



# ALMS

## SURVEY DETAILS

(Circle appropriate values)

Length of count (min):            3   5   8   10   other \_\_\_\_\_

Spacing between pts (m):            250            500

Observers rotated among pts:    yes            no

Double-observer method used:    yes            no

Species counted in restricted radius (\_\_\_\_m): \_\_\_\_\_

Species excluded from point counts: \_\_\_\_\_

## OBSERVER INFORMATION

Name: \_\_\_\_\_  
                     *First name            Middle initial            Last name*

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Tel: \_\_\_\_\_ email: \_\_\_\_\_

## SURVEY EXPERIENCE (# years):

Bird surveys \_\_\_\_\_ Distance estimation \_\_\_\_\_ Birding in Alaska \_\_\_\_\_

## CONTACT INFORMATION

(If different)

Name: \_\_\_\_\_  
                     *First name            Middle initial            Last name*

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_  
 \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Tel: \_\_\_\_\_ email: \_\_\_\_\_

## DAILY WEATHER AND ROUTE

Land unit: \_\_\_\_\_  
 Block number: \_\_\_\_\_  
 Block name: \_\_\_\_\_

Date 

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 (mm-dd-yy)

	Start	End
Time		
Temp		
Wind		
Sky		

Daily route:  
 21• 22• 23• 24• 25•  
 16• 17• 18• 19• 20•  
 11• 12• 13• 14• 15•  
 6• 7• 8• 9• 10•  
 1• 2• 3• 4• 5•

Show path between survey points each day. Circle points done by this observer if observers were rotated.

Date 

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 (mm-dd-yy)

	Start	End
Time		
Temp		
Wind		
Sky		

Daily route:  
 21• 22• 23• 24• 25•  
 16• 17• 18• 19• 20•  
 11• 12• 13• 14• 15•  
 6• 7• 8• 9• 10•  
 1• 2• 3• 4• 5•

Date 

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 (mm-dd-yy)

	Start	End
Time		
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Wind		
Sky		

Daily route:  
 21• 22• 23• 24• 25•  
 16• 17• 18• 19• 20•  
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 6• 7• 8• 9• 10•  
 1• 2• 3• 4• 5•

Date 

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 (mm-dd-yy)

	Start	End
Time		
Temp		
Wind		
Sky		

Daily route:  
 21• 22• 23• 24• 25•  
 16• 17• 18• 19• 20•  
 11• 12• 13• 14• 15•  
 6• 7• 8• 9• 10•  
 1• 2• 3• 4• 5•



# ALMS BIRD SURVEY CODES

## WIND SPEED: *(Use Beaufort numbers, not mph)*

Beaufort Number	Wind Speed (mph)	Indicators of Wind Speed
0	Less than 1	Smoke rises vertically
1	1 to 3	Wind direction shown by smoke drift
2	4 to 7	Wind felt on face; leaves rustle
3	8 to 12	Leaves, small twigs in constant motion; light flag extended
4	13 to 18	Raises dust and loose paper; small branches are moved
5	19 to 24	Small trees in leaf sway; crested wavelets on inland waters

## SKY CONDITION:

0	Clear or a few clouds
1	Partly cloudy (scattered) or variable sky
2	Cloudy (broken) or overcast
4	Fog or smoke
5	Drizzle
7	Snow
8	Showers

## TIME INTERVALS:

3	0–3 min
5	3–5 min
8	5–8 min
10	8–10 min








## DISTANCE INTERVALS (DIST):

For sparse species in open habitats, record distance interval out to 400 m if possible. For common species and closed habitats, record distance interval out to 150 m, then use > 150 m.

10	0–10 m	125	101–125 m
20	11–20 m	150	126–150 m
30	21–30 m	>150	151–400 m
40	31–40 m		
50	41–50 m	200	151–200 m
60	51–60 m	250	201–250 m
70	61–70 m	300	251–300 m
80	71–80 m	350	301–350 m
90	81–90 m	400	351–400 m
100	91–100 m	>400	>400 m

## BEHAVIOR CODES (BEH): *When using multiple detection codes for a single bird, list codes in the order detected.*

### CODE   SYMBOL   TYPE OF DETECTION

P		Detected at <b>Previous</b> point
S		<b>Singing</b>
C		<b>Calling</b>
D		<b>Drumming</b> woodpeckers or grouse
B		<b>Booming</b> grouse
M		<b>Male</b> visual detection
F		<b>Female</b> visual detection
V	DEJU	<b>Visual</b> detection, sex unknown
MF		<b>Pair</b> visual detection
FD		<b>Flight Display</b> of shorebirds
FO		<b>Flyover</b> —flying bird not actively using the habitat within the census area (e.g., flying in a straight line above the canopy)
J		<b>Juvenile</b>
N		<b>Nest</b>

Land unit: \_\_\_\_\_

Dates: \_\_\_\_\_

Block #: \_\_\_\_\_

Block name: \_\_\_\_\_

Topo map quad: \_\_\_\_\_

**PHOTOS** Digital     $\longrightarrow$     Interfaced with GPS? Yes No**OBSERVER INFORMATION**

Name: \_\_\_\_\_

*First name*    *Middle initial*    *Last name*

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Tel: \_\_\_\_\_ email: \_\_\_\_\_

Additional observers: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**CONTACT INFORMATION***(If different)*

Name: \_\_\_\_\_

*First name*    *Middle initial*    *Last name*

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Tel: \_\_\_\_\_ email: \_\_\_\_\_

**EXOTIC PLANTS**

Mark each EXOTIC PLANT SPECIES detected anywhere within the grid of points.

- Did not look for exotics
- Bird Vetch (*Vicia cracca*)
- Canada Thistle (*Cirsium arvense*)
- Sweetclover (*Melilotus officinalis*)
- Other: \_\_\_\_\_
- Other: \_\_\_\_\_

**MISCELLANEOUS FIELD NOTES**

Point

Notes

\_\_\_\_\_

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# ALMS HABITAT POINT DATA

Land unit: \_\_\_\_\_ Block #: \_\_\_\_\_  
 Date: \_\_\_\_\_ Point #: \_\_\_\_\_  
 Observers: \_\_\_\_\_

TOPOGRAPHY		
Elevation (m) _____	Aspect _____°	Slope _____°
TOPOGRAPHIC POSITION		
<input type="checkbox"/> Summit	<input type="checkbox"/> Highslope	<input type="checkbox"/> Basin
<input type="checkbox"/> Ridge	<input type="checkbox"/> Midslope	<input type="checkbox"/> Valley
	<input type="checkbox"/> Lowslope	<input type="checkbox"/> Plain
LOCAL FEATURES		
<input type="checkbox"/> Cliff/rock face	<input type="checkbox"/> Step in slope	<input type="checkbox"/> Alluvia/moraine
<input type="checkbox"/> Cut-bank	<input type="checkbox"/> Floodplain	<input type="checkbox"/> Dunes
<input type="checkbox"/> Other _____		

PHOTO	Facing North: _____		Facing South: _____	
SD card & Digital ID #	Facing East: _____		Facing West: _____	

DISTURBANCE	<input type="checkbox"/> None	% of circle	Severity code	Year logged _____		
				Yrs since disturbance		
Type			<2	≥2	# if known	
Insect damage	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Disease	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Beaver ponds	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Beaver cuttings	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Other animal activity	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Fire	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Flooding	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Wind	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Landslide/avalanche	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Logging	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Roads	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Other human disturbances	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	
Other _____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____	

DISTURBANCE SEVERITY CODES
<b>1 MINOR:</b> Little evidence of disturbance, damage limited to small part of circle, or widespread but slight. Minor driver for succession.
<b>2 SEVERE:</b> Damage obvious and widespread in circle, including killing or removing much of the vegetation or underlying substrate. Damage resulting in widespread secondary succession.

COARSE WOODY DEBRIS (Within 50-m radius circle)
No. coniferous snags: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3-4 <input type="checkbox"/> 5-6 <input type="checkbox"/> 7-9 <input type="checkbox"/> 10-12 <input type="checkbox"/> >12
No. deciduous snags: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3-4 <input type="checkbox"/> 5-6 <input type="checkbox"/> 7-9 <input type="checkbox"/> 10-12 <input type="checkbox"/> >12
% cover downed logs: <input type="checkbox"/> <<1 <input type="checkbox"/> <1 <input type="checkbox"/> 1-5 <input type="checkbox"/> 6-25 <input type="checkbox"/> 26-50 <input type="checkbox"/> 51-75 <input type="checkbox"/> 76-100%

HABITAT QUESTIONNAIRE	
(Answer all questions for each point.)	
	YES NO
1. Is there a water body at least partly inside the 50-m radius circle?	<input type="checkbox"/> <input type="checkbox"/>
A. If YES, indicate the water type, shore type, and shore vegetation.	
<u>Water type:</u>	<u>Shore type and vegetation:</u>
<input type="checkbox"/> Marine	<input type="checkbox"/> Bedrock, boulders, large stones
<input type="checkbox"/> Estuarine	<input type="checkbox"/> Organic material, mud, sand, gravel, cobbles
<input type="checkbox"/> River/Stream	<input type="checkbox"/> <30% vegetated
<input type="checkbox"/> Lake/Pond	<input type="checkbox"/> ≥30% vegetated
<input type="checkbox"/> Ephemeral	
B. Is the water body at least 10 m wide?	<input type="checkbox"/> <input type="checkbox"/>
If YES, this is wetland habitat. If part of water body is vegetated and part unvegetated, there may be >1 habitat. Use NWI Key to determine wetland classes and fill out HABITAT DESCRIPTION form for each one.	
2. Apart from water bodies described above, is saturation with water the dominant factor in determining soil development and plant community for any other habitat >10 m wide occurring at least partly in the circle? This includes areas at least annually saturated with or covered by water, areas dotted with small ponds, and areas with obligate wetland plants or numerous facultative wetland species (see NWI wetland indicator lists).	<input type="checkbox"/> <input type="checkbox"/>
If YES, this is a separate wetland habitat. Use NWI Key to determine wetland class and fill out HABITAT DESCRIPTION form.	
3. Is there a large patch of unvegetated ground, not associated with a water body, that is at least partly inside the 50-m circle? This can include rock, bare ground, or snow or ice with no protruding vegetation, but the patch must be at least 400 m <sup>2</sup> in size (11-m radius).	<input type="checkbox"/> <input type="checkbox"/>
If YES, this is a separate habitat; fill out HABITAT DESCRIPTION form.	
4. For any other parts of the 50-m radius circle, fill out one HABITAT DESCRIPTION form for each discrete non-wetland habitat type. DO NOT separate out components of common habitat mosaics (see instructions). For any of these habitats, is the soil very well drained, unable to hold moisture long after precipitation, and dry most of the year?	<input type="checkbox"/> <input type="checkbox"/>

### CLASSIFICATION

1. Water body with no floating or emergent vegetation.  
 NWI: \_\_\_\_\_ Kessel: \_\_\_\_\_ Viereck: NA
2. Water body with  $\geq 2\%$  vegetation cover.  
 NWI: \_\_\_\_\_ Kessel: \_\_\_\_\_ Viereck: \_\_\_\_\_
3. Vegetated wetland without open water body.  
 NWI: \_\_\_\_\_ Kessel: \_\_\_\_\_ Viereck: \_\_\_\_\_
4. Non-wetland with  $< 2\%$  vegetation.  
 Solid bedrock       Bare soil       Persistent snow or ice  
 Rocks, stones, gravel       Sand  
 NWI: NA      Kessel: \_\_\_\_\_      Viereck: NA
5. Non-wetland with  $\geq 2\%$  vegetation cover.  
 NWI: NA      Kessel: \_\_\_\_\_      Viereck: \_\_\_\_\_

### VEGETATION

#### SINGLE-STEMMED TREES >3 m

% TREE canopy cover: \_\_\_\_\_ % coniferous: \_\_\_\_\_

TREE LAYER species	% cover	Avg. ht. (m)				Largest trees	
		3-5	5-9	9-21	>21	DBH class	Cover class
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

#### SINGLE-STEMMED SAPLINGS, SEEDLINGS, OR DWARF TREES <3 m

Total sapl/dwf tree cover <10%

Species (list for each layer)	% cover	Avg. ht.(m)		Avg. DBH class
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

#### SHRUBS (Multiple-stemmed, woody plants) Total shrub cover <25%

Layer	Avg. ht.(m)	Cover class	Species (list for each layer)
1.	<input type="checkbox"/>	_____	_____
2.	<input type="checkbox"/>	_____	_____
3.	<input type="checkbox"/>	_____	_____
4.	<input type="checkbox"/>	_____	_____

#### NON-WOODY PLANTS

	Cover class	Species (list by dominance)
Graminoids	_____	_____
Herbs	_____	_____
Ferns	_____	_____
Horsetails	_____	_____

#### GROUND COVER

Mosses/hepatics	_____	_____
Lichens	_____	_____
Litter	_____	_____
Bare ground	_____	_____
Snow/ice/ephemeral water	_____	_____

TREE size class	DBH Code	DBH (in)		DBH (cm)	
		Coniferous	Deciduous	Coniferous	Deciduous
Seedling	1	<1.0	<1.0	<2.5	<2.5
Sapling	2	1.0-4.9	1.0-4.9	2.5-13	2.5-13
Poletimber	3	5-8.9	5-10.9	14-23	14-28
Small Sawtimber	4	9-19.9	11-19.9	23-49	28-49
Large Sawtimber	5	20-39.9	20-39.9	50-101	50-101
Giant Sawtimber	6	>40	>40	>102	>102

COVER CLASS CODES for LARGEST TREES, SHRUBS, NON-WOODY PLANTS, & GROUND COVER	Code	% cover	Code	% cover
		0	None	4
	1	<<1 %	5	26-50 %
	2	<1 %	6	51-75 %
	3	1-5 %	7	76-100 %

## BIRD, MAMMAL, AMPHIBIAN CHECKLIST

Land unit: \_\_\_\_\_ Observers: \_\_\_\_\_  
 Block number: \_\_\_\_\_  
 Block name: \_\_\_\_\_ Total effort: \_\_\_\_ hr \_\_\_\_ km Year: \_\_\_\_\_

				m/d	m/d	m/d					m/d	m/d	m/d					m/d	m/d	m/d
Code	Common Name	/	/	/	Code	Common Name	/	/	/	Code	Common Name	/	/	/	Code	Common Name	/	/	/	
GWFG	Greater White-fronted Goose				MAMU	Marbled Murrelet				PAWR	Pacific Wren									
CACG	Cackling Goose				BOGU	Bonaparte's Gull				AMDI	American Dipper									
CANG	Canada Goose				MEGU	Mew Gull				GCKI	Golden-crowned Kinglet									
TRUS	Trumpeter Swan				HERG	Herring Gull				RCKI	Ruby-crowned Kinglet									
TUSW	Tundra Swan				GWGU	Glaucous-winged Gull				ARWA	Arctic Warbler									
NSHO	Northern Shoveler				GLGU	Glaucous Gull				BLUE	Bluethroat									
GADW	Gadwall				UNGU	Unidentified Gull				NOWH	Northern Wheatear									
AMWI	American Wigeon				ALTE	Aleutian Tern				MOBL	Mountain Bluebird									
MALL	Mallard				ARTE	Arctic Tern				TOSO	Townsend's Solitaire									
NOPI	Northern Pintail				RTLO	Red-throated Loon				GCTH	Gray-cheeked Thrush									
GWTE	Green-winged Teal				PALO	Pacific Loon				SWTH	Swainson's Thrush									
CANV	Canvasback				COLO	Common Loon				HETH	Hermit Thrush									
RNDU	Ring-necked Duck				GBHE	Great Blue Heron				AMRO	American Robin									
GRSC	Greater Scaup				OSPR	Osprey				VATH	Varied Thrush									
LESC	Lesser Scaup				GOEA	Golden Eagle				EUST	European Starling									
UNSC	Unidentified Scaup				NOHA	Northern Harrier				BOWA	Bohemian Waxwing									
HADU	Harlequin Duck				SSHA	Sharp-shinned Hawk				CEDW	Cedar Waxwing									
SUSC	Surf Scoter				NOGO	Northern Goshawk				EYWA	Eastern Yellow Wagtail									
WWSC	White-winged Scoter				BAEA	Bald Eagle				AMPI	American Pipit									
BLSC	Black Scoter				RTHA	Red-tailed Hawk				PIGR	Pine Grosbeak									
LTDU	Long-tailed Duck				RLHA	Rough-legged Hawk				GCRF	Gray-crowned Rosy-Finch									
BUFF	Bufflehead				GHOW	Great Horned Owl				CORE	Common Redpoll									
COGO	Common Goldeneye				NHOW	Northern Hawk Owl				HORE	Hoary Redpoll									
BAGO	Barrow's Goldeneye				BADO	Barred Owl				UNRE	Unidentified Redpoll									
COME	Common Merganser				GGOW	Great Gray Owl				RECR	Red Crossbill									
RBME	Red-breasted Merganser				SEOW	Short-eared Owl				WWCR	White-winged Crossbill									
RUGR	Ruffed Grouse				BEKI	Belted Kingfisher				UNCR	Unidentified Crossbill									
SPGR	Spruce Grouse				YBSA	Yellow-bellied Sapsucker				PISI	Pine Siskin									
WIPT	Willow Ptarmigan				RBSA	Red-breasted Sapsucker				LALO	Lapland Longspur									
ROPT	Rock Ptarmigan				ATTW	Am. Three-toed Woodpecker				SMLO	Smith's Longspur									
WTPT	White-tailed Ptarmigan				BBWO	Black-backed Woodpecker				SNBU	Snow Bunting									
UNPT	Unidentified Ptarmigan				DOWO	Downy Woodpecker				CHSP	Chipping Sparrow									
SOGR	Sooty Grouse				HAWO	Hairy Woodpecker				FOSP	Fox Sparrow									
STGR	Sharp-tailed Grouse				NOFL	Northern Flicker				ATSP	American Tree Sparrow									
HOGR	Horned Grebe				UNWO	Unidentified Woodpecker				DEJU	Dark-eyed Junco									
RNGR	Red-necked Grebe				AMKE	American Kestrel				WCSP	White-crowned Sparrow									
VASW	Vaux's Swift				MERL	Merlin				GCSP	Golden-crowned Sparrow									
RUHU	Rufous Hummingbird				GYRF	Gyrfalcon				SAVS	Savannah Sparrow									
SACR	Sandhill Crane				PEFA	Peregrine Falcon				SOSP	Song Sparrow									
BLOY	Black Oystercatcher				OSFL	Olive-sided Flycatcher				LISP	Lincoln's Sparrow									
BBPL	Black-bellied Plover				WEWP	Western Wood-Pewee				RWBL	Red-winged Blackbird									
AMGP	American Golden-Plover				YBFL	Yellow-bellied Flycatcher				RUBL	Rusty Blackbird									
PAGP	Pacific Golden-Plover				ALFL	Alder Flycatcher				NOWA	Northern Waterthrush									
SEPL	Semipalmated Plover				LEFL	Least Flycatcher				TEWA	Tennessee Warbler									
UPSA	Upland Sandpiper				HAFL	Hammond's Flycatcher				OCWA	Orange-crowned Warbler									
WHIM	Whimbrel				PSFL	Pacific-slope Flycatcher				MGWA	MacGillivray's Warbler									
BARG	Bar-tailed Godwit				SAPH	Say's Phoebe				COYE	Common Yellowthroat									
HUGO	Hudsonian Godwit				NSHR	Northern Shrike				AMRE	American Redstart									
MAGO	Marbled Godwit				CAVI	Cassin's Vireo				YEWA	Yellow Warbler									
SURF	Surfbird				WAVI	Warbling Vireo				BLPW	Blackpoll Warbler									
DUNL	Dunlin				CAJA	Canada Jay				YRWA	Yellow-rumped Warbler									
ROSA	Rock Sandpiper				STJA	Steller's Jay				TOWA	Townsend's Warbler									
LESA	Least Sandpiper				BBMA	Black-billed Magpie				WIWA	Wilson's Warbler									
SESA	Semipalmated Sandpiper				AMCR	American Crow				WETA	Western Tanager									
WESA	Western Sandpiper				CORA	Common Raven				<b>Code</b>	<b>Breeding Bird Evidence</b>									
SBDO	Short-billed Dowitcher				HOLA	Horned Lark				X	Detected, no evidence of breeding									
LBDO	Long-billed Dowitcher				BANS	Bank Swallow				H	Observed in possible nesting habitat									
WISN	Wilson's Snipe				TRSW	Tree Swallow				P	Pair observed in suitable habitat									
SPSA	Spotted Sandpiper				VGSW	Violet-green Swallow				S	Singing male									
SOSA	Solitary Sandpiper				BARS	Barn Swallow				C	Courtship display									
WATA	Wandering Tattler				CLSW	Cliff Swallow				B	Building or excavating nest									
LEYE	Lesser Yellowlegs				BCCH	Black-capped Chickadee				A	Alarm call									
GRYE	Greater Yellowlegs				CBCH	Chestnut-backed Chickadee				D	Distraction display, injury-feigning									
RNPH	Red-necked Phalarope				BOCH	Boreal Chickadee				N	Nest observed									
PAJA	Parasitic Jaeger				RBNU	Red-breasted Nuthatch				Y	Downy or recently fledged young									
LTJA	Long-tailed Jaeger				BRCR	Brown Creeper				F	Adult with fecal sac or food for young									



