

Southwest Oregon Bird Monitoring Program:  
2003 Effort Summary

John D. Alexander  
Klamath Bird Observatory  
Ashland, Oregon

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## **Introduction**

In 2003, the Klamath Bird Observatory and US Forest Service Redwood Sciences Laboratory, continued working with the Oregon-Washington Partners In Flight, Southern Oregon University, Oregon State University, University of California at Davis, Bureau of Land Management Oregon State Office and Medford District, National Park Service Klamath Network Inventory and Monitoring Program, Crater Lake National Park, Oregon Caves National Monument, Rogue River and Fremont-Winema National Forests, Bureau of Reclamation, Joint Fire Sciences Program, Jackson County, Ashland Public Schools, World Wildlife Fund, Applegate River Watershed Council, Boise Corporation and others to continue bird and habitat monitoring efforts in Southwest Oregon. The objectives of this program are to collect data that provide an index to species diversity and abundance in riparian and upland habitats, to evaluate the reproductive success and population health of neotropical migratory birds, to maintain a long term monitoring effort for tracking landbird population trends, to investigate the effects of wildfire and fuels treatments on birds and their habitats, to investigate the effects of grazing on birds and their habitats, and to test methods for effectively monitoring special species such as our regions small owls. This report provides a brief summary of our 2003 monitoring efforts in southwestern Oregon.

## **Constant Effort Mist Netting**

In 2003, we continued to work with Southern Oregon University, BLM's Medford District, Jackson County, Bureau of Reclamation and Ashland Public Schools to operate four constant effort (CES) mist-netting stations during the breeding, dispersal, and migration seasons. Our efforts resulted in a total of 93 days of bird banding during which 5624.30 net hours were logged (Table 1). The stations operated were Oregon Caves (ORCA) in the Oregon Caves National Monument near Cave Junction, Snow-Cow (SNCO) at the convergence of Snow and Cow Creek near Glendale, Wildlife Images (WIIM) on the Rogue River near Merlin, and Willow Wind Community Learning Center (WIWI) on Bear Creek at the Klamath Bird Observatory Headquarters in Ashland. During mist-netting efforts at these sites, a total of 182 area search censuses were conducted. Of the 3128 total birds captured at these stations this year, 2374 birds were banded, 551 recaptures were recorded, and 203 birds were released unbanded. An additional Rapid Ornithological Inventory was conducted at Box-O Ranch (BOXO) in the Cascade Siskiyou National Monument from July 11-13.

Wildlife Images continues to be one of the most active and diverse constant effort stations in the region. The habitat at this site is important for breeding Yellow-breasted Chats and migrating Willow Flycatchers. Snow-Cow is the northern-most station in our southwest Oregon monitoring Program, and it serves as breeding grounds for the Willow Flycatcher. As a consequence of the high-elevation late-successional forest at the Oregon Caves site, species such as Hermit Warblers, Winter Wrens, Swainson's Thrushes, and Varied Thrushes are regularly

encountered. The Willow Wind station is monitored year-round and provides the Klamath Bird Observatory with valuable environmental education and public outreach opportunities.

Special Species Monitoring – Small Owls

This season, small owl netting and survey efforts also were conducted at the Oregon Caves, Snow-Cow and Box-O Ranch sites (Tables 1 and 2). One effort and two censuses at Oregon Caves resulted in one Flammulated Owl detection. Five efforts and nine censuses at Snow-Cow resulted in one Northern Pygmy-Owl and four Western Screech-Owl detections and one Western-Screech Owl capture. Two efforts and three censuses at Box-O Ranch resulted in one Flammulated Owl detection and 2 Flammulated Owl captures.

### **Bird and Habitat Surveys**

In 2003 KBO continued to conduct breeding bird census and habitat data in southern Oregon using standard point count and vegetation monitoring methodologies. In addition to the area search surveys conducted at each constant effort station (WIIM, SNCO, ORCA and WIWI), we also conduct point count surveys to complement the long-term trend data being collected at those sites (Table 4). We have established additional long-term census routes at Oregon Caves (ORC), and in Ashland near our headquarters (BIKE).

As part of our Joint Fire Sciences program we continued with a second year of monitoring in association with BLM Medford District's fuels treatment projects in oak woodlands of the Applegate Valley (Table 4). We also continued our second year of post wildfire monitoring associated with the Quartz Fire in the Applegate. During this effort we are re-visiting sites that were established in the spring 2001; nearly 60 of these sites burned when that wildfire ignited later that summer. Supplemented the Redwood Sciences Laboratories extensive efforts to monitor post fire effects in the Biscuit Fire, we established 3 new point count routes within the fire perimeter.

Working with the World wildlife Fund and BLM's Medford District, in cooperation with Oregon State University, University of California at Davis and others, KBO is taking a lead role in a multi-taxa study investigating the influence of grazing on items of biological interest within the Cascade Siskiyou National Monument. In addition to conducting bird and habitat surveys within the Monument (table 4) we enhanced BLM's livestock utilization protocols to collect data for ground-varying the Bureau's utilization maps. We conducted 36 cole browse, 46 key species, and 46 stubble height transects that were associated with our Monument survey routes.

As a part of a Southern Oregon University Masters Thesis project, KBO completed a two year project working with Boise Corporation. The objectives for this project are to investigate influence of various timber harvest strategies on birds and their habitats. We conducted a second year of bird and habitat surveys at point count stations that were established in mature forests, clear cuts and thinned units, and within wildlife protection areas that were located in the harvest units. These data were supplemented with spot mapping and nest searching data.

### **Outreach**

As a part of our bird monitoring efforts the Klamath Bird Observatory offered outreach and training opportunities for partners. In 2003, a total of 9 college level Intern Students, including 3 international students, were trained. Many BLM personnel were introduced to banding and

survey techniques during our cooperator outreach efforts at the Wildlife Images and Snow Cow stations. We also offered a demonstration for Regional Park Service Inventory and Monitoring personnel at the Oregon Caves station. A mid-season workshop was offered for cooperators in 2003 and at the end of the season a North American Banding Council bander certification session was held. In addition 2 Southern Oregon University class field trips, and multiple Ashland Public School field trips, visited our monitoring operations.

KBO offered several public outreach opportunities this season. In cooperation with Oregon Caves National Monument and the Siskiyou Field Institute we offered a field trip as part of Institute's ecology conference, and a popular presentation as part of Institute's field course offerings. Our Wildlife Images monitoring efforts were the topic of an edition of Channel 10's Walk on the Wild Side series.

### **Conclusion**

In 2004 the Klamath Bird Observatory will continue working with our partners to maintain Oregon-Washington Partners In Flight long-term monitoring program, that fulfills monitoring objectives set forth by the National Partners In Flight Monitoring Working Group.

**Table 1.** 2003 effort summary at four Rogue Valley constant effort mist netting stations. (EFFORTS = number of visits to each site; RECAP, NEW, UNBANDED and TOTAL = number of previously banded birds, newly banded birds, birds released without being banded, and total number of birds captured respectively; AVERAGE SPECIES RICHNESS = the avg. number of species captured each day; CENSUS = number of area search censuses conducted; PERSON DAYS = number of person days spent; AVG DAILY CAPTURES and AVG DAILY RECAPS = average total captures and recaptures per day; CAPTURES PER NET HOUR = average total captures per hour)

**SEASON TOTALS:**

|              |            |           |            |             | AVERAGE    |             |             |            | AVG.           |            | AVG.     |        | CAPTURES |      |
|--------------|------------|-----------|------------|-------------|------------|-------------|-------------|------------|----------------|------------|----------|--------|----------|------|
|              |            |           |            |             | SPECIES    |             |             |            | DAILY          |            | DAILY    |        | PER      |      |
| STATION      | TYPE       | EFFORTS   | RECAP      | NEW         | UNBANDED   | TOTAL       | RICHNESS    | CENSUSES   | NET            | PERSON     | CAPTURES | RECAPS | NET      | HOUR |
|              |            |           |            |             |            |             |             |            | HOURS          | DAYS       |          |        |          |      |
| ORCA         | CES        | 17        | 56         | 246         | 26         | 328         | 7.3         | 33         | 816.42         | 38         | 19.3     | 3.3    | 0.4      |      |
| SNCO         | CES        | 25        | 115        | 329         | 28         | 472         | 9.0         | 48         | 1939.30        | 58         | 18.9     | 4.6    | 0.2      |      |
| WIIM         | CES        | 30        | 296        | 1086        | 80         | 1462        | 12.0        | 61         | 1799.60        | 123        | 48.7     | 9.9    | 0.8      |      |
| <b>WIWI</b>  | <b>CES</b> | <b>21</b> | <b>84</b>  | <b>713</b>  | <b>69</b>  | <b>866</b>  | <b>11.7</b> | <b>40</b>  | 1068.98        | 69         | 41.2     | 4.0    | 0.8      |      |
| BOXO         | ROI        | 3         | 0          | 87          | 10         | 97          | 12.3        | 7          | 123.18         | 6          | 32.3     | 0.0    | 0.8      |      |
| <b>TOTAL</b> |            | <b>96</b> | <b>551</b> | <b>2461</b> | <b>213</b> | <b>3225</b> |             | <b>189</b> | <b>5747.48</b> | <b>294</b> |          |        |          |      |

**BREEDING SEASON (May-August):**

|              |      |           |            |             | AVERAGE    |             |          |           | AVG.           |            | AVG.     |        | CAPTURES |      |
|--------------|------|-----------|------------|-------------|------------|-------------|----------|-----------|----------------|------------|----------|--------|----------|------|
|              |      |           |            |             | SPECIES    |             |          |           | DAILY          |            | DAILY    |        | PER      |      |
| STATION      | TYPE | EFFORTS   | RECAP      | NEW         | UNBANDED   | TOTAL       | RICHNESS | CENSUSES  | NET            | PERSON     | CAPTURES | RECAPS | NET      | HOUR |
|              |      |           |            |             |            |             |          |           | HOURS          | DAYS       |          |        |          |      |
| ORCA         | CES  | 9         | 38         | 179         | 24         | 241         | 8.9      | 17        | 444.75         | 21         | 26.8     | 4.2    | 0.5      |      |
| SNCO         | CES  | 13        | 62         | 185         | 19         | 266         | 9.5      | 24        | 1012.40        | 30         | 20.5     | 4.8    | 0.3      |      |
| WIIM         | CES  | 10        | 59         | 321         | 35         | 415         | 11.7     | 19        | 599.92         | 41         | 41.5     | 5.9    | 0.7      |      |
| WIWI         | CES  | 11        | 21         | 278         | 14         | 313         | 10.4     | 21        | 594.22         | 35         | 28.5     | 1.9    | 0.5      |      |
| BOXO         | ROI  | 3         | 0          | 87          | 10         | 97          | 12.3     | 7         | 123.18         | 6          | 32.3     | 0.0    | 0.8      |      |
| <b>TOTAL</b> |      | <b>46</b> | <b>180</b> | <b>1050</b> | <b>102</b> | <b>1332</b> |          | <b>88</b> | <b>2774.47</b> | <b>133</b> |          |        |          |      |

**MIGRATION SEASON (September-October):**

|              |            |           |            |             | AVERAGE    |             |             |            | AVG.           |            | AVG.     |        | CAPTURES |      |
|--------------|------------|-----------|------------|-------------|------------|-------------|-------------|------------|----------------|------------|----------|--------|----------|------|
|              |            |           |            |             | SPECIES    |             |             |            | DAILY          |            | DAILY    |        | PER      |      |
| STATION      | TYPE       | EFFORTS   | RECAP      | NEW         | UNBANDED   | TOTAL       | RICHNESS    | CENSUSES   | NET            | PERSON     | CAPTURES | RECAPS | NET      | HOUR |
|              |            |           |            |             |            |             |             |            | HOURS          | DAYS       |          |        |          |      |
| ORCA         | CES        | 8         | 18         | 67          | 2          | 87          | 5.5         | 16         | 371.67         | 17         | 10.9     | 2.3    | 0.2      |      |
| SNCO         | CES        | 12        | 53         | 144         | 9          | 206         | 8.6         | 24         | 926.90         | 28         | 17.2     | 4.4    | 0.2      |      |
| WIIM         | CES        | 20        | 237        | 765         | 45         | 1047        | 12.2        | 42         | 1199.68        | 82         | 52.4     | 11.9   | 0.9      |      |
| <b>WIWI</b>  | <b>CES</b> | <b>10</b> | <b>63</b>  | <b>435</b>  | <b>55</b>  | <b>553</b>  | <b>13.3</b> | <b>19</b>  | 474.77         | 34         | 55.3     | 6.3    | 1.2      |      |
| <b>TOTAL</b> |            | <b>50</b> | <b>371</b> | <b>1411</b> | <b>111</b> | <b>1893</b> |             | <b>101</b> | <b>2973.02</b> | <b>161</b> |          |        |          |      |

**Table 2.** Small owl banding effort summary for the Rogue Valley. (STATION= station four letter code; TYPE= type of station (CES or ROI); EFFORTS= number visits to each site; TOTAL CAPTURES= number of captures; NOPO, NSWO, WESO, and FLOW= number of Northern Pygmy, Northern Saw-whet, Western Screech, and Flammulated Owl captures; NET HRS= total net hours)

**BANDING:**

| STATION       | TYPE | EFFORTS  | TOTAL    |          |          |          | NET HRS   |
|---------------|------|----------|----------|----------|----------|----------|-----------|
|               |      |          | CAPTURES | NOPO     | NSWO     | WESO     |           |
| ORCA          | CES  | 1        | 0        | 0        | 0        | 0        | 17.70     |
| SNCO          | CES  | 5        | 1        | 0        | 0        | 1        | 41.30     |
| BOXO          | ROI  | 2        | 2        | 0        | 0        | 0        | 13.50     |
| <b>TOTALS</b> |      | <b>8</b> | <b>3</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>73</b> |

**Table 3.** Small owl census effort summary for the Rogue Valley. (STATION= station four letter code; TYPE= type of station (CES or ROI); CENSUSES= number censuses conducted; TOTAL DETECTIONS= number of detections; NOPO, NSWO, WESO, and FLOW= number of Northern Pygmy, Northern Saw-whet, Western Screech, and Flammulated Owl detections)

**CENSUS:**

| STATION       | TYPE | CENSUSES  | TOTAL      |          |          |          |
|---------------|------|-----------|------------|----------|----------|----------|
|               |      |           | DETECTIONS | NOPO     | NSWO     | WESO     |
| ORCA          | CES  | 2         | 1          | 0        | 0        | 0        |
| SNCO          | CES  | 9         | 5          | 1        | 0        | 4        |
| BOXO          | ROI  | 3         | 1          | 0        | 0        | 0        |
| <b>TOTALS</b> |      | <b>14</b> | <b>7</b>   | <b>1</b> | <b>0</b> | <b>4</b> |

**Table 4.** 2003 spring and fall southwest Oregon census effort. [Type:LT = long-term trend censuses, JFS = Joint fire Sciences, I = National Parks Inventory, GR = Grazing, TM = Timber Management; Spring/Fall Stations = number of stations surveyed during spring and fall visits; Spring/Fall Visits = number of route visits during spring and fall; Spring/Fall Surveys = Total number of censuses during spring and fall (Spring=5-minute Point Count Surveys, Fall=20-minute Area Search Surveys)] \*Fall surveys at constant effort stations reported on Table 1

| <b>Project</b>    | <b>Route</b> | <b>Route Name</b>   | <b>Type</b> | <b>Spring Stations</b> | <b>Spring Visits</b> | <b>Spring Surveys</b> |
|-------------------|--------------|---------------------|-------------|------------------------|----------------------|-----------------------|
| Medford BLM       | SNCO         | Snow Cow CES        | LT          | 6                      | 1                    | 6                     |
|                   | WIIM         | Wildlife Images CES | LT          | 5                      | 2                    | 10                    |
|                   | Subtotal     | 2                   |             | 11                     | 3                    | 16                    |
| <hr/>             |              |                     |             |                        |                      |                       |
| Oregon Caves      | ORC          | Oregon Caves        | I           | 10                     | 1                    | 10                    |
| National Monument | ORCA         | Oregon Caves CES    | I           | 2                      | 1                    | 2                     |
| Subtotal          | 2            |                     |             | 12                     | 2                    | 12                    |
| <hr/>             |              |                     |             |                        |                      |                       |
| KBO               | WIWI         | Willow Wind CES     | LT          | 4                      | 1                    | 4                     |
|                   | BIKE         | Bike Trail          | LT          | 13                     | 1                    | 13                    |
|                   | Subtotal     | 1                   |             | 17                     | 2                    | 17                    |
| <hr/>             |              |                     |             |                        |                      |                       |
| BLM Oak Woodlands | BIS1         | Bishop Creek        | JFS         | 12                     | 2                    | 24                    |
|                   | CHI1         | China Gulch         | JFS         | 12                     | 2                    | 24                    |
|                   | DEM1         | Deming Gulch 1      | JFS         | 13                     | 2                    | 26                    |
|                   | DEM2         | Deming Gulch 2      | JFS         | 12                     | 2                    | 26                    |
|                   | FOR1         |                     | JFS         | 12                     | 2                    | 24                    |
|                   | PMA1         | Poor Man's          | JFS         | 12                     | 2                    | 24                    |
|                   | STE1         | Sterling Creek 1    | JFS         | 12                     | 2                    | 24                    |
|                   | STE2         | Sterling Creek 2    | JFS         | 12                     | 2                    | 24                    |
|                   | THO1         | Thompson Creek 1    | JFS         | 12                     | 2                    | 24                    |
|                   | THO2         | Thompson Creek 2    | JFS         | 12                     | 2                    | 24                    |
|                   | Subtotal     | 10                  |             | 121                    | 20                   | 244                   |
| <hr/>             |              |                     |             |                        |                      |                       |
| Quartz Fire       | 230          | Road 230            | JFS         | 18                     | 1                    | 18                    |
|                   | 500          | Road 500            | JFS         | 20                     | 1                    | 20                    |
|                   | 550          | Road 550            | JFS         | 20                     | 1                    | 20                    |
|                   | 600          | Road 600            | JFS         | 18                     | 1                    | 18                    |
|                   | 7MLA         | Seven Mile Trail    | JFS         | 15                     | 1                    | 15                    |
|                   | DUGA         | Duncan Gap          | JFS         | 20                     | 1                    | 20                    |
|                   | DUTC*        | Dutchmen Ridge      | JFS         | 15                     | 1                    | 15                    |
|                   | KEME         | Kenney Meadows      | JFS         | 18                     | 1                    | 18                    |
|                   | LIKA         | Lick Gulch A        | JFS         | 16                     | 1                    | 16                    |
|                   | LIKB         | Lick Gulch B        | JFS         | 20                     | 1                    | 20                    |
|                   | PCT*         | Pacific Crest Trail | JFS         | 16                     | 1                    | 16                    |
|                   | SKAT         | Skate Gulch Road    | JFS         | 18                     | 1                    | 18                    |
|                   | SKAW         | Skate Gulch Walk    | JFS         | 16                     | 1                    | 16                    |
|                   | TRMO         | Trillium Mountain   | JFS         | 13                     | 1                    | 13                    |
|                   | WRAN*        | Wrangle Camp        | JFS         | 15                     | 1                    | 15                    |
|                   | Subtotal     | 15                  |             | 258                    | 15                   | 258                   |
| <hr/>             |              |                     |             |                        |                      |                       |
| Biscuit Fire      | BF1          | Biscuit Fire 1      | JFS         | 6                      | 1                    | 6                     |
|                   | BISC3        | Biscuit 3           | JFS         | 5                      | 1                    | 5                     |
|                   | MIGU         | Mike's Gulch        | JFS         | 5                      | 1                    | 5                     |
| Subtotal          | 3            |                     |             | 16                     | 3                    | 16                    |

**Table 4.** (continued)

| <b>Project</b>     | <b>Route</b> | <b>Route Name</b>   | <b>Type</b> | <b>Spring<br/>Stations</b> | <b>Spring<br/>Visits</b> | <b>Spring<br/>Surveys</b> |
|--------------------|--------------|---------------------|-------------|----------------------------|--------------------------|---------------------------|
| Cascade Siskiyou   | 113A         | Road 113 A          | GR          | 12                         | 2                        | 24                        |
| National Monument  | 1761         | Road 1761           | GR          | 12                         | 2                        | 24                        |
|                    | 536A         | Road 536 A          | GR          | 12                         | 2                        | 24                        |
|                    | 585          | Road 585            | GR          | 12                         | 2                        | 24                        |
|                    | 76A          | Road 76 A           | GR          | 12                         | 2                        | 24                        |
|                    | 862A         | Road 862 A          | GR          | 12                         | 2                        | 24                        |
|                    | 989A         | Road 989 A          | GR          | 12                         | 2                        | 24                        |
|                    | AGF1         | Agate Flat 1        | GR          | 18                         | 2                        | 36                        |
|                    | AGF2         | Agate Flat 2        | GR          | 16                         | 2                        | 32                        |
|                    | BECR         | Beaver Creek        | GR          | 12                         | 2                        | 24                        |
|                    | BOOR         | Box O Ranch 1       | GR          | 12                         | 2                        | 24                        |
|                    | BXOR         | Box O Ranch 2       | GR          | 12                         | 2                        | 24                        |
|                    | CLAY         | Jerry Clayton       | GR          | 12                         | 2                        | 24                        |
|                    | HOBL         | Hobart Bluff        | GR          | 11                         | 2                        | 22                        |
|                    | JE45         | Jenny Creek 45      | GR          | 12                         | 2                        | 24                        |
|                    | JECR         | Jenny Creek         | GR          | 12                         | 2                        | 24                        |
|                    | JECU         | Jenny Creek Upland  | GR          | 15                         | 2                        | 30                        |
|                    | JEN3         | Jenny Creek 3       | GR          | 12                         | 2                        | 24                        |
|                    | KECR         | Keene Creek         | GR          | 12                         | 2                        | 24                        |
|                    | NACO         | Nancy Ames Cole     | GR          | 14                         | 2                        | 28                        |
|                    | ORGU         | Oregon Gulch        | GR          | 17                         | 2                        | 34                        |
|                    | PALA         | Parsnip Lake        | GR          | 12                         | 2                        | 24                        |
|                    | RAPA         | Randcore Pass       | GR          | 12                         | 2                        | 24                        |
|                    | SKCO         | Sky King Cole       | GR          | 13                         | 2                        | 26                        |
|                    | SKOO         | Skookum Creek       | GR          | 12                         | 2                        | 24                        |
|                    | SOMN         | Soda Mountain       | GR          | 12                         | 2                        | 24                        |
|                    | SSPR         | Soda Spring         | GR          | 12                         | 2                        | 24                        |
|                    | TRSO         |                     | GR          | 12                         | 2                        | 24                        |
| Subtotal           | 28           |                     |             | 356                        | 56                       | 712                       |
| Boise              | CN           | Colony Slopes North | TM          | 8                          | 3                        | 24                        |
|                    | CS           | Colony Slopes South | TM          | 5                          | 3                        | 15                        |
|                    | LN           | Lick Creek North    | TM          | 8                          | 3                        | 24                        |
|                    | LS           | Lick Creek South    | TM          | 2                          | 3                        | 6                         |
|                    | MC           | Mill Creek          | TM          | 5                          | 3                        | 15                        |
|                    | PN           | Ponder North        | TM          | 9                          | 3                        | 27                        |
|                    | PR           | Penn Removal        | TM          | 2                          | 3                        | 6                         |
|                    | PS           | Ponder South        | TM          | 10                         | 3                        | 30                        |
|                    | RB           | Red Blanket         | TM          | 10                         | 3                        | 30                        |
|                    | RC           | Red Glade Control   | TM          | 7                          | 3                        | 21                        |
|                    | RN           | Red Glade North     | TM          | 12                         | 3                        | 36                        |
|                    | RS           | Red Glade South     | TM          | 7                          | 3                        | 21                        |
|                    | SL           | Progeny Slopes      | TM          | 10                         | 3                        | 30                        |
| Subtotal           | 13           |                     |             | 95                         | 39                       | 285                       |
| <b>Grand Total</b> |              |                     |             | <b>886</b>                 | <b>140</b>               | <b>1560</b>               |