

WYOMING'S JUNIPER BIRDS

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The avifauna associated with Wyoming's juniper plant community has largely been ignored. The purpose of this paper is to communicate information regarding 10 species of birds virtually confined, during the breeding season, to the Utah Juniper (*Juniperus osteosperma*) community in Wyoming.

Since 1979 we have made over 60 trips to juniper stands statewide. Most of our field work was conducted in 1982 in southern Sweetwater County of southwestern Wyoming. Few or no juniper-dependent birds were found on our visits to other portions of the state. Equal time was spent in the extensive stands of the Little Firehole Canyon area 13 km southeast of Green River and along the east-west ridge called Powder Rim 100 km southwest of Rawlins. Our objectives at each juniper stand were to document the presence and when possible the nesting of certain indicative species.

The pinyon-juniper community of Utah and Colorado becomes the Utah Juniper community in Wyoming. Pinyon Pine (*Pinus edulis*) is very rare along the Utah-Wyoming border near Flaming Gorge Reservoir and absent elsewhere in the state. Nearly homogenous stands of Utah Juniper can be found widely scattered throughout the state but are most extensive in the southwestern quarter (Figure 1). The other species of erect juniper in Wyoming, the Rocky Mountain Juniper (*Juniperus scopulorum*), is found most often in association with Ponderosa Pine (*Pinus ponderosa*) or Limber Pine (*Pinus flexilis*) and less frequently in association with Utah Juniper. Therefore, it is not a critical component of the juniper birds' habitat. Wyoming's juniper-dependent birds occupy habitats in Colorado (Kingery and Graul 1978) and Utah (Behle 1981) that are not found in Wyoming. The pinyon-juniper community is the only habitat similar.

The 10 species of birds that we found confined to the Utah Juniper habitat in Wyoming are Gray Flycatcher, Ash-throated Flycatcher, Scrub Jay, Plain Titmouse, Bushtit, Bewick's Wren, Blue-gray Gnatcatcher, Gray Vireo, Black-throated Gray Warbler and Scott's Oriole. Their distributions are shown in Figure 1. The Gray Vireo is reported in Wyoming for the first time. The Scrub Jay, Bushtit and Black-throated Gray Warbler are documented as nesting species for the first time in the state. The ranges of the remaining six species are expanded considerably from those depicted in the last treatment of the state's avifauna (Oakleaf et al. 1982).

GRAY FLYCATCHER, *Empidonax wrightii*. The Gray Flycatcher is an abundant summer resident of the Utah Juniper community in southwestern and south-central Wyoming and occupies most conditions of canopy cover wherever mature trees are found (Figure 1). The 10 nests that we observed were built 1.0 to 2.4 m above the ground close to the trunk or substantial lateral branch of a juniper. The nest information for 1982 is as follows: four nests with three young each, 25, 26 and 27 June at Firehole Canyon; five nests with three young each and one nest with four young, 28

JUNIPER BIRDS

and 29 June at Powder Rim. The nests were made of loosely entwined juniper bark strips and lined with fine grass blades, feathers and hair. In 1982 nests were most easily found during the last week of June when the adults were feeding the nestlings.

Confusion in the nomenclature led some Wyoming ornithologists to assign the wrong name to the Dusky Flycatcher (formerly *E. wrightii*, now *E. oberholseri*). Any reference to "Wright's Flycatcher" in Wyoming's literature refers to the Dusky Flycatcher, not the Gray Flycatcher.

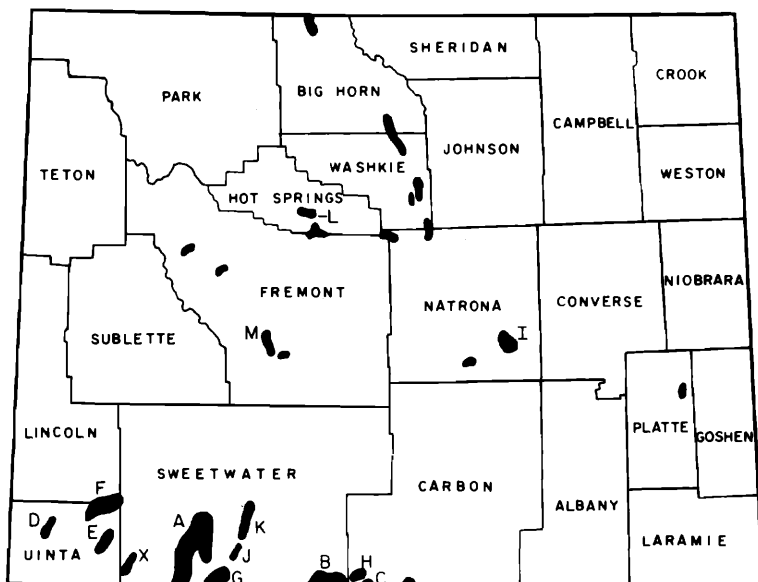
ASH-THROATED FLYCATCHER, *Myiarchus cinerascens*. This species is an uncommon summer resident of southwestern and south-central portions of the state and is rarely seen elsewhere (Figure 1). The species is found most commonly among the old gnarled junipers growing on steep hogbacks or in low areas of severe erosion. We observed the Ash-throated Flycatcher using the tips of dead snags as perches from which to look out for flying insects. The two nests found near the Little Firehole Canyon were less than 1.8 m above the ground in the natural cavities of Utah Junipers. Two pairs of territorial adults were observed defending the above mentioned cavities, 27 June 1982.

SCRUB JAY, *Aphelocoma coerulescens*. The Scrub Jay is an uncommon permanent resident of southwestern and south-central Wyoming (Figure 1). This jay prefers dry rocky slopes or ravines covered with sparse to medium tree cover. Most foraging takes place on the ground and in Mountain Mahogany (*Cercocarpus montanus*), sagebrush (*Artemisia* spp.) and the lower branches of junipers. We usually observed the species shyly swooping and gliding among the junipers and rocks making it one of the community's more elusive species. On 30 May 1982 we found a nest containing four fledglings at Powder Rim. The nest, 1.5 m above the ground, was constructed of large juniper and sagebrush twigs and lined with grass. The breeding record for latilong 27 in the *Wyoming Avian Atlas* (Oakleaf et al. 1982) is erroneous because the observer was actually in Colorado Springs, Colorado (Holden 1872).

PLAIN TITMOUSE, *Parus inornatus*. A common permanent resident of southwestern and south-central Wyoming, the Plain Titmouse is found in most situations where mature Utah Junipers grow (Figure 1). It is restricted to stands of junipers old enough to have natural cavities or large enough to attract woodpeckers. Both types of cavity nest were found from 1.0 to 3.6 m above the ground. One nest was found in Little Firehole Canyon, 17 May 1982, with an undetermined number of young heard calling from within; and another nest, also with an unknown number of young, was found 29 May 1982 at Powder Rim. Small family groups of up to six individuals were often seen after fledging. The species forages among the thicker lateral branches of junipers, smaller deciduous shrubs and sagebrush.

BUSHTIT, *Psaltriparus minimus*. The Bushtit is an uncommon resident of southwestern and south-central Wyoming (Figure 1). It is found at the edges of juniper stands foraging in Mountain Mahogany, sagebrush and the lower branches of junipers. The species' distribution seems to be local within the Utah Juniper habitat. For example, in Little Firehole Canyon 29 km southwest of Rock Springs we found four breeding pairs, at least three of which had successfully reared young by 25 June 1982, in an area of less than 1 km². We did not see the species elsewhere in spite of intensive search. The nesting phenology of one of the above mentioned breeding pairs was followed. We found the nest under construction 17 May 1982, full of an undetermined number of chirping juveniles 25 June, and empty 26 July. This nest (a long pendant intricate affair of juniper scales, fine grasses, seed hulls, and flowers interwoven with spider webbing) was collected 9 October 1982 and is now in the Zoological Museum at the University of Wyoming.

JUNIPER BIRDS



Stands where Juniper dependent birds were found.

Species	A	B	C	D	E	F	G	H	I	J	K	L	M
Gray Flycatcher	*	*	✓	✓	*	✓	✓	✓					
Ash-throated Flycatcher	✓	*											
Scrub Jay	*	*			✓								
Plain Titmouse	*	*	*										
Bushtit	*	✓											
Bewick's Wren	*	*	✓	✓	✓	✓	✓	✓		✓	✓		
Blue-gray Gnatcatcher	*	*		✓					*			✓	
Gray Vireo	✓												
Black-throated Gray Warbler	*	✓	✓	✓					✓				-
Scott's Oriole	✓	*											

- Utah Juniper Stands
- * Nest or dependent young found
- ✓ Nest behavior observed
- Observed
- X No data available

All unlettered stands were visited but no Juniper birds were found.

Figure 1. Bird distribution in Wyoming's Utah Juniper stands.

JUNIPER BIRDS

BEWICK'S WREN, *Thryomanes bewickii*. This wren is probably the most common juniper-dependent bird (Figure 1). During years with mild winters a few individuals may remain year-round. Bewick's Wrens are found in most conditions of juniper size and canopy cover so long as natural or excavated cavities are present. The eight cavity nests we observed were at heights varying from 15.0 cm to 9.1 m above the ground. We found five nests containing an undetermined number of young, 28 and 29 June 1982 at Powder Rim, and three nests also containing an unknown number of young, 26 and 27 June 1982 at Firehole Canyon. But adults feeding up to four fledglings were commonly observed after these dates. Although juniper is the most commonly used nest substrate in Wyoming, the first documented nest was found in a cottonwood tree (*Populus* sp.) along the Green River (White and Behle 1960). This wren forages on the ground, in shrubs, and in branchlets and foliage of junipers. Even in the heat of the day we observed the Bewick's Wren singing from the tops of juniper trees. Intruders are harassed by loud scolding until they are out of the first wren's territory and into the next where the defense begins anew.

BLUE-GRAY GNATCATCHER, *Poliioptila caerulea*. This fairly common summer resident can be found nesting in several widely scattered juniper stands in the state and is currently the most widespread of the juniper-dependent species (Figure 1). It is probably most common in the extreme southwest, less so in the Casper area, and least common on the north slope of the Owl Creek Mountains. This species frequents areas where deciduous shrubs, sagebrush and junipers grow in close proximity. One nest was found near Powder Rim, 28 June 1982, containing three ready-to-fledge young. Blue-gray Gnatcatchers forage on the tips of branches of all available woody plants from ground level to the highest trees.

GRAY VIREO, *Vireo vicinior*. This is the first report of the Gray Vireo for Wyoming. We came into contact with three or four different individuals in the junipers 13 km southeast of Green River from 26 June to 27 July 1982 (Figure 1). We must consider it a rare summer resident until additional information can be gathered. More investigation may document nesting; a singing male was followed 26 June 1982 until it dropped from cover and briefly but loudly scolded us. The birds were found in areas of moderate juniper canopy cover generously interspersed with Mountain Mahogany. We observed that this species uses its gray background-matching color, slow movements and quiet disposition to remain unnoticed while being only a tree or two away from the would-be observer.

BLACK-THROATED GRAY WARBLER, *Dendroica nigrescens*. This species is a common summer resident of the Utah Juniper community. It and the Blue-gray Gnatcatcher are the only juniper-dependent species regularly found northeast of the continental divide. This warbler is most common in the Casper area, less common southwest of Rock Springs and least common at Powder Rim (Figure 1). It frequents mature stands with a relatively high degree of canopy closure. These stands are found usually in protected and gently sloping areas where moisture is more readily available to plants. In 1982 we observed four nests at Little Firehole Canyon from 1.2 to 2.4 m above the ground in junipers; three nests with four young each and one nest with one young Brown-headed Cowbird (*Molothrus ater*), 16 and 17 May. The nests were made of fine strips of juniper bark and lined with fine grass blades, feathers and hair. Foraging took place mostly in junipers and to a lesser degree in deciduous shrubs and sagebrush.

SCOTT'S ORIOLE, *Icterus parisorum*. This species appears to be a rare summer resident. Recent records for this species in Wyoming, including the first nesting record, have been summarized by Findholt and Fitton (1983). An additional record not treated in the above mentioned summary needs clarification. In 1930 Kemsies added

JUNIPER BIRDS

this species to the list of Wyoming's birds as hypothetical. The record was based on what he referred to as "a perfect description of the Scott's Oriole" which had been sent to him by Park Ranger Albert Bicknell. The ranger apparently had ample time to observe the birds since they reportedly nested near the Bechler River District Ranger Station in Yellowstone National Park. With that area's lush meadows and tall dense stands of Lodgepole Pine (*Pinus contorta*), a more atypical setting for a nesting pair of this species can hardly be imagined when compared to the habitat in which recent observations have been made.

All writers subsequent to Kemsies have either decided to ignore this record or were unaware of it. Kemsies' business documents, stored in the Cincinnati Museum of Natural History, are so unorganized that even if Bicknell's descriptive letter was retained, it would be impossible to find according to Arthur Wiseman, the museum's curator of ornithology (pers. comm. 1982). Voucher specimens are no longer needed for a species to be included on the Wyoming list of avifauna, and the hypothetical designation is reserved for species for which some question exists concerning details given in the written documentation. Since Bicknell's description cannot be obtained, we believe this record can be put to rest after 50 years of uncertainty.

Two additional species that we usually found in junipers are not necessarily juniper-dependent. The Pinyon Jay (*Gymnorhinus cyanocephalus*) is found essentially in pinyon-juniper habitat in Colorado (Bailey and Niedrach 1965), Utah (Behle 1981) and Idaho (Burleigh 1972). In Wyoming, the Pinyon Jay exhibits more flexibility in its habitat requirements; it is found wherever there are extensive juniper stands, but also in areas of Limber Pine and Ponderosa Pine. The only part of the state that lacks this bird is the northwest mountain region. In contrast, the House Finch (*Carpodacus mexicanus*) is found in a wide variety of low elevation habitats in Colorado (Bailey and Niedrach 1965), Utah (Behle 1981) and Idaho (Burleigh 1972), but in Wyoming this species is restricted to juniper stands in the southern part of the state or to habitats adjacent to human dwellings throughout the state. Because of its close association with man, in addition to its use of the juniper habitat, we do not consider it juniper-dependent.

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JUNIPER BIRDS

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Scott's Oriole, Ash-throated Flycatcher, Gray Vireo, Black-throated Gray Warbler and Blue-gray Gnatcatcher.

Sketch by Keith Hansen