Standard Operating Procedure (SOP) 4: Documenting Territory and Nest-Site Location

Protocol for Monitoring American Peregrine Falcons

Central Alaska (CAKN) Inventory and Monitoring Network

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The main Narrative for the Protocol for Monitoring Peregrine Falcon in Central Alaska (CAKN) Inventory and Monitoring Network is available from the NPS Inventory and Monitoring Central Alaska Network website (http://science.nature.nps.gov/im/units/CAKN/) and the Natural Resource Publications Management website (http://www.nature.nps.gov/publications/nrpm/

SOP 4 – Documenting Territory and Nest-Site Location

Standard Operating Procedure #4
Version 1.0 (May 2018)

Revision History Log:

Previous Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #
Add rows as needed for each change or set of changes associated with each version.					

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SOP 4.0 – Introduction

This Standard Operating Procedure explains the procedure for documenting territory locations that all observers should follow to (1) locate the peregrine falcon territory to be surveyed and (2) document new territories or nest ledges (nest sites) within a known territory. Raptors often use alternate nest sites within the same territory from year to year. Careful documentation of the general territory location, as well as alternate nest sites used in the past, can minimize the time and difficulty sometimes associated with locating nest sites.

SOP 4.1 – Completing the Raptor Eyrie Record Card (Back Side of Nest Card)

Procedures:

1. The back side of the Raptor Observation Record Card (Raptor Eyrie Record Card) contains fields for describing the physical characteristics of the nest territory and specific nest site. These fields should be completed for all newly discovered nest sites (ledges or cavities or as appropriate).
2. Territories not already described by latitude/longitude coordinates based on GPS technology, should have latitude/longitude coordinates collected following SOP #3 on GPS usage. All known, existing latitude/longitude for the territories to be surveyed should be entered into the GPS unit prior to the start of the field season. GPS units can then be used to navigate to territories if needed, following SOP#3.
3. Because of potential error associated with latitude/longitude, other descriptions of nest site locations should be included. A specific description of the nest sites based on a local landmark (one noted on maps) should be prepared. Example: "North side of Yukon River, River, 2.2 km west of junction of Yukon and Nation rivers." Other methods to document territory and nest ledge locations include:
    - Marked topographical maps
    - Sketches of nest ledge locations, preferably including the cliff skyline, important perches, and prey caches.
    - Photographs showing the alternate nest ledges used within a territory over time can be helpful when trying to find the specific nest site. Slides, prints, or high-quality (5-6 mega pixel range) digital photographs provide resolution necessary to enlarge photos for nest ledge details. Photographs should be thoroughly labeled with territory label, alternate nest site label, general location, and year, at a minimum. Photographs should be stored at the Park in archival quality plastic photograph sleeves in a binder; photographs should also be digitized and stored on CDs.

SOP 4.2 – References

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Gilbertson, M., T. Kubiak, J. Ludwig, and G. Fox. 1991. Great Lakes embryo mortality, edema, and deformities syndrome (GLEMEDS) in colonial fish-eating birds: similarity to chick-edema disease. J. Toxicol. Environ. Health 33:455-520.

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Appendix A – Raptor Observation Record Card (Front Side of Nest Card)

RAPTOR OBSERVATION CARD (JAN 2006)

OBSERVER NAME AND ADDRESS	TERR./AREA NUMBER	NEST/LEDGE
	LATITUDE/	
	UTM-N	
	LONGITUDE/	
TERRITORY AREA DESCRIPTON	UTM-N	
	DATUM/	
	ZONE	
	TERRITORY NAME / WAYPOINT	

SPECIES (COMMON NAME OR AOU ABBREV.)

DATE	TIME START	TIME END	SUR MET	NO. ADS	NO. SUB	NO. EGG EA	NO. NEST EA	AGE NEST EA	NO. FLG EA	ACTIVITIES
SEASON SUMMARY	TOTAL TIME					EA	EA	EA	EA	STATUS

SURVEY METHOD		ACTIVITY / BEHAVIOR (MAY BE MORE THAN ONE)		
1. FOOT	7. AUDIO	1. PERCHED	7. BODY CARE	13. COPULATE
2. VEHICLE		2. FLYING	8. COURTSHIP	14. RESPOND TO CALL
3. BOAT		3. HUNT/FORAGE	9. NEST BUILDING	15. OTHER:
4. PLANE		4. FEEDING ADULT	10. INCUBATING	
5. HELICOPTER		5. TERR. DEFENSE	11. BROODING	
6. INCIDENTAL OBS.		6. VOCALIZING	12. FEEDING YOUNG	

MAP, NOTES, OR PHOTO ATTACHED? 1. YES 2. NO OTHER?

REMARKS (MOULT, PREY, ETC.) OR SKETCH

Appendix B – Raptor Eyrie Record Card (Back Side of Nest Card)

RAPTOR NEST CARD (JAN 2007)		TERR.	NEST	YEAR

TREE NEST				CLIFF/GROUND NEST			
TREE SPECIES:				STRUCTURE			
1. LIVE TREE		4. ARTIFICIAL		1. ROCK/CLIFF		3. DIRT SLOPE	
2. SNAG		5. CAVITY TREE		2. INTERMIT. ROCK/VEG		4. VEG. SLOPE	
3. NEST BOX/PLATFORM		6. OTHER		PERCENT ROCK:		5. LEVEL GROUND	
TREE HEIGHT (M)			E A	NEST SITUATION		4. OPEN HILLSIDE	
TREE DIAMETER (DBH)(M)			E A	1. LEDGE ON CLIFF		5. ON GROUND	
HEIGHT OF NEST IN TREE (M)			E A	2. STICKNEST ON CLIFF		6. OTHER	
ELEVATION OF NEST (M)				3. CAVITY/POTHOLE			
ASPECT OF SLOPE (N, NE)				CLIFF HEIGHT (M)			
ASPECT OF NEST (N, NE)				CLIFF LENGTH (M)			
NEST CONDITION				CLIFF HEIGHT ABOVE RIVER/VALLEY (M)			
1. GOOD 2. POOR 3. REMANANT ONLY				HEIGHT OF NEST ON CLIFF (M)			
DOMINANT LAND COVER				NEST ACCESSIBILITY (to ground predators)			
				1. EASY 2. MOD. DIFF. 3. VERY DIFF.			
				OVERHANG AT NEST?	1. YES	2. NO	
DIST. WATER (KM), TYPE				AFTERNOON SHADE?	1. YES	2. NO	
DIST. TO HUMAN ACTIVITY (KM)				HUMAN ACT. VISIBLE?	1. YES	2. NO	

TYPE OF HUMAN ACTIVITY								
1. TRAIL		5. BUILDINGS		9. MINING				
2. ROAD		6. AGRICULTURE		10. OIL AND GAS				
3. BOATING		7. CONSTRUCTION		11. LOGGING				
4. AIRCRAFT		8. RESEARCH		12. OTHER (DESCRIBE):				

CIRCLE ANY THAT APPLY:						
1. PHOTO OF CLIFF			5. FEATHER SAMPLES COLLECTED			
2. PHOTO OF EYRIE			6. BLOOD SAMPLE COLLECTED			
3. EGGS(S) COLLECTED			7. PREY REMAINS COLLECTED			
4. EGG SHELLS COLLECTED			8. OTHER NOTES:			

BANDING DATA

AGE	SEX	FWS/LEG	COLOR/CODE/ORIEN/LEG