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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Ecological Services
c/o CCSU, Campus Box 338
6300 Ocean Drive
Corpus Christi, Texas 78412

FAX FORM

TO: Thomas B. Carroll, NPS
OFFICE: Palo Alto Battlefield NHS, Brownsville, TX
PHONE NUMBER: (512) 548-2788
FAX NUMBER: (512) 548-6144
SUBJECT: Palo Alto Battlefield NHS Section 7 Consultation

FROM: Johnny French
OFFICE: U.S. FISH AND WILDLIFE SERVICE, ECOLOGICAL SERVICES
CORPUS CHRISTI, TEXAS

PHONE NUMBER: 512/888-3346

FAX NUMBER: 512/888-3189

NUMBER OF PAGES (INCLUDING HEADER PAGE): 8

ANY PROBLEMS WITH THIS FAX PLEASE CALL NUMBER ABOVE

PROTECT
ENDANGERED
SPECIES



Texas ocelot



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
c/o CCSU, Campus Box 338
6300 Ocean Drive
Corpus Christi, Texas 78412



August 3, 1992

John Cook
Regional Director, Southwest Regional Office
National Park Service
P.O. Box 728
Santa Fe, New Mexico 87504-0728

Consultation No. 2-11-92-I-210

Dear Regional Director Cook:

This responds to your memorandum of August 3, 1992 requesting consultation pursuant to Section 7 of the Endangered Species Act (Act) of 1973, as amended, on your proposed action of mowing grass and shrubs at the Palo Alto Battlefield site near Brownsville, Texas. Your request concerns this action's potential effect on the continued existence of the endangered northern aplomado falcon.

Consultation History

Fish and Wildlife Service (Service) biologist Tim Cooper was asked verbally in July 1992 to comment on the project's potential impacts to rare species, and he made a site visit late that month. Mr. Cooper expressed concerns that previous plans to burn as much as 400 acres could have an effect on the habitat of the endangered northern aplomado falcon (Falcon femoralis septentrionalis), ocelot (Felis pardalis), and jaguarundi (Felis yagouaroundi). Similar concerns were raised following a Service-contracted survey conducted at the site on July 30, 1992 for a candidate species, Texas Botteri's sparrow (Aimophila botteri texana). In a subsequent telephone conversation with Service Biologist Johnny French on July 31, 1992, Palo Alto Battlefield National Historic Site Superintendent Thomas Carroll narrowed the proposed range of effect to approximately 40 acres of 20-foot-wide strips to be mowed through coastal sacahuiste (Spartina spartinae) and sea oxeeye daisy, (Doerrichia frutescens), avoiding any clearing of brush, trees, and yuccas and staying away from loma and resaca habitats. Mr. French concurred with Mr. Carroll's assessment that the endangered cats were unlikely to be affected by this lesser scope of activity, and the Texas Botteri's sparrow, as a candidate species, was not subject to the Act's consultation requirements, but he advised that as the mowing would affect habitat historically used by the northern aplomado falcon for feeding and would be near potential nesting and roosting sites for this recently re-introduced species, the proposed clearing still had a potential for adverse effects to the falcon. Mr. French then suggested that you prepare a Biological Assessment and request consultation under Section 7.

Biological Opinion

Under section 7(a)(2) of the Act, Federal agencies are required to consult with the Service (or the National Marine Fisheries Service where marine species are generally involved) whenever an activity funded, authorized, or carried out by those agencies "may affect" Federally listed threatened or endangered species. The intent of the consultation is to allow the Service to assist each agency in assuring that any activity for which they are responsible is unlikely to

jeopardize the continued existence of a listed species or adversely modify its critical habitat. Consultation may be either informal or formal, depending upon whether the action agency has determined that a "may affect" situation exists. In this case, it is uncertain if the northern aplomado falcon currently occupies the action area and, if it does, whether the precautions already made a part of the action plan would prevent adverse impacts to the species, anyway. Due to the short time frame for this consultation, the Service and the National Park Service (NPS) are giving the species the benefit of the doubt by assuming an effect could occur. Nonetheless, precisely because there is no documented current use of the battlefield site and because the action would be carried out so as to minimize short and long term impacts to the bird's habitat, it is my biological opinion that clearing less than 30 acres of grass-and shrubland as proposed is unlikely to jeopardize the continued existence of the northern aplomado falcon or interfere with its recovery.

Background Information: Project Description

According to your August 3, 1992 Biological Assessment, the NPS seeks to conduct a series of archaeological surveys using metal detectors at the onset. Because the efficiency of these metal detectors is significantly hampered when they must be wielded at more than a few inches from ground level, the NPS proposes that during the week of August 3-7, 1992 a contractor begin mowing to a height of 3 inches above ground a number of strips and plots within an approximately 500-acre site identified on the Los Fresnos, Texas Quadrangle Map as part of the Palo Alto Battlefield. To be mowed are six 30-foot by 3500-foot strips and five to twelve 100-foot by 500-foot plots. The total acreage to be mowed would be between approximately 20.25 and 28.3 acres.

The mowing project would be conducted so as to avoid trees, yuccas, lomas, and resacas. The majority of the mowing would impact low perennial vegetation dominated by coastal sacahuiste and sea oxeye daisy. The strips and plots would be used only temporarily during the examination of the site for artifacts and to determine an artifact-free location for future NPS facilities. After this use, the affected areas would be allowed to revegetate naturally.

Habitat Requirements

The northern aplomado falcon is an apparently non-migratory species that prefers open terrain with relatively low ground cover (USFWS 1986b, and 1987). Its general habitat is described as open rangeland and tropical savanna containing scattered mesquites, yuccas, oaks, acacias or palms (USFWS 1986a). In the United States, it was once found along yucca-covered sand ridges in coastal prairies, among riparian woodlands in open grasslands, and in desert grasslands with scattered mesquite and yuccas (Keddy Hector 1989).

The northern aplomado falcon's habitat must also include an abundance (4 to 5 per acre) of small to medium-sized birds, which account for over 90 percent of their dietary biomass (USFWS 1986a; Keddy Hector 1989). Still another requirement of the habitat is the presence of nesting platforms, for the northern aplomado falcon either nests in large bromeliads found in the tropical portion of its range, or uses the nests of Swainson's hawks, crested caracaras, Chihuahuan ravens, crows, kites and great horned owls (USFWS 1987; Keddy Hector 1989).

Distribution and Population

This falcon once nested in southeastern Arizona, South and West Texas, much of Mexico, and the west coast of Guatemala, but is now extirpated as a breeding species in the United States (USFWS 1986b), nesting only in the eastern Mexico States of Vera Cruz, Chiapas, Campeche, and Tabasco (USFWS 1987). Its greatest nesting concentration in this country was on the Palo Alto prairie between Brownsville and Port Isabel (Hector 1983). The last nesting reported from Texas occurred in Brooks County in 1941; the last bird taken in Texas was shot near

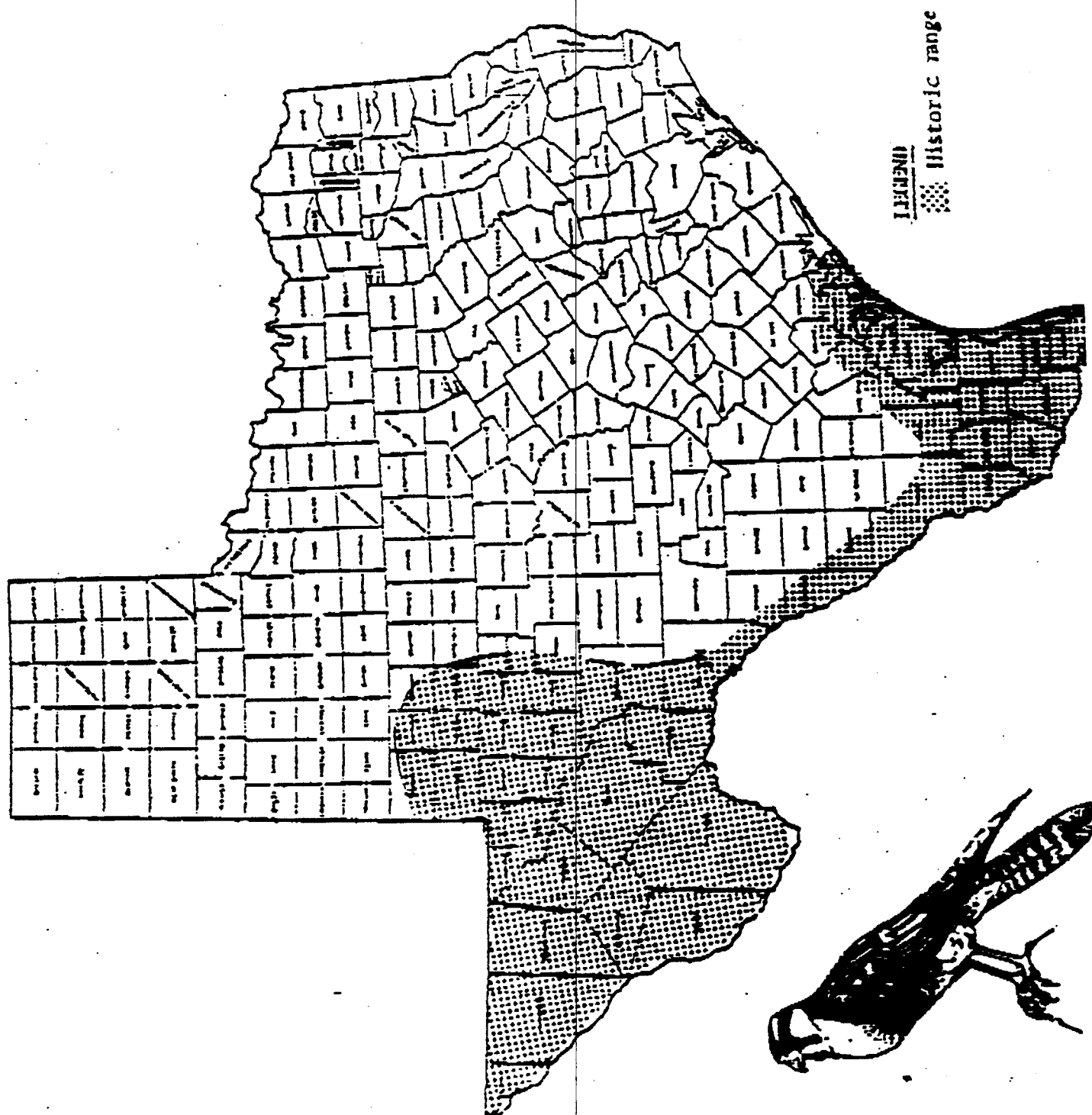


Figure 1. Historic range of the northern aplomado falcon in Texas
(After USFWS 1987).

Riviera in 1949 (McCracken 1987). Sightings since then were made in the Texas Big Bend and in South Texas, including several in the project area: one at Boca Chica in 1971, and several at Laguna Atascosa National Wildlife Refuge (NWR) during the 1950's and in 1984 (McCracken 1987). Figure 1 shows its historic range in Texas.

Hector (1983) listed several sites in South Texas as having management potential for recovery of the northern aplomado falcon. Among these were Southmost Ranch and Laguna Atascosa NWR, in Cameron County, and the King Ranch in Kleberg County. In 1985, the Peregrine Fund released four captive-reared northern aplomado falcons at the King Ranch; two were killed by great horned owls, and the other two dispersed and disappeared shortly after release (Keddy Hector 1989). Four more nestlings were successfully released at the King Ranch in 1986 and 1987, and five more at Laguna Atascosa NWR in 1988. Some of the latter were seen at the refuge for months after their release (Keddy Hector 1989). In 1989 seven more young were released at the refuge (two were quickly killed by a barn owl and one of the year's fledglings later returned to its hacking area (Steve Van Riper 1989). One was seen again at the Laguna Atascosa NWR in the fall of 1991, and another was seen, captured, and radio-monitored near the mouth of the Rio Grande that year (Thea Ulen 1992).

Reasons for Decline

The main reasons for the decline of the northern aplomado falcon were habitat degradation and reproductive failure caused by organochlorine pesticides (USFWS 1987). The open habitat favored by this falcon suffered encroachment from brush species, such as creosote bush and mesquite, when former grasslands were overgrazed and range fires were controlled (USFWS 1986a and b). Agricultural development also took its toll of grasslands (Keddy Hector 1989). Persistent pesticides like DDT caused eggshell thinning proportionally as severe as with the peregrine falcon's eggs in the 1960's and 1970's (USFWS 1986a). Additional factors in the decline may have included predation of adults by caracara, bobcat, coyote, and great horned owl; shooting; egg collecting; channelization of desert streams (thereby destroying wetland communities where its avian prey bred); windstorms; agricultural burning; botfly parasites of young; and possibly theft of eggs and young by brown jays and caracaras (Hector 1983; Keddy Hector 1989).

Vulnerability to Extinction

The northern aplomado falcon was listed as endangered in 1986 (USFWS 1987). The well-documented brush encroachment into its habitat in South Texas and elsewhere persists (USFWS 1986a). Pesticide levels in the United States have dropped, but the species is still threatened by the high levels of DDT and DDE in falcon eggs in Mexico. Eggshell thinning is also evident in Mexico, but there is no documentation of reproductive failure (1986a). The draft recovery plan for the species states the northern aplomado falcon's status should not be downlisted until a self-sustaining breeding population of 60 pairs has been established in the United States (Keddy Hector 1989). A reintroduction program has just been initiated in South Texas. Important information currently lacking includes that on existing population size, amount of available habitat, movements of non-breeders, and techniques for the captive rearing and reintroduction of young to the wild (Keddy Hector 1989).

Project Impacts and Conclusions

The battlefield site has not been formally surveyed for northern aplomado falcon habitat, but its vegetational description based on recent site visits by Mr. Cooper and National Audubon Society ornithologist Mike Farmer (pers. comm. July 31, 1992) indicates that a large portion still looks as it did when Hector (1983) said the Palo Alto prairie supported the greatest nesting concentration in the United States. In other words, the site offers the falcon yuccas and mesquites upon which to perch while hunting avian prey in a savanna-like milieu. The

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proposed mowing would temporarily (both coastal sacahuiste and sea oxeye daisy are perennials) remove approximately 25 acres of vegetative cover that support the insects and small birds the falcon preys upon, but the falcon's potential perching and nesting platforms would remain untouched. Provided the cleared strips are not converted into roadways or otherwise kept from regrowing, this potential impact would be very fleeting.

Future developments by the NPS in the battlefield area may add some cumulative effects similar to those of the proposed clearing, but such developments would be the subject of separate consultation should they affect this species. It appears likely that acquisition and management of the site may provide opportunities to enhance the site's suitability for use by the northern aplomado falcon.

This species is not known to reproduce locally, much less at the battlefield site, so interference with its reproduction and, consequently, with its recovery, appears highly unlikely unless the mowing has a much longer than anticipated effect on the falcon's prey.

Biological Opinion

Based upon the preceding information, it is my biological opinion that the proposed mowing is not likely to jeopardize the continue existence or interfere with the recovery of the northern aplomado falcon.

Incidental Take

Section 9 the Act, as amended, prohibits any taking (take is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Under the terms of Section 7 (b) (4) and Section 7 (c) (2), taking that is incidental to and not intended as part of the agency action is not considered taking within the bounds of the Act provided that such taking is in compliance with the incidental take statement.

It is considered unlikely that the proposed mowing could directly result in the death of an individual, so as regards individuals the no incidental take is authorized. Clearing the 25 acres of would probably constitute harm only if it resulted in a long term loss of feeding habitat, and then only if it were considered as contributing to a significant cumulative loss of such habitat. Consequently, any harm from the temporary loss of 25 acres of falcon habitat is considered an incidental take at worst, and no take at all as best.

Should any injury or death occur, NPS must reinitiate consultation with the Service immediately and provide the circumstances surrounding the take.

Conservation recommendations

Section 7 (a) (1) of the Endangered Species Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefits of endangered and threatened species. The term conservation recommendations has been defined as suggestions of the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information.

Coordination with your agency reveals that portions of the battlefield site are under cultivation or have otherwise been altered so as to reduce their value as habitat for the northern aplomado falcon. It is therefore suggested that the NPS

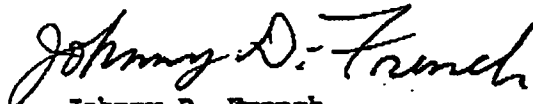
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look for ways to restore, or allow the restoration of, habitat that was once considered so highly productive for this species. The Service would be willing to assist in carrying out this conservation recommendation.

If NPS locates a dead, injured, or sick northern aplomado falcon, initial notification must be made to the nearest Service Law Enforcement office. Care should be taken in handling sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

This concludes consultation on this action. Reinitiation of consultation is required if incidental take occurs, if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, and/or if a new species is listed or critical habitat designated that may be affected by the action.

Sincerely,



Johnny D. French
Acting Field Supervisor

Enclosure

cc:
Regional Director, U.S. Fish & Wildlife Service, Albuquerque, NM (ARD-E)
Attn: Gary Halvorson
Regional Director, National Park Service, Santa Fe, NM
Attn: Jerry McCrea
State Administrator, U.S. Fish & Wildlife Service, Austin, TX
Tom B. Carroll, Superintendent, Palo Alto Battlefield NHS, Brownsville, TX

- Prepared for Office of Endangered Species, USFWS, Albuquerque, NM. 51 pp.
- Keddy, Hector, D.P. 1989. Draft northern aplomado falcon recover plan. Prepared for Southwest Regional Office, USFWS, Albuquerque, NM. 54 pp.
- McCracken, K. Aplomado falcon handsome, but rare. Corpus Christi Caller Times. 1987. December 13. p.12 c.
- Ulen, Tea. 1992. Personal communication to J. French, USFWS, Corpus Christi, TX. July 31, 1992.
- U.S. Fish and Wildlife Service. 1986a. Determination of the northern aplomado falcon to be an endangered species. Final rule. 51 FR 37, February 25, 1986. 6686-6690.
- _____. 1986b. Final endangered listings approved for two species. Endangered Technical Bull. Vol. 11, No. 3, Washington, D.C. p.1.
- _____. 1987. Endangered and threatened species of Texas and Oklahoma. Endangered Species Office, USFWS, Albuquerque, NM. 138 pp.
- Van Riper, S. 1989. Personal communication to J. French, USFWS, Corpus Christi, TX. June 30, 1989.

CONCURRENCE FORM FOR SOUTHWEST REGION NPS
ENDANGERED SPECIES BIOLOGICAL ASSESSMENT

We have reviewed your informal/formal Biological Assessment for the proposed mowing project at Palo Alto Battlefield National Historic Site, Cameron County, Texas.

.....✓ We concur with your findings that the above proposed National Park Service action is not likely to affect listed species or critical habitat.

..... We do not concur with your Biological Assessment and believe additional informal/formal consultation may be necessary in this matter.

EXPLANATIONS (if needed):

See August 3, 1992 biological opinion

Signed: _____

Johnny D. French

Title: _____

Acting Field Supervisor

USFWS Office: _____

Corpus Christi Ecological Services Field Office

Date: _____

August 3, 1992

N1621(SWR-RNR)

AUG 10 1992

NAK in
NRB, b

Memorandum

To: Field Supervisor, U.S. Fish and Wildlife Service,
Corpus Christi Area Ecological Services Field Office,
Corpus Christi, Texas

From: Regional Director, Southwest Region

Subject: Informal consultation for Palo Alto Battlefield
National Historic Site

Enclosed is our biological assessment for informal consultation on a proposed mowing project at Palo Alto Battlefield National Historic Site, Cameron County, Texas. This project would allow metal detectors to be used to conduct an archeological survey at the park.

We find no effect upon proposed/threatened/endangered species from this proposal; but we are taking several preventive measures to protect the aplomado falcon, which could potentially occur in the area later in the year. We are enclosing a convenient response form which will facilitate your review.

Jerry McCrea, our Regional Biologist, has been conferring with Tim Cooper, Threatened and Endangered Species Biologist, and John French, Senior Staff Biologist. Both have been very helpful, and we appreciate their assistance very much! They are real assets to your office, and their dedication reflects very favorably upon themselves and the U.S. Fish and Wildlife Service!

Should you or your staff have any questions regarding this matter, please call Jerry McCrea at 505-988-6829.

/s/ John E. Cook

Enclosures

cc:
Regional Director, U.S. Fish and Wildlife Service, Region 2,
P.O. Box 1306, Albuquerque, New Mexico 87103, w/cy encls.
Tim Cooper, USF&WS, Corpus Christi, w/cy encls.
John French, USF&WS, Corpus Christi, w/cy encls.

bcc:

Superintendent, Palo Alto, w/cy encls.

Ron Ice, SWRO-RCA, w/cy encls.

C. Haecker, SWRO-RCA, w/cy encls.

L. Dansby, SWRO-REC, w/cy encls.

SOUTHWEST REGION
NATIONAL PARK SERVICE
SECTION 7 BIOLOGICAL ASSESSMENT FORM

...X... Informal

..... Formal

1. REGION: Southwest Region, National Park Service
2. PARK: Palo Alto Battlefield National Historic Site
REF: PAAL-01 (92-01)
3. LOCATION: Cameron County, Texas (on private land that will eventually be purchased to become part of the park)
4. DEVELOPMENT ACTION PLANNED: A mowing project is proposed for a portion of a large (approximately 500 acre) field of cordgrass (see enclosed maps). The grass would be cut to a height of 3 inches, using rotary blade mowers. Six parallel strips 30 feet by 3500 feet (2.4 acres each, 14.5 acres total) are proposed at approximately 250 foot intervals, running in a north/south direction, while 5 to 12, 1.15 acre (100 feet by 500 feet) mowed plots (5.75-13.8 acres) would be located in other areas of the field. The total size of the mowed areas would range from a low of approximately 20.25 acres to a high of 28.3 acres. The mowing is tentatively proposed for the week of August 3-7, 1992. It would take about 1 1/2 days to accomplish the mowing.
5. DEVELOPMENT ACTION OBJECTIVES: The purpose of the mowing is to enable National Park Service (NPS) archeologists to examine a portion of the battlefield for artifacts. This work would be accomplished with metal detectors, hence the need to mow the grass. This information will help to determine where to locate future visitor facilities, such as a visitor center and parking lot. Since the park was originally established for historic reasons, the desire is to avoid constructing facilities on the actual battleground.
6. ALTERNATIVES TO PROPOSED ACTIONS: A survey could be accomplished with random excavations, but it would not be as efficient as using metal detectors and vegetative recovery would take longer. A prescribed fire was previously planned for this site; it became unnecessary when it was found that the metal detectors did not have to be used as close to the soil surface as originally thought to provide satisfactory results. In addition, it is difficult to burn cordgrass to the extent needed to achieve the desired results. Mowing is the best alternative for this project, as it is a highly controllable form of vegetation management.

7. BRIEF DESCRIPTION OF ENDANGERED SPECIES SURVEYS:

Mr. Tim Cooper, Threatened and Endangered Species Biologist, U.S. Fish and Wildlife Service, Corpus Christi, Texas, surveyed the site on July 14, 1992. He looked for evidence of, and site suitability for, the following species: ocelot, jaguarundi, and the northern aplomado falcon. Mr. Cooper found that the distribution of the brush and the species of brush were not conducive for the two species of cats. There was no evidence of the northern aplomado falcon, as the species is present in the Lower Rio Grande Valley from October to March. This falcon is known to occur in locations to the east of the park, according to Mr. Cooper.

On July 30, 1992, Mr. Mike Farmer of the Audubon Society did a preliminary survey for the Botteri's sparrow. Using the technique of stopping every .2 miles over a 4.6 mile survey route, Mr. Farmer detected 26 territorial (singing) males. He estimates that as many as 200-300 breeding pairs of this bird may be found in the park. He plans to do some followup work in early August, but he had no concerns about this project having any effect on this species, as it is quite late in the breeding season. He was of the opinion that at this time of year, the males were probably maintaining feeding territories, rather than nesting territories.

8. OCCURRENCES OF LISTED OR CATEGORY SPECIES IN OR NEAR THE ACTION AREA:

ENDANGERED SPECIES: Three endangered species have been known historically from this part of the state, but are not known to occur there at this time:

- a. Northern aplomado falcon (Falco femoralis septentrionalis)
- b. Jaguarundi (Felis yagouaroundi cacomitli)
- c. Ocelot (Felis pardalis)

CATEGORY 1/2 REVIEW SPECIES:

Plants: None known

Invertebrates: None known

Reptiles/amphibians: None known

Birds:

Category 2: Botteri's sparrow (Aimophila botterii) is abundant in the park and presumably breeds in the park in large numbers. (See survey comments)

Mammals: None known

STATE SENSITIVE SPECIES:

The Texas Natural Heritage Program Office was consulted on July 8, 1992, when this project was still planned as a prescribed fire. Ms. Dorinda Sullivan, the program data base manager, thought this project's potential for impact on state (or Federal) listed species was low. She saw no problems and advised adhering to whatever guidelines the U.S. Fish and Wildlife Service provided about the project. As a followup due to the change in plans to use mowing instead of fire, Ms. Sullivan was contacted again on August 3, 1992, regarding the project. She conferred with their staff ecologist and neither had any concerns about the proposed project.

9. CONSIDERATIONS:

Some protocols and features of this proposed project help to ensure that there would be no effects on listed (should they return to the area) or category species. These items are:

- a. The effect of the project on cordgrass would be short-term in nature; the grass would be allowed to grow back to its normal height.
- b. The park Superintendent has spoken with Mr. Emilio Sanchez, the owner of the property, and he has agreed to not use the mowed areas as transportation corridors.
- c. The project is scheduled to take place prior to the October-March activity season of the aplomado falcon.
- d. Yuccas will be avoided by the mowers, as these could potentially be used as nesting sites or perches by the aplomado falcon. Mr. Tom Carroll, the park Superintendent, has agreed that a National Park Service representative will be on site during the mowing to ensure that the equipment operators avoid mowing the yuccas.
- e. Due to the lateness of the year, the nesting season of the Botteri's sparrow should be complete. Consequently, no nestlings should be jeopardized by the proposed project.

f. The brush fields along the oxbow bend and the small hills will not be mowed, thus preserving potential habitat for the ocelot and jaguarundi, should they return to the area.

10. ANALYSIS OF IMPACTS ON ENDANGERED/THREATENED SPECIES: No species currently listed as endangered or threatened will be affected by this proposal.

11. CONCLUSION:

...X...WILL NOT AFFECT

.....MAY AFFECT (Requires Formal USF&WS Consultation)

12. RECOMMENDATION: Proceed with proposed mowing project

Editor: Gerald D. McCrea, Regional Biologist/T & E Species Coordinator; Division of Natural Resources Management and Science (RNR); National Park Service; Southwest Regional Office; P.O. Box 728; Santa Fe, NM 87504-0728. Phone: 505-988-6829

Date of report preparation: 3 August 1992

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EXPLANATIONS (if needed):

Signed: _____

Title: _____

USF&WS Office: _____

Date: _____

Figure 1

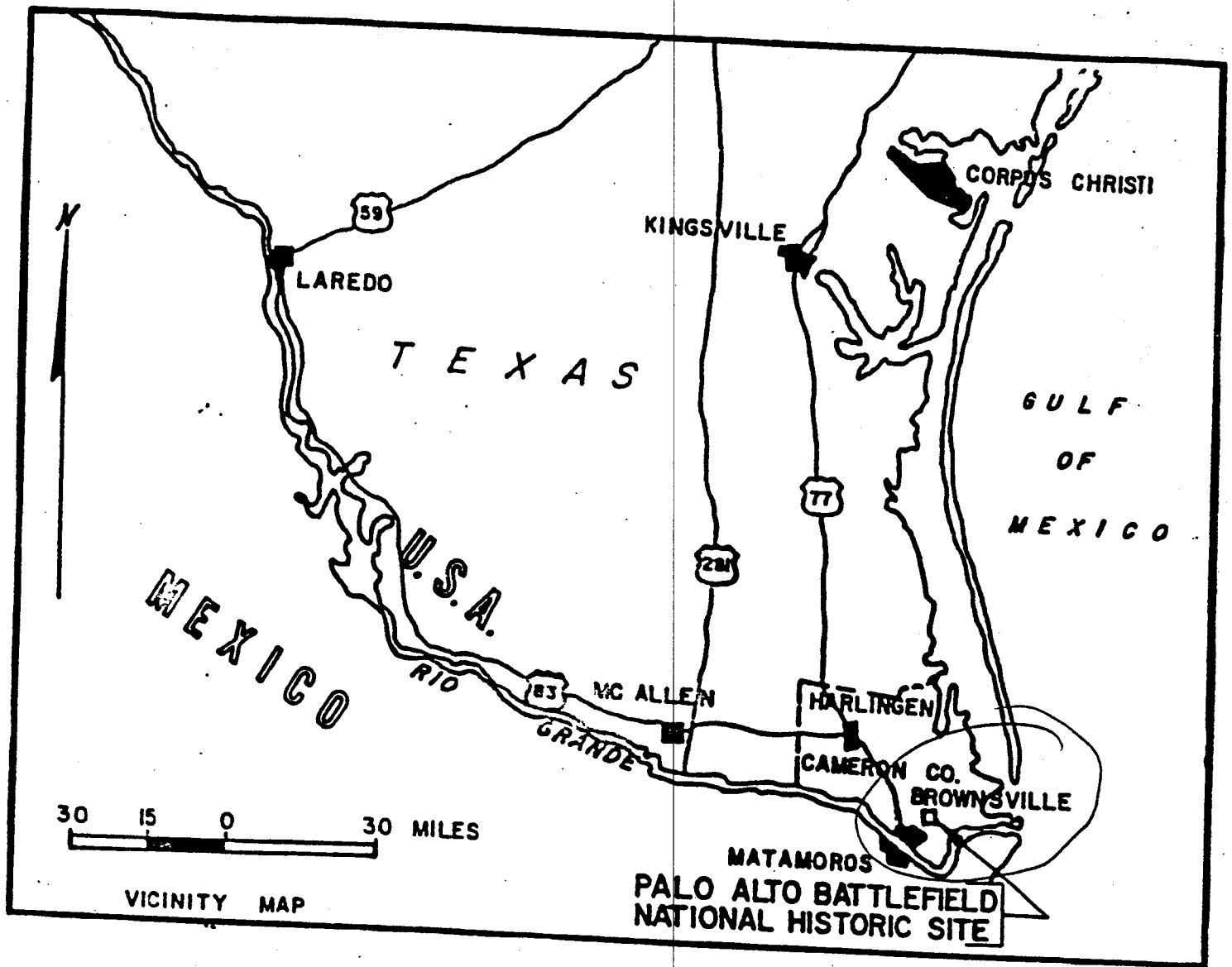
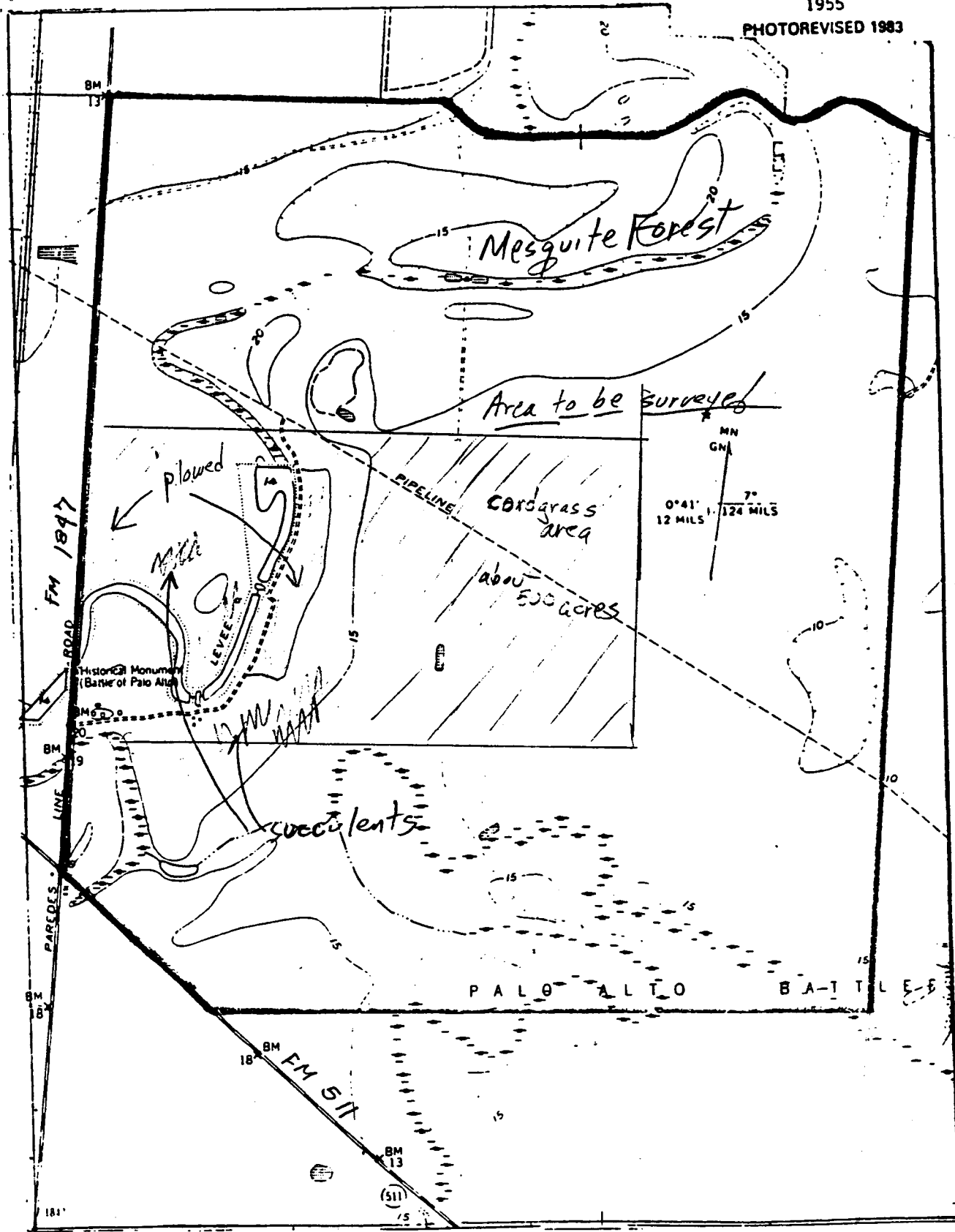


Figure 2

SW/4 LOS FRESNOS 1" QUADRANGLE
N2600-W9722 5/75

1955

PHOTOREVISED 1983



PROJECT BOUNDARY

CONTOUR INTERVAL 5 FEET

QUADRANGLE

TEXAS



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ecological Services
c/o CCSU, Campus Box 338
6300 Ocean Drive
Corpus Christi, Texas 78412

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August 3, 1992

John Cook
Regional Director, Southwest Regional Office
National Park Service
P.O. Box 728
Santa Fe, New Mexico 87504-0728

Consultation No. 2-11-92-I-210

Dear Regional Director Cook:

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jeopardize the continued existence of a listed species or adversely modify its critical habitat. Consultation may be either informal or formal, depending upon whether the action agency has determined that a "may affect" situation exists. In this case, it is uncertain if the northern aplomado falcon currently occupies the action area and, if it does, whether the precautions already made a part of the action plan would prevent adverse impacts to the species, anyway. Due to the short time frame for this consultation, the Service and the National Park Service (NPS) are giving the species the benefit of the doubt by assuming an effect could occur. Nonetheless, precisely because there is no documented current use of the battlefield site and because the action would be carried out so as to minimize short and long term impacts to the bird's habitat, it is my biological opinion that clearing less than 30 acres of grass-and shrubland as proposed is unlikely to jeopardize the continued existence of the northern aplomado falcon or interfere with its recovery.

Background Information: Project Description

According to your August 3, 1992 Biological Assessment, the NPS seeks to conduct a series of archaeological surveys using metal detectors at the onset. Because the efficiency of these metal detectors is significantly hampered when they must be wielded at more than a few inches from ground level, the NPS proposes that during the week of August 3-7, 1992 a contractor begin mowing to a height of 3 inches above ground a number of strips and plots within an approximately 500-acre site identified on the Los Fresnos, Texas Quadrangle Map as part of the Palo Alto Battlefield. To be mowed are six 30-foot by 3500-foot strips and five to twelve 100-foot by 500-foot plots. The total acreage to be mowed would be between approximately 20.25 and 28.3 acres.

The mowing project would be conducted so as to avoid trees, yuccas, lomas, and resacas. The majority of the mowing would impact low perennial vegetation dominated by coastal sacahuiste and sea oxeye daisy. The strips and plots would be used only temporarily during the examination of the site for artifacts and to determine an artifact-free location for future NPS facilities. After this use, the affected areas would be allowed to revegetate naturally.

Habitat Requirements

The northern aplomado falcon is an apparently non-migratory species that prefers open terrain with relatively low ground cover (USFWS 1986b, and 1987). Its general habitat is described as open rangeland and tropical savanna containing scattered mesquites, yuccas, oaks, acacias or palms (USFWS 1986a). In the United States, it was once found along yucca-covered sand ridges in coastal prairies, among riparian woodlands in open grasslands, and in desert grasslands with scattered mesquite and yuccas (Keddy Hector 1989).

The northern aplomado falcon's habitat must also include an abundance (4 to 5 per acre) of small to medium-sized birds, which account for over 90 percent of their dietary biomass (USFWS 1986a; Keddy Hector 1989). Still another requirement of the habitat is the presence of nesting platforms, for the northern aplomado falcon either nests in large bromeliads found in the tropical portion of its range, or uses the nests of Swainson's hawks, crested caracaras, Chihuahuan ravens, crows, kites and great horned owls (USFWS 1987; Keddy Hector 1989).

Distribution and Population

This falcon once nested in southeastern Arizona, South and West Texas, much of Mexico, and the west coast of Guatemala, but is now extirpated as a breeding species in the United States (USFWS 1986b), nesting only in the eastern Mexico States of Vera Cruz, Chiapas, Campeche, and Tabasco (USFWS 1987). Its greatest nesting concentration in this country was on the Palo Alto prairie between Brownsville and Port Isabel (Hector 1983). The last nesting reported from Texas occurred in Brooks County in 1941; the last bird taken in Texas was shot near

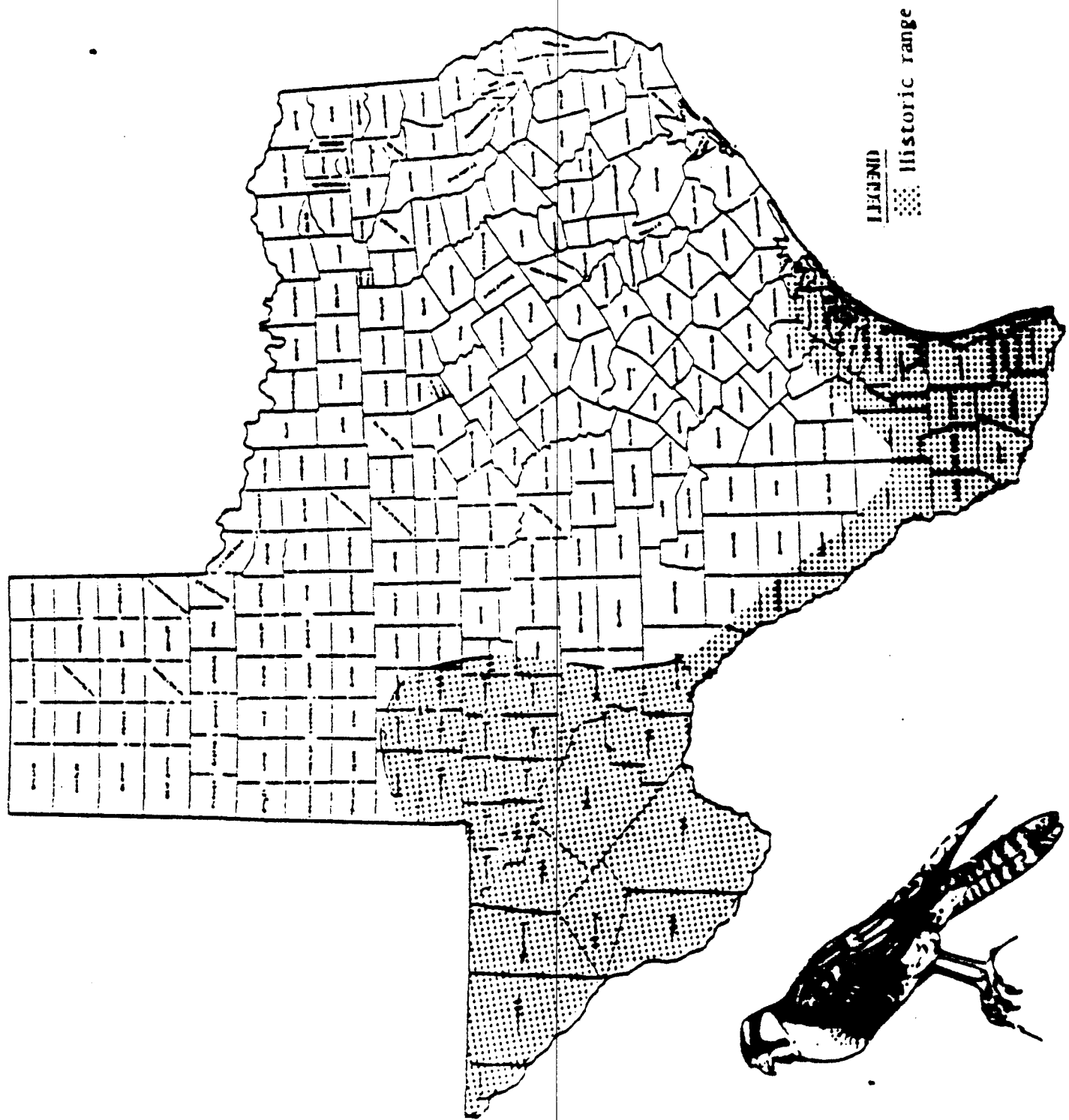


Figure 1. Historic range of the northern aplomado falcon in Texas
After GUTWISS 1977

Riviera in 1949 (McCracken 1987). Sightings since then were made in the Texas Big Bend and in South Texas, including several in the project area: one at Boca Chica in 1971, and several at Laguna Atascosa National Wildlife Refuge (NWR) during the 1950's and in 1984 (McCracken 1987). Figure 1 shows its historic range in Texas.

Hector (1983) listed several sites in South Texas as having management potential for recovery of the northern aplomado falcon. Among these were Southmost Ranch and Laguna Atascosa NWR, in Cameron County, and the King Ranch in Kleberg County. In 1985, the Peregrine Fund released four captive-reared northern aplomado falcons at the King Ranch; two were killed by great horned owls, and the other two dispersed and disappeared shortly after release (Keddy Hector 1989). Four more nestlings were successfully released at the King Ranch in 1986 and 1987, and five more at Laguna Atascosa NWR in 1988. Some of the latter were seen at the refuge for months after their release (Keddy Hector 1989). In 1989 seven more young were released at the refuge (two were quickly killed by a barn owl) and one of the year's fledglings later returned to its hacking area (Steve Van Riper 1989). One was seen again at the Laguna Atascosa NWR in the fall of 1991, and another was seen, captured, and radio-monitored near the mouth of the Rio Grande that year (Thea Ulen 1992).

Reasons for Decline

The main reasons for the decline of the northern aplomado falcon were habitat degradation and reproductive failure caused by organochlorine pesticides (USFWS 1987). The open habitat favored by this falcon suffered encroachment from brush species, such as creosote bush and mesquite, when former grasslands were overgrazed and range fires were controlled (USFWS 1986a and b). Agricultural development also took its toll of grasslands (Keddy Hector 1989). Persistent pesticides like DDT caused eggshell thinning proportionally as severe as with the peregrine falcon's eggs in the 1960's and 1970's (USFWS 1986a). Additional factors in the decline may have included predation of adults by caracaras, bobcat, coyote, and great horned owl; shooting; egg collecting; channelization of desert streams (thereby destroying wetland communities where its avian prey bred); windstorms; agricultural burning; botfly parasites of young; and possibly theft of eggs and young by brown jays and caracaras (Hector 1983; Keddy Hector 1989).

Vulnerability to Extinction

The northern aplomado falcon was listed as endangered in 1986 (USFWS 1987). The well-documented brush encroachment into its habitat in South Texas and elsewhere persists (USFWS 1986a). Pesticide levels in the United States have dropped, but the species is still threatened by the high levels of DDT and DDE in falcon eggs in Mexico. Eggshell thinning is also evident in Mexico, but there is no documentation of reproductive failure (1986a). The draft recovery plan for the species states the northern aplomado falcon's status should not be downlisted until a self-sustaining breeding population of 60 pairs has been established in the United States (Keddy Hector 1989). A reintroduction program has just been initiated in South Texas. Important information currently lacking includes that on existing population size, amount of available habitat, movements of non-breeders, and techniques for the captive rearing and reintroduction of young to the wild (Keddy Hector 1989).

Project Impacts and Conclusions

The battlefield site has not been formally surveyed for northern aplomado falcon habitat, but its vegetational description based on recent site visits by Mr. Cooper and National Audubon Society ornithologist Mike Farmer (pers. comm. July 31, 1992) indicates that a large portion still looks as it did when Hector (1983) said the Palo Alto prairie supported the greatest nesting concentration in the United States. In other words, the site offers the falcon yuccas and mesquites upon which to perch while hunting avian prey in a savanna-like milieu. The

proposed mowing would temporarily (both coastal sacahuiste and sea oxeye daisy are perennials) remove approximately 25 acres of vegetative cover that support the insects and small birds the falcon preys upon, but the falcon's potential perching and nesting platforms would remain untouched. Provided the cleared strips are not converted into roadways or otherwise kept from regrowing, this potential impact would be very fleeting.

Future developments by the NPS in the battlefield area may add some cumulative effects similar to those of the proposed clearing, but such developments would be the subject of separate consultation should they affect this species. It appears likely that acquisition and management of the site may provide opportunities to enhance the site's suitability for use by the northern aplomado falcon.

This species is not known to reproduce locally, much less at the battlefield site, so interference with its reproduction and, consequently, with its recovery, appears highly unlikely unless the mowing has a much longer than anticipated effect on the falcon's prey.

Biological Opinion

Based upon the preceding information, it is my biological opinion that the proposed mowing is not likely to jeopardize the continue existence or interfere with the recovery of the northern aplomado falcon.

Incidental Take

Section 9 the Act, as amended, prohibits any taking (take is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Under the terms of Section 7 (b) (4) and Section 7 (c) (2), taking that is incidental to and not intended as part of the agency action is not considered taking within the bounds of the Act provided that such taking is in compliance with the incidental take statement.

It is considered unlikely that the proposed mowing could directly result in the death of an individual, so as regards individuals the no incidental take is authorized. Clearing the 25 acres of would probably constitute harm only if it resulted in a long term loss of feeding habitat, and then only if it were considered as contributing to a significant cumulative loss of such habitat. Consequently, any harm from the temporary loss of 25 acres of falcon habitat is considered an incidental take at worst, and no take at all as best.

Should any injury or death occur, NPS must reinitiate consultation with the Service immediately and provide the circumstances surrounding the take.

Conservation recommendations

Section 7 (a) (1) of the Endangered Species Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefits of endangered and threatened species. The term conservation recommendations has been defined as suggestions of the Service regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information.

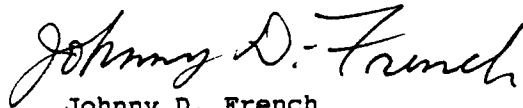
Coordination with your agency reveals that portions of the battlefield site are under cultivation or have otherwise been altered so as to reduce their value as habitat for the northern aplomado falcon. It is therefore suggested that the NPS

look for ways to restore, or allow the restoration of, habitat that was once considered so highly productive for this species. The Service would be willing to assist in carrying out this conservation recommendation.

If NPS locates a dead, injured, or sick northern aplomado falcon, initial notification must be made to the nearest Service Law Enforcement office. Care should be taken in handling sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

This concludes consultation on this action. Reinitiation of consultation is required if incidental take occurs, if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, if the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, and/or if a new species is listed or critical habitat designated that may be affected by the action.

Sincerely,



Johnny D. French
Acting Field Supervisor

Enclosure

cc:

Regional Director, U.S. Fish & Wildlife Service, Albuquerque, NM (ARD-E)

Attn: Gary Halvorson

Regional Director, National Park Service, Santa Fe, NM

Attn: Jerry McCrea

State Administrator, U.S. Fish & Wildlife Service, Austin, TX

Tom B. Carroll, Superintendent, Palo Alto Battlefield NHS, Brownsville, TX

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CONCURRENCE FORM FOR SOUTHWEST REGION NPS
ENDANGERED SPECIES BIOLOGICAL ASSESSMENT

We have reviewed your informal/formal Biological Assessment for the proposed mowing project at Palo Alto Battlefield National Historic Site, Cameron County, Texas.

✓
.....We concur with your findings that the above proposed National Park Service action is not likely to affect listed species or critical habitat.

.....We do not concur with your Biological Assessment and believe additional informal/formal consultation may be necessary in this matter.

EXPLANATIONS (if needed):

See August 3, 1992 biological opinion

Signed: _____

Johnny L. French

Title: _____

Acting Field Supervisor

USF&WS Office: _____

Corpus Christi Ecological Services Field Office

Date: _____

August 3, 1992