

Birds and Burns Network

Progress Report 2002

Location: Kaibab National Forest **State:** AZ

Purpose: (see Joint Fire Sciences Program, Proposal # 01-1-3-25: *Prescribed fire strategies to restore wildlife habitat in ponderosa pine forests of the Interior West [Saab, Kotliar, Block]*).

Partners:

- U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Research Work Unit Numbers RMRS-4156, -4251, and -4852.
- Colorado State University, Department of Fisheries and Wildlife Biology.

Study Area Description:

Overstory vegetation on each of the three AZ study units is dominated by ponderosa pine (*Pinus ponderosa*). Pinyon pine (*P. edulis*) and one-seed (*Juniperus monosperma*) and alligator (*J. deppeana*) juniper occur on the control units, but contribute little to stand canopies. Green rabbitbrush (*Chrysothamnus viscidiflorus*) is the most common understory species on all three units. Wax current (*Ribes cereum*) and skunkbush sumac (*Rhus trilobata*) also occur, but are much less common. Open grassland patches tend to be dominated by bunchgrass species, including Arizona fescue (*Festuca arizonica*) and blue gramma (*Bouteloua gracilis*). The topography is flat, with elevations ranging from 2100 to 2300m. Historic timber harvest activities have added to forest fuels in the form of downed pole-size trees, stumps, and slash debris. Fuels in these forms, however, are sparse and relatively even in their distribution across each unit.

Methods: (Methods generally follow those outlined in the Joint Fire Sciences Program, Proposal # 01-1-3-25: *Prescribed fire strategies to restore wildlife habitat in ponderosa pine forests of the Interior West [Saab, Kotliar, Block]*).

Preliminary Results and Discussion:

Avian Community

List of bird species detected or monitored on the AZ study site, between May 26, 2002 and June 22, 2002.

1. American kestrel (*Falco sparverius*)
2. American robin (*Turdus migratorius*)
3. ash-throated flycatcher (*Myiarchus cinerascens*)
4. brown-headed cowbird (*Molothrus ater*)
5. brown creeper (*Certhia americana*)
6. broad-tailed hummingbird (*Selasphorus platycercus*)
7. chipping sparrow (*Spizella passerina*)

8. Clarke's nutcracker (*Nucifraga columbiana*)
9. common nighthawk (*Chordeiles minor*)
10. common raven (*Corvus corax*)
11. cordilleran flycatcher (*Empidonax occidentalis*)
12. dark-eyed junco (*Junco hyemalis*)
13. Grace's warbler (*Dendroica graciae*)
14. gray flycatcher (*Empidonax wrightii*)
15. hairy woodpecker (*Picoides villosus*)
16. hermit thrush (*Catharus guttatus*)
17. lark sparrow (*Chondestes grammacus*)
18. lesser goldfinch (*Carduelis psaltria*)
19. mountain chickadee (*Poecile gambeli*)
20. mourning dove (*Zenaida macroura*)
21. northern flicker (*Colaptes auratus*)
22. northern goshawk (*Accipiter gentilis*)
23. pinon jay (*Gymnorhinus cyanocephalus*)
24. plumbeous vireo (*Vireo plumbeus*)
25. pygmy nuthatch (*Sitta pygmaea*)
26. red crossbill (*Loxia curvirostra*)
27. Steller's jay (*Cyanocitta stelleri*)
28. Townsend's solitaire (*Myadestes townsendi*)
29. turkey vulture (*Cathartes aura*)
30. vesper sparrow (*Pooecetes gramineus*)
31. violet-green swallow (*Tachycineta thalassina*)
32. Virginia's warbler (*Vermivora virginiae*)
33. western bluebird (*Sialia mexicana*)
34. western meadowlark (*Sturnella neglecta*)
35. western tanager (*Piranga ludoviciana*)
36. western wood pewee (*Contopus sordidulus*)
37. white-breasted nuthatch (*Sitta carolinensis*)
38. white-throated swift (*Aeronautes saxatalis*)
39. yellow-rumped warbler (*Dendroica coronata*)

Table 1: Number of nests monitored by species and the number of nests that fledged at least one young.

Species Code	No. Nests Monitored	No. Successful Nests
BRCR	4	1
MOCH	8	4
NOFL	2	1
PYNU	7	5
WBNU	3	2
WEBL	14	11

Table 2: Number of point count stations by stratum (open vs. closed canopy) for each sample unit.

Sample unit	Open Canopy Point Count Stations	Closed Canopy Point Count Stations	No. Visits to Each Station
Kendrick (treatment)	20	20	3
Moritz (control)	20	20	3
Beale (control)	7	3	3

Vegetation:

Vegetation was measured at each of the 38 nest locations and at each of the 90 point count stations. Woody species found in the study area are listed below.

- 1.ponderosa pine (*Pinus ponderosa*)
- 2.pinyon pine (*Pinus edulis*)
- 3.alligator juniper (*Juniperus deppeana*)
- 3.one-seed juniper (*Juniperus monosperma*)
- 4.green rabbitbrush (*Chrysothamnus viscidiflorus*)
- 5.wax current (*Ribes cereum*)
- 6.skunkbush sumac (*Rhus trilobata*)

Notes:

In the summer of 2003, a second site will be situated on the Kaibab National Forest, north of Williams, Arizona. This new site will represent the third of the three Southwest replicates.