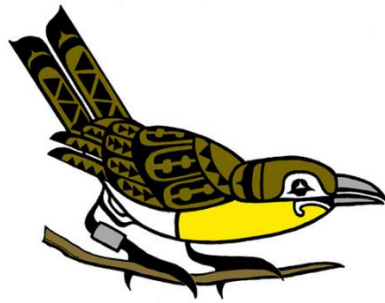


**Klamath Bird Observatory's
Landbird Monitoring
Species Checklist Protocol
developed in partnership with the
National Park Service
Klamath Network**



Procedures in this document are excerpted from the NPS Klamath Network Landbird Monitoring protocol (Stephens et al. 2010), and selected SOPs have been updated with minor changes that will be incorporated into a future revision of the Stephens et al. (2010) protocol.

Lit Cited:

Stephens, J. L., S. R. Mohren, J. D. Alexander, D. A. Sarr, and K. M. Irvine. 2010. Klamath Network Landbird Monitoring Protocol. Natural Resource Report NPS/KLMN/NRR—2010/187. National Park Service, Fort Collins, Colorado.

Landbird Monitoring Protocol for Klamath Network Parks

Standard Operating Procedure (SOP) #9: Completing Species Checklists

Version 1.0

Revision History Log:

Previous Version	Revision Date	Author	Changes Made	Reason for Change	New Version

This SOP includes instructions for completing the Species Checklist. A species checklist is included at the end of the SOP.

Introduction

A species checklist should be completed for each survey day, in conjunction with point count and mist netting surveys. This form is used to keep a tally of all species encountered throughout the day that were within the vicinity of the point count route or mist netting site. The species checklist adds value to survey data by accounting for all species encountered during an effort, whether detected during an actual point count, area search, or mist netting survey.

Comprehensive Species List

When arriving at a point count route or mist netting station, the Project Lead, technician, or intern should remain alert to all bird species observed in the area. Species identification of all birds that are encountered at any time during an effort should be attempted; species that have not been accounted for on point count, area search, or banding data forms should be noted on the Species Checklist Form. At the end of a survey effort, all species that were accounted for on the other data forms should also be added to the species checklist. If more than one individual is surveying the site, the team should keep one checklist that accounts for all species encountered by any individual in the group. Technicians who are conducting vegetation surveys during the afternoon (before a point count survey) should fill out two separate checklists, one during the afternoon effort and a second during the morning survey.

SOP #9: Complete Species Checklists (continued).

Completing the Form

The data form should be filled out as follows:

State: The two letter abbreviation for the state where the field site is located.

Project/Region: The code for the project, NPLTM.

Site Code: The code for the field site.

Site Name: The name of the field site.

Month-Day-Year: The date of the survey using two numbers for month and day and four numbers for year.

Primary Observer: The first, middle, and last name initials of the primary observer.

Secondary Observers: The first, middle, and last name initials of secondary observers.

Observers: The number of observers.

Start Time: Start time of survey on 24-hour clock.

End Time: End time of survey on 24-hour clock.

Survey Type: B for mist netting or PC for point count.

Breeding Code: The breeding code should be filled in to the left of each species code. Use the code that is the most definitive of breeding status, which is the following order:

N = active nest found

M = nest material being gathered or carried

F = food or fecal sack

D = distraction

L = local young being fed by adult

C = copulation or courtship

T = territorial behavior

S = territorial song or drumming heard

B = bird captured

E = encountered on study area

O = encountered flying over study area

SOP #9: Complete Species Checklists (continued).

Klamath Demographic Monitoring Network Species Checklist

State	Project/Region	Site Code	Site Name	Month	Day	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Primary Obs.	Secondary Obs.	# Obs.	Start Time	End Time	Survey Type*	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

*Surv. Type = AQ: Aquatic Surv., AS: Area Search, BT: Black Tern, BW: Bird Walk, CES: Constant Eff Surv, DEM: Band Demo, NS: Nest Search/S Map, O: Other, PC: Pt Cnt, ROI: Rapid Orn Inv, T:Travel

Breeding Codes (in hierarchial order,

use single highest observed code)

N = current year's nest found

M = nest material being gathered or carried

F = food or fecal sac carry

D = distraction

L = local young being fed by adult

C = copulation or courtship

T = territorial behavior (fights, chases, etc.)

S = territorial song or drumming heard

B = bird captured

E = encountered in study area

O = encountered flying over the study area

Grebes, Pelicans, Cormorants,

Hérons & Ducks

<input type="checkbox"/>	EAGR	Eared Grebe
<input type="checkbox"/>	CLGR	Clark's Grebe
<input type="checkbox"/>	WEGR	Western Grebe
<input type="checkbox"/>	UWCG	Unk. Western/Clark's Gr
<input type="checkbox"/>	PBGR	Pied-billed Grebe
<input type="checkbox"/>	DCCO	Double-cr. Cormorant
<input type="checkbox"/>	AWPE	American Wh. Pelican
<input type="checkbox"/>	AMBI	American Bittern
<input type="checkbox"/>	LEBI	Least Bittern
<input type="checkbox"/>	GREG	Great Egret
<input type="checkbox"/>	GBHE	Great Blue Heron
<input type="checkbox"/>	GRHE	Green Heron
<input type="checkbox"/>	BCNH	Black-cr. Night Heron
<input type="checkbox"/>	CAGO	Canada Goose
<input type="checkbox"/>	COME	Common Merganser
<input type="checkbox"/>	MALL	Mallard
<input type="checkbox"/>	WODU	Wood Duck
<input type="checkbox"/>	RNDU	Ring-necked Duck
<input type="checkbox"/>	BUFF	Bufflehead
<input type="checkbox"/>	NSHO	Northern Shoveler
<input type="checkbox"/>	GADW	Gadwall
<input type="checkbox"/>	CITE	Cinnamon Teal
<input type="checkbox"/>	RUDU	Ruddy Duck
<input type="checkbox"/>	CANV	Canvasback
<input type="checkbox"/>	UNDU	Unknown Duck

Vultures

<input type="checkbox"/>	TUVU	Turkey Vulture
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Coots, Rails, & Cranes

<input type="checkbox"/>	AMCO	American Coot
<input type="checkbox"/>	SORA	Sora
<input type="checkbox"/>	VIRA	Virginia Rail
<input type="checkbox"/>	UNRA	Unidentified Rail
<input type="checkbox"/>	SACR	Sandhill Crane

Shorebirds

<input type="checkbox"/>	RNPH	Red-necked Phalarope
<input type="checkbox"/>	AMAV	American Avocet
<input type="checkbox"/>	BNST	Black-necked Stilt
<input type="checkbox"/>	WILL	Willet
<input type="checkbox"/>	SPSA	Spotted Sandpiper
<input type="checkbox"/>	GRYE	Greater Yellowlegs
<input type="checkbox"/>	KILL	Killdeer
<input type="checkbox"/>	WISN	Wilson's Snipe
<input type="checkbox"/>	USAN	Unidentified Sandpiper

Gulls & Terns

<input type="checkbox"/>	CATE	Caspian Tern
<input type="checkbox"/>	FOTE	Forster's Tern
<input type="checkbox"/>	BLTE	Black Tern
<input type="checkbox"/>	RBGU	Ring-billed Gull
<input type="checkbox"/>	CAGU	California Gull
<input type="checkbox"/>	UNGU	Unidentified Gull

Raptors

<input type="checkbox"/>	GOEA	Golden Eagle
<input type="checkbox"/>	BAEA	Bald Eagle
<input type="checkbox"/>	PRFA	Prairie Falcon
<input type="checkbox"/>	PEFA	Peregrine Falcon
<input type="checkbox"/>	AMKE	American Kestrel
<input type="checkbox"/>	NOHA	Northern Harrier
<input type="checkbox"/>	SSHA	Sharp-shinned Hawk
<input type="checkbox"/>	COHA	Cooper's Hawk
<input type="checkbox"/>	NOGO	Northern Goshawk
<input type="checkbox"/>	UNAC	Unidentified Accipiter
<input type="checkbox"/>	RTHA	Red-tailed Hawk
<input type="checkbox"/>	RSHA	Red-shoulder Hawk
<input type="checkbox"/>	OSPR	Osprey
<input type="checkbox"/>	WTKI	White-tailed Kite
<input type="checkbox"/>	UNHA	Unidentified Hawk

Game Birds

<input type="checkbox"/>	RUGR	Ruffed Grouse
<input type="checkbox"/>	BGSE	Blue Grouse
<input type="checkbox"/>	ASJU	Domestic Chicken
<input type="checkbox"/>	CAQU	California Quail
<input type="checkbox"/>	MOUQ	Mountain Quail
<input type="checkbox"/>	WITU	Wild Turkey
<input type="checkbox"/>	RPHE	Ring-necked Pheasant

Pigeons & Doves

<input type="checkbox"/>	BTPI	Band-tailed Pigeon
<input type="checkbox"/>	MODO	Mourning Dove
<input type="checkbox"/>	ROPI	Rock Pidgeon

Owls

<input type="checkbox"/>	NSWO	N. Saw-whet Owl
<input type="checkbox"/>	WESO	Western Screech Owl
<input type="checkbox"/>	FLOW	Flammulated Owl
<input type="checkbox"/>	NOPO	Northern Pygmy Owl

Owls (cont'd)

<input type="checkbox"/>	GHOW	Great-horned Owl
<input type="checkbox"/>	BNOW	Barn Owl
<input type="checkbox"/>	SPOW	Spotted Owl
<input type="checkbox"/>	GGOW	Great Gray Owl
<input type="checkbox"/>	UNOW	Unidentified Owl

Goatsuckers & Swifts

<input type="checkbox"/>	COPO	Common Poorwill
<input type="checkbox"/>	CONI	Common Nighthawk
<input type="checkbox"/>	VASW	Vaux's Swift

Hummingbirds

<input type="checkbox"/>	ANHU	Anna's Hummingbird
<input type="checkbox"/>	RUHU	Rufous Hummingbird
<input type="checkbox"/>	ALHU	Allen's Hummingbird
<input type="checkbox"/>	UNSE	Unid. <i>Selasphorous</i> sp.
<input type="checkbox"/>	CAHU	Calliope Hummingbird
<input type="checkbox"/>	UNHU	Unidentified Hummingbird

Kingfishers

<input type="checkbox"/>	BEKI	Belted Kingfisher
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Woodpeckers

<input type="checkbox"/>	HAWO	Hairy Woodpecker
<input type="checkbox"/>	DOWO	Downy Woodpecker
<input type="checkbox"/>	WHWO	White-headed Woodp.
<input type="checkbox"/>	BBWO	Black-backed Woodp.
<input type="checkbox"/>	PIWO	Pileated Woodpecker
<input type="checkbox"/>	ACWO	Acorn Woodpecker
<input type="checkbox"/>	LEWO	Lewis's Woodpecker
<input type="checkbox"/>	UNWO	Unidentified Woodpecker
<input type="checkbox"/>	NOFL	Northern Flicker
<input type="checkbox"/>	RSFL	Red-shafted Flicker
<input type="checkbox"/>	RNSA	Red-naped Sapsucker
<input type="checkbox"/>	RBSA	Red-breasted Sapsucker
<input type="checkbox"/>	WISA	Williamson's Sapsuck.
<input type="checkbox"/>	UNSA	Unidentified Sapsucker

Flycatchers

<input type="checkbox"/>	WEKI	Western Kingbird
<input type="checkbox"/>	ATFL	Ash-throated Flycatch.
<input type="checkbox"/>	SAPH	Say's Phoebe
<input type="checkbox"/>	BLPH	Black Phoebe
<input type="checkbox"/>	OSFL	Olive-sided Flycatcher
<input type="checkbox"/>	WEWP	Western Wood Pewee
<input type="checkbox"/>	PSFL	Pacific-slope Fly.
<input type="checkbox"/>	WEFL	Western Flycatcher
<input type="checkbox"/>	WIFL	Willow Flycatcher
<input type="checkbox"/>	LEFL	Least Flycatcher
<input type="checkbox"/>	HAFL	Hammond's Flycatcher
<input type="checkbox"/>	DUFL	Dusky Flycatcher
<input type="checkbox"/>	GRFL	Gray Flycatcher
<input type="checkbox"/>	UNEM	Unid. <i>Empidonax</i> Fly.
<input type="checkbox"/>	UNFL	Unidentified Flycatcher

