

Klamath Bird Observatory Spring Point Counts and Fall Area Searches: 2010 Summary Report

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Recommended citation: Stephens, J. L. and J. D. Alexander. 2011. Klamath Bird Observatory Spring Point Counts and Fall Area Searches: 2010 Summary Report. Rep. No. KBO-2011-0005. Klamath Bird Observatory, Ashland, Oregon.

Cover photograph: Pine Siskins were the most frequently detected bird during point count surveys in 2010. Photo Jim Livaudais.



Introduction

In 2010, the Klamath Bird Observatory (KBO) continued implementing bird and habitat monitoring efforts in southwest Oregon and northern California. These Oregon-Washington and California Partners in Flight (PIF) efforts represent collaboration between KBO and the US Forest Service Redwood Sciences Laboratory to maintain the Klamath Bird Monitoring Network (Alexander et al. 2004b). As part of this Network we maintain long-term efforts to track population trends and demographics at constant effort mist netting stations, breeding bird survey routes, extensive point count and area search routes, and aquatic bird monitoring sites throughout the bioregion. This report summarizes KBO's point count and area search survey efforts. Our demographic monitoring efforts at constant effort mist netting stations and aquatic bird monitoring sites are documented in separate reports (Frey et al. 2011, Hussey et al. 2010).

The objectives of our extensive point count and area search program are to: (1) maintain a long-term monitoring effort for tracking landbird population trends; (2) study bird and habitat relationships to better understand the ecological effect of land management and restoration; and (3) use science to link PIF conservation objectives with priority land management issues.

In 2010 we conducted bird and habitat surveys for long-term monitoring and avian inventory, as well as in conjunction with studies addressing the relationship between birds and fuel reduction and wildfire, grazing; and restoration of oak woodlands, meadows, and wetlands. During the spring breeding season, KBO surveyed 160 routes including 2,236 stations and 179 visits, for a total of 2,418 point count surveys completed in 2010 (Table 1). In addition, during the dispersal and migration season, KBO surveyed 29 routes in 36 survey days, completing 252 fall area search surveys (Table 2).

Bird and Habitat Surveys

In 2010, Klamath Bird Observatory continued to conduct bird and habitat surveys in southwestern Oregon and northern California. Standard point count and area search survey methodologies were used during breeding and dispersal/migration seasons respectively, and standard vegetation monitoring techniques were followed (Ralph et al. 1993). Point count surveys employ variable circular plot distance sampling methodologies (Alexander et al. 2004a, Fancy 1997). Area search surveys are completed at the same locations as point count surveys following a 20-minute fixed radius methodology. Habitat surveys are conducted using a rel  ve methodology at all survey locations (Ralph et al. 1993).

Long-term Monitoring

One of the objectives of Partners in Flight's Monitoring Working Group and the North American Bird Conservation Initiative is to track long-term bird population trends (Hussell and Ralph 1998, US NABCI 2007). KBO contributes to this objective by conducting point count surveys on long-term Breeding Bird Survey (BBS) routes, at

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constant effort monitoring stations (CES), and along additional Klamath Bird Monitoring Network survey routes in the Upper Klamath Basin (Table 1). Long-term monitoring surveys at (CES) sites also include area searches (summarized in a separate report; Frey et. al 2011). In addition, KBO continued to monitor a route on the Bear Creek Greenway bike path in Ashland, Oregon. In 2010, we completed the third year of a long-term monitoring project in association with the National Park Service Klamath Network Inventory and Monitoring Program (Stephens et al. 2010) with surveys completed at three of six Network parks - Crater Lake National Park, Lassen Volcanic National Park, and Oregon Caves National Monument (Table 1).

Wildfire and Fuel Reduction

In 2010, KBO's fire research focused on fuel reduction projects at a number of sites within the Klamath-Siskiyou Bioregion. We conducted a sixth year of spring and fall bird and habitat surveys in Winema-Fremont National Forest fuel reduction treatment units near Rocky Point. In addition, we completed a fifth year of spring and fall monitoring in both the Chiloquin Community Fuels Reduction and the Ninemile North projects on the Winema-Fremont National Forest (Table 1, Table 2). Data collected as part of these efforts follow a before and after treatment design and are collected using both point counts and area search methodologies. In addition, we continued to monitor the Quartz Wildfire in cooperation with the Rogue River-Siskiyou National Forest and Bureau of Land Management (BLM) Medford District, now 9 years post-burn (Table 1).

Restoration

In 2010, KBO's monitoring included assessing the effectiveness of restoration in meadows, riparian habitats, and oak woodlands. KBO continued several ongoing studies to monitor the effects of restoration efforts. We completed a sixth year of monitoring on a parcel of private property in the Cascade Siskiyou National Monument, which was fenced in 2004 to exclude cattle, as part of our ongoing work to evaluate the effects of grazing on bird communities within the Monument (Table 1).

In spring of 2010, KBO completed surveys on three private land parcels prior to oak woodland restoration treatments and monitoring will continue after restoration efforts begin (Table 1). This project involves collaboration with US Fish and Wildlife Service Partners for Fish and Wildlife Program and the Lomakatsi Restoration Project.

KBO continued our monitoring efforts at the BLM Lakeview District's Wood River Wetland restoration project (Table 1). The data collected at this important area, and as part of our broad-scale long-term monitoring program in the Upper Klamath Basin, will continue to provide valuable information about the effectiveness of wetland rehabilitation efforts at Wood River. In addition, we began a new study to assess the effects of the removal of Gold Ray Dam on the Rogue River in cooperation with the Rogue Valley Council of Governments. Point count and float surveys were completed prior to dam removal and the surveys will be replicated in the future.

Two new studies began which will assess the effects of meadow restoration. KBO has partnered with the Rogue River- Siskiyou National Forest and the Siskiyou Field Institute

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to implement and monitor the restoration of six serpentine meadows and pine savannas in areas that have experienced varying degrees of tree and shrub encroachment. This project included multiple survey methodologies to assess both abundance and demographics (Table 1). KBO also began a study of the Fourmile Meadow in conjunction with the Fremont-Winema National Forest, Fish and Wildlife Service Partners for Fish and Wildlife Program, and private landowners. We completed spring and fall surveys prior to restoration efforts which began in fall of 2010 (Table 1 and Table 2).

Conclusion

In 2010 the Klamath Bird Observatory continued working with our partners to maintain our Oregon-Washington and California Partners in Flight long-term monitoring program. These efforts, coupled with our long-term demographic monitoring and aquatic bird monitoring, and efforts implemented by the US Forest Service Redwood Sciences Laboratory and other partners to monitor birds as part of the Klamath Bird Monitoring Network, represents one of the most comprehensive regional bird monitoring programs in the world.

Acknowledgements

Our 2010 effort represents an extensive partnership involving many cooperators including: Ashland Public Schools; Bureau of Land Management Oregon State Office and Medford and Lakeview Districts; City of Ashland; Fremont - Winema, Rogue River - Siskiyou National Forests; Joint Fire Sciences Program; Klamath County, Oregon; Lomakatsi Restoration; National Fish and Wildlife Foundation; National Oceanic and Atmospheric Administration Open Rivers Initiative; National Park Service Klamath Network, Crater Lake National Park, Lassen Volcanic National Park, and Oregon Caves National Monument; Rogue Valley Council of Governments; U.S. Fish and Wildlife Service; private landowners; and others. We would like to acknowledge the independent contractors that completed spring and fall surveys for KBO: Jim DeStaebler, Grant Gardner, Dave Haupt, Iris Koski, Frank Lospalluto, David Machamer, and Kevin Spencer.

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Table 1. KBO point count and vegetation survey effort during spring of 2010 [Spring Stations = number of stations surveyed during spring visits; Spring Visits = number of site visits during spring; Spring Surveys = Total number of surveys during spring].

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
Breeding Bird Survey	BALDMNT	Bald Mountain	50	1	50
	BARTLE	Bartle	50	1	50
	MEDICINE	Medicine Mountain	50	1	50
	MERRILL	Merrill	50	1	50
	TIONESTA	Tionesta	50	1	50
Subtotal			250	5	250
Ashland	BIKE	Bike Trail	13	1	13
Subtotal			13	1	13
Mist Netting Sites:	7MIL	Seven Mile	3	1	3
Eastside Cascade	CABN	Cabin	4	1	4
Range	JOHN	Johnson Creek	5	1	5
	ODES	Odessa Creek	4	1	4
	TOPS	Topsy	4	1	4
	WILL	Williamson River	4	1	4
	WOOD	Wood River	4	1	4
Subtotal			28	7	28
Mist Netting Sites:	ANT1	Antelope Creek	3	1	3
Westside Cascade	ASWA	Ashland Watershed	2	1	2
Range	HCME	Horse Creek Meadow	2	1	2
	JENC	Jefferson Nature Center	4	1	4
	ORCA	Oregon Caves	2	1	2
	WIIM	Wildlife Images	6	1	6
	WIWI	Willow Wind	4	1	4
Subtotal			23	7	23
National Park Service	CR01	Crater Lake 01	12	1	12
Klamath Network	CR02	Crater Lake 02	12	1	12
	CR03	Crater Lake 03	12	1	12
	CR04	Crater Lake 04	12	1	12
	CR05	Crater Lake 05	12	1	12
	CR06	Crater Lake 06	12	1	12
	CR07	Crater Lake 07	12	1	12
	CR08	Crater Lake 08	12	1	12
	CR09	Crater Lake 09	12	1	12
	CR10	Crater Lake 10	12	1	12
	CR11	Crater Lake 11	12	1	12
	CR12	Crater Lake 12	12	1	12
	CR13	Crater Lake 13	12	1	12
	CR14	Crater Lake 14	12	1	12
	CR15	Crater Lake 15	12	1	12
	CR16	Crater Lake 16	12	1	12
	CR17	Crater Lake 17	12	1	12
	CR18	Crater Lake 18	12	1	12
	CR19	Crater Lake 19	12	1	12
	CR20	Crater Lake 20	12	1	12
	CR21	Crater Lake 21	12	1	12

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Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
National Park Service	CR22	Crater Lake 22	12	1	12
Klamath Network	CR23	Crater Lake 23	12	1	12
<i>continued</i>	CR24	Crater Lake 24	12	1	12
	CR25	Crater Lake 25	12	1	12
	CR26	Crater Lake 26	12	1	12
	CR27	Crater Lake 27	12	1	12
	CR28	Crater Lake 28	12	1	12
	CR29	Crater Lake 29	12	1	12
	CR30	Crater Lake 30	12	1	12
	CR31	Crater Lake 31	12	1	12
	CR32	Crater Lake 32	12	1	12
	CR33	Crater Lake 33	12	1	12
	CR34	Crater Lake 34	12	1	12
	CR35	Crater Lake 35	12	1	12
	LV01	Lassen Volcanic 1	11	1	11
	LV02	Lassen Volcanic 2	12	1	12
	LV03	Lassen Volcanic 3	12	1	12
	LV04	Lassen Volcanic 4	12	1	12
	LV05	Lassen Volcanic 5	12	1	12
	LV06	Lassen Volcanic 6	12	1	12
	LV07	Lassen Volcanic 7	12	1	12
	LV08	Lassen Volcanic 8	12	1	12
	LV09	Lassen Volcanic 9	12	1	12
	LV10	Lassen Volcanic 10	12	1	12
	LV11	Lassen Volcanic 11	12	1	12
	LV12	Lassen Volcanic 12	12	1	12
	LV13	Lassen Volcanic 13	12	1	12
	LV14	Lassen Volcanic 14	12	1	12
	LV15	Lassen Volcanic 15	12	1	12
	LV16	Lassen Volcanic 16	12	1	12
	LV17	Lassen Volcanic 17	12	1	12
	LV18	Lassen Volcanic 18	12	1	12
	LV19	Lassen Volcanic 19	10	1	10
	LV20	Lassen Volcanic 20	12	1	12
	LV21	Lassen Volcanic 21	12	1	12
	LV22	Lassen Volcanic 22	12	1	12
	LV23	Lassen Volcanic 23	12	1	12
	LV24	Lassen Volcanic 24	12	1	12
	LV25	Lassen Volcanic 25	12	1	12
	OR01	Oregon Caves 01	12	1	12
	OR02	Oregon Caves 02	12	1	12
	OR03	Oregon Caves 03	12	1	12
	OR04	Oregon Caves 04	12	1	12
Subtotal			765	64	765
Upper Klamath	AGLA	Agency Lake	17	1	17
	CANU	Canoe	20	1	20
	CHICKB	Chicken Hill B	15	1	15
	CHICKC	Chicken Hill C	25	1	25
	GERBER	Gerber Reservoir	25	1	25
	MAEG	Mare's Egg	22	1	22
	PEBA	Pelican Bay	23	1	23

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Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
Upper Klamath <i>continued</i>	SOBU	Solomon Butte	15	1	15
	SPCR	Spencer Creek	22	1	22
	STMT	Stukel Mountain	23	1	23
	SURD	Surveyor Mountain D	20	1	20
	SURE	Surveyor Mountain E	20	1	20
	SUVA	Surveyor Mountain A	25	1	25
	TOPSY	Topsy	15	1	15
Subtotal			287	14	287
Wildfire and Fuel Reduction					
Chiloquin	CFR1	Chiloquin Fuels Reduction 1	15	1	15
	CFR2	Chiloquin Fuels Reduction 2	15	1	15
	CFR3	Chiloquin Fuels Reduction 3	16	1	16
	CFR4	Chiloquin Fuels Reduction 4	14	1	14
	CFR5	Chiloquin Fuels Reduction 5	15	1	15
	NMN1	Ninemile North 1	15	1	15
	NMN2	Ninemile North 2	16	1	16
	NMN3	Ninemile North 3	16	1	16
	NMN4	Ninemile North 4	16	1	16
	NMN5	Ninemile North 5	15	1	15
Subtotal			153	10	153
Quartz Fire	230	Road 230	18	1	18
	500	Road 500	20	1	20
	550	Road 550	20	1	20
	600	Road 600	18	1	18
	7MLA	Seven Mile Trail	15	1	15
	DUGA	Duncan Gap	20	1	20
	DUTC	Dutchman Ridge	15	1	15
	KEME	Kenney Meadows	18	1	18
	LIKA	Lick Gulch A	16	1	16
	LIKB	Lick Gulch B	20	1	20
	PCT	Pacific Crest Trail	16	1	16
	SKAT	Skate Gulch Road	18	1	18
	SKAW	Skate Gulch Walk	16	1	16
	TRMO	Trillium Mountain	13	1	13
	WRAN	Wrangle Camp	15	1	15
Subtotal			258	15	258
Rocky Point	3455	Road 3455	21	1	21
	3633	Road 3633	20	1	20
	EAGLE	Eagle Ridge	23	1	23
	FOMI/PFSS	Four Mile/ Pelican F.S. Station	12	1	12
	HARR	Harrison	12	1	12
	MASP/MASN	Malone Springs North/ Malone Springs South	12	1	12
	MLOC	Mountain Lakes Organizational Camp	15	1	15
	PECI	Pelican Cinder Cone	11	1	11
	R500	Road 500	20	1	20
	RECZ	Recreation Creek Z	11	1	11
	RPTR	Rocky Point Resort	13	1	13
	TOMA	Tomahawk Mountain	12	1	12

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Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Wildfire and Fuel Reduction					
Rocky Point	VARN	Varney Creek	19	1	19
<i>continued</i>	WOCP/OCPI	West Odessa Cinder Pit/Odessa Cinder Pit	10	1	10
Subtotal			211	14	211
Restoration					
Cascade Siskiyou National Monument	CLAY	Clayton Property	12	1	12
Subtotal			12	1	12
Fourmile Meadow	FMIL	Fourmile	9	1	9
	FMME	Fourmile Meadow East	11	1	11
	FMMW	Fourmile Meadow West	11	1	11
	WMNO	Wright's Meadow North	14	1	14
	WMSO	Wright's Meadow South	13	1	13
Subtotal			58	5	58
Gold Ray Dam	DOBR	Dodge Bridge	11	2	22
	KESL	Kelly Slough	6	2	12
	KESN	Kelly Slough North	10	2	20
	KESS	Kelly Slough South	11	2	22
	UPK1	Upstream Kelly Slough 1	12	2	24
	UPK2	Upstream Kelly Slough 2	8	2	16
Subtotal			58	12	116
Upper Klamath Basin	NODM/UPWR	North Marsh/Upper Wildlife Refuge	16	1	16
Wood River Wetland	PEDI/SODI/ SOSP/LOWR	Petric Dike/South Dike/ South Spit/Lower Wood River	16	1	16
	SMDI	Sevenmile Dike	14	1	14
Subtotal			46	3	46
USFS Wild Rivers RD Meadows	BUEY/LMPY/ SLC1/SLC2	Buckeye Creek/Limpy Creek/ Slate Creek 1/Slate Creek 2	5	4	20
	BUK1/BUK2/ BUK3/SAMB	Butcherknife 1/Butcherknife 2/ Butcherknife 3/Sam Brown Campground	10	4	40
	BREW/FIGU/ FIMO/TCRE	Brewer's Meadow/Fiddler Gulch/ Fiddler Mountain/"T" Creek	12	4	48
Subtotal			27	12	108
USFWS Partners Program	CALE	Caledonia East	11	2	22
	CALW	Caledonia West	12	2	24
	JUYA	Juncyard	4	1	4
	MCKN	McKinley North	12	2	24
	MCKS	McKinley South	8	2	16
Subtotal			47	9	90
Grand Total			2236	179	2418

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Table 2. KBO area search and vegetation survey effort during fall of 2010 [Fall Stations = number of stations surveyed during fall visits; Survey Days = number of survey days to complete the site in fall].

Project	Site Code	Site Name	Fall Stations	Fall Visits
Wildfire and Fuel Reduction				
Chiloquin	CFR1	Chiloquin Fuels Reduction 1	7	1
	CFR2	Chiloquin Fuels Reduction 2	7	1
	CFR3	Chiloquin Fuels Reduction 3	7	1
	CFR4	Chiloquin Fuels Reduction 4	7	1
	CFR5	Chiloquin Fuels Reduction 5	7	1
	NMN1	Ninemile North 1	7	1
	NMN2	Ninemile North 2	8	1
	NMN3	Ninemile North 3	8	1
	NMN4	Ninemile North 4	8	1
	NMN5	Ninemile North 5	8	1
Subtotal			74	10
Rocky Point	3455	Road 3455	14	2
	3633	Road 3633	16	2
	EAGLE	Eagle Ridge	16	2
	FOMI/PFSS	Four Mile/ Pelican Forest Service Station	6	1
	HARR	Harrison	6	1
	MASP/MASN	Malone Springs North/	8	1
	MLOC	Mountain Lakes Organizational Camp	8	1
	PEBA	Pelican Bay	8	1
	PECI	Pelican Cinder Cone	7	1
	R500	Road 500	8	1
	RECZ	Recreation Creek Z	6	1
	RPTR	Rocky Point Resort	6	1
	TOMA	Tomahawk Mountain	6	1
	VARN	Varney Creek	8	1
	WOCP/OCPI	West Odessa Cinder Pit/Odessa Cinder Pit	6	1
Subtotal			129	18
Restoration				
Fourmile Meadow	FMME	Fourmile Meadow East	11	2
	FMMW	Fourmile Meadow West	11	2
	WMNO	Wright's Meadow North	14	2
	WMSO	Wright's Meadow South	13	2
Subtotal			49	8
Grand Total			252	36

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