

## **Kaibab Plateau-North Rim of the Grand Canyon (Coconino Co.)**

**June 13-15, 2014**

*By Eric Hough*

Just above the picturesque North Rim of the Grand Canyon lie the high elevation pine, spruce-fir, and aspen forests of the Kaibab Plateau. Biologically, the Kaibab Plateau contains some unique fauna and flora that have diverged evolutionarily through geographic isolation, such as the Kaibab squirrel. In Arizona, the southern extent of the breeding ranges of Cassin's Finches and 'Gray-headed' Dark-eyed Juncos occurs only on the Kaibab Plateau and a few other mountain ranges in the far northern part of the state. Dusky Grouse and Northern Goshawks occur in some of the highest densities in the state and species of more southerly distributions have also been observed on the Kaibab Plateau over the last few decades, including Mexican Whip-poor-will, Magnificent Hummingbird, Olive and Red-faced Warblers, and Hepatic Tanager. It seems plausible that these species have expanded their range northward onto the plateau and are locally breeding there, but with few birders visiting this remote region of the state, there remains a dearth of ornithological knowledge here. Additionally, Arizona Breeding Bird Atlas surveys detected few Northern Saw-whet Owls and other early breeders due to the inaccessibility of the plateau in winter when this species begins breeding (Corman & Wise-Gervais 2005). Since montane riparian habitat is limited on the plateau to scattered springs and a few perennial streams, associated bird species such as Cordilleran Flycatchers and Orange-crowned Warblers were infrequently detected on Atlas surveys. For this expedition, our objective was to help expand our knowledge of the current avifauna of the Kaibab Plateau and search for local rare breeding species.



*Figure 1. AZFO expedition participants at the East Rim of the Kaibab Plateau above North Canyon (© Lauren Harter).*

Our 11 intrepid participants converged on the Kaibab Plateau from as far away as Parker, Tucson, Phoenix, and Snowflake, dealing with high winds on the highways and some stuck in traffic for an hours-long interstate closure.



Figure 2. a) *California Condor* (© Gordon Karre)



b) *Cassin's Finches* (© Gordon Karre).

Those that made the drive earlier in the day were rewarded with seeing five California Condors hanging out around Navajo Bridge over Marble Canyon along Hwy. 89A, a species that has been brought back from the brink of extinction with a captive breeding and reintroduction effort in California, Arizona, and Utah. A well-known, small fountain at the Jacob Lake Lodge/Café was also a pit stop for earlier arriving participants, who found Cassin's Finches and Western Tanagers coming down for drinks. At small ponds farther south near DeMotte Park, some of the participants encountered several forest and meadow species. Evidence of breeding was abundant, with Brewer's Blackbirds, Mountain Bluebirds, and American Robins actively catching insects to feed their begging young.

Most of the participants opted to camp out south of Jacob Lake, with early arriving participants finding a suitable campsite off Forest Rd. 420 near V.T. Lake. We camped at an elevation of around 8,000 ft. in mixed conifer, spruce-fir, and aspen habitat. High temperatures that weekend got up into the 70's Fahrenheit, while nighttime lows were down into the 40's and upper 30's. Despite the continuing gusty winds overnight, our group

detected calling Northern Saw-whet, Flammulated, Northern Pygmy, and Great Horned Owls.

### **Saturday, June 14, 2014**

Our group awoke early the next morning to the dawn chorus of many high-elevation forest birds. After a quick breakfast, we birded around the base camp and nearby V.T. Lake area, finding a few Evening Grosbeaks and Cassin's Finches, plus a Grace's Warbler carrying nesting materials, fledged young of Mountain Chickadees, and possible intergrade 'Red-backed' x 'Gray-headed' Dark-eyed Juncos among several other species. Just south of V.T. Lake we spotted a porcupine waddling across a meadow towards the tree line, one of the non-avian highlights of the trip. We scanned the forest edges along the meadows for possible Dusky Grouse but were unlucky with that endeavor. Our collective group then split up for the day to cover three different areas of the plateau:

- The East Rim and North Canyon, and Forest Roads 611 and 610 to Saddle Mountain Trailhead on the southeast side of the plateau.
- Jacob Lake to Big Springs via Forest Rd. 22 on the northwest side of the plateau.
- DeMotte Park to Fire Point via Forest Rd. 223 on the southwest side of the plateau.



Figure 3. Map of Kaibab Plateau and locations visited during the expedition (© Google Earth).

### **NORTH RIM/EAST CANYON**

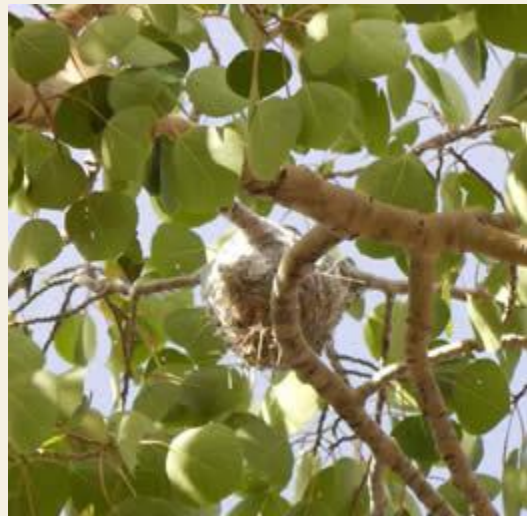
Lauren Harter, Michael Lester, Jarrod Swackhamer, and I accessed the East Rim of the Kaibab Plateau via Forest Rd. 611 from Hwy. 67 at DeMotte Park, slowly cruising along tallying forest birds as we went. From the trailhead parking lot, we walked along a portion of the Arizona Trail that skirts along the East Rim and through stands of mixed conifer forest and old-growth aspen stands. From the scenic view overlooking North Canyon, along with views to the north/northeast of distant Marble Canyon and Navajo Mountain, we observed several White-throated Swifts and Violet-green Swallows, and at least one Peregrine Falcon riding the wind currents. In the thickets of low deciduous shrubs we initially thought we heard a yellowthroat, to our surprise finding the culprit to be a MacGillivray's Warbler doing a similar-sounding song. Lauren got a recording of the bird's song that has been uploaded to xeno-canto [here](#). We ended up hearing several MacGillivray's and Virginia's Warblers, and Green-tailed Towhees in these thickets along the East Rim and downslope into North Canyon. As we continued along the rim, we discovered breeding evidence of Williamson's Sapsuckers, Hairy Woodpeckers, Western Wood-Pewees, Violet-green Swallows, Mountain Chickadees, and Yellow-rumped Warblers. Several greater short-horned lizards, various butterflies, and wildflowers were other bonuses of this hike.

Next, we backtracked to where the East Rim Trail #7 zigzags down into North Canyon. The trail was visible most of the way, albeit overgrown with shrubbery and crisscrossed with fallen trees in sections. As we descended past some springs and small streams, we began detecting one of our target species for the trip, Cordilleran Flycatcher. Two miles and about 1,400 vertical feet later, we intersected North Canyon Trail #4

at the canyon bottom. The creek is perennial here and the canyon bottom dominated by boxelders (*Acer negundo*), bigtooth maples (*Acer grandidentatum*) New Mexico locusts (*Robinia neomexicana*), Gambel oaks (*Quercus gambelii*), Douglas-firs (*Pseudotsuga menziesii*), white firs (*Abies concolor*), and ponderosa pines (*Pinus ponderosa*). While American Dippers occur along tributaries of the Colorado River down in the Grand Canyon, this stream was not flowing fast or voluminous enough to attract that species. Bird activity was slow by the time we reached this point in the early afternoon, but we did find a few more pairs of Cordilleran Flycatchers and decided to observe a nearby pair in an attempt to document breeding. After quietly watching the pair for about



Figure 4. a) East Rim above North Canyon (© Lauren Harter)



b) Warbling Vireo nest in an aspen tree (© Eric Hough).

half an hour, Lauren pinpointed an area upslope that the pair seemed to be frequenting. As we slowly moved towards that location from different angles, I stumbled upon the female sitting tight to her nest on a bark shelf peeling off a snag. After getting some quick nest data and photos, we walked a little farther down the trail before heading back the way we came up to the East Rim.



*Figure 5. a) Cordilleran Flycatcher sitting on nest (© Eric Hough)*



*b) AZFO participants Michael Lester and Jarrod Swackhamer documenting the nest within maple-oak habitat in North Canyon (© Eric Hough).*

On the way back up we heard a couple of Clark's Nutcrackers above us on the canyon rim, plus detected a couple of singing Orange-crowned Warblers in the deciduous shrubbery along one of the springs. We also encountered another odd MacGillivray's Warbler vocalization, this time sounding like the warbled imitations of other species in a Lesser Goldfinch song, but sputtering into its normal song and call notes. Lauren obtained some recordings of this bird to help document this strange vocalization and hopefully help with investigating this species' vocal repertoire (available [here](#)).



*Figure 6. Lauren Harter recording the vocalizations of a MacGillivray's Warbler along the East Rim Trail on the slopes above North Canyon.*

After a late lunch breather at the trailhead, we birded by car along Forest Rd. 611 and 610 heading southeast to the Saddle Mountain Trailhead, which overlooks the opening of Marble Canyon into the Grand Canyon proper. As experienced earlier in the day, we continued to find Williamson's Sapsuckers, Warbling Vireos, American Robins, Hermit Thrushes, and Yellow-rumped Warblers to be particularly abundant avifauna in the forests of this plateau. At dusk we reached the vista at the end of the road, but unfortunately it was still too windy there to attempt listening for possible Mexican Whip-poor-wills or other nocturnal/crepuscular species. Heading back up Forest Rd. 610 in the dark, we saw a Common Nighthawk swoop down in front of

our headlights and made periodic stops to listen for owls. While many of the stops were quiet except for the wind, we did manage to detect a few Northern Saw-whet and Flammulated Owls. Back at camp, a portion of our collective group that was still awake said that they had heard the same owl species at camp as during the previous night.

## **DEMOTTE PARK / FIRE POINT**

Magill Weber, Brian Ison, and Nathan Williams first checked out the high elevation meadow and forest edge birds around DeMotte Park on Saturday morning, including around a couple of ponds and the established campground there. Common meadow species including a Vesper Sparrow and several Mountain Bluebirds were observed. Near the established DeMotte Park Campground, the team detected two Cordilleran Flycatchers. The team continued from here southwest to access Forest Rd. 223 to get to Fire Point at the North Rim just past the Kaibab National Forest-Grand Canyon National Park boundary. The road traverses miles of spruce-fir, aspen, and mixed conifer forest before entering old growth stands of ponderosa pines with Gambel oaks and New Mexico locusts in the understory. Impressive evidence of what these trees endure throughout the seasons can be seen along this road, with many stands of contorted aspen snags showing the effects of heavy snowfall in winter. While walking the forest road birding, one can also find many fossils of prehistoric marine organisms in almost all of the sandstone and limestone rocks. The team's avian highlights for this route included several Wild Turkeys including a family with a few poults, a Northern Pygmy-Owl, and several Williamson's Sapsuckers including two nests with young. Spectacular views awaited them at Fire Point on the North Rim, which has a vista just as scenic as any other location in the Grand Canyon. After covering this route, they continued north to meet up with Gordon Karre and Chris Rohrer at Big Springs to continue searching for localized species on



Figure 7. a) *Williamson's Sapsucker* (© Jarrod Swackhamer)



and b) *Brewer's Blackbird* (© Gordon Karre).

the plateau. In the afternoon they birded along the forest roads on their way back towards DeMotte Park and our campsite near V.T. Lake, with an additional non-avian highlight being a porcupine.

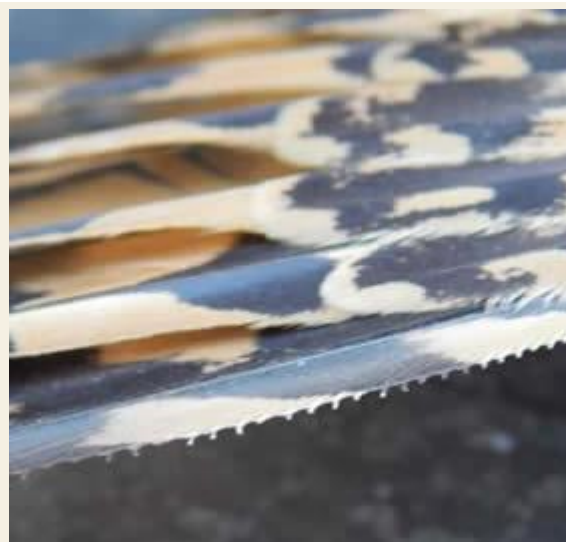
### **JACOB LAKE TO BIG SPRINGS**

Gordon Karre and Chris Rohrer left early Saturday morning to head up to Jacob Lake to meet with Mary Williams and Ann Hilliard at the lodge there. From Jacob Lake, they headed west to Forest Rd. 22, then south to the U.S. Forest Service's Big Springs Work Center. This route begins in ponderosa pine forest and then drops down through pine-oak forest as the road descends down the side of the plateau. The habitat then shifts to lower elevation pinyon-juniper woodlands, with Gambel oaks and New Mexico locusts on the slopes and along springs. North-facing slopes in the Big Springs area have pockets of white and Douglas-firs. The team decided to check around these small riparian pockets in the hopes of locating some of the rarer species that would be concentrated around such springs during this dry summer.

On the way down the road, Mary and Ann found a freshly road-killed Common Poorwill. Unfortunately, poorwills like to perch along roads at night while they hunt for insects, so are prone to getting hit or run over by fast-moving vehicles. The specimen was collected by the group to be donated later to a vertebrate museum. The next day the whole group at camp got to examine the specimen. One thing that fascinated the group was the serrated leading edge of the primary, likely an adaptation for reducing sound during flight while hunting for insects at night.



*Figure 8. a) A roadkill Common Poorwill (© Chris Rohrer)*



*b) close-up of leading edge of the primary feathers on the poorwill's wing (© Eric Hough).*





*Figure 9. a) Riparian and pinyon-juniper-oak woodland habitat at Big Springs (© Chris Rohrer)*

At Big Springs, the team detected two Cordilleran Flycatchers, two Clark's Nutcrackers, and a few MacGillivray's Warblers. In the nearby chaparral several Black-chinned Sparrows were also found, a species that has increased in occurrence throughout the Grand Canyon region over the last few decades. Luckily for the team, one of the residences at the work center had hummingbird feeders up, which allowed them to watch several Broad-tailed Hummingbirds fighting over portals on the feeder to drink from. An interesting observation they had was of a Hermit Thrush landing on the back of a horse, possibly to grab hair for nesting material or to pick parasitic insects off for food.

The team then split up from here, with Mary and Ann birding more up around Jacob Lake while Gordon and Chris met up with Magill, Brian, and Nathan to check for more birds on area forest roads before heading back to camp. Highlights that Ann and Mary had on their way back included a Sharp-shinned Hawk, a pair of Mountain Chickadees feeding young in a nest inside a wooden fence post about a foot off the ground, and a pair of Lark Sparrows copulating. Upon returning to the V.T. Lake area near our base camp, Chris and Gordon saw a pair of Downy Woodpeckers, a sparse and uncommon resident across forests in the northern half of Arizona.

### **Sunday, June 15, 2014**

As our group ate breakfast and broke camp, we again took in the invigorating dawn chorus of American Robins, Hermit Thrushes, Ruby-crowned Kinglets, Warbling Vireos, and Yellow-rumped Warblers that were also warming themselves up after a chilly night. We then walked around V.T. Lake where we again found Evening Grosbeaks and Downy Woodpeckers present. We found yet another Williamson's Sapsucker nest and saw a Sharp-shinned Hawk flyover, while on the lake itself we were surprised to find a female Gadwall. The nine of us then gathered in our vehicles to head south to the North Rim of the Grand Canyon to spend the rest of the morning.



*b) MacGillivray's Warbler (© Gordon Karre).*



Figure 10. AZFO expedition participants near V.T. Lake (© Lauren Harter).

### **NORTH RIM OF THE GRAND CANYON**

The drive down to the North Rim visitor center was complete with a traffic jam of “beefalos”, the bison x cattle hybrids that were introduced on the plateau. The North Rim is not as heavily visited as the South Rim and subsequently, not as frequently birded. However, interesting birds are occasionally reported here, including a recent report of an Olive Warbler (*vide* Brian Gatlin). While we did not detect any rare species, we did observe more breeding evidence of the common forest species, including a Western Bluebird pair actively feeding young in a cavity within a large New Mexico locust and a Steller’s Jay devouring a hatchling Dark-eyed Junco as the parents agitatedly chipped. The less agoraphobic members of our group ventured out on the Bright Angel Vista near the North Rim Lodge, finding a few Black-throated Gray Warblers in the pinyon-juniper woodlands and chaparral extending up this south-facing slope. As we admired the breathtaking grandeur of the

canyon network beneath us and expansive views towards the distant San Francisco Peaks, O’Leary Peak, Kendrick Peak, and Bill Williams Mountain, we heard the whooshing sounds of White-throated Swifts and Violet-green Swallows zipping by just over our heads.



*Figure 11. a) Evening Grosbeak (© Jarrod Swackhamer)*



*and b) Steller's Jay eating junco nestling (© Gordon Karre).*

After parting ways with most of our group that had to start heading back to their respective environs in the state, Lauren, Michael, Jarrod, and I checked a few spots on the Cape Royal road up to Vista Encantada. At one spot near a drainage with a likely spring nearby, we heard the high-pitched “see-EET” call of a Cordilleran Flycatcher. Flaked off bark in a burn area farther up the road prompted a stop to look for the American Three-toed Woodpeckers that had left this sign, but we were unsuccessful in seeing any of the birds around. Our last stop at Vista Encantada added a Townsend’s Solitaire and a couple more Grace’s Warblers to our trip list. Driving through DeMotte Park on the way back to Jacob Lake, we spotted a very pale coyote foraging in the meadow that, at a distance, looked reminiscent of an arctic fox.

Before leaving the Kaibab Plateau we stopped at the Jacob Lake Café/Lodge to fill up on gourmet cookies and milkshakes, and check out the fountain for birds. While we sat there we saw a male Cassin’s Finch come down for a drink, several Broad-tailed Hummingbirds zipping around, and a few Brewer’s Blackbirds combing the parking lot. A quick check at the adjacent Kaibab National Forest visitor center produced a flyover Red Crossbill, surprisingly our only one for the trip.



*Figure 12. Two of the reintroduced California Condors on the underside of Navajo Bridge (© Eric Hough).*

Our team had four of the California Condors hanging out in the shade on the beams under the current and old bridges. Afterwards, I learned that the other teams had even a few different condors present when they passed over the bridge earlier in the day. For the whole trip, it appears that we had six individual condors at this location given their unique wing tag numbers: 09, 11, 53, 54, 83, H9, and L3 (possibly a seventh one, reported as “H3”). Detailed information on all released condors from the reintroduction program can be found on the Peregrine Fund’s website [here](#).

While we did not find many of the locally occurring rare breeding species on this expedition that we

had hoped for, we still managed to gather more location data for Northern Saw-whet Owls, Cordilleran Flycatchers, and Orange-crowned Warblers. Additionally, we recorded breeding evidence for 21 of the 77 species we counted on the plateau, the lists of which have been added to the eBird dataset (ebird.org). The total species counts and breeding activity for the entire trip are presented below in Table 1 of Appendix A. Even though our crew of 11 participants managed to cover a decent portion of the plateau on this weekend expedition, this vast plateau could still benefit from future expeditions by birders and ornithologists alike. Continued visits to lesser known areas may yet yield local breeding populations of more southerly species expanding their ranges to the north that others have documented in the past.

I would like to thank all of the participants who made the long journey to support this successful expedition to this under-birded, spectacular part of the state: Lauren Harter, Ann Hilliard, Brian Ison, Gordon Karre, Michael Lester, Chris Rohrer, Jarrod Swackhamer, Magill Weber, Mary Williams, and Nathan Williams.

We hope you can join us on the next expedition!



Figure 13. AZFO expedition participants at the North Rim (left to right): Eric Hough, Lauren Harter, Gordon Karre (in back), Magill Weber, Brian Ison (in back), Michael Lester, Nathan Williams, Chris Rohrer, and Jarrod Swackhamer (© Brian Ison).

| Species            | Total # | Breeding Activity |
|--------------------|---------|-------------------|
| Gadwall            | 1       |                   |
| Mallard            | 7       |                   |
| Wild Turkey        | 11      | FL                |
| California Condor  | 6       |                   |
| Sharp-shinned Hawk | 2       |                   |
| Swainson's Hawk    | 1       |                   |
| Red-tailed Hawk    | 10      |                   |

|                          |     |              |
|--------------------------|-----|--------------|
| Band-tailed Pigeon       | 1   |              |
| Mourning Dove            | 1   |              |
| Flammulated Owl          | 4   |              |
| Northern Pygmy-Owl       | 3   |              |
| Northern Saw-whet Owl    | 2   |              |
| Common Poorwill          | 1   |              |
| Common Nighthawk         | 2   |              |
| White-throated Swift     | 80  |              |
| Broad-tailed Hummingbird | 64  |              |
| Acorn Woodpecker         | 3   |              |
| Williamson's Sapsucker   | 28  | ON, NY, CF,C |
| Red-naped Sapsucker      | 1   |              |
| Downy Woodpecker         | 3   |              |
| Hairy Woodpecker         | 10  | CF           |
| Northern Flicker         | 57  | NY, CF       |
| American Kestrel         | 1   |              |
| Peregrine Falcon         | 6   |              |
| Olive-sided Flycatcher   | 1   |              |
| Western Wood-Pewee       | 39  | NB           |
| Dusky Flycatcher         | 2   |              |
| Cordilleran Flycatcher   | 13  | ON           |
| Plumbeous Vireo          | 8   |              |
| Warbling Vireo           | 171 | ON           |
| Steller's Jay            | 40  |              |

|                         |     |                |
|-------------------------|-----|----------------|
| Western Scrub-Jay       | 1   |                |
| Clark's Nutcracker      | 4   |                |
| American Crow           | 5   |                |
| Common Raven            | 22  |                |
| Violet-green Swallow    | 218 | VPNS           |
| Mountain Chickadee      | 51  | NY, FY, FL, CF |
| Bushtit                 | 12  |                |
| Red-breasted Nuthatch   | 18  |                |
| White-breasted Nuthatch | 10  |                |
| Pygmy Nuthatch          | 42  |                |
| Brown Creeper           | 4   |                |
| Rock Wren               | 1   |                |
| Canyon Wren             | 2   |                |
| House Wren              | 38  | VPNS, CN, A    |
| Blue-gray Gnatcatcher   | 5   |                |
| Ruby-crowned Kinglet    | 64  |                |
| Western Bluebird        | 37  | NY             |
| Mountain Bluebird       | 13  | ON             |
| Townsend's Solitaire    | 1   |                |
| Hermit Thrush           | 104 | CN             |
| American Robin          | 83  | CF             |
| Orange-crowned Warbler  | 2   |                |
| Virginia's Warbler      | 20  |                |
| MacGillivray's Warbler  | 21  |                |

|                             |     |        |
|-----------------------------|-----|--------|
| Yellow-rumped Warbler       | 160 | ON, CF |
| Grace's Warbler             | 35  | CN     |
| Black-throated Gray Warbler | 6   |        |
| Green-tailed Towhee         | 20  |        |
| Spotted Towhee              | 15  |        |
| Chipping Sparrow            | 94  | A      |
| Black-chinned Sparrow       | 6   |        |
| Vesper Sparrow              | 3   |        |
| Lark Sparrow                | 3   | C      |
| Dark-eyed Junco             | 104 | NY, CF |
| Western Tanager             | 53  | FY     |
| Black-headed Grosbeak       | 14  |        |
| Red-winged Blackbird        | 1   |        |
| Brewer's Blackbird          | 21  |        |
| House Finch                 | 2   |        |
| Cassin's Finch              | 30  |        |
| Red Crossbill               | 2   |        |
| Pine Siskin                 | 62  |        |
| Evening Grosbeak            | 8   |        |
| Lesser Goldfinch            | 2   |        |
| House Sparrow               | 1   |        |

\*Breeding Activity Codes: occupied nest of unknown stage (ON), nest with young (NY), parents feeding fledged young (FY), recently fledged young (FL), parents seen carrying food (CF), carrying nesting material (CN), visiting probable nest site (VPNS), copulation (C), agitated behavior indicating possible nesting activity nearby (A).



