. Army Corps of Engineers on the proposed Florida Gulf Coast University and associated projects on October 27. On February 9, contrary to staff recommendations, the South Florida Water Management District's Governing Board voted to postpone their decision on issuance of Surface Water Management and Wetland Resources Permits requested by the Florida Gulf Coast University.

Strong public comments in opposition to the project because of panther-related matters apparently influenced the Board's decision. A Administrative Hearing, under State law, has been requested. In addition, a proposed "Settlement Agreement" has been developed by Responsible Growth Management Coalition, Inc. and forwarded to involved parties.

*On December 21, the FWS requested the Corps of Engineers to suspend its permit for a proposed solid waste complex in Sarasota County, Florida and to reinstate Section 7 consultation. This request was stimulated by a 60-day notice of intent to sue filed by the Fund for Animals, Inc. Concerns have been raised about the extent to which the October 7 Biological Opinion (BO) reflected all of the scientific information available, and whether the BO undertook all of the analyses mandated by FWS regulations concerning indirect and cumulative effects of the action.

*Whole blood mercury levels for adult female panther #56 were determined to be at "a level of concern" (readings of 1.6 & 2.0 ppm from 1994 blood samples). Mercury levels for this individual will be closely monitored starting with a re-sampling during the 1995 capture season.

*Collier County Florida officials have apparently narrowed and focused their search for a new landfill to four potential sites. Preliminary information indicates that any of the four sites potentially could impact the panther and/or Florida Panther National Wildlife Refuge.

*By letter dated March 16, the South Florida Water Management District requested the assistance of the GFC in determining potential impacts for a proposed project located in "priority" panther habitat. The project is proposed citrus development by Alico, Inc. involving approximately 10,000 acres in Hendry County. Most of this acreage constitutes Priority 1 and Priority 2 panther habitat as classified in the Florida Panther Habitat Preservation Plan. The proposed project is scheduled for approval at the District's April Governing Board meeting. Adjoining this proposed project are two additional new citrus projects (the three in combination total approximately 20,000 acres).

*The FWS's intra-Service Section 7 consultation Biological Opinion for the genetic restoration and management program was signed by the Regional Director on March 31. The Opinion concluded that if the proposed genetic restoration and management program is successfully implemented genetic diversity within the existing panther population would be expected to increase, the high incidence of reproductive and medical abnormalities noted in the panther would be expected to decline, the population's overall genetic health and fitness would be expected to improve, and opportunities for recovery of the Florida panther would be significantly enhanced.

FIELD ACTIVITIES

*Adult male panther #16 was located in the Big Cypress National Preserve (BCNP) north of US-41 on July 3. By the next monitoring flight (7/6) he had returned to his normal home-range area (the BCNP south of US-41). Between July 22 and July 25 he moved east, crossing Shark River Slough into Everglades National Park (ENP), where he remained until moving back into BCNP on August 5. He again crossed Shark River Slough to the east on October 21, where he has remained through the end of this update period. This male typically visits ENP periodically, but normally stays for only short periods of time. It is speculated that significantly "higher than normal" water levels during the fall, winter and early spring periods may have delayed his return to the BCNP.

*Florida Game and Fresh Water Fish Commission (GFC) personnel retrieved the carcass of adult male panther #26 on July 13. He died from injuries (crushed skull) received during intra-specific aggression with adult male panther #46 on or around July 8.

*Tracks observed in July verified the use of one of the SR-29 experimental wildlife crossings by a male panther (speculated as #12). He utilized the same crossing used by female panther #32 in June.

*Adult female panther #52 initiated movement patterns indicative of possible denning behavior in the Sadie Cypress area southeast of Immokalee, Florida on July 18. Speculation is that an uncollared male would be the likely sire. Movement patterns in late August indicated that denning activity had failed.

*Adult male panther #54 was documented with adult female panther #9 during telemetry monitoring flights on July 22, 25, and 27, indicating possible breeding activity. However, #9 never assumed movement patterns indicative of denning behavior. This 13-15 year old female has routinely been documented with proven breeding males since 1991 without producing verified offspring. The general consensus among field biologists monitoring this female is that she has likely passed her productive years.

*Adult male panther #42 was documented with adult female panther #55 during telemetry monitoring flights on July 25 and 27, indicating possible breeding activity. The female subsequently initiated movement patterns typical of denning behavior on October 29, matching the 90-95 day gestation period for panthers. However, subsequent non-denning movement patterns suggest that she either lost her litter or never actually denned. These two individuals were subsequently documented together during telemetry monitoring flights on December 22 and 24, and again on March 22.

*The carcass of adult female panther #38 was retrieved from the BCNP on August 5. It is speculated that she died the preceding day. Necropsy results indicated that death was

associated with severe pleuritis (infection of the area around the lungs). The source/cause of the infection was not determined.

*Movement patterns indicative of possible denning activity were detected during the month of September via routine telemetry monitoring for adult female panthers #23 and #36. However, subsequent movement patterns and other observed social activities suggests that if they had in fact denned, something happened to both litters within a month of initiating denning behavior. In the case of #23, field biologists located in early October what they feel was her den site. However, kittens were not present. It was concluded that this female did in fact den but lost her litter. She was subsequently documented with adult male #42 during telemetry monitoring flights on October 14 and 17, further substantiating the fact that she was without kittens.

*The carcass of adult male panther #12 was retrieved on November 9. Death, speculated to have occurred on November 7 or 8, resulted from injuries received during a intra-specific aggression encounter with adult male #46. Number 12 had served as the dominant breeding male over a significant portion of the occupied range for many years.

*During the first four days of the 1995 capture season, initiated on 1/9/95, panthers #32, #45, #48, and #52 were captured and reinstrumented.

*Adult female panther #52 was struck and killed while attempting to cross CR-846 east of Immokalee, Florida during the night of January 11.

*A new adult female panther was captured and radio-instrumented on January 31, in the southern portion of Florida Panther National Wildlife Refuge. She weighed 83 lbs., was estimated at approximately 3 years of age and assigned #57. Radio-telemetry data during February placed her south of I-75 (Alligator Alley) in the Fakahatchee Strand State Preserve, representing the first documentation of a instrumented female having utilized one of the I-75 wildlife underpasses.

*A 9-month-old male kitten of female panther #56 was captured and radio-instrumented on February 8. The 40 pound kitten was captured in the BCNP "addition lands" and assigned #58.

*Fresh tracks of a female panther were observed within the Corkscrew Regional Ecosystem Watershed project (CREW) during the period February 26-28 (verified by GFC personnel on 2/27 & 2/28). It is hoped that eventually panthers using the CREW area can be captured and radio-instrumented. However, because there is such a small amount of panther habitat presently under public ownership and thus available to the capture team, prospects for success are limited at this time.

*Adult male panther #45 was documented with adult female panther #36 during one telemetry monitoring flight the last week of February, indicating possible breeding activity.

REINTRODUCTION/POP. REESTABLISHMENT

*A new adult male cougar (#T48), captured in Texas and translocated to Florida for use in the Osceola/Okefenokee experimental reintroduction study, was released by Florida Game and Fresh Water Fish Commission (GFC) personnel on July 12.

*Female cougar kitten #47 was removed from the experimental reintroduction study on July 31. Telemetry data gathered since the release of this 6-month old kitten and her mother on June 26 indicated that she was not maintaining contact with her mother as observed during past monitoring activities of other kittens of similar age. Concern over the kitten's ability to obtain sufficient food for development/survival under these conditions led to the decision to remove and place her back at White Oak Conservation Center for additional conditioning.

*Male cougars #T43 and #T42 of the experimental reintroduction study, were captured and recollared on August 4 and 9, respectively. Both were determined to be in excellent physical condition.

*Three individuals (female #T32, male #T45 & female #T2) were removed from the experimental reintroduction study in November (#32 on 11/10, #45 on 11/15 & #2 on 11/17) for killing and/or feeding on calves. All of these individuals were either captive-born or wild-caught/captive-held (for several years).

*Adult male cougar #T-40 was captured just north of Augusta, Georgia on January 24. Because this was his second excursion well beyond the designated experimental reintroduction study area boundary since his release in February 1993, he was removed from the study.

*Adult female cougar #46 was removed from the experimental reintroduction study on February 10 for exhibiting "a casualness attitude" around humans.

*An uncollared male *Felis concolor* kitten of approximately 8 months of age was struck by a truck on February 25 while attempting to cross US-441 in northern Columbia County, Florida, just south of the Georgia state line (within the experimental reintroduction study area). The kitten weighed 68 lbs. and was in excellent physical condition. GFC biologists involved in the reintroduction study determined that the kitten represented offspring from #T41, one of five female cougars involved in their study. Since all males involved in that study were subjected to sterilization surgery (vasectomized) prior to release, the animal's father was initially undetermined. However, a male previously involved in the reintroduction study (#T33) and subsequently removed, recently sired a litter of two kittens in captivity (verifying unsuccessful sterilization surgery). Documented "opportunities" for breeding between #41 and #33 in March 1994 strongly implicates this male as the sire. Attempts to verify the kitten's lineage via genetic analysis are underway. A 60 lb. female litter-mate of

the above referenced kitten was captured and radio-instrumented within the experimental reintroduction study area on March 20. She was assigned #T49.

*Adult Female cougar #T37, involved in the experimental reintroduction study, was struck by a vehicle and killed while attempting to cross Interstate 95 approximately 6 miles north of Kingsland, Georgia on March 8.

MEETINGS/EVENTS

*The Florida Panther Interagency Committee's (FPIC) Technical Subcommittee met in Tallahassee, FL on July 27. The two main agenda items were: (1) discussions to finalize plans for the FPIC's meeting scheduled for August 3 to develop details for the genetic restoration strategy, and (2) an update from Craig Evans of American Farmland Trust on their cooperative project with the Florida Game and Fresh Water Fish Commission (GFC) on habitat preservation.

*The Florida Panther Technical Advisory Council met on November 29 in Gainesville, Florida. The primary purpose of the meeting was to review, discuss and provide peer review comments to the U.S. Fish and Wildlife Service (FWS) on the draft Environmental Assessment addressing genetic management options for the panther.

*The Florida Panther Conference was held November 1-3 in Ft. Myers, Florida. The Conference was sponsored by FWS (principal sponsor), GFC, National Park Service and Florida Department of Environmental Protection. The conference featured over 30 presentations covering all aspects of Florida panther status, research/investigations, and recovery programs. A conference proceedings/report is being developed.

INFORMATION/EDUCATION

*A state-wide phone survey designed to randomly contact and obtain input from 800-1000 Floridians on matters dealing with the Florida panther was conducted in early March by an environmental consulting firm, under contract with the Florida Advisory Council on Environmental Education. Results are yet to be made available.

*The period covered by this update ended with 16 panthers being monitored via radio-telemetry (9 females & 7 males). One female Texas cougar being used in the genetic restoration program is currently in the south Florida panther population. The panther population in the wild remains at an estimated 30-50 adults. The captive panther population is comprised of 5 males and 4 females. Seven radio-instrumented cougars (4 females & 3 males) make up the population for the experimental reintroduction study in the Osceola/Okefenokee candidate population reestablishment site.

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