BioOne COMPLETE

Birds of Glen Canyon National Recreation Area, Utah and Arizona

Authors: Spence, John. R., LaRue, Charles T., and Grahame, John D.

Source: Monographs of the Western North American Naturalist, 5(1) : 20-70

Published By: Monte L. Bean Life Science Museum, Brigham Young University

URL: https://doi.org/10.3398/042.005.0102

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Monographs of the Western North American Naturalist 5, © 2011, pp. 20–70

BIRDS OF GLEN CANYON NATIONAL RECREATION AREA, UTAH AND ARIZONA

John. R. Spence[1], Charles T. LaRue[2], John D. Grahame[3]

ABSTRACT.—The birds of Glen Canyon National Recreation Area, in southern Utah and northern Arizona, are documented, with information on abundance, distribution, ecology, residency status, and breeding status. In all, 316 species have been reported from the park since the first surveys in the region during the 1930s. Historical survey data from the pre-Glen Canyon Dam surveys are incorporated, as well as significant work done in the park since 1992. Breeding is documented for 87 species, including 82 native species and 5 exotic species. Many rare species are reported for the first time from this section of the state, and several recent range extensions are documented.

Key words: avifauna, Arizona, Utah, Glen Canyon National Recreation Area, Lake Powell, Glen Canyon Dam.

Acronyms: BLM – Bureau of Land Management, CBC – Christmas Bird Count, GIS – geographic information system, GLCA – Glen Canyon National Recreation Area, NPS – National Park Service, RBMVE – Rainbow Bridge–Monument Valley Expedition, SRFR – Spence–Romme–Floyd-Hanna–Rowlands [vegetation classification system], STP – sewer treatment plant, USFWS – United States Fish and Wildlife Service.

Glen Canyon National Recreation Area (GLCA) covers 505,868 ha of the central Colorado Plateau in southern Utah and extreme northern Arizona (Fig. 1). Created in 1972 and administered by the National Park Service (NPS) of the U.S. Department of the Interior, GLCA includes all of Lake Powell. Created in 1963 when Glen Canyon Dam was completed, the reservoir is 300 km long and at full pool is the second-largest reservoir in North America in volume. The park also includes the remaining 25 km of Glen Canyon down to Lees Ferry, 80 km of the Escalante River, and 60 km of the San Juan River. GLCA is the largest unit of the National Park Service on the Colorado Plateau. To the north are the Grand Staircase–Escalante National Monument and Capitol Reef National Park. On the eastern boundary of GLCA are Canyonlands National Park and public lands administered by the San Juan Field Office of the Bureau of Land Management (BLM). To the south lies the Navajo Nation, and Grand Canyon National Park adjoins GLCA at Lees Ferry. To the west are the Vermillion Cliffs Monument and public lands administered out of the Arizona Strip Office of the BLM. With the creation of GLCA in 1972, the natural resources of the area were put under the administration and management of the NPS. The operations of Glen Canyon Dam are managed by the Bureau of Reclamation of the U.S. Department of the Interior.

This study provides detailed information on the birds of a poorly known portion of southern Utah and immediately adjacent Arizona, and documents the discovery of Lake Powell by a variety of water birds that were previously unknown from the region. The checklist records all bird species seen within the boundaries of GLCA as well as sightings within 3 km of the boundary in immediately adjacent areas. For each species, data on abundance, residency, distribution, ecology, and breeding are presented. A list of species reported from GLCA but excluded in this study is also presented. Reasons for exclusion of a species are inadequate documentation, no documentation, or possible confusion with closely related species.

AREA DESCRIPTION

Glen Canyon National Recreation Area includes the lowlands of the Colorado River now inundated by Lake Powell behind Glen Canyon Dam. Lake Powell is the centerpiece of GLCA, and is the second-largest reservoir in the United States. At full-pool elevation of 1130 m, the reservoir is 300 km long, extending well up

[1]Resource Management Division, Glen Canyon National Recreation Area, Box 1507, Page, AZ 86040. E-mail: john_spence@nps.gov
[2]3515 West Lois Lane, Flagstaff, AZ 86001.
[3]705 Choctaw Street, Flagstaff, AZ 86001.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

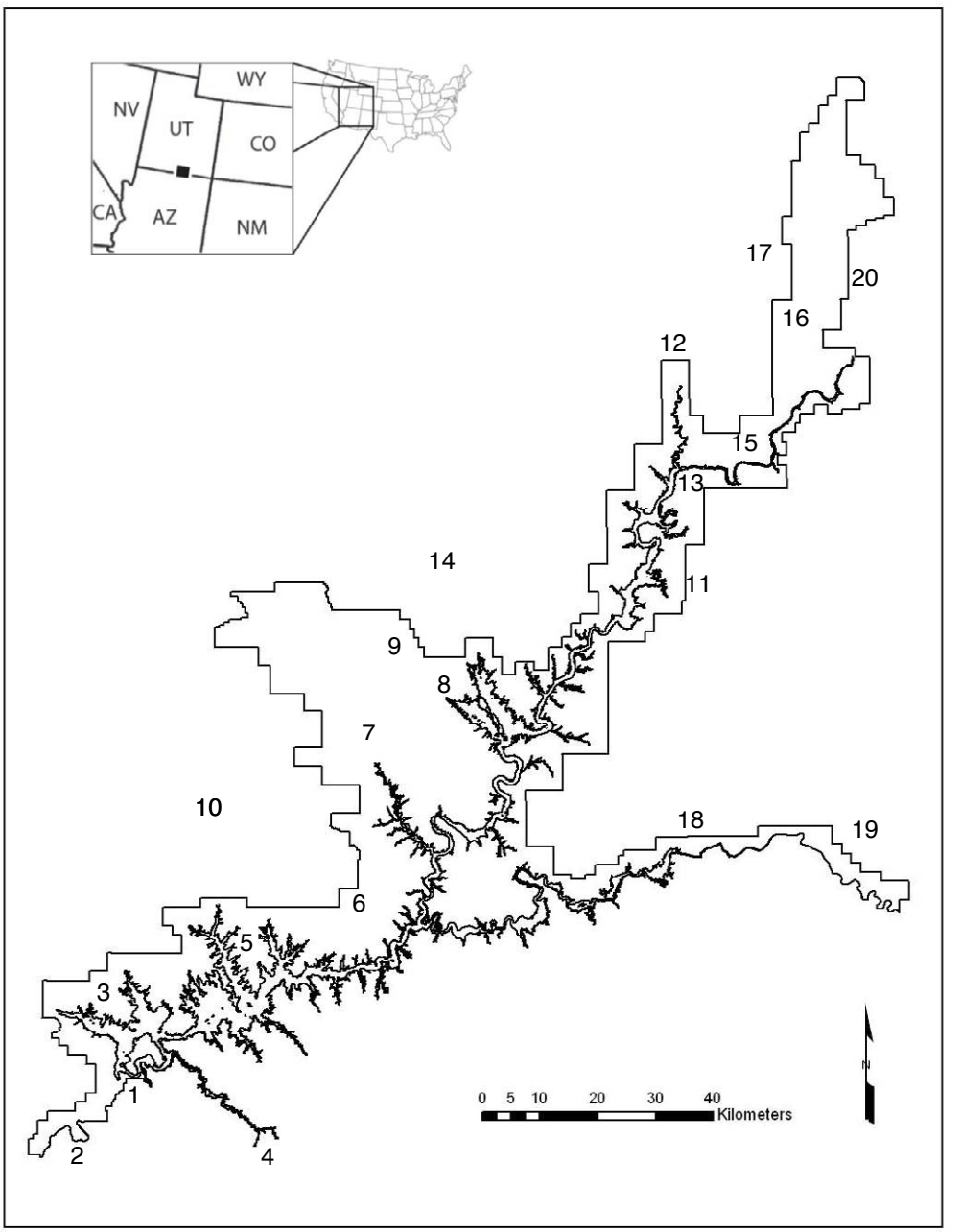


Fig. 1. Glen Canyon National Recreation Area, southern Utah and northern Arizona. Numbers refer to some of the principal locations mentioned in the species accounts. **1,** Page and Glen Canyon Dam; **2,** Colorado River and Lees Ferry; **3,** Wahweap and Warm Creek bays; **4,** Navajo Canyon; **5,** Grand Bench; **6,** Fifty Mile Mountain and Navajo Point; **7,** Escalante River corridor; **8,** Halls Creek and Bullfrog bays; **9,** Waterpocket Fold; **10,** Kaiparowits Basin; **11,** Good Hope Bay; **12,** Dirty Devil River; **13,** Hite Marina; **14,** Henry Mountains; **15,** Cataract Canyon; **16,** Hans Flat Ranger Station; **17,** Orange Cliffs; **18,** Clay Hills Crossing; **19,** San Juan River; **20,** Canyonlands National Park.

Cataract Canyon, and covers 65,000 ha (13% of GLCA). The shoreline length varies from 2000 to 3000 km depending on reservoir surface elevation. Beyond the reservoir, GLCA includes another 440,000 ha of slickrock wilderness, cliffs, mesas, and canyons. Elevations range

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

TABLE 1. Selected climate data for Glen Canyon National Recreation Area and adjacent areas, Arizona and Utah. Station data are derived from the Western Regional Climate Center, Reno, Nevada. The period of operation of each station is also listed.

Station	Years	Elevation (m)	MAT[a] (°C)	MIT[b] (°C)	MXT[c] (°C)	PRECIP[d] (mm)	SNOW[e] (mm)
Bullfrog	1967–2009	1165	15.2	8.3	22.5	151	122
Hans Flat	1981–2009	2012	10.6	5.4	16.4	246	965
Hite	1978–2009	1220	15.5	9.8	22.3	194	66
Lees Ferry	1916–2009	978	16.9	9.2	24.8	158	56
Mexican Hat	1948–2009	1265	13.6	5.2	22.2	159	79
Page	1959–2009	1372	14.5	8.2	21.1	162	114
Wahweap	1967–2009	1136	15.7	8.8	22.8	158	15

[a]MAT = mean annual temperature
[b]MIT = mean annual minimum temperature
[c]MXT = mean annual maximum temperature
[d]PRECIP = mean annual precipitation
[e]SNOW = mean annual snowfall

from 950 m at Lees Ferry to 2312 m at Navajo Point on Fifty Mile Mountain. Most of the recreation area consists of sandstone and shales, forming numerous mesas, buttes, and badlands. Very little limestone or metamorphic bedrock is found. The geology of GLCA is described in Anderson et al. (2000).

The climate of the region can be characterized as ranging from warm to cold-temperate, with relatively cold winters and warm to hot summers. Freezing temperatures are common in winter, and snow often falls at higher elevations. Table 1 presents selected data from 7 climate stations maintained in and around GLCA. The warmest areas of the recreation area lie in the Lees Ferry portion, where annual average maximum temperatures exceed 16 °C. The coldest areas occur on the end of Fifty Mile Mountain in the Navajo Point area as well as the Orange Cliffs region, where Hans Flat is found. Temperatures are cold in the winter at these elevations; mean annual temperature is barely 10 °C, and snow often covers the ground. Precipitation is bimodal, with a peak in late summer–early fall, and increases with elevation from around 150 mm at the lowest elevations to about 250 mm at the highest elevations (Spence 2001).

The principal vegetation communities in GLCA are listed in Table 2 with approximate hectares based on a GIS analysis (NPS unpublished data; Spence 2002). Very little true forest or woodland occurs in the recreation area. Overall, forested vegetation, including small stands of bigtooth maple (*Acer grandidentatum*), Douglas-fir (*Pseudotsuga menziesii*), and mixed Fremont Cottonwood (*Populus fremontii*)–Goodding's willow (*Salix gooddingii*) accounts for <1000 ha. Most of this forested area consists of riparian gallery forests along the Escalante River. Evergreen woodlands consisting of twoneedle pinyon (*Pinus edulis*) and Utah juniper (*Juniperus osteosperma*) are common and provide important habitat for many bird species in southern Utah. However, most of GLCA lies below 1600 m; thus, these woodlands are largely restricted to the highest elevations and cover only about 8% of GLCA's area. Much of GLCA consists of barren shales, cliffs, and slickrock, or supports low desert shrub communities. Evergreen shrublands of blackbrush (*Coleogyne ramosissima*) and shadscale (*Atriplex confertifolia*) are dominant, comprising almost 300,000 ha (59%). In the matrix of shrublands and barrens are small patches of grassland and sand shrub communities. Finally, some of the most important vegetation communities occur in association with riparian zones and springs where permanent water exists. Although these vegetation types support relatively few obligate bird species, they are important for upland species, and are often important migration corridors as well. Despite the presence of Lake Powell, very little aquatic vegetation has established, primarily because of the large (≥10 m) year-to-year fluctuations in reservoir levels. Thus aquatic beds of pondweed and shoreline wetlands of emergent vegetation are rare.

HISTORICAL REVIEW

Remote and rugged, the central portion of the Colorado Plateau and Glen Canyon was, until the creation of Lake Powell, a land of difficult access. Ancient dwelling sites, petroglyphs and steps cut down sandstone cliffs testify that Native American people learned to navigate this landcape. Feathers and bird bones preserved in

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

TABLE 2. The principal vegetation communities and other habitats at Glen Canyon National Recreation Area, Arizona and Utah. All riparian vegetation is combined into one category. The vegetation is classified using the SRFR system (Spence 2002). Grassland amount is estimated, as it was originally classified with shrubland communities.

Climate-elevation zone	Physiognomic class and formation	Example alliances	Approximate area (ha)
Montane	Evergreen forest	*Peudotsuga menziesii*	2
	Cold-deciduous woodland	*Acer grandidentatum*	25
Cold-temperate	Cold-deciduous woodland	*Quercus gambelii*	500
	Evergreen woodland	*Pinus edulis–Juniperus osteosperma*	42,000
	Evergreen shrubland	*Coleogyne ramosissima, Atriplex confertifolia, Atriplex canescens, Artemisia tridentata*	290,000
	Evergreen dwarf shrubland	*Atriplex corrugata, Ephedra torreyana*	6000
	Short bunchgrass grassland	*Achnatherum hymenoides–Hesperostipa comata*	2000
	Short sodgrass grassland	*Bouteloua gracilis*	1000
	Mixed grassland	*Acnatherum hymenoides–Hilaria jamesii*	4000
	Aquatic	*Potomageton foliosus, Najas marina*	67,000
	Barrens/unclassified	Cliffs, slickrock, clay barrens	91,000
	Riparian wetland, woodland, shrubland, marshland, and forbland	*Populus fremontii, Salix exigua, Tamarix ramosissima, Typha domingensis*	2500
	Developed areas (excluding towns of Big Water, Greenehaven and Page)	Landscaping, buildings	400

and recovered from dry caves in the area show that these people interacted with the birds that lived in the area, and remains of wild turkey have been found at many sites (Jennings 1998). Regional rock art depicts species such as shorebirds, quail, and turkey.

Members of the Escalante and Dominguez expedition were the first Europeans to pass through the area when they made their passage through what was to become GLCA from 26 October to 11 November 1776. Their route led from Lees Ferry to Wahweap and Warm creeks and to an aboriginal ford of the Colorado River that became known as the Crossing of the Fathers. From there they proceeded southeast, crossed Navajo Creek at the confluence of Kaibito Creek, and continued their journey south (Warner 1995).

The region having been ceded to the United States by Mexico in 1848 was then visited by a number of exploratory expeditions beginning with the Colorado River voyages of John Wesley Powell in 1869 and 1871–1872. Following the exploration came a succession of Mormon settlers, miners, archaeologists, and cowboys as the area underwent a period of settlement and modern economic exploitation. However, the Glen Canyon area received little biological exploration. The first somewhat systematic inventory of the bird life of the area can most credibly be ascribed to the Rainbow Bridge–Monument Valley Expedition (RBMVE). Participants of the RBMVE rafted the San Juan River in 1931, 1933 and 1935, recording the birds they observed. Benson (1935) made a biological survey of Navajo Mountain in 1933. These surveys and additional records from south of the region were assembled and published in *The Birds of the Navajo Country* (Woodbury and Russell 1945). This important report was the first to document the status and distribution of birds in the region. With the plan to construct Glen Canyon Dam came a series of "pre-innundation" surveys designed to document the natural resources of the area that would be eventually flooded by the rising waters of Lake Powell. Behle and Higgins (1959) and Behle (1960) presented the information on birds that resulted from this documentation effort. The survey included a float of the Colorado River through Glen Canyon in 1958.

Avian studies that document the general status and distribution of birds from the Glen Canyon region and surrounding regions include studies of the Kaibab Plateau, Arizona (Rasmussen 1941); Zion National Park (Wauer 1997); the Kanab, Utah, area (Behle et al. 1958); the Kaiparowits Basin, Utah (Tanner 1940, Atwood et al. 1980); all of southeastern Utah (Behle 1960, Giddings 2007); Utah in general (Walters 1983, Behle 1985, 1990, Behle et al. 1985); Capitol Reef National Park (Spence and Borthwick

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

TABLE 3. Summary of avian databases and the inventory and research efforts at Glen Canyon National Recreation Area, Arizona and Utah. Principal survey or monitoring methods are listed for each data set.

Year	Type of survey and database	Methods
1931–1935	Rainbow Bridge–Monument Valley expeditions	Individual observations
1933–2010	Individual bird observations	Individual observations
1958	Colorado River and side canyon surveys	Boat and foot/visual encounters
1983–1997; 2000	Peregrine Falcon monitoring	USFWS protocol
1988	Partial Lake Powell aquatic bird survey	Boat/timed area search
1992	Lake Powell Western Grebe survey	Boat/timed area search
1991–1998	Colorado River monthly aquatic bird surveys	Boat/timed area search
1991–2010	Glen Canyon Bald and Golden Eagle surveys	Aerial/visual surveys
1992–1998	Glen Canyon Mexican Spotted Owl surveys	Foot/visual encounter
1992–1999	Colorado River breeding bird surveys in riparian vegetation	Foot/point count, timed area search
1994–1995	Partial Glen Canyon land bird surveys	Individual observations
1994–1997	Partial Lake Powell monthly aquatic bird surveys	Boat/timed area search
1995–1998	Lees Ferry biweekly land bird surveys	Foot/timed area search
1997–1999	Lower Lake Powell biweekly aquatic bird surveys	Boat/timed area search
1998–2000	Glen Canyon National Recreation Area land bird inventory	Foot/point count, timed area search
1998–2008	Full Lake Powell aquatic bird surveys	Boat/timed area search
1999–2010	Glen Canyon Christmas Bird Count	Boat and foot/surveys
2005–2010	Lake Powell Peregrine Falcon occupancy surveys	Boat/visual search

1995); Arizona (Phillips et al. 1964, Monson and Phillips 1981); the Grand Canyon region (Brown et al. 1984, 1987, LaRue et al. 2001); the Shivwits Plateau, Arizona (Blake 1981); the Hopi Nation (Bradfield 1974); the Navajo Nation (Jacobs 1986); Black Mesa, Arizona (LaRue 1994); and Navajo National Monument, Arizona (Brotherson et al. 1981). Recently, a breeding-bird atlas has been published for Arizona (Corman and Wise-Gervais 2005).

With the establishment of GLCA in 1972, additional systematic work commenced under the direction of the NPS (summarized in Table 3). Peregrine Falcon surveys were initiated around Lake Powell in 1983 and continued through 1997, with a final survey in 2000. More recently, occupancy surveys have been started up again at selected eyries around the reservoir since 2005. Monthly aquatic bird surveys were initiated in 1991 on the Colorado River from Glen Canyon Dam to Lees Ferry (Grahame and Pinnock 1995a) and continued through 1998. Also in 1991, aerial surveys of Bald Eagles were initiated in winter using the GLCA aircraft (Spence et al. 2002). Golden Eagles were also counted, although winter surveys are not the best time to survey this species. In 1992, monitoring of riparian breeding birds was initiated in Glen Canyon downstream of Glen Canyon Dam and continued through 1999 under the auspices of Glen Canyon Environmental Studies and more recently Grand Canyon Monitoring and Research Center of the U.S. Geological Survey (Grahame and Pinnock 1995b, Spence 2005). Between 1992 and 1998, portions of GLCA were surveyed for Mexican Spotted Owls. In 1994, the Resource Management Division at GLCA obtained a 32-foot Munson Hammerhead boat which allowed the initiation of aquatic bird surveys on Lake Powell. Between 1994 and 1997 monthly surveys were conducted in the fall through spring, and in 1997–1999 biweekly surveys were conducted in selected areas of southern Lake Powell (Spence 1998, Spence and Bobowski 2003). With the initiation of the NPS Inventory and Monitoring Program on the Colorado Plateau, funds were provided to survey selected plant communities throughout GLCA between 1998 and 2000. Also in 1998, full Lake Powell aquatic bird surveys were initiated in midwinter, with surveys done about every 2 years until 2008. Finally, starting in 1999, a Christmas Bird Count (CBC) was organized with Glen Canyon Dam at the center of the count circle, thereby providing a snapshot of winter bird life in and around Page, lower Lake Powell, and the Colorado River to Lees Ferry. The count has been completed every year since it was started, for a total of 12 counts as of 2010.

RESULTS

With 316 species documented (excluding Roseate Spoonbill – see the relevant species account), GLCA has one of the largest bird species lists of any park in the southwestern United States. Regionally, only Grand Canyon National Park has recorded more species. One of the

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

TABLE 4. Residency, abundance, and distribution terms and definitions used in the species accounts.

Category	Term	Definition
Residency	Permanent resident	Year-round, although may not be the same individuals in summer and in winter
	Summer resident	Present in breeding season; March–August
	Winter resident	Present in nonbreeding season; September–April
	Migrant	Spring and/or autumn migrant, nonbreeding, does not linger in area more than a few days or weeks
	Transient	Unexpected, irregular, and unpredictable visitor that occurs every few years; may occasionally breed (e.g., Red Crossbill)
	Vagrant	Not expected, only recorded once, not a migrant in surrounding areas (= accidental)
	Extirpated/reintroduced	Originally native, extirpated, then reintroduced by humans; may or may not have self-sustaining populations
	Exotic	Not native to Glen Canyon National Recreation Area and/or North America, introduced by humans; has self-sustaining populations
	Escapee	Likely a captive bird or pet, not part of a self-sustaining wild population
Abundance	Rare	Not expected every year, ≤5 sightings
	Sparse	Not expected every year, >5 sightings
	Uncommon	Expected every year in small numbers in appropriate habitat
	Common	Expected every year, fairly numerous in appropriate habitat
	Abundant	Expected every year, abundant in appropriate habitat, large numbers usually seen
Distribution	Local	Only found in one portion of Glen Canyon National Recreation Area or only found in one or a few areas of available suitable habitat
	Restricted	Found in several areas of Glen Canyon National Recreation Area; in many, but not all, examples of available suitable habitat
	Widespread	Found throughout the Glen Canyon National Recreation Area wherever available suitable habitat occurs

reasons for this high richness is that GLCA is centrally located along the Colorado River corridor, which likely functions as a migration corridor for aquatic and riparian species. In addition, the presence of Lake Powell has attracted numerous aquatic species since the 1960s (Spence and Bobowski 2003). It is probable that additional aquatic species, especially gulls, will continue to discover the reservoir in the future.

Despite the large size of GLCA, the list of permanent residents and confirmed, probable, and possible breeding species is relatively small, with only 82 confirmed native breeders and an additional 30 summer residents that may breed (see Table 4 for definitions and Table 5 for a summary). This small breeding avifauna may reflect the typically harsh climate, large expanses of slickrock and cliffs, and low open desert vegetation. Relatively little of the GLCA includes well-developed pinyon-juniper woodlands or extensive native riparian vegetation. In addition, although there are numerous aquatic species, fluctuations of Lake Powell prevent the establishment of aquatic and wetland vegetation and thus prevent breeding by most aquatic species. Only Great Blue Heron, Western Grebe, Canada Goose, and Common Merganser have been documented as breeding on Lake Powell. Fully 48% of the species documented in the park are migrants, transients, or vagrants.

The majority of species are either very localized in the park, including mostly the records of rare and transient species, or they are relatively widespread in suitable habitat. Most of the local species are also rare or sparse, and are typically represented by transients or vagrants. Only 6 species can be considered abundant in the park, including Common Goldeneye (winter), American Coot (winter), White-throated Swift, Violet-green Swallow, White-crowned Sparrow (winter), and House Sparrow (developed areas only). The single reintroduced species is the California Condor, which has not yet been documented as breeding in the park, although successful breeding has occurred in Grand Canyon National Park.

Two species reported from GLCA are federally listed: Mexican Spotted Owl, and Southwestern Willow Flycatcher. The owl is a rare permanent resident in side canyons with shade and large trees, with most pairs associated with relict stands of Douglas-fir. Southwestern Willow Flycatchers have not been documented as

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

TABLE 5. Residency, distribution, abudance, and breeding status of the 316 bird species documented for Glen Canyon National Recreation Area, Utah and Arizona. For species that are both migrants and residents, the residency abundance and distribution values are used. Escapees and vagrants are not assigned abundance or distribution values.

Category	Term	Number of species (% of total)
Residency	Permanent resident	32 (10.1)
(N = 316)	Summer resident	51 (16.1)
	Winter resident	72 (22.8)
	Migrant	91 (28.8)
	Transient	38 (12.1)
	Vagrant	23 (7.3)
	Extirpated/reintroduced	1 (0.3)
	Exotic	6 (1.9)
	Escapee	2 (0.6)
Abundance	Rare	69 (24.0)
(N = 291)	Sparse	51 (17.2)
	Uncommon	81 (27.8)
	Common	84 (28.9)
	Abundant	6 (2.1)
Distribution	Local	100 (34.4)
(N = 291)	Restricted	47 (16.1)
	Widespread	144 (49.5)
Breeding	Confirmed	87 (74.4)
(N = 117)	Probable	13 (11.1)
	Possible	17 (14.5)

TABLE 6. Summer residents or migrants with at least one documented winter record since 1996.

White-faced Ibis	Northern Rough-winged Swallow
Osprey	Blue-gray Gnatcatcher
Virginia Rail	Crissal Thrasher
Sanderling	MacGillivray's Warbler
Dunlin	Green-tailed Towhee
Bonaparte's Gull	Black-throated Sparrow
Costa's Hummingbird	Rose-breasted Grosbeak
Black Phoebe	Indigo Bunting
Tree Swallow	

breeding in GLCA, although a pair was suspected of doing so on the Escalante River in 1997 at George's Camp. Small numbers migrate through the area in late spring, especially along the San Juan River. In addition to these species, the federal candidate Western Yellow-billed Cuckoo has been documented several times, primarily along the San Juan River during fall migration, although June reports from the river at Clay Hills Crossing suggest that the species may breed in the vicinity. Recently delisted species include the Peregrine Falcon, which is the most common raptor around Lake Powell and along the major rivers. As of 2010, there are at least 100 known eyries, of which about 75%–80% are occupied every year. Another delisted species, Bald Eagle, is common along reservoir shorelines in the winter, with a high count of 50 in the winter of 2003.

A variety of unusual and rare records are documented for the park and extreme south central Utah and adjacent Arizona, including records (see species accounts) of Yellow-billed Loon, Red-necked Grebe, Brown Pelican, Neotropic Comorant, Roseate Spoonbill, Black Swan, "Mexican" Mallard, Red-shouldered Hawk, Parasitic Jaeger, Yellow-footed Gull, Sabine's Gull, Inca Dove, Common Ground-Dove, Magnificent Hummingbird, Acorn Woodpecker, Scissor-tailed Flycatcher, White-eyed Vireo, Blue Jay, Brown Thrasher, Phainopepla, Crissal Thrasher, Prairie Warbler, Scarlet Tanager, and Black-chinned Sparrow.

An interesting phenomenon in recent years has been the overwintering of species that typically depart the area by late fall (November). These records may be explained in part by additional scrutiny and fieldwork stemming from the recently established Glen Canyon Christmas Bird Count circle and suggesting that the species may have always occurred in January. However, other species appear to be overwintering in recent years because of relatively mild and warming winter minimum temperatures in the area (Spence 2001). The principal species are listed in Table 6. This recent pattern of migrants lingering well into or through winter parallels recent observations in the Grand Canyon (LaRue et al. 2001).

During 1994–2000, several surveys were conducted in rugged, remote unsurveyed areas at the end of Fifty Mile Mountain, Kaiparowits Plateau, in the Navajo Point area. In addition to numerous breeding owl species and breeding Green-tailed Towhees and Black-chinned Sparrows, another remarkable phenomenon was observed during fall migration. The eastern escarpment of Fifty Mile Mountain rises in sheer 2000–3000-ft cliffs to the west of the Escalante River corridor, from Escalante, Utah, south to Lake Powell and Navajo Point. This scarp seems to be an important, but poorly understood, migration route not just for raptors, but for a remarkable variety of other species. Among the most prominent migrants in the 1999 and 2000 seasons were (see species accounts) Cooper's Hawk, Northern Goshawk, Broad-tailed Hummingbird, Northern Flicker, Stellar's Jay, Clark's Nutcracker, Mountain Chickadee, and Red

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Crossbill. Additional surveys and monitoring of this area are warranted to further determine the significance of these data.

Most of the shorebird observations, including documentation of most of the rare or unusual species from GLCA, have been made at 2 sewage treatment plants (STPs) at Wahweap and Page. This is to be expected as the treatment ponds are easily accessible and concentrate the birds during migration. The 2 sets of ponds have hosted a remarkable 72 species of aquatic birds since 1992. Unfortunately, the Wahweap STP was closed and removed in 2002, and sewage is now pumped through a pipeline to Page. The Page STP remains open, however, and is incorporated into the Glen Canyon CBC.

There are 5 well-established exotic species in and around GLCA. Rock Pigeon, European Starling, and House Sparrow are largely associated with Page, other local communities, and adjacent developed areas. These 3 species have not spread into natural communites due to a lack of suitable breeding habitat. Chukar is a widespread breeder throughout much of GLCA in suitable habitat, mostly slopes along canyons where abundant cheatgrass (*Bromus tectorum*) and Russian thistle (*Salsola pestifer*) occur. Sometime between 2003 and 2004, Eurasian Collared-Dove appeared in Page, possibly spreading from areas to the west such as Kanab where the species had become established earlier. Since then, it has become the most abundant dove in developed areas and is spreading to smaller outlying communities such as Marble Canyon, Wahweap, Greenehaven, Bullfrog, Halls Crossing, and Big Water. A sixth species, Wild Turkey, has been introduced by the Utah Division of Wildlife Resources into the Boulder Mountain–Aquarius Plateau area to the north of the park. Individuals have been seen on the Escalante River and may be increasing in numbers. Since there are no historical records of wild individuals or self-sustaining populations of this species north of the Colorado River (Eaton 1992), these birds are considered exotic. Finally, escaped cage birds are seen occasionally in Page, including Northern Bobwhite (*Colinus virginianus*), Ringed Turtle-Dove (*Streptopelia risoria*), Budgerigar (*Melopsittacus undulatus*) and Sun Conure (*Aratinga solstitialis*). Because of relatively cold winters, it is unlikely that the parrots can successfully overwinter.

TABLE 7. Species records excluded from Glen Canyon National Recreation Area based on inadequate documentation, lack of documentation, or lack of identification to species.

Species	Date	Observers	Reasons for rejection
Red-throated Loon	27 Feb 1984	E. & R. Sorensen	Lack of documentation
White-tailed Hawk	16 Apr 1980	E. Sorensen	Out of range, inadequate documentation
Purple Gallinule	Aug 1974	A. Kidwell & L. Daniels	Lack of documentation
Brachyramphus sp.	Sep 1998	Lake party – Z. Zdinak	Lack of documentation, not found on follow-up searches; likely to be correct to genus
Allen's Hummingbird	25 Aug 1966	Christensen	Lack of documentation, difficult to distinguish from Rufous Hummingbird
Philadelphia Vireo	10 Aug 1966	Thurston	3 birds seen together (unlikely), lack of documentation
Chihuahuan Raven	7 Mar 1983	G. Gossard	Out of range, lack of documentation
Painted Bunting (♀ plumage)	13 May 1996	B. Zurcher	Documentation provided but tentative identification, out of range, missing several retrices; possible escaped cage bird?

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

ORGANIZATION OF THE SPECIES ACCOUNTS

The following annotated accounts are based on approximately 4000 bird records maintained in a Microsoft Access database in the Division of Resource Management, Glen Canyon National Recreation Area, as well as on records from numerous studies (Table 3). In addition to the data gleaned from many observers who have filled out wildlife observation cards going back to 1962, additional data from the original survey reports are also included. The checklist follows the format of the American Ornithologists' Union Check-list of North American Birds, 7th Edition (AOU 1998) and subsequent supplements. The checklist reflects all observations and records through 1 January 2011. Several records have been rejected for a variety of reasons (Table 7).

Throughout the species accounts, 4 sets of terms are used to describe the abundance, residency, breeding status, and distribution of each bird species (definitions in Table 4). An attempt has been made to apply uniform terms for comparative purposes. Possible or probable breeders are based on observations of behavior as well as presence of suitable habitat, using the methods developed for breeding-bird atlas studies (e.g., Corman and Wise-Gervais 2005). For locations along the Colorado River below Glen Canyon Dam, river miles are negative going upstream from Lees Ferry by local convention. Figure 1 includes most of the important place names in the park.

BIRDS OF GLEN CANYON NATIONAL RECREATION AREA

Order ANSERIFORMES

Family ANATIDAE

GREATER WHITE-FRONTED GOOSE (*Anser albifrons*).—A rare local migrant and winter resident. The 6 records (all from Page STP) are as follows: an immature from 20 January to 14 February 1997, an adult from 26 January to 4 February 1999, an immature from 19 to 30 September 1997 (all C. LaRue et al.), an immature from 21 October to 3 January 2005 (J. Spence), 9 adults with a large flock of Canada Geese on 5 January 2009, and one adult on 5 January 2010 (J. Spence, photo S. Putz). The species has been recorded on 2 of 12 CBCs.

SNOW GOOSE (*Chen caerulescens*).—A sparse local migrant and winter resident. Most records are of birds wintering with Canada Geese at Page STP. The 16 certain records are as follows: one at Wahweap STP from 10 to 11 November 1999 (C. LaRue), one at Bullfrog on 16 November 1999 (C. Goetze), 3 at Page STP on 29 November 1999 (J. Spence), one on Antelope Island on 6 December 1995 (J. Spence), 2 at Page STP from 1 December 1999 to 1 February 2000 (J. Spence et al.), one at Wahweap STP from 1 December to 1999 to 4 January 2000 (C. Goetze et al.), one at Page STP on 14 December 1998 (J. Spence), one at Page STP from 8 January to 14 February 1997 (J. Spence et al.), 4 at Page STP on 26 January 1999 and 3 there on 4 February 1999 (both C. LaRue et al.). The species has also been seen on 6 of the last 9 CBCs since 2003. A few uncertain prior records exist, and it is likely that most of the records of white geese from the area are this species. The species has been recorded on 8 of 12 CBCs.

ROSS'S GOOSE (*Chen rossii*).—A rare local migrant and winter resident. Most occurrences are from the Page STP. The 10 records are as follows: 2 at Page STP from 3 December 1996 to 14 February 1997 (B. Russell et al.), one at Wahweap STP on 6 March 1998 (C. Goetze), 2 at Wahweap STP on 21 March 1997 (C. Goetze), one at Page STP from 14 December 1998 to 26 January 1999 (J. Spence et al.), one at Page STP from 15 November 1999 to 25 February 2000 (C. LaRue et al.), 5 on the Colorado River at RM –8.0 on 4 February 2006 (C. LaRue, G. Nealon), and one on the Colorado River at RM –12.0 on 19 March 1993 (J. Spence, C. Pinnock). From 1 to 5 birds were also reported on the 2001–2004 CBCs. The species has been recorded on 5 of 12 CBCs.

CANADA GOOSE (*Branta canadensis*).—A common widespread migrant and winter resident and a rare local summer resident and breeder. Most have been seen at Page STP and golf course, where up to 400 (on 5 January 2009, J. Spence) have been seen. Fewer are seen on Lake Powell and the Colorado River. Two breeding records: 2 adults with 3 large young on the San Juan River at mile 43 on 26 June 1999 (J. Muller), and 2 adults with young seen repeatedly below Glen Canyon Dam on the Colorado River in June and July 2001. Most of the individuals seen in GLCA are a larger subspecies (presumably *B. c. moffitti*), but smaller forms—some appearing to be *B. c. parvipes* and even *B. c. minima*—have been noted several times with the wintering birds at Page STP. In addition

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

to the one breeding record, other summer records include 2 birds seen on the San Juan River on 4 June 1997 (J. Spence), a probable family group of 7 in Hansen Creek on 19 June 1994 (GLCA files), and a probable family group of 6 at the same location on 1 July 1995 (GLCA files). The species has been recorded on all 12 CBCs.

TRUMPETER SWAN (*Cygnus buccinator*).—A rare local transient. Only 2 certain records: a marked bird from Wyoming present at Wahweap from 15 December 1986 to 15 January 1987 (M. Sterkel GLCA files) and a subadult in Hall's Creek Bay on 25 January 2001 (J. Spence).

TUNDRA SWAN (*Cygnus columbianus*).—A sparse restricted winter resident. There are several records of white swans from GLCA, and most are presumably of this species. However, the occasional presence of Trumpeter Swans in the region and the difficulty of separating the 2 species preclude the positive identification of these individuals solely from the records on file. The only recent records are of an adult at Page STP in the winter of 2002–2003 (J. Spence, C. LaRue), an adult in Good Hope Bay on 20 January 2004 (J. Spence), a juvenile at Page STP on 5 January 2009 (J. Spence, C. LaRue), and a probable adult at Antelope Point Marina on 3 January 2010 (J. Spence). The species has been recorded on 4 of 12 CBCs.

BLACK SWAN (*Cygnus atratus*).—Escapee, with one record of an adult at Wahweap Marina on 11 October 1997 (C. Johnnie).

WOOD DUCK (*Aix sponsa*).—A sparse restricted migrant and winter resident on Lake Powell, along the Colorado River, and at sewage treatment settling ponds. The 20 records range from 12 August to 8 June. The species has been recorded on the last 6 CBCs at Wahweap Marina.

GADWALL (*Anas strepera*).—A common widespread migrant and winter resident in the bays on Lake Powell (where it is the most numerous puddle duck), on the Colorado River, and at sewage treatment settling ponds. The largest lake tallies are 103 in Halls Creek Bay on 19 January 1996 (J. Spence, C. Pinnock) and 102 around Antelope Island on 21 March 1997 (C. LaRue et al.). Gadwalls are more numerous along the Colorado River (where abundant) in Glen Canyon. Numbers peak on the lake in January and on the river in January and February. The peak count from the river is 825 on 30 November 1994 (C. Pinnock), and there are 6 counts of over 500 birds from November through February in the years 1992–1998. Over 350 were concentrated at Lees Ferry on 13 January 1991 (C. LaRue). The species has been recorded on all 12 CBCs.

EURASIAN WIGEON (*Anas penelope*).—A rare local transient in the winter and early spring. There are 6 reports of males as follows: one at Page STP from 1 to 18 January 1998 (J. Spence et al.), one on 4 March 1963 (location unclear, B. Hoffman GLCA files), one at Lees Ferry on 5 March 1977 (Brown et al. 1984), one at Colorado River RM –1.8 on 13 March 1998 (C. Goetze, B. Russell), one at Page STP on 3 January 2005 (J. Spence, B. Russell), and one at Page golf course on 5 January 2009 (J. Spence). A hybrid male Eurasian × American Wigeon was seen at Page STP on 12 October 2000 (C. LaRue, C. Goetze). The species has been recorded on 2 of 12 CBCs.

AMERICAN WIGEON (*Anas americana*).—A common widespread migrant and winter visitor on Lake Powell. An abundant winter resident at Page STP and along the Colorado River in Glen Canyon. Up to 600 (on 31 January 1994, C. LaRue) winter regularly at Page STP and forage on the adjacent fairways and greens. Numbers peak markedly on the lake in October and March, indicating a migratory passage. However, numbers are more stable along the river from November through March, indicating winter residency there. The high counts from the river are 270 on 26 January 1993 (C. Pinnock), 250 at Lees Ferry on 13 January 1991 (C. LaRue), and 592 on the river on 2 January 2001 (J. Spence). The species has been recorded on all 12 CBCs.

MALLARD (*Anas platyrhynchos*).—A common widespread winter resident in the bays on Lake Powell, with peak numbers in January. An abundant winter resident and common local breeding species along the Colorado River, with relatively stable counts from November through March indicating winter residency there. The highest count from the river was 497 on 30 November 1994 (C. Pinnock). The Mallard breeds commonly along the Colorado River in Glen Canyon and at least occasionally in well-watered tributaries (female with 4 downy young on a beaver pond in Bown's Canyon on 9 May 2000 and a half-grown juvenile on the Escalante River at Scorpion Gulch on 21 June 1999, C. LaRue). From 1997 to 1999, 16 broods of 1–19 young (mean 8.2 young per brood) were noted from the

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

river. A hybrid male Mallard × Northern Pintail was present at Lees Ferry on 30 November 1999 (C. LaRue). In December 2009, a Mexican duck (*A. p.* "*diazi*" group) was found at Page STP (photo S. Putz). The species has been recorded on all 12 CBCs.

BLUE-WINGED TEAL (*Anas discors*).—An uncommon widespread migrant. Spring passage is from 26 February (1992 at RM –10.6, C. Pinnock) to 25 May (1994 in Glen Canyon, C. Pinnock). The fall status of this species and Cinnamon Teal in GLCA is unclear due to the difficulty of separating the two in the field at that time. However, it is possible that most of the "blue-winged" teal seen in late fall and early winter are *A. discors.* Early fall birds were a male at the head of Wahweap Bay on 23 June 2000 (C. LaRue) and one at Wahweap STP on 6 July 1998 (C. LaRue). A notable fall concentration was 25 at Page STP on 16 September 1997 (C. LaRue, C. Goetze). A hybrid male Blue-winged × Cinnamon Teal was seen at Wahweap STP, 14–23 April 1997 (C. LaRue, A. Flesch). The species has been recorded on 2 of 12 CBCs.

CINNAMON TEAL (*Anas cyanoptera*).—An uncommon widespread migrant and summer transient primarily on Lake Powell and sewage treatment settling ponds and to a lesser extent along the Colorado River in Glen Canyon. Spring birds have appeared as early as 8 January (1995 at Wahweap, C. Goetze). Peak passage along the river is in April. Peak passage on the lake spans March and April. Returning fall birds have appeared as early as a group of 23 in Wahweap Bay on 23 June 2000 (C. LaRue). The largest number recorded was 34 at Page STP on 1 May 1995 (J. Grahame).

NORTHERN SHOVELER (*Anas clypeata*).—A common widespread migrant and winter resident on Lake Powell and sewage treatment ponds, but decidedly less numerous along the Colorado River (where sparse) in Glen Canyon. Numbers peak on the lake in February. Several hundred winter regularly at Wahweap STP. The species has been recorded on all 12 CBCs.

NORTHERN PINTAIL (*Anas acuta*).—An uncommon widespread migrant and winter resident on Lake Powell and at ponds throughout the area. Northbound birds begin appearing in mid-February and are often seen resting far out in bays on Lake Powell. These groups usually number <50 individuals, with a group of 225 in Warm Creek Bay on 21 February 1997 being exceptionally large. The species is less numerous along the Colorado River. The species has been recorded on 11 of 12 CBCs.

GREEN-WINGED TEAL (*Anas crecca*).—A common widespread migrant and winter resident in bays on Lake Powell. Numbers increase in January and a pronounced migratory peak occurs in March. Fairly common along the Colorado River where numbers also peak in March. Fall birds begin appearing in August. The largest concentrations were 165 at Antelope Island and 152 in Wahweap Bay on 21 March 1997 (C. LaRue, M. Wotawa). Green-winged Teal was apparently one of the most frequently encountered ducks along the Colorado River prior to Glen Canyon Dam. In recent years, numbers on Lake Powell have increased in January surveys, with 367 found in 2003 and 565 in 2005. The species has been recorded on 11 of 12 CBCs.

CANVASBACK (*Aythya valisineria*).—A sparse local migrant and winter resident on the Colorado River, at sewage treatment settling ponds and, to a lesser extent, on Lake Powell. Distribution and movements are unclear, but numbers seem to be increasing. Observations span 6 August (1998 at Wahweap STP, C. LaRue) to 25 April (1982 at Page STP, G. Stolz GLCA files). In recent years, a few have been found each year on the Glen Canyon CBC in January, usually at Page STP, with a high count of 41 on 5 January 2009 (J. Spence). The species has been recorded on 11 of 12 CBCs.

REDHEAD (*Aythya americana*).—A common widespread migrant and winter resident in bays on Lake Powell and along the Colorado River. Numbers peak in January and February before a sharp decline in March. The Redhead is a sparse nonbreeding summer resident on the river. The species has been recorded on all 12 CBCs.

RING-NECKED DUCK (*Aythya collaris*).—A common widespread migrant and winter resident in bays on Lake Powell. Numbers peak in December and January and decline precipitously in March. An abundant winter resident along the Colorado River in Glen Canyon, where numbers also peak in January and drop sharply in March. The peak count on the river is 243 on 2 February 1997 (C. LaRue et al.). Counts over 150 from the river have been recorded 9 times from 1992 to 1998. Recently, this species has become more common on January Glen Canyon CBCs—1015 on 5 January 2003 and 1201 on 3 January 2004. Most of these large flocks have been at Page STP. The species has been recorded on all 12 CBCs.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

GREATER SCAUP (*Aythya marila*).—An uncommon local winter resident along the Colorado River in Glen Canyon, where up to 110 were present on 27 February 1995 (J. Spence, C. Pinnock). Rare elsewhere, as at Page and Wahweap STPs and on Lake Powell where the following 5 records have been obtained: a female at Page STP 14 December 1999 to 2 January 2000 (C. LaRue et al.), one in Bullfrog Bay on 19 January 1995 (C. Pinnock, J. Spence), another there on 29 January 1998 (C. LaRue et al.), 5 in Wahweap Bay on 15 March 1996 (J. Spence, C. Pinnock), and an adult male at Wahweap STP from 21 to 24 April 1997 (C. LaRue, A. Flesch). The species has been recorded on all 12 CBCs.

LESSER SCAUP (*Aythya affinis*).—A common widespread migrant and winter resident in bays on Lake Powell. Although sparse in October, numbers jump sharply in November. Peaks in December and March suggest periods of migratory passage. Abundant in winter (December through March) on the Colorado River, where numbers peak sharply in January. The highest river count was 1104 on 8 January 1997 (J. Spence et al.). There have been 10 counts of over 500 individuals from 1992 to 1998. In recent years, Lesser Scaup has become abundant in winter at Page STP, with counts of >500 since 2005. One seen 23 June 1995 on the Colorado River is the only summer record. The species has been recorded on all 12 CBCs.

SURF SCOTER (*Melanitta perspicillata*).—A sparse restricted and primarily fall migrant with 11 records as follows: an adult male at Lees Ferry from 19 Sepember 1991 to 26 April 1994 (C. Pinnock et al.), a second bird at Lees Ferry on 8 October 1992 (C. Pinnock), one in Wahweap Bay on 20 October 1994 (J. Spence, J. Grahame), one at the base of Glen Canyon Dam on 22 October 1993 (C. Pinnock, J. Spence), one at Wahweap Marina on 30 October 1997 (J. Spence), one at Page STP on 1 November 1997 (J. Spence), 2 at Lees Ferry on 4 November 1995 (C. Pinnock, C. Drost), one at Colorado River RM –14.0 on 7 November 1997 (C. Goetze, B. Russell), a second bird at Lees Ferry on 9 November 1992 (C. Pinnock), one in Halls Creek Bay on 19 April 1995 (J. Spence), and one at Lees Ferry on 26 April 1995 (C. Pinnock, C. Drost).

WHITE-WINGED SCOTER (*Melanitta fusca*).—A sparse local migrant and winter resident primarily on the Colorado River, with 10 records as follows: 2 at Lees Ferry on 13 April 1990 (M. Britten), one in Warm Creek Bay on 15 October 1997 (J. Spence), 2 at Page STP on 24 October 1996 (C. Pinnock, B. Russell), one at Lees Ferry from 7 November 1996 to 8 February 1997 (J. Spence et al.), 4 at Lees Ferry on 10 December 1990 with 2 remaining on 31 December (L. Stevens), one at Colorado River RM –15 on 13 September 2004 (J. Spence, H. Yard), probably the same individual on 5 January 2004 (C. LaRue et al.), one at Lees Ferry on 25 January 1998 (C. LaRue et al.), and one at Colorado River RM –14.5 on 27 February 1995 (C. Pinnock). The species has been recorded on 1 of 12 CBCs.

BLACK SCOTER (*Melanitta americana*).—A rare local winter transient on Lake Powell. One well-documented record of a female at the Bullfrog Marina on 21 December 2006 (L. Giddings).

LONG-TAILED DUCK (*Clangula hyemalis*).—A sparse restricted winter resident and migrant primarily along the Colorado River. The 12 river records are as follows: one below the dam on 30 November 1993 (C. Pinnock), one at Lees Ferry on 10 December 1990 (N. Kline), an immature at the dam from 2 January to 2 March 1999 (C. LaRue et al.), a male below Glen Canyon Dam on 5 January 2009 (C. LaRue, J. Coons), a male near Lees Ferry from 16 January to 4 March 1992 (C. Pinnock, N. Kline), one in Glen Canyon from 27 January to 9 April 1996 (J. Hildebrandt et al.), one at Colorado River RM –9.9 from 27 February to 19 March 1995 (C. Pinnock, M. Sogge), one at Lees Ferry on 19 March 1993 (C. Pinnock), one at the dam from 27 to 28 March 2000 (C. LaRue, B. Bobowski), one on the river from 20 December 2006 to 3 January 2007 (G. Nealon, R. Radd et al.), and one at the dam on 4 January 2009 (C. LaRue). There are 2 records from the Page STP: 16 December 2000 (M. Stevenson, G. Rosenberg), and 5 January 2010 (J. Spence). Remarkable was a flock of 3 males below the dam from 2 April 2010 to 3 May 2010 (G. Nealon, J. Spence; photo). The certain lake records are one near Iron Top Mesa on 1 November 1991 (M. Britten), one in Warm Creek Bay from 6 December 1995 to 20 January 1996 (J. Spence, J. Grahame), one in Hall's Creek Bay from 13 February to 14 March 1996 (J. Spence) and another there on 20 November 1996 (J. Grahame, J. Spence), and one in Wahweap Bay on 30 January 1988 (NPS files). One record

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

from the Page STP on 5 January 2010 (J. Spence). The species has been recorded on 4 of 12 CBCs.

BUFFLEHEAD (*Bucephala albeola*).—A common widespread migrant and winter resident in bays on Lake Powell. Over 90% of the numbers recorded in recent surveys are from Bullfrog and Hall's Creek Bays. Numbers climb steadily from October to January, peak, and then decline through March, with an abrupt drop in April. Abundant in winter on the Colorado River. Stable counts there from November through February indicate winter residency. The peak count from the river is 460 on 4 December 1997 (J. Spence, B. Russell). Counts of >250 have been recorded 12 times from November through February 1992–1998. Summer stragglers along the river include 1–2 from 22 June to 21 September 1994 (C. Pinnock et al.), one at Lees Ferry on 23 June 1995 (J. Grahame), one at Glen Canyon Dam on 24 June 1998 and one at RM –9.5 from 25 to 26 June 1998 (both C. LaRue, N. Brown). The species has been recorded on all 12 CBCs.

COMMON GOLDENEYE (*Bucephala clangula*).—A common to abundant widespread migrant and winter resident along the Colorado River. Much less common on Lake Powell (where numbers peak in January) and at sewage treatment settling ponds. Common Goldeneye, Gadwall, and Lesser Scaup are the characteristic ducks in winter on the river. The peak count on the river is 2380 on 8 January 1998 (J. Spence et al.). Counts over 450 have been recorded every year since 1992. Numbers on the river also peak in January. Both lake and river counts drop sharply after March. A few stragglers typically persist each year through summer on the river. The species has been recorded on all 12 CBCs.

BARROW'S GOLDENEYE (*Bucephala islandica*).—An uncommon local winter resident on the Colorado River directly below (downstream to about RM –8) Glen Canyon Dam. Peak numbers are 96 on 30 December 1994 and 82 on 7 February 1996 (J. Spence, C. Pinnock). Birds appear in late October and depart in March. One bird lingered in 1998 until 19 May, 3 birds remained until 15 June in 1999, one male remained until 31 May in 2000, and one remained until 10 July in 2001. Rarely recorded elsewhere, with 3 records from Lees Ferry and 2 records from Lake Powell. A hybrid male Barrow's × Common Goldeneye was seen at Lees Ferry from 20 to 23 December 1999 (C. LaRue, C. Goetze). The species has been recorded on all 12 CBCs.

HOODED MERGANSER (*Lophodytes cucullatus*).—An uncommon widespread migrant and winter resident along the Colorado River in Glen Canyon and uncommon on Lake Powell. There are 17 records of 62 individuals from the river from 1992 to 1999. Dates span from 7 November (1996) to 26 April (1995). The largest number recorded is 11 at the base of the dam on 30 December 1993 (J. Spence, C. Pinnock) and 13 in Warm Creek Bay on 30 November 1994 (J. Grahame, J. Spence). The species has been recorded on 3 of 12 CBCs.

COMMON MERGANSER (*Mergus merganser*).—A common widespread permanent resident on Lake Powell and along the Colorado River in Glen Canyon. Lake records peak in January. Although approximately 20–40 birds spend the summer each year on the river, breeding has not been documented there. A remarkable concentration was 500+ in Piute Farms Bay at the head on the San Juan Arm of Lake Powell on 19 November 1989 (C. LaRue). Breeds uncommonly on Lake Powell with the following records: female with 9 young at Mike's Canyon on 25 June 1997 (C. LaRue, N. Brown), female with 5 young in Cottonwood Canyon on 30 June 1999 (C. LaRue, J. Holmes) and a pair with 5 young on 30 June 1999 in the Great Bend, San Juan Arm (GLCA files). The species has been recorded on all 12 CBCs.

RED-BREASTED MERGANSER (*Mergus serrator*).—An uncommon widespread migrant and winter resident on Lake Powell. More than half of the records from recent surveys are from March and April. A sparse migrant along the Colorado River where the only records are 4 at RM –6.2 on 13 February 1998 (C. LaRue, C. Goetze); one at Colorado River RM –8.5 on 13 March, 22 April, and 19 May 1998; 2 at Colorado River RM 1.0 on 27 March 1997 (C. LaRue) and 2 there on 5 January 2004 (J. Spence). The species has been recorded on 9 of 12 CBCs.

RUDDY DUCK (*Oxyura jamaicensis*).—A common widespread migrant and uncommon winter resident on Lake Powell, where there is a very pronounced peak (71% of all records) in October. A fairly common migrant and winter resident on the Colorado River, where numbers peak in January. The species is also common in fall and winter at Page STP, where recent counts have been as high as 120. The species has been recorded on all 12 CBCs.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

ORDER GALLIFORMES

Family PHASIANIDAE

CHUKAR (*Alectoris chukar*).—A common widespread permanent exotic resident and breeder in riparian areas and adjacent open grass- and shrub-covered slopes in tributary canyons and on mesas throughout the area. One breeding record of an adult with 4 young-of-the-year in Moody Canyon, 25 October 2005 (J. Spence). Occurs in open pinyon-juniper on mesa summits adjacent to slopes and grassland. Records from the inventory and monitoring program come from the rim of the Kaiparowits Plateau (where Chukars are common in small numbers), Millard Canyon overlook, Alcove Canyon off the Great Bend, Escalante River at Harris Wash, Horsethief Canyon (where 33, the largest group encountered, were seen on 5 October 1999, C. LaRue), Allen Dump, the Chinle Formation slopes at the head of Clearwater Canyon, Gypsum Canyon, the confluence of Navajo and Kaibeto creeks, West Canyon, the gorge of the San Juan River, the slopes of Good Hope Bay, and the Paria River corridor.

RING-NECKED PHEASANT (*Phasianus colchicus*).—A probable escapee. A male was seen on the Page golf course over the winter of 1998, first observed on 22 December. Although this individual was likely an escapee, wild populations do occur within about 60 km northeast of Page near Kanab, Utah.

WILD TURKEY (*Meleagris gallopavo*).—A sparse local exotic permanent resident and possible breeder. Introduced north of the Colorado River. First seen in GLCA from tracks found along the Escalante River at and below Harris Wash, 17–18 May 1999 (these were independently observed and reported by J. Lauersdorf on 22 May 1999); 3 birds seen along the Escalante River about 2 miles above Harris Wash on 15 October 2000 (W. Wolverton). In recent years, the species has become quite common on the Escalante River above Scorpion Gulch, e.g., 2 groups of 4 and 5, respectively, on 14 October 2010 near Fence Canyon (J. Spence). These individuals likely dispersed from upstream in the higher reaches of the Escalante River watershed.

ORDER GAVIIFORMES

Family GAVIIDAE

PACIFIC LOON (*Gavia pacifica*).—A sparse restricted winter resident and migrant (always as singles) on Lake Powell and the Colorado River (3 records). There are about 22 records from 21 September (1995 in Wahweap Bay, J. Spence) to 18 April (1997 in Wahweap Bay, C. LaRue et al.). Three records from the Colorado River, all at Lees Ferry on 7 January, 9 March, and 16 March 1994, are probably of the same bird (J. Spence, M. Sogge). Another bird was seen there on 12 February 2000 (J. Holmes). The species has been recorded on 1 of 12 CBCs.

COMMON LOON (*Gavia immer*).—An uncommon widespread migrant and uncommon winter resident on Lake Powell and a sparse migrant on the Colorado River (7 records) in Glen Canyon. Typically occurs as lone birds, but a group of 5 birds were seen in Warm Creek Bay on 15 February 1996 (J. Spence et al.). Dates range from 4 July to 16 April. The species has been recorded on 9 of 12 CBCs.

YELLOW-BILLED LOON (*Gavia adamsii*).—A rare local winter resident on Lake Powell with 9 records. Most records are from consecutive months in Warm Creek Bay and Wahweap Bay from 1994 to 1999, suggesting that they may represent one individual that returned for several consecutive winters. The records are as follows: in Warm Creek Bay on 10 February 1994 (C. LaRue et al.), in Warm Creek Bay on 10 December 1994 (J. Spence, C. Pinnock), in Wahweap Bay on 15 February and 15 March 1995 (J. Spence, C. Pinnock), in Warm Creek Bay on 16 February and 15 and 18 March 1996 (J. Spence, C. Pinnock), and on 1 February and 8 March 1999 (C. LaRue et al.). More recently, a bird was seen on the San Juan Arm of Lake Powell on 1 February 2005 (J. Spence; photo B. Wilson).

ORDER PODICIPEDIFORMES

Family PODICIPEDIDAE

PIED-BILLED GREBE (*Podilymbus podiceps*).—An uncommon widespread migrant and winter resident on Lake Powell and the Colorado River. Recent surveys indicate peak numbers in November, possibly reflecting a migratory passage. Notable concentrations include 39 around Antelope Island on 2 January 1999. The species has been recorded on all 12 CBCs.

HORNED GREBE (*Podiceps auritus*).—An uncommon widespread migrant and winter resident as singles and pairs along the Lake Powell shoreline. The largest number recorded is 70 in Wahweap Bay on 28 February 1979 (J. Coons

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

GLCA files). There is a weak peak in March suggesting a migratory passage at that time. Sparse on the Colorado River in Glen Canyon with 3 records from Lees Ferry: 2 on 30 March 1995 (J. Spence), 2 on 7 November 1997 (J. Spence), and 2 on 9 January 1998 (J. Spence et al.). The species has been recorded on 7 of 12 CBCs.

RED-NECKED GREBE (*Podiceps grisegena*).—A rare local winter resident with 3 records: one bird wintered in Wahweap Bay from 17 January to 16 April 1997 (C. LaRue et al.) and one in Warm Creek Bay on 19 January 1996 (J. Spence, C. Pinnock). A bird was found on the Glen Canyon CBC on 5 January 2010 on the Colorado River below Glen Canyon Dam (C. LaRue, S. Putz; photo S. Putz). The species was recorded on the 12th CBC.

EARED GREBE (*Podiceps nigricollis*).—A common widespread winter resident on Lake Powell from September to May. An uncommon migrant at ponds and along the Colorado River in Glen Canyon. Remarkable were an estimated 15,500 in Wahweap Bay and another 1800 near Wahweap Marina on 16 January 1997 (C. LaRue). Nearly all had departed by sunrise the next morning. The species has been recorded on 8 of 12 CBCs.

WESTERN GREBE (*Aechmophorus occidentalis*).—A common to abundant widespread winter resident on Lake Powell with considerable interannual variability in numbers. This is the second most common bird on Lake Powell and the one most likely to be seen on open water far out in the bays. Numbers appear to peak in November. Most birds are distributed in the large bays but may occur anywhere. An uncommon summer resident on Lake Powell, with 2 single breeding records: an adult with a young chick on 17 September 1997 on the San Juan Arm between Piute Canyon and Neskahi Wash (V. Firlein), and a pair with a single downy young begging for food on 19 September 2009 near Mikes Canyon, San Juan Arm (J. Spence). The Western Grebe is a sparse transient on the Colorado River. The species has been recorded on all 12 CBCs.

CLARK'S GREBE (*Aechmophorus clarkii*).—An uncommon restricted migrant and sparse yearround visitor and possible rare breeder on Lake Powell. There are approximately 16 records, including several from winter. Breeding has not been confirmed despite several summer records of pairs. There is one record from the Colorado River from 27 September through at least 4 October 2009 (G. Nealon). The species has been recorded on 4 of 12 CBCs.

ORDER SULIFORMES

Family PHALACROCORACIDAE

NEOTROPIC CORMORANT (*Phalacrocorax brasilianus*).—A rare local vagrant, recently confirmed for the Colorado River near Lees Ferry. In fall 2010, three small cormorants were observed on the river on 13 September 2010 (J. West), and 2 birds were confirmed by a trip organized on 18 September (C. LaRue et al.; photos S. Putz) at Three Mile Bar above Lees Ferry. This is the first record for northern Arizona.

DOUBLE-CRESTED CORMORANT (*Phalacrocorax auritus*).—An uncommon widespread migrant and winter resident on Lake Powell and immediately below Glen Canyon Dam. This species has been observed most frequently in the heads of bays such as Wahweap, Warm Creek, and Hall's Creek bays. The species first appeared in winter 1991 at the base of Glen Canyon Dam, and by 2010 the number had grown to 33 individuals, with many lingering through the summer. The species has been recorded on all 12 CBCs.

ORDER PELECANIFORMES

Family PELICANIDAE

AMERICAN WHITE PELICAN (*Pelecanus erythrorhynchos*).—An uncommon restricted migrant on Lake Powell. Groups up to 300 have been noted. Passage in spring is typically in May, but some linger into June, such as 30 at Hite on 5 June 2008 (T. Bell). Sparse in winter with 4 records: one at Bullfrog from 20 December 1994 to 19 January 1995 (J. Spence), one in Wahweap Bay on 21 December 1994 (J. Spence), one below Glen Canyon Dam on 30 January 1995 (C. Pinnock) and one at Wahweap/Page STP 6 December 1999–24 March 2000 (J. Sweeny et al.). Fall migrants have been seen as late as 16 December 1998 when 8 were seen at Antelope Island (C. LaRue). The species was recorded on the 3 January 2002 CBC.

BROWN PELICAN (*Pelecanus occidentalis*).—A rare local transient with 3 records: one on the Colorado River below the dam on 9 June 1992 (C. Pinnock), one on Lake Powell 0.5 mile above the dam on 29 July 1987 (L. Watson GLCA files), and an extraordinary record

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

of 6 in Hall's Creek Bay on 17 October 1994 (J. Spence).

Family ARDEIDAE

GREAT BLUE HERON (*Ardea herodias*).—A rare local summer resident and breeder, and an uncommon widespread migrant and winter resident on Lake Powell and along the San Juan and Colorado Rivers from July through March. While it bred formerly in Glen Canyon, the only recent nesting attempts are the following: in 1998–2005 when 1–4 pairs began nesting at Lees Ferry and (in 1998 only) unsuccessfully as a single attempt 74 m above the river on a ledge at Colorado River RM –13.0 (B. Russell, T. Haberle), and every year since at least 1992 (and probably earlier) in upper Hall's Creek Bay. Attempts of Great Blue Herons to breed in Hall's Creek Bay are often unsuccessful because of rapid lake rises in May and June, which drown nests, and recreational boat disturbances. Most recently, a single nest with an attending pair was located on a remote cliff opposite Hite Marina, but it is not known if successful breeding occurred. Interestingly, a colony of herons with 5 nests was discovered at RM 117 (117 miles above Lees Ferry) on the Colorado River in 1958, about one mile below the mouth of Hall's Creek (Behle and Higgins 1959). This colony was destroyed by the rising waters of Lake Powell. The species has been recorded on all 12 CBCs.

GREAT EGRET (*Ardea alba*).—A sparse restricted migrant with 7 certain records: one in Wahweap Bay on 12 April 1996 (C. Pinnock), another there on 20 April 1995 (J. Spence), one at Wahweap Marina on 17 May 1997 (C. LaRue), one at Wahweap STP on 17 May 1997 (C. Goetze), one at Lees Ferry on 1 June 2000 (J. Spence), and another there on 2 June 1999 (C. LaRue). An extraordinary 9 individuals were counted in Wahweap Bay on 19 September 2007 after 2 days of strong southwesterly winds (J. Spence).

SNOWY EGRET (*Egretta thula*).—An uncommon widespread migrant along the Colorado River, the Lake Powell shoreline, and sewage treatment settling ponds. The spring passage is from 8 April (1980 at Colorado River RM –10.0, Dilts GLCA files) to 2 June (1999 at Lees Ferry, C. LaRue). The fall passage is from 18 July (1937 at Forbidding Creek, Woodbury 1959) to 6 November (1976 at Dark Canyon, Hutton GLCA files).

LITTLE BLUE HERON (*Egretta caerulea*).—A rare local transient with 3 records: one at Wahweap STP on 1 September 1982 (Stolz GLCA files), one at Gregory Butte on 17 September 1991 (M. Britten), and one in upper Wahweap Bay on 25 September 1995 (J. Spence, C. Pinnock).

CATTLE EGRET (*Bubulcus ibis*).—An uncommon widespread migrant at ponds, the lake shore, the Colorado River, and residential areas. The spring passage is from 24 March (1999 at Marble Canyon Lodge, J. Holmes, L. Dickson) to 1 May (1999 at Lees Ferry, C. LaRue). The fall records are one at Page STP on 16 September 1998 (C. LaRue), one at Wahweap on 24 September 1986 (G. Gossard GLCA files), and 4 there on 24 November 1985 (Smith GLCA files).

GREEN HERON (*Butorides virescens*).—A sparse restricted migrant and summer visitor along the Colorado River and lakeshore tamarisk. Ten of the 11 records are from spring and early summer: one at Wahweap 1 April 1976 (NPS files, Cornelius), one on the Colorado River at RM –6.0 on 28 May 1993 (C. Pinnock), one in upper Moqui Canyon on 15 May 1996 (C. Goetze), one at Lees Ferry on 20 May 1996 (J. Alston), one at Lees Ferry on 20 May 1997 (C. LaRue, C. Goetze), one on 25 June 1997 at the head of Piute Canyon, San Juan Arm (C. LaRue, N. Brown), one on 26 June 1997 at the head of Piute Farms Bay (C. LaRue), one on 13 October 1997 at Lees Ferry (J. Spence), 2 at Lees Ferry on 13 May 2000 (J. Spence), and one on 1 June 2000 at Lees Ferry (J. Spence). Unusual was one on 30 December 1993 at Colorado River RM –13.0 (J. Spence, C. Pinnock). This is the only winter record from northern Arizona. This species may be more common than the 11 records indicate, as it is a small bird and prefers to remain hidden in dense vegetation.

BLACK-CROWNED NIGHT-HERON (*Nycticorax nycticorax*).—An uncommon widespread migrant and rare summer straggler along the Colorado River and the Lake Powell shoreline and at sewage treatment ponds and large shade trees (e.g., in Wahweap). Spring passage is from 9 March (1997 at Wahweap, C. Goetze) to 29 May (1997 at RM –11.0, C. LaRue). The fall passage is from 23 June (1994 at Lonely Dell, J. Grahame) to 17 October (1994 at Wahweap, S. Hall GLCA files). The largest single group was 6 individuals on the Colorado River below the dam on 16 May 2010 (G. Nealon). The species is a possible breeder, as suitable habitat is present.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Family THRESKIORNITHIDAE

WHITE-FACED IBIS (*Plegadis chihi*).—A common widespread migrant along the Colorado River and Lake Powell shoreline, at sewage treatment settling ponds, and in residential areas. There is one winter record: 2 in Warm Creek Bay on 10 February 1994 (J. Spence et al.). A remarkable observation was an estimate of 5000 birds migrating south in groups of varying sizes on 1 September 1997 (C. Goetze). There is one record from the Escalante River: a bird at Fence Canyon on 19 May 1999 (C. LaRue). The spring passage is from 9 March (1997 at Wahweap, C. Goetze) into mid-June. The fall passage is from late June into September.

ROSEATE SPOONBILL (*Platalea ajaja*).—A rare local transient. A series of 4 reports by "Hoffman" in the GLCA files (4 on 3 March 1964, 8 on 23 March 1962, 7 on 13 April 1963 and 4 on 27 August 1962, all apparently from the Wahweap area during the construction of Glen Canyon Dam) seems unlikely since no records of this primarily coastal species are known from the region today. However, it is not a species likely to be misidentified. Furthermore, the most likely species to be confused for a spoonbill by a careless observer would be the Snowy Egret, which does not arrive as a migrant in this region until mid-April. This is notably later than 2 of the above records. We are therefore inclined to accept these reports as valid. Interestingly the occurrence of this species in both Utah and Colorado are substantiated by specimens taken in 1919 and 1913, respectively (Behle et al. 1985). The frequency of reports from Arizona and California has apparently declined since the mid-1900s (Monson and Phillips 1981, Corman and Wise-Gervais 2005) to the point where the species is now rarely reported. It therefore appears that this species may have been a sparse transient to the Glen Canyon region that perhaps reached this area by following the Colorado River upstream from the delta and adjoining coastal areas of the Sea of Cortez. The drying up of the Colorado River delta caused by upstream damming and diversion may explain the decline of spoonbill records throughout the southwestern United States. Until these records can be confirmed, the species is not included in the tabulations for the park.

ORDER ACCIPITRIFORMES

Family CATHARTIDAE

TURKEY VULTURE (*Cathartes aura*).—A common widespread migrant and summer resident and breeder throughout the area. The summer status and distribution is poorly known. Dates span from 23 March (1998 at Explorer Canyon, C. Goetze) to 30 September (2000 at Page, C. Goetze). Two fledglings were seen at the confluence of Navajo and Kaibito Creeks on 15 August 2000 (C. LaRue). In late summer, a flock forms and roosts at the Page cemetery, often lingering into November. A high count for this flock was 36 on 4 September 2004 (J. Spence).

CALIFORNIA CONDOR (*Gymnogyps californianus*).—A rare local permanent resident. Extirpated and reintroduced native. The captive-reared birds released on the nearby Vermilion Cliffs beginning in 1996 have on several occasions spent time in GLCA. Most of the occurrences have been in Glen Canyon below the dam. They are commonly seen at Navajo Bridge, Marble Canyon, south of Lees Ferry.

Family PANDIONIDAE

OSPREY (*Pandion haliaetus*).—An uncommon widespread migrant and rare local summer resident and breeder. Stragglers are rarely seen in summer, and are rare in winter. Osprey have attempted to breed in Hall's Creek Bay but without success due to rising lake levels drowning nests and disturbance from recreationists. However, a pair, discovered in May with 3 recently hatched young, may have had at least one fledge after they were moved to an artificial platform built in Hall's Creek Bay in 2008 (J. Spence, G. Nealon). Most records are from the Colorado River and Lake Powell, but the species has been encountered at sites far from water. The 4 winter records are one at Colorado River RM –14.0 on 18 January 1997 (Northern Arizona Audubon Society field trip), one at Colorado River RM –14.5 on 9 January 1998 (C. LaRue et al.), one 1.0 miles above the dam on 13 January 2000 (C. Goetze), one over Wahweap Bay on 5 January 2004 (B. Russell), and one at Glen Canyon Dam on 1 January 2007 (G. Nealon). Dates from the river in spring are from 13 March (1997 and 1998, C. LaRue) to 23 June (1998, C. LaRue) or even 2 July (1997, C. LaRue), and in fall from 3 September (1997, C. LaRue) to 7 November (1997, J. Spence). In fall 2002 along the Colorado River below Glen

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Canyon Dam, 51 observations were made between 30 August and 25 October, including a high count of 10 individuals on 4 October (G. Nealon). The species has been recorded on 6 of 12 CBCs.

Family ACCIPITRIDAE

BALD EAGLE (*Haliaeetus leucocephalus*).—A common widespread winter resident along the Lake Powell shoreline primarily distributed along the open bays. In recent winter surveys (1990–2010), from 7 to 50 have been recorded from throughout the GLCA (NPS files). Occasionally seen along the Colorado River where heavy recreational use likely limits its occurrence (Brown and Stevens 1997). Dates span from 12 October (1976 at Bullfrog, anonymous) to 18 March (1991 at Bullfrog, L. Heronemus GLCA files). The largest single count was 50 birds on 10 January 2003, with 11 juveniles and 39 adults/subadults (B. Russell). Recently, after several years of low numbers, the second-highest count of 39 (10 juveniles and 29 adults/subadults) was in January 2010 (J. Spence, B. Russell). The species has been recorded on all 12 CBCs.

NORTHERN HARRIER (*Circus cyaneus*).—A common widespread migrant and winter resident virtually throughout GLCA but most frequently in desert scrub and other open situations. Also an extremely rare summer breeder, with 2 records: an adult pair and a nest with 5 young on the shoreline near Cookie Jar Butte in Padre Bay of Lake Powell on 25 May 1993 (M. Britten), and a breeding pair nesting on the northeast escarpment of the Kaiparowits Plateau in 2000. On 25 May, a vocally protesting female in company with an adult male was seen gathering grass from cliff ledges and dropping into a dense thicket of oak and maple (of approximately 100+ acres) about 200 feet below the cap rock rim. The pair was present on 7 June with the female again protesting and entering the thicket at the same spot as 3 weeks earlier. This breeding attempt was likely related to the presumed small mammal population peak that was being exploited by Long-eared and Northern Saw-whet Owls on the Kaiparowits Plateau in 2000 (see accounts of those species). The species has been recorded on all 12 CBCs, with 17 individuals reported on the last 2.

SHARP-SHINNED HAWK (*Accipiter striatus*).—A common widespread migrant with one known breeding record. It winters fairly commonly in riparian and residential areas in at least the southernmost portions of GLCA. The only known nesting record is of a nest containing two 20-day-old young in Gambel oak at the edge of a thicket 200 feet below the rim of the eastern scarp of the Kaiparowits Plateau on 18 July 1997 (C. LaRue). A total of 75 were counted migrating past Navajo Point from 25 to 30 September 2000 (C. LaRue). The species has been recorded on all 12 CBCs.

COOPER'S HAWK (*Accipiter cooperii*).—An uncommon widespread breeding resident, a common widespread migrant, and an uncommon winter resident. A total of 96 were counted migrating past Navajo Point from 25 to 30 September 2000 (C. LaRue et al.). The Cooper's Hawk breeds in pinyon-juniper woodland and riparian stands. Sixteen nest sites have been located. The densest population occurs on the Kaiparowits Plateau where 10 sites have been found. However, perhaps only 5–6 pairs may breed there in any year. These nests are located in pinyons (5 sites), junipers (2 sites), oaks (2 sites), and maples (1 site). Isolated cottonwoods may be used for nesting, as at Last Chance Creek and Waterhole Flat. Other nests have been found in the isolated Douglas-fir groves in Millard and Millers Canyons and in shade trees at residential areas such as Bullfrog government housing (J. Nelson) and Lonely Dell. Aging the young by contour-feather emergence patterns and back-counting of 7 broods in 1999–2000 indicate that laying occurred from 18 April to 23 May (peaking in the second week of May). Hatching took place from 24 May to 28 June (peaking in mid-June) and fledging occurred from 2 July to 6 August (peaking in late July). Brood size averaged 2.7 young per nest, with the age at counting ranging from 15 to 34 days. The species has been recorded on 11 of 12 CBCs.

NORTHERN GOSHAWK (*Accipiter gentilis*).—A rare restricted transient known certainly from 4 records: a migrating adult female at Navajo Point on 28 September 2000 and another migrating adult female there on 29 September 2000 (both C. LaRue et al.), an adult female (that had captured a cottontail [*Sylvilagus* sp.]) seen on the Echo Peaks on 29 March 1980 (C. LaRue), and an adult at Lonely Dell on 13 September 1996 (J. Spence). Two previous records in GLCA files are uncertain; however, records from surrounding regions indicate that it occurs as a transient throughout the GLCA area. It may, as

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

seen elsewhere (LaRue 1994), occasionally breed in the pinyon-juniper woodland of the Kaiparowits Plateau. Breeding in pinyon-juniper woodland and aspens has been noted on the Kaiparowits Plateau summit a few miles north of the GLCA boundary (K. Shakespeare personal communication).

RED-SHOULDERED HAWK (*Buteo lineatus*).—A rare local fall transient. There are 3 records, all from the Page STP/golf course. Each of these birds was an immature and at least 2 were of the California race, *B. l. elegans:* one on 26 September 1994 (J. Grahame, J. Spence), one on 18 September 2000 (C. LaRue), and one in July 1988 (photo G. Nealon).

SWAINSON'S HAWK (*Buteo swainsoni*).—A sparse widespread migrant. There are 11 credible records: one at Colorado River RM –14.5 on 22 April 1993 (B. Hetzler GLCA files); one at Glen Canyon Dam on 22 April 1999 (J. Spence); one along Lake Shore Drive on 26 April 1982 (G. Stolz GLCA files); one at the Page golf course on 19 September 1994 (J. Grahame); one at Navajo Point on 25 September 2000, another there on 27 September 2000, and 2 there on 29 September 2000 (all C. LaRue et al.); 2 at Wahweap and Glen Canyon Dam on 12 October 1982 (G. Stolz GLCA files); and a light-phase juvenile east of Big Water on 12 September 2007 (J. Spence).

RED-TAILED HAWK (*Buteo jamaicensis*).—A common widespread permanent resident and breeder. Some migrants pass through GLCA, as the 143 individuals counted passing Navajo Point 25–29 September 2000 (C. LaRue et al.) indicate. Although relatively few nest sites have been found, most of the side canyons of Lake Powell likely support at least one breeding pair. Breeding notes are as follows: a pair carrying a stick to a nest at Colorado River RM –10.5L on 31 January 1999 (C. LaRue et al.), an adult pair carrying prey to a nest in Explorer Canyon on 10 May 2000, an adult incubating in Cottonwood Canyon on 11 May 2000, a fledgling over "Moqui Seep," Kaiparowits Plateau, on 6 June 2000, an approximately 40-day-old nestling on the south side of the lower San Juan Arm on 7 June 1999, a fledgling heard calling in a side canyon off the Great Bend on 8 June 1999, an agitated adult seen in another side canyon off the Great Bend on 9 June 1999, an agitated adult over Waterhole Canyon on 14 June 2000, an adult with 2 fledglings at Colorado River RM –14.5 on 26 June 1998, 2 fledglings seen in the upper end of the Navajo Canyon Arm on 3 July 1997, 2 fledglings at Colorado River RM –14.5R on 9 July 1997, and a pair with a fledgling on the White Rim cliffs overlooking Andy Miller Flats on 15 July 1999 (all C. LaRue et al.). Remarkable behaviors noted during the inventory and monitoring period include an adult male that pirated an antelope squirrel (*Ammospermophilus* sp.) from a Common Raven after a lengthy chase at Page on 4 March 1999 (C. LaRue and L. Dickson) and an adult that, after pursuing and forcing another adult into dropping an antelope squirrel into the Colorado River at RM 2.0, dived into the river to successfully retrieve it (C. LaRue et al.). The species has been seen on all 12 CBCs.

FERRUGINOUS HAWK (*Buteo regalis*).—A rare restricted transient with 3 records: an adult seen 2 miles south of Page on 2 July 1997 (C. LaRue, D. Smith), a light-morph adult at Page STP on 3 November 2000 (C. LaRue, C. Goetze), and what may be have been the same bird about 12 miles south of Page along the Glen Canyon rim on 13 November 2000 (J. Spence). This species is to be expected primarily during the nonbreeding periods in open grassy and shrubby flatlands like those near Wahweap and Bullfrog.

ROUGH-LEGGED HAWK (*Buteo lagopus*).—No certain records exist from within GLCA. However, 2 were seen near Hans Flat Ranger Station on 12 March 1983 (C. LaRue), and another was seen near Big Water on 5 November 1989 (C. LaRue). This species is to be expected as a rare local winter resident in open flatlands like those near Wahweap and Bullfrog.

GOLDEN EAGLE (*Aquila chrysaetos*).—An uncommon widespread permanent resident and breeder throughout GLCA. Nesting has been documented from several areas of the GLCA. Winter aerial surveys around Lake Powell one day per month since 1990 have located between 3 and 25 individuals per survey. The species became extremely scarce in the winter of 1997–1998 but recovered in the following winter, with the highest count of 25 birds recorded in December 1998. The second-highest count was of 23 birds detected in December 2000. Since 2002, there has been a steady decline in numbers within the Glen Canyon region. The species has been recorded on all 12 CBCs.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

ORDER FALCONIFORMES

Family FALCONIDAE

AMERICAN KESTREL (*Falco sparverius*).—An uncommon widespread permanent resident and rare breeder. Although breeding has been documented, the summer status and distribution remains poorly known. The wintering population is comprised almost exclusively of males. The species has been recorded on 11 of 12 CBCs.

MERLIN (*Falco columbarius*).—An uncommon widespread migrant and winter resident in open flatlands. There are approximately 25 records spanning from 14 September (1994 at Page STP, J. Grahame) to 6 May (1982 at Colorado River RM –12.0, G. Stolz GLCA files). The species has been recorded on 9 of 12 CBCs.

PEREGRINE FALCON (*Falco peregrinus*).—A common widespread summer resident and breeder from March through September on Lake Powell and Glen Canyon, with more than 100 different breeding locations documented in the 1980s through 2010. Most breeding sites are found along Lake Powell and the Colorado River where surveys have been focused, but there are undoubtedly more nesting territories away from the lake and river in the recreation area. A few birds remain to winter. Seven of 8 radio-collared peregrines from Glen Canyon migrated to west Mexico for the winter while the eighth bird wintered in Nicaruagua. A female peregrine, colorbanded as a nestling in Glen Canyon, was photographed 2 years later in Japan (Britten 1998). The species has been recorded on 8 of 12 CBCs.

PRAIRIE FALCON (*Falco mexicanus*).—An uncommon widespread permanent resident and breeder throughout GLCA. Although a few breeding records are known, the status and distribution of this species in GLCA is poorly understood. It is seemingly more numerous in winter, suggesting an influx of birds during the nonbreeding period. The species has been recorded on 3 of 12 CBCs.

ORDER GRUIFORMES

Family RALLIDAE

VIRGINIA RAIL (*Rallus limicola*).—A sparse local migrant in dense herbaceous-dominated riparian sites. The 8 records are as follows: 3 near Wahweap government housing from 14 April to 12 May 1997 with one remaining on 12 May (C. Goetze et al.), one calling at the head of Hall's Creek Bay on 27 June 1997 (C. LaRue), and single birds at Colorado River RM –8.8L on 11 September 2010 (C. LaRue, G. Nealon), 30 September 1997 (C. LaRue), 4 November 1998 (C. LaRue), 20 November 2004 (J. Spence), 2 January 1999 (R. Radd et al.), and 3 January 2007 (R. Radd et al.). The species has been recorded on one of 12 CBCs.

SORA (*Porzana carolina*).—A sparse widespread migrant in dense herbaceous-dominated riparian sites. The 9 records are as follows: 2 near Wahweap government housing on 15 March 1999 (C. Goetze), 1–4 there from 14 April to 14 May 1997, one there on 20 April 1999 (C. LaRue), one at Page STP on 8 September 2000 (C. LaRue), one at Page golf course on 11 September 1997 (C. LaRue), one at Lees Ferry on 12 September 2000 (C. LaRue), one at Page STP on 18 September 2000 (C. LaRue), 2 there on 19 September 1994 (J. Grahame), and one at Wahweap on 15 October 1998 (C. LaRue). One reported from Lees Ferry on 20 November 1994 seems exceptionally late and was more likely a Virginia Rail.

COMMON MOORHEN (*Gallinula chloropus*).—A rare local summer resident and breeder and transient with 4 records: one at Lees Ferry on 22 July 1994 (J. Grahame), one at Wahweap on 17–18 May 2000 (C. Goetze), and one at Wahweap STP from 5 August to 18 September 2000 (C. Goetze et al.). The latter record may be the bird noted in May 2000. In August 2005, a pair bred at Page STP, raising 4 young-of-the-year (J. Spence, B. Russell). This represents the first breeding record north of the Mogollon Rim in Arizona (Corman and Wise-Gervais 2005).

AMERICAN COOT (*Fulica americana*).—An abundant widespread migrant and winter resident on Lake Powell and the Colorado River, and a rare local summer resident and breeder on sewage treatment ponds. This is the most numerous bird on the lake, although numbers have declined in the last few years. Stable count totals from November through January indicate residency during that period. Most are found along shorelines in bays in drowned tamarisk. During recent surveys, 60% of the 34,739 birds recorded were in Warm Creek and Wahweap bays. The largest counts are 3906 in Warm Creek Bay on 17 January 1997 (J. Spence, C. LaRue), 2996 in Hall's Creek Bay on 20 December 1994 (J. Spence, C. Pinnock), 2690 in Wahweap Bay on 22 November 1994 (J. Spence, J. Grahame), and 2384 in Hall's Creek Bay on 21 November 1994 (J. Spence, J. Grahame). The largest river count

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

is 404 on 8 February 1997 (J. Spence, C. Goetze). Numbers along the river peak in February, indicating a migratory passage. Single birds occasionally summer on the Colorado River below Glen Canyon Dam. There is at least one probable breeding record of adults feeding begging juveniles at Page STP on 21 October 2005. The species has been recorded on all 12 CBCs.

Family GRUIDAE

SANDHILL CRANE (*Grus canadensis*).—A rare restricted migrant through the region with 3 records: an early record of 3 at Kane Creek near Bullfrog on 5 May 1982 (NPS files) and 25 flying south over Page on 6 November 1996 (B. Russell). A report of 78 at Wahweap Bay on 22 October 1976 in the GLCA files (no observer) seems unlikely given the scarcity of the species in the region. However, because the date is within the fall passage in the Southwest and because Great Blue Herons (the only possible species Sandhill Cranes could be confused with) do not occur in such large concentrations, this record may be legitimate.

ORDER CHARADRIIFORMES

Family CHARADRIIDAE

BLACK-BELLIED PLOVER (*Pluvialis squatarola*).—A rare local migrant at ponds and Lake Powell shorelines. There are 5 records: one in Wahweap Bay on 6 April 1998 (J. Spence), 9 at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), one there on 27 April 2000 (C. LaRue, C. Goetze), one at Page STP on 11 May 1995 (J. Grahame), and one in Wahweap Bay on 18 April 2008 (J. Spence).

AMERICAN GOLDEN-PLOVER (*Pluvialis dominica*).—Vagrant. One reported from Wahweap STP on 30 May 1977 (D. Davis GLCA files). Although this record is unsubstantiated and this species is sparse in Arizona (especially in spring), the late date suggests this species rather than other *Pluvialis* species. Furthermore, at this date the bird was certainly in near-full or full alternate plumage and would have been easy to identify. We are therefore inclined to consider this record valid.

SNOWY PLOVER (*Charadrius alexandrinus*).—Vagrant. The only record is one at Lees Ferry on 10 June 1982 (Brown et al. 1984).

SEMIPALMATED PLOVER (*Charadrius semipalmatus*).—A sparse local migrant. The 8 records are as follows: 3 at Lone Rock Beach on 12 April 1982 (G. Stolz GLCA files), one at the mouth of Warm Creek on 13 August 1993 (M. Britten), 2 at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), 2 at Page STP on 1 May 1995 (J. Grahame), 2 at Wahweap STP on 2 August 1995 (J. Spence GLCA files), one at Page STP on 18 August 1998 (C. Goetze), 3 at Page STP 2–13 September 1998 (C. LaRue et al.), and one at Wahweap STP on 2 October 1997 (C. LaRue).

KILLDEER (*Charadrius vociferus*).—An uncommon widespread permanent resident and rare summer breeder at sewage treatment settling ponds and at open shorelines on Lake Powell. There are 2 breeding records: an adult with a downy juvenile at Wahweap on 1 June 1994 (K. Patraw) and 2 adults with 3 chicks at Lone Rock Beach on 30 May 1990 (M. Britten). Killdeer movements are poorly known. There appears to be a migratory passage in September as suggested by concentrations of 32 and 36 at Page STP on 18 September 2000 and 27 September 1999, respectively (C. LaRue, C. Goetze). The species has been recorded on 10 of 12 CBCs.

Family RECURVIROSTRIDAE

BLACK-NECKED STILT (*Himantopus mexicanus*).—An uncommon restricted migrant at sewage treatment ponds and at open sites on the Lake Powell shoreline. Spring passage is from 8 April (1994 at Wahweap STP, B. Russell) to 15 May (2000 at Page STP, C. LaRue). Fall passage is from 3 September (1997 in Wahweap Bay, C. LaRue, B. Russell) to 16 September (1998 at Wahweap STP, C. Goetze). The peak counts are 23 in Wahweap Bay on 21 April 1999 (L. Dickson et al.) and 25 in Warm Creek Bay on 10 May 2009 with a lone American White Pelican (G. Nealon).

AMERICAN AVOCET (*Recurvirostra americana*).—A common widespread migrant along the Lake Powell shoreline and at sewage treatment settling ponds, and rare local summer resident and breeder at the Wahweap STP and occasionally at Page STP, but none since 1998. There are 2 records from the Colorado River: 13 at Lees Ferry on 2 May 1995 (J. Grahame, J. Alston) and 2 at Colorado River RM –15 on 9 May 1996 (J. Spence, C. Pinnock). Dates span from 6 March (1998 on Antelope Island, C. Goetze) to 3 November (2000 at Page STP, C. Goetze). The highest counts were 35 at Wahweap STP on 19 June 1995 (B. Russell) and a remarkable 100 on a

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

small island in Warm Creek Bay on 9 September 2003 (J. Spence).

Family SCOLOPACIDAE

SPOTTED SANDPIPER (*Actitis macularius*).—A common widespread migrant and rare summer resident and breeder at lake, pond, river, and stream shores throughout the area. There are 3 breeding records: 3 adults with 1 young at Colorado River RM –8.0L on 1 July 1998 (C. LaRue, N. Brown) and agitated adults at RM –12.0L on 6 August 1997 (C. LaRue). A pair seen along the Escalante River 0.5 mile below Scorpion Gulch on 20 May and 21 June 1999, and single birds seen below Harris Wash on 18 May 1999, near 25 Mile Wash on 23 June 1999, and near the confluence of Siver Falls Creek on 24 June 1999, suggest this species may breed along that stream. Dates span from 14 April (1988 at Wahweap, G. Gossard GLCA files) to 27 October (1998 at Paria Beach, C. LaRue). Fall birds begin appearing in late June. There are 2 winter records: a bird at Paria Beach on 31 January 1995 (J. Grahame) and 2 in Wahweap Bay of Lake Powell on 3 January 2000 (J. Spence). The species has been recorded on 3 of 12 CBCs.

SOLITARY SANDPIPER (*Tringa solitaria*).—A sparse local fall migrant at ponds throughout the area. One spring record: one at Wahweap on 14 May 1997 (C. LaRue). Fall passage is from 21 August (2000 at Page STP, C. LaRue) to 20 September (1997 at Page STP, C. LaRue), although it probably occurs in July. One record from the Colorado River: one at Colorado River RM –6.5 on 10 September 1997 (C. LaRue).

GREATER YELLOWLEGS (*Tringa melanoleuca*).—An uncommon widespread migrant at ponds, along the Lake Powell shoreline, and rarely along the Colorado River. Spring records are from 14 February (1996 at Bullfrog Bay, J. Spence) to 25 April (1982 at Page golf course, G. Stolz GLCA files). There are a few winter records, including 5 birds in different areas of Lake Powell between 20 and 23 January 2004 (J. Spence), and one on 11 December 2007 at the Page STP (C. LaRue). These dates indicate that the species occasionally overwinters on Lake Powell. The species has been recorded on one of 12 CBCs.

WILLET (*Tringa semipalmata*).—An uncommon restricted spring migrant at sewage treatment settling ponds, along the Lake Powell shoreline, and along the Colorado River. One fall record: one at Wahweap STP from 17 June to 9 July 1997 (C. LaRue et al.). The peak counts were 30 at Lone Rock Beach on 23 April 1992 (M. Britten) and 42 at Lees Ferry on 27 April 2000 (C. LaRue).

LESSER YELLOWLEGS (*Tringa flavipes*).—An uncommon local migrant recorded only at sewage treatment settling ponds and other similar ponds. Spring dates are from 21 April (1997 at Wahweap STP, C. LaRue, A. Flesch) to 25 May (1982 at Page golf course, G. Stolz GLCA files). Fall dates are from 1 July (1998 at Page STP, C. LaRue) to 13 October (2000 at Page STP, C. LaRue).

WHIMBREL (*Numenius phaeopus*).—A rare local spring transient with 2 records: one at the head of Wahweap Bay on 1 May 2000 (C. LaRue) and one at Wahweap STP on 8 May 1999 (C. Goetze).

LONG-BILLED CURLEW (*Numenius americanus*).—An uncommon restricted migrant along the Lake Powell shoreline and at sewage treatment settling ponds. Spring passage is from 2 April (2010 at Page STP, S. Putz) to 12 May (1990 at Wahweap, Grover GLCA files). Fall passage is from 29 June (1999 at Page golf course, J. Alston) to 2 September (1997 at Wahweap STP, C. Goetze). The peak number was 20 in Warm Creek Bay on 21 April 1999 (C. LaRue et al.) and 5 more that day in the Wahweap area.

MARBLED GODWIT (*Limosa fedoa*).—A common restricted spring migrant along the lakeshore and often seen in flocks over the larger bays. An uncommon local fall migrant in small numbers, with 32 at Lone Rock Beach on 21 September 2000 (C. LaRue) being an exceptionally large group. The spring passage peaks markedly in late April and fallouts involving large numbers of birds may occur if strong storms move through the region at that time. Examples of this include 410 in the Wahweap area on 21 April 1999 (C. LaRue et al.) and 200 birds flying north over Padre Bay on 22 April 2002 (J. Spence) during strong westerly winds. Spring dates are from 19 April (1999 at headquarters, C. LaRue) to 18 May (2000 in Warm Creek Bay, C. LaRue). Fall dates are from 9 July (1997 at Wahweap STP, C. LaRue) to 14 October (1999 at Page STP, C. LaRue).

SANDERLING (*Calidris alba*).—A sparse local migrant at ponds and the Lake Powell shoreline. The 11 records are as follows: one on rocks on the north shore of Wahweap Bay on 21 April 1999 (J. Spence et al.), 5 at Lone Rock Beach on 23 April 1999 (C. LaRue et al.), one on Lone Rock Beach on 26 April 1999 (C.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

LaRue), another there on 28 April 1999 (C. LaRue), an adult at Wahweap STP from 11 to 15 August 1997 (C. LaRue et al.), one at Wahweap STP from 8 to 9 September 1998 (C. LaRue, C. Goetze), 2 at Page STP on 13 September 2010 (J. Mohlmann), 2 at Wahweap STP on 13 October 1992 (M. Britten), 2 near the mouth of Warm Creek Bay on 18 September 1991 (M. Britten), a juvenile at Page STP from 21 to 22 September 2000 (C. LaRue et al.), and 5 juveniles at Lone Rock Beach on 22 September 2000 (C. LaRue). A single winter record exists of one bird at Lone Rock Beach on the 5 January 2009 CBC (photo V. Ferlein).

SEMIPALMATED SANDPIPER (*Calidris pusilla*).—A sparse local migrant. The 6 records are as follows: one adult at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), one adult at Wahweap STP from 22 to 23 July 1998 (C. LaRue, C. Goetze), one juvenile at Wahweap STP on 4 August 1997 (C. LaRue), one juvenile at Wahweap STP on 17 August 1998 (C. LaRue, C. Goetze), one juvenile at Wahweap STP on 25 August 1998 (C. LaRue), and one juvenile at Page STP from 7 to 10 September 1999 (C. LaRue et al.).

WESTERN SANDPIPER (*Calidris mauri*).—A common local migrant that has been recorded only at sewage treatment settling ponds. The largest number recorded is 78 at Wahweap STP on 2 September 1998 (C. LaRue, C. Goetze). Fall records are from 1 July (1997 at Wahweap STP, C. LaRue) to 12 October (2000 at Page STP (C. LaRue).

LEAST SANDPIPER (*Calidris minutilla*).—A common widespread migrant and a sparse local winter resident. Of the species of *Calidris* at GLCA, this is the one most likely to be seen along the Lake Powell shoreline. The largest number recorded is 41 at Page STP on 7 September 2000 (C. LaRue, C. Goetze). Spring passage is from 30 March (1999 at Page STP, C. LaRue) to 25 May (1999 at Page STP, C. LaRue). The 8 winter records are as follows: 8 at Wahweap STP on 1 December 1997 (J. Spence, J. Alston), 6 at the head of Wahweap Bay on 20 December (1999, C. LaRue), 2 at Wahweap STP on 1 January 1998 (C. Goetze, B. Mellberg), 2 at the head of Wahweap Bay on 3 January 2000 (J. Spence, C. Goetze), 27 at the head of Wahweap Bay on 17 January 2000 (C. LaRue), 15 there on 24 February 2000 (C. LaRue), 2 at Wahweap STP 2 January 2001 (B. and K. Bobowski), 6 in upper Wahweap Bay on 3 January 2003, and one there on 3 January 2005 (J. Spence). The species has been recorded on 5 of 12 CBCs.

BAIRD'S SANDPIPER (*Calidris bairdii*).—An uncommon local fall migrant that has been recorded at sewage treatment settling ponds. Dates range from 15 July (1998 at Wahweap STP, C. LaRue) to 12 October (1999 at Page STP, C. LaRue). The largest number recorded is 35 at Wahweap STP on 1 September 1998 (C. Goetze).

PECTORAL SANDPIPER (*Calidris melanotos*).—A sparse local spring transient and an uncommon local fall migrant that has been recorded only at sewage treatment settling ponds. The only spring record is 2 at Wahweap STP on 14 May 1982 (G. Stolz GLCA files). The 21 fall records are from 7 September (1997 at Wahweap STP, C. LaRue; 1999 at Page STP, C. LaRue, C. Goetze; and 2000 at Page and Wahweap STPs, C. LaRue) to 10 October (2000 at Page STP, C. LaRue). The largest number recorded is 7 at Page STP on 20 September 2000 (C. Goetze).

DUNLIN (*Calidris alpina*).—A sparse restricted transient and winter resident with 4 records as follows: one at Wahweap STP on 1 May 1997 (J. Spence), another there 28–29 September 1998 (C. LaRue, J. Spence), 2 at the head of Wahweap Bay on 27 January 2000 (C. LaRue), and one at the Colorado River inflow at Hite on 21 January 2004 (J. Spence, B. Russell).

STILT SANDPIPER (*Calidris himantopus*).—A sparse local migrant recorded only from the Page and Wahweap STPs. The 10 records are as follows: one at Wahweap STP on 19 May 1982 (G. Stolz GLCA files), an adult at Wahweap STP on 15 July 1998 (C. LaRue), an adult at Wahweap STP on 4–5 August 1997 (C. LaRue), one at Wahweap STP on 23 August 1995 (J. Spence), 2 at Wahweap STP on 24 August 1999 with one there the next day (C. Goetze, C. LaRue), one at Page STP on 30 August 1999 (C. LaRue), 3 at Wahweap STP on 1 September 1982 (G. Stolz GLCA files), 5 at Page STP on 13 September 1999 (C. LaRue, C. Goetze), and one at Page STP on 10 September 2000 (J. Spence).

SHORT-BILLED DOWITCHER (*Limnodromus griseus*).—A sparse local fall migrant with 6 records, all juveniles: one at Page STP on 7–10 September 1999 (C. LaRue et al.), one at Page STP 23–28 August and joined by a second 28–30 August 2000, one at Page STP 7–15 September 2000 and joined by a second 13–15 September 2000 (the second bird remained alone

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

through 22 September), and one at Wahweap STP 7–8 September 2000 (all C. LaRue et al.). Remarkable was an adult in alternate plumage at Page STP on 13 July 2001 (C. LaRue, C. Goetze). The majority of Arizona records of this species are of immature birds in fall (Monson and Phillips 1981).

LONG-BILLED DOWITCHER (*Limnodromus scolopaceus*).—A common widespread migrant primarily at sewage treatment settling ponds. Less commonly found on shorelines around Lake Powell. Spring dates are from 5 April (1998 at Wahweap STP, C. Goetze) to 6 May (1994 at Wahweap STP, J. Grahame). Fall dates are from 29 July (1997 at Page golf course, C. LaRue) to 3 November (2000 at Page STP, C. Goetze). The highest count noted was 69 at Wahweap STP on 1 May 1995 (J. Spence).

WILSON'S SNIPE (*Gallinago delicata*).—An uncommon widespread migrant and winter resident at sewage treatment settling ponds and other vegetated pond and lakeshore sites and along the Colorado River. This species has appeared as early as 27 July (1994 at Page golf course, J. Grahame), and the latest spring record is 29 April (1992 at Wahweap STP, J. Spence). The highest number recorded is 5 at Lees Ferry on 7 March 1995 (J. Grahame). The species has been recorded on 5 of 12 CBCs.

WILSON'S PHALAROPE (*Phalaropus tricolor*).—A common local migrant at sewage treatment settling ponds in both spring and fall. The largest number recorded was 120 at Wahweap STP on 24 August 1998 (C. LaRue).

RED-NECKED PHALAROPE (*Phalaropus lobatus*).—An uncommon widespread migrant primarily at sewage treatment settling ponds and occasionally on Lake Powell and along the Colorado River. The spring passage is from 24 April at Wahweap STP (1982, G. Stolz GLCA files; 1997, C. LaRue, A. Flesch) to 21 May (1997 at Lees Ferry, C. LaRue). The fall passage is from 10 August (1982 at Wahweap STP, G. Stolz GLCA files) to 12 October (2000 at Page STP, C. Goetze, C. LaRue). The largest number recorded is 50 at Lees Ferry on 20 May 1997 (C. LaRue).

RED PHALAROPE (*Phalaropus fulicarius*).—A rare local transient with one record: one in Bullfrog Bay on 1 November 1991 (M. Britten). Of the 3 species of phalaropes, the Red Phalarope is the least likely to be seen and occurs the latest in the fall throughout the interior western North America.

Family LARIDAE

SABINE'S GULL (*Xema sabini*).—A sparse local fall migrant with 6 records: one immature at Page STP on 13 September 2010 (J. Mohlmann), 3 immatures over Wahweap Bay on 22 September 1998 (C. LaRue et al.), 2 adults (possibly 4) in Wahweap Bay on 23 September 1999 (C. LaRue et al.), 2 immatures in Warm Creek Bay on 20 September 2000 (C. LaRue et al.), one immature at Lone Rock Beach on 21 September 2000 and 2 there 22 September 2000 (C. LaRue). These records suggest that this species may be regular on Lake Powell in mid- to late September.

BONAPARTE'S GULL (*Chroicocephalus philadelphia*).—An uncommon restricted migrant primarily on Lake Powell. The spring passage is from 8 March (2000 on Antelope Island, C. LaRue) to 8 May (1965 at Lees Ferry, B. Hoffman GLCA files). The fall passage is from 30 October (1991 at Castle Rock, M. Britten GLCA files) to 23 November (1962 at Wahweap, B. Hoffman GLCA files). One winter record: one at Wahweap STP on 3 January 2000 (B. and K. Bobowski). The largest group recorded was 99 in Wahweap Bay on 15 April 1997 (C. LaRue, A. Flesch). A bird reported as this species in the GLCA files by Talakte at the Carl Hayden Visitor Center parking lot may have been a Black-legged Kittiwake (*Rissa tridactyla*). The kittiwake is similar in size and appearance to Bonaparte's Gull, and the records from Arizona tend to fall later than Bonaparte's Gull. A number of kittiwake records from Arizona have been of stranded/exhausted birds, such as a pelagic gull in an inland parking lot would tend to be. The species has been recorded on 1 of 12 CBCs.

FRANKLIN'S GULL (*Leucophaeus pipixcan*).—A common restricted spring migrant on Lake Powell and at Page and Wahweap STPs. One record from the Colorado River: a bird at Paria Beach on 27 March 1997 (C. LaRue). Dates span from 23 March (2000 in Wahweap Bay, C. LaRue) to 19 May (1997 at Wahweap STP, C. LaRue) and perhaps even to 18 June (1997 at Wahweap STP, C. LaRue). The largest number recorded was 65 at Wahweap STP on 2 May 1997 (J. Spence).

MEW GULL (*Larus canus*).—A rare local transient with 2 records: a second-year bird at Wahweap from 30 November to 21 December 1996 (C. LaRue et al., photo T. Corman; American Field Notes 51:96) and another second-year bird on 2 April 2010 (photo S. Putz).

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

RING-BILLED GULL (*Larus delawarensis*).—A common to abundant widespread migrant and winter resident on Lake Powell and to a lesser extent at ponds. Numbers in spring peak in March. A remarkable fallout occurred on 21 March 2000 when 1225 were seen in the area of Wahweap Bay and Antelope Island. The species has been recorded on all 12 CBCs.

YELLOW-FOOTED GULL (*Larus livens*).—Vagrant. A second-year individual was seen from Lone Rock Beach to Glen Canyon Dam 21–23 April 1999 (C. LaRue, J. Spence, L. Dickson, and J. Holmes; photo G. Rosenberg). This individual represented the first confirmed record of this species from Arizona and the second record for Utah. The species occurs in the Sea of Cortez and the Salton Sea.

CALIFORNIA GULL (*Larus californicus*).—A common widespread migrant on Lake Powell, less numerous in the fall. It is sparse in summer as straggling indivduals. There are 2 winter records: 15 about 1.0 mile above Glen Canyon Dam on 4 January 2000 (C. LaRue) and 2 on Lake Powell on 5 January 2009 (J. Spence). The largest number recorded was 263 at Wahweap Bay on 21 April 1999 (C. LaRue). Recorded twice on the Colorado River: 11 on 26 April 1995 (C. Pinnock) and 25 at Lees Ferry on 30 March 2001 (J. Spence). The species has been recorded on 2 of 12 CBCs.

HERRING GULL (*Larus argentatus*).—A sparse widespread migrant and winter resident primarily on Lake Powell. The 13 records are as follows: one at Antelope Island on 15 October 1997 (J. Spence), a first-winter bird near the mouth of Rock Creek Bay on 15 October 2000 (C. LaRue), one at Hall's Creek Bay on 19 October 1994 (J. Grahame GLCA files), one first-winter bird at Lone Rock Beach on 30 October 2000 (C. LaRue), a second-winter bird at Wahweap 30 November to 8 December 1996 (T. Corman et al.), another there on 30 November 1997 (G. Rosenberg, M. Stevenson), one in Warm Creek Bay on 5 December 1996 (J. Spence, C. Pinnock), a first-winter bird in Wahweap Bay on 5 January 2004 (B. Russell et al.), a first-winter bird at Wahweap/Page STP from 3 to 21 January 2000 (C. LaRue et al.), a second-year bird and an adult at Page STP on 5 Janaury 2009 (J. Spence), a first-winter bird in Wahweap Bay on 17 January 1997 (C. LaRue and J. Spence) one in Hall's Creek Bay on 13 March 1996 (J. Spence), one in Wahweap Bay on 28 February 1979 (J. Coons GLCA files), one adult and one first-winter bird in Wahweap Bay and 2 first-winter birds at Lone Rock Beach on 21 April 1999 (C. LaRue et al.). The species has been recorded on 7 of 12 CBCs.

CASPIAN TERN (*Hydroprogne caspia*).—A rare local migrant on Lake Powell. There are 2 records from GLCA: one in Warm Creek Bay on 3 September 1997 (C. LaRue, B. Russell) and one at Lone Rock Beach on 28 April 1999 (C. Goetze, C. LaRue).

BLACK TERN (*Chlidonias niger*).—A sparse restricted migrant at sewage treatment settling ponds and on Lake Powell. The 8 records are one at Wahweap STP on 11 May 1995 (J. Grahame), 7 at Bullfrog on 2 August 1966 (Christensen GLCA files), 20 at "lower MCS pond" on 16 August 1962 (B. Hoffman GLCA files), one at Page STP on 24 August 2000 (C. Goetze), 4 at Page STP on 30 August 1999 (C. LaRue), 3 at Antelope Island on 25 August 1998 (C. LaRue), one at Page STP on 7 September 2000 (C. LaRue), and one near Antelope Island on 9 September 2003 (J. Spence).

COMMON TERN (*Sterna hirundo*).—An uncommon restricted migrant on Lake Powell. All records prior to the GLCA bird inventory program are discounted owing to the confusion of this species with Forster's Tern. There are 7 records as follows: one at Lone Rock Beach on 22 April 1999 and 5 there on 23 April 1999 (C. LaRue at al.), one at Lone Rock Beach on 29 September 1999 (J. Coons et al.), one adult with 3 juveniles on the north shore on Wahweap Bay on 20 September 2000 (C. LaRue et al.), one adult and 13 juveniles at Lone Rock Beach on 21 September 2000 (C. LaRue), 14 there (at least 4 adults and 5 juveniles) on 22 September 2000 (C. LaRue), and one adult and 3 juveniles in Warm Creek Bay on 19 September 2007 (J. Spence).

FORSTER'S TERN (*Sterna forsteri*).—An uncommon widespread migrant on Lake Powell. Certain records are one at Wahweap Marina and 6 on the north tip of Antelope Island on 21 April 1997 (C. LaRue et al.), 42 at Lone Rock Beach on 22 April 1999 (C. LaRue et al.), 3 at Lone Rock and 2 at Page STP on 23 April 1999 (C. LaRue), 3 at Wahweap Marina on 14 May 1997 (C. LaRue et al.), and singles in Wahweap Bay and at Antelope Island on 3 September 1997. The largest single flock was of 150 birds on a rocky islet off Antelope Island 10 May 1995 (J. Spence). Most of the medium-sized white terns seen on the lake are likely this species.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

However, it is difficult to determine which of the numerous records of "Forster's" and "Common" terns on record are accurate. The records from surrounding regions indicate that Forster's Tern occurs more frequently. It is possible that Arctic Tern (*Sterna paradisaea*) may occur on Lake Powell as a sparse transient since there are several records from interior western North America.

Family STERCORARIIDAE

PARASITIC JAEGER (*Stercorarius parasiticus*).—A rare local transient. One record from GLCA: a single light-morph adult at Lone Rock Beach/Wahweap Bay on 21 September 2000 (C. LaRue).

ORDER COLUMBIFORMES

Family COLUMBIDAE

ROCK PIGEON (*Columba livia*).—Uncommon local permanent exotic resident and breeder in Page. Wandering individuals have been seen at remote locations on occasion such as one at Lees Ferry on 8 January 1999 (C. LaRue) and another there on 23 January 1995 (J. Grahame). The species has been recorded on all 12 CBCs.

BAND-TAILED PIGEON (*Patagioenas fasciata*).—A rare local transient with one record: a lone bird at Navajo Point, Kaiparowits Plateau on 25 September 2000 (C. LaRue et al.).

EURASIAN COLLARED-DOVE (*Streptopelia decaocto*).—A widespread common permanent resident and breeder in Page that first appeared on the 2004 CBC of 5 January 2004 (J. Spence, L. Holsten). This species had possibly been in the city for some time but had not been previously detected. The species has been spreading rapidly north from southern Arizona and has colonized most small towns in the area. Ten individuals were seen in residential areas in Page that day. The following CBC located 31 individuals in Page (J. Spence). Birds were being seen regularly in the Wahweap area on Lake Powell (J. Spence, B. Russell) as of September 2005 and at Bullfrog since 2008. The Glen Canyon CBC recorded 75 birds from different areas of Page and Wahweap on 4 January 2006 (J. Spence), 204 on 3 January 2007 (J. Spence) in Greenehaven, Page, and Wahweap, and 347 in these areas on 3 January 2008 (J. Spence). The species has been recorded on the last 7 of 12 CBCs.

WHITE-WINGED DOVE (*Zenaida asiatica*).—A sparse restricted migrant and recent permanent resident and rare breeder. Prior to 2006 there were 15 records: 2 at Lees Ferry on 27 April 1982 (G. Stolz GLCA files), one at Page on 28 April 1999 (C. Goetze), one at Wahweap on 2 May 1992 (J. Spence), one in Page on 5 May 1999 (C. Goetze), one at Lees Ferry on 8 May 1999 (C. Goetze), one at Wahweap on 12 May 1997 (C. LaRue, C. Goetze), one in Page on 15 May 1996 (C. Pinnock, J. Spence), one in Page on 20 May 1994 (J. Grahame), 2 at Warm Creek on 11 July 1963 (B. Hoffman GLCA files), one in Page on 15 August 2000 (C. LaRue), 2 in Page 21 July–24 August 1999 (C. LaRue), 3 at Page golf course on 1 September 1982 (G. Stolz GLCA files), 3–5 in Page 9–13 September 1999 (C. LaRue), one in Page on 4 November 2000 (C. Goetze), probably the same individual in Page on 16 December 2000 (M. Stevenson, G. Rosenberg), and 3 in Page on 3 January 2007 (B. Russell). Remarkable were 12 birds at a backyard feeder in Page on 4 January 2006 (J. Spence), 24 on 3 January 2008 (J. Spence), 23 on 5 January 2009 (P. Talbott), and 26 on 5 January 2010 (J. Spence). Two birds spent the summer in Page in 2003, and were seen from 1 March through 25 August, with 4 individuals seen ata feeder on 14 August, suggesting the possibility that breeding occurred (G. Nealon). A juvenile bird was also photographed on 14 July 2007, indicating breeding in Page (G. Nealon photo; NPS files). This species has clearly become increasingly more frequent in the Page area probably as a manifestation of its ongoing range expansion in Arizona. However, the abrupt appearance of the species in 2006 also suggests the possibility that the individuals were escaped birds, as several individuals in Page keep various dove species in captivity. The species has been recorded on the last 5 of 12 CBCs.

MOURNING DOVE (*Zenaida macroura*).—A common widespread summer resident and breeder in riparian areas throughout GLCA, and a common migrant throughout, with a few overwintering. The bulk of the spring passage is in late April and a noticable fall passage takes place in mid-September. The following nesting records have been obtained: a nest with 2 chicks in tamarisk at Colorado River RM –14.5 on 11 June 1993 (J. Spence), a nest with chicks in tamarisk at RM –8.4 on 18 June 1993, a nest with 2 eggs in tamarisk on 23 May 1995 at RM –14.5 (J. Grahame), 2 nests with 2 eggs in tamarisk at RM –3.0R on 21 May 1997 (C. LaRue), a nest with 2 eggs in tamarisk at Wahweap, and a nest with

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

2 eggs in a Utah juniper in a side canyon off of the Great Bend on 7 June 1999 (C. LaRue), a nest with 2 eggs in a Utah juniper in a second side canyon off the Great Bend, a nest with 2 eggs in a hackberry and another with 2 eggs in a Gambel oak in Cottonwood Canyon on 9 June 1999 (C. LaRue), a nest with 2 young in a tamarisk at Colorado River RM –3.2R on 15 June 1999 (C. LaRue), a nest with 2 eggs in tamarisk on the Escalante River at 25 Mile Wash on 23 June 1999 (J. Holmes), and a fledgling seen near Chaol Falls on 10 July 1997 (C. LaRue). The Mourning Dove is uncommon in winter in open riparian brush in the Page area.

INCA DOVE (*Columbina inca*).—A rare transient and local winter resident and possible breeder with 5 records: one at Lonely Dell on 24 October 1992 (A. LaRue), 3 at Lees Ferry on 2 December 1995 (J. Grahame), one at Bullfrog on 20 February 1996 (B. Zurcher), and one in Page on 3 January 2005 (J. Spence). The single summer record is from 7 July 2009 at Lonely Dell (photo S. Putz). The species has been recorded on one of 12 CBCs.

COMMON GROUND-DOVE (*Columbina passerina*).—Vagrant. One was seen at Lees Ferry on 14 October 1991 (S. Ganley).

ORDER CUCULIFORMES

Family CUCULIDAE

YELLOW-BILLED CUCKOO (*Coccyzus americanus*).—A rare restricted transient in dense riverside tamarisk thickets. There are 5 records: one at Colorado River RM –14 on 6 June 1995 (J. Grahame), one at Lees Ferry on 21 June 1995 (J. Grahame), 4 at Clay Hills Crossing from 21 to 22 June 1996 (J. Grahame, C. LaRue), 2 there on 26 June 1997 (C. LaRue), and one there on 12 June 2001 (J. Spence). Breeding may occur near Clay Hills Crossing, San Juan River.

GREATER ROADRUNNER (*Geococcyx californianus*).—A sparse local permanent resident and breeder. All of the records are from riparian brush and ornamental landscape vegetation and adjoining desert scrub in the Lees Ferry, Page, and Wahweap areas, with the earliest record in 1961. An incubating bird was found at the GLCA headquarters in Page on 28 July 2000 (C.LaRue) in planted Arizona cypress, and at least 2 young fledged from this nest on 30 August (B. Russell, J. Spence). This nest represents the first confirmed breeding of this species in northern Arizona. Roadrunners appear to be increasing in the Page area. The species has been recorded on 10 of 12 CBCs.

ORDER STRIGIFORMES

Family TYTONIDAE

BARN OWL (*Tyto alba*).—A rare widespread permanent resident with 3 records; one road-killed in Page on 14 May 1999 (J. Alston), one road-killed at milepost 8.0, Hwy. 89 near Big Water on 14 June 1996 (C. LaRue), and 2 seen alive and one found dead at Sooner Rocks, Escalante Bench between 7 and 11 September 1995 (C. Goetze).

Family STRIGIDAE

WESTERN SCREECH-OWL (*Megascops kennicottii*).—An uncommon widespread permanent resident and breeder of riparian stands along the Escalante River and in pinyon-juniper woodlands in the Orange Cliffs. A group of 5 fledglings were found at Waterholes Flat on 13 June 2000, and another group of 4 fledglings were found nearby the next day. The remaining records are as follows: one calling on the Escalante River at the mouth of Fence Canyon on 2 March 2000 (C. LaRue), adult pair seen at head of Bown's Canyon on 8 May 2000 (C. LaRue), one in Cow Canyon, Escalante River 13 June 1994 (J. Spence), one in upper Cow Canyon, Escalante River on 30 July 1992 (J. Spence), one in Long Canyon on 3 September 1992 (J. Spence), one at Fence Canyon, Escalante River, on 17 September 1998 (C. Goetze) and 1–2 calling each evening (possibly a family group) at and below Navajo Point, Kaiparowits Plateau, 26–28 September 2000 (C. LaRue). The species has been recorded on one of 12 CBCs.

GREAT HORNED OWL (*Bubo virginianus*).—A common widespread permanent resident and breeder throughout the area. Most of the roosts and nest sites have been in cliffs, and this is the common large owl that seems to be seen in virtually all of the deep, narrow "slot" canyons. Fledglings are commonly seen from May to July in side canyons off Lake Powell. The species has been recorded on 5 of 12 CBCs.

NORTHERN PYGMY-OWL (*Glaucidium gnoma*).—A rare local fall transient and possible winter resident. Records from surrounding areas suggest that this species may be uncommon in higher elevations from fall through spring. The only GLCA records are as follows: one in upper Miller's Creek on 23 September 1992 (J.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Spence), one at Navajo Point, Kaiparowits Plateau, 28–29 September 2000 (C. LaRue), one about 0.5 mile west of Navajo Point, Kaiparowits Plateau, on 1 November 1994 (J. Spence), and one in Millard Canyon on 16 November 1998 (C. LaRue).

BURROWING OWL (*Athene cunicularia*).—An uncommon local summer resident and breeder in open sandy desert flats. Most of the records are from the Bullfrog and Wahweap area and include observations of nesting at each locality. There is one winter record of an adult at Cal Black Airport near Hall's Crossing on 9 January 2004 (B. Russell).

SPOTTED OWL (*Strix occidentalis*).—A rare local permanent resident and breeder in canyons containing deeply fissured cliffs. Surveys (1992–1998) found this species in the canyon heads off of the Big Ridge, Easter Canyon, several Escalante River tributaries, and Millard Canyon, and in Miller's Canyon. There are also recent unconfirmed reports from the Escalante River and Grand Bench.

LONG-EARED OWL (*Asio otus*).—An uncommon widespread permanent resident and breeder in dense pinyon-juniper woodland and riparian areas, and a rare restricted summer resident and breeder. Smaller numbers may remain regularly in summer. This species is a small-mammal specialist and, like the Northern Saw-whet Owl, may appear irruptively in areas experiencing peaks in small mammal abundance. Five (perhaps 6) breeding localities were found in the dense pinyon-juniper woodland on the Kaiparowits Plateau in the spring and summer of 2000 following a large pinyon mast crop in the fall of 1999. Three nest sites were located, all of which were in old Cooper's Hawk nests. These nests were in a Gambel oak (*Quercus gambelli*), a bigtooth maple (*Acer grandidentatum*) and a Utah juniper (*Juniperus osteosperma*). An incubating bird (oak site) and one with 3 small nestlings (maple site) was found on 19–20 April. A pair with 2 fledglings (juniper site) was found on 24 May. Agitated or defensive birds were found on 25 May and 6 June. Two family groups (one of which was at the oak site) were seen on 17 July. The following additional records have been accumulated: one at Bullfrog on 1 January 1967 and 4 there on 2 June 1967 (both Christensen GLCA files), roost site found in tamarisk at Colorado River RM –3.2 on 13 February 1998 (C. LaRue), one found dead in pinyon-juniper on the Kaiparowits Plateau on 16 July 1997 (C. LaRue) and one seen near there on 11 May 1999 (C. LaRue, J. Spence), 3 seen in a tamarisk thicket on Last Chance Creek on 10 March 1999 (C. LaRue et al.), one seen in dense junipers and oaks in Cottonwood Canyon on 30 June 1999 (J. Holmes), one at Wahweap Bay on 16 July 1963 (B. Hoffman GLCA files), a family group of 5 opposite the Lees Ferry ramp in tamarisk on 2 February 2007 (C. LaRue), and one found dead at Hall's Crossing STP on 31 October 2000 (G. Taylor). Remarkably, in 2006 a pair bred in a planted Arizona cypress at Lake Powell Lodge (Wahweap) with thousands of people walking past the nest. Four young fledged in May and the family was last seen on June 12 (J. Spence, photo J. Mayer). The CBC on 3 January 2008 located 4 individuals in the same vicinity (J. Spence). The species has been recorded on 2 of 12 CBCs.

NORTHERN SAW-WHET OWL (*Aegolius acadicus*).—A rare local permanent resident and irregular breeder in pinyon-juniper woodlands and a sparse transient elsewhere. Up to 5 individuals were found in the pinyon-juniper woodland of the Kaiparowits Plateau from 21 to 23 April and 22 to 25 May 2000. A pair with one calling from a flicker-excavated cavity in a pinyon snag was found on 20 April. On 25 May 2000, this nest held 6 eggs. A molted feather was found in an oak- and pinyon-juniper–filled canyon there on 17 July 2000. G. Cox reported hearing and seeing one several times in the pinyon-juniper woodland at Hans Flat throughout the winter of 1999–2000. This species is a small-mammal specialist that relies heavily on *Peromyscus* throughout its range. Its tendency to breed irregularly in pinyon-juniper woodlands in the region (Phillips et al. 1964, LaRue 1994) appears to be related to peaks in the abundance of *Peromyscus* that are linked to pinyon mast. The pinyons on both the Kaiparowits Plateau and the Hans Flat area produced large cone crops in 1999, and Northern Saw-whet Owls appeared in both areas in subsequent months. This pattern was observed on Black Mesa, Arizona, in 1992–1993 (LaRue1994). One lowland record: a bird photographed at Greenehaven on 14 September 2000 (J. Gable).

ORDER CAPRIMULGIFORMES

Family CAPRIMULGIDAE

LESSER NIGHTHAWK (*Chordeiles acutipennis*).—A common local summer resident and

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

breeder in Page and Wahweap. The earliest report is from 1964 (M. Thurston GLCA files). The species was not reported again until 1995 when it was noted as numerous at some of the streetlights (J. Spence, J. Grahame). However, birds were heard or seen in the Wahweap area in spring and summer of 1992 (J. Spence) and in Page on 8 June 1993 (M. Britten). Young apparently fledge in early July, since they are numerous and rather tame at that time. This species breeds primarily in the lowlands of the Chihuahuan, Sonoran, and Mojave deserts. However, these records are consistent with recent breeding-season records from north of the principal range from the lowest desert river valleys of the Colorado Plateau such as the Little Colorado River near Cameron and Wupatki National Monument, Montrose, Colorado, and Hanksville, Utah.

COMMON NIGHTHAWK (*Chordeiles minor*).—A common local summer resident and probable breeder in open pinyon-juniper woodlands, perhaps mostly at Andy Miller/Waterhole Flats but possibly on the Kaiparowits Plateau and the Orange Cliffs. There are no breeding records. Migrants and transients occur throughout GLCA. Records span from 21 May (1982 at Wahweap, G. Stolz GLCA files) to 12 October (1999 at Page golf course, J. Alston et al.).

COMMON POORWILL (*Phalaenoptilus nuttallii*).—An uncommon local summer resident and probable in pinyon-juniper woodlands. There are no breeding records. Most of the records are from the Kaiparowits Plateau. The latest date is 25 October (1998 on the Echo Peaks, J. Alston). One was heard on the Escalante River at Fence Canyon on 18 May 1999 (D. Foster), and a second bird was seen on the river flying through cottonwoods at dusk on 23 October 2004 about 2 miles above Fools Canyon (J. Spence).

ORDER APODIFORMES

Family APODIDAE

VAUX'S SWIFT (*Chaetura vauxi*).—A rare local transient with 3 records, all singles: a bird at Lees Ferry on 10 May 2009 (S. Putz), a bird struggling against strong head winds low over the blackbrush flats at Highway 89 milepost 552.8 on 21 September 2000 (C. LaRue), and a bird over Padre Bay on 20 April 2002 during 2 days of strong westerly winds (J. Spence).

WHITE-THROATED SWIFT (*Aeronautes saxatalis*).—An abundant widespread migrant and summer resident and probable breeder along cliffs throughout GLCA. Breeding has not been confirmed. Records span from 4 March (1999 near Greenehaven, C. LaRue) to late October.

Family TROCHILIDAE

MAGNIFICENT HUMMINGBIRD (*Eugenes fulgens*).—Vagrant. There is a record of one at Bullfrog housing on 5 July 1966 (Chistensen GLCA files). It seems doubtful that this bird could be misidentified, and we are inclined to consider this report valid. Furthermore, of the so-called "Mexican" hummingbirds that reach the northern limits of their ranges in southern Arizona, this species has the strongest pattern of vagrancy northward into the Intermountain West.

BLACK-CHINNED HUMMINGBIRD (*Archilochus alexandri*).—A common widespread summer resident and breeder in riparian areas (even very isolated small sites) throughout GLCA. Dates span from 21 March to 11 October (1998 and 1999, respectively, both in Page, C. Goetze). The breeding records are a female with 2 young observed for several weeks at Paria Beach in April–May 1994 (J. Grahame, photo in NPS files), a female building a nest in a hackberry in Scorpion Gulch, Escalante River on 20 May 1999 (C. LaRue), a female gathering seed down of *Senecio multilobatus* and a juvenile heard vocalizing on the Kaiparowits Plateau on 7 July 1999 (C. LaRue), a fledgling seen near Chaol Falls on 10 July 1997 (C. LaRue), and a female seen and a juvenile heard vocalizing in a Douglas-fir grove in Millard Canyon on 14 July 1999 (C. LaRue).

COSTA'S HUMMINGBIRD (*Calypte costae*).—A rare local spring transient and possible resident and breeder along the Colorado River. One was seen at Colorado River RM –6.0 on 10 April 1984 (B. Brown GLCA files). In the spring 1999, individuals were observed at RM –8.4R on 26 April (L. Dickson, C. LaRue), RM –10.0R on 27 April (C. LaRue), and at Lonely Dell on 28 April (C. LaRue). There is one winter record of a male coming to feeders in Greenehaven during December and January 2005–2006 (V. Firlein). The species has been recorded on 1 of 12 CBCs.

CALLIOPE HUMMINGBIRD (*Stellula calliope*).—A rare widespread migrant that is known only from 3 records: one at the mouth of Warm Springs Creek, Colorado River RM –137, on 9 July 1958, one in Aztec Creek on 26 July 1958 (both Behle and Higgins 1959), and one in Page on 20 September 2000 (J. Spence).

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

BROAD-TAILED HUMMINGBIRD (*Selasphorus platycercus*).—A common widespread migrant and rare local summer resident and breeder throughout the area in riparian and other wooded situations, but it has been encountered elsewhere including far out in the desert flats. Confirmed breeding in small numbers in the pinyon-juniper and montane scrub-filled canyons on the Kaiparowits Plateau on 7 July 1999 when a female was observed feeding a young fledgling (J. Holmes, C. LaRue). Large numbers were observed migrating south in the falls of 1999 and 2000 around Navajo Point. Dates span from 15 April (1947 at Aztec Creek, Behle and Higgins 1959) to 29 September (2000 in Page, C. Goetze).

RUFOUS HUMMINGBIRD (*Selasphorus rufus*).—A common restricted summer and fall migrant found in riparian areas and other situations supporting suitable flowers. The bulk of migration is in August and early September, but the species can occur as early as 5 July (J. Spence).

ORDER CORACIIFORMES

Family ALCEDINIDAE

BELTED KINGFISHER (*Megaceryle alcyon*).—An uncommon restricted migrant along the Colorado River, Lake Powell, and occasionally elsewhere. Rare in winter along the river and lakeshore. The bulk of the spring passage is late April to mid-May and the fall passage is from late August through September. There are no records during June and July.

ORDER PICIFORMES

Family PICIDAE

LEWIS'S WOODPECKER (*Melanerpes lewis*).—A rare local transient. The only record is one at Navajo Point on 29 September 2000 (C. LaRue).

ACORN WOODPECKER (*Melanerpes formicivorus*).—Vagrant. The only record of this easily identified species is one at Wahweap on 12 August 1966 (M. Johnson GLCA files).

WILLIAMSON'S SAPSUCKER (*Sphyrapicus thyroideus*).—A rare local fall migrant with 4 records: a female seen in pinyon-juniper woodland on the Kaiparowits Plateau on 17 September 1999 (J. Holmes), another female there on 20 April 2000 (C. LaRue), a male migrating off Navajo Point on 27 September 2000 (C. LaRue), and a female at Lonely Dell on 16 September 2000 (J. Spence)

YELLOW-BELLIED SAPSUCKER (*Sphyrapicus varius*).—A rare local migrant and winter resident in riparian areas. There are 4 records as follows: a first-winter bird at Wahweap Trailer Village on 11 November 1999 (C. Goetze, C. LaRue), one at Lonely Dell on 27 November 1994 (J. Grahame), a first-winter bird at Lees Ferry 16–30 January 1994 (C. LaRue), and an adult at Paria Beach on 12 February 1999 (R. Radd et al.).

RED-NAPED SAPSUCKER (*Sphyrapicus nuchalis*).—An uncommon widespread migrant and possible summer resident and breeder in pinyon-juniper and riparian woodlands and in trees in residential areas throughout. Also an uncommon winter resident in riparian brush and trees in the southern portions. Dates span from 25 August 1994 (J. Spence) to 14 September (1999 on the Kaiparowits Plateau, J. Holmes) to 20 May (1999 at Scorpion Gulch, Escalante River, C. LaRue). The species has been recorded on all 12 CBCs.

DOWNY WOODPECKER (*Picoides pubescens*).—A sparse local fall migrant in riparian zone trees and developed areas, and probable summer resident and breeder, with 8 records: one in cottonwoods at the head of Long Canyon on 4 September 1992 (J. Spence), 2 or more heard along the Escalante River above Harris Wash on 29 May 1997 (C. LaRue), one at Wahweap housing on 28 November 1976 (Stumpf GLCA files), one at the Wahweap campground on 3 January 2002 (J. Spence), 2 there on 3 January 2005, one there on 3 January 2007 (J. Spence), one in Page on 3 January 2005 (J. Spence), and 2 in Page on 3 January 2007 (J. Spence). This species is probably not as scarce as these records indicate and may be regular and common in the riparian groves of the Escalante River. The species has been recorded on 3 of 12 CBCs.

HAIRY WOODPECKER (*Picoides villosus*).—A common widespread permanent resident and breeder in pinyon-juniper woodlands on the Kaiparowits Plateau, on the Big Ridge, and at Waterhole Flat. May also breed in the riparian woodlands along the Escalante River as suggested by one seen near Silver Falls Creek on 24 June 1999 (C. LaRue). An irregularly uncommon migrant and winter resident in riparian brush and trees. The 4 breeding records include an alarmed adult at a cavity in a Gambel oak in a maple grove on the Kaiparowits Plateau on 12 May 1999 (C. LaRue), an adult gathering and carrying food in oaks and maples there on 24 May 2000 (C. LaRue), a pair with a fledgling in

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

pinyon-juniper there on 6 June 2000 (C. LaRue), and an adult with a fledgling in pinyon-juniper woodland near Hans Flat on 13 July 1999 (C. LaRue). The species has been recorded on one of 12 CBCs.

NORTHERN FLICKER (*Colaptes auratus*).—An uncommon restricted permanent resident and breeder in pinyon-juniper woodlands on the Kaiparowits Plateau and the Big Ridge near Hans Flat. A common and widespread migrant (beginning in August) and winter resident in these and riparian woodlands throughout GLCA. The only breeding records are an adult excavating a cavity in a Utah juniper on the Kaiparowits Plateau on 20 April 2000 and fledglings seen near Hans Flat on 14 July 1999 (C. LaRue). A "yellow-shafted flicker" was seen in Page on 14 October 2000 (C. Munill) and 3 partial remiges of another (age of remains unknown) were found in an alcove in Ribbon Canyon on 7 May 1997 (J. Spence). The species has been recorded on all 12 CBCs.

ORDER PASSERIFORMES

Family TYRANNIDAE

OLIVE-SIDED FLYCATCHER (*Contopus cooperi*).—A sparse widespread migrant in riparian areas and in pinyon-juniper woodlands throughout the area. The 8 records are as follows: 2 on the Kaiparowits Plateau on 13 May 1999 (C. LaRue), one at Colorado River RM –8.3R on 21 May 1998 (C. LaRue), one at RM –3.5 and one at RM 1.0 on 10 August 1938 (Woodbury and Russell 1945), 2 in Page on 17 August 1999 (C. LaRue), and one on the Kaiparowits Plateau on 14 September 1999 (C. LaRue). This species may be more frequent than these records indicate.

WESTERN WOOD-PEWEE (*Contopus sordidulus*).—An uncommon widespread migrant in wooded habitats throughout GLCA, and a possible rare summer resident and breeder. The Western Wood-Pewee may possibly breed in small numbers in the riparian groves in the upper portions of the Escalante River. The spring passage is from 12 May (1994 at Lees Ferry, J. Grahame) to 10 June (1999 in Cottonwood Canyon, L. Dickson) and perhaps to 27 June (1995 in Reflection Canyon, J. Grahame). The fall passage is from 16 August (2000 at Wahweap, C. Goetze) to 20 October (1958 at Hole-in-the-Rock by Behle; Behle and Higgins 1959).

WILLOW FLYCATCHER (*Empidonax traillii*).—An uncommon restricted migrant in riparian situations and rare summer resident and probable breeder. The endangered southwestern subspecies formerly bred in Glen Canyon (Woodbury and Russell 1945, Behle and Higgins 1959). More recently, a pair of vocalizing birds were observed at George's Camp on the Escalante River, 1 June 1997 (J. Spence), and a single vocalizing bird was heard at Clay Hill's Crossing, San Juan River on 12 June 2001 (J. Spence). Spring passage is from 11 May (1994 at Colorado River RM –8.2R, J. Grahame) to 15 June (1999 at RM –7.0L, C. LaRue et al.). The fall dates are from 24 August (2000 at Lees Ferry, C. LaRue) to 19 September (1994 at Page golf course, J. Grahame).

LEAST FLYCATCHER (*Empidonax minimus*).—A rare local transient with one record: a bird at Page STP/golf course on 13–14 September 2000 (C. LaRue et al.).

HAMMOND'S FLYCATCHER (*Empidonax hammondii*).—An uncommon widespread migrant in pinyon-juniper and riparian woodlands. The records are as follows: one at Lonely Dell on 28 April 1999 (C. LaRue), 14 seen on the Kaiparowits Plateau 10–13 May 1999 (C. LaRue), one in Cottonwood Canyon on 11 May 2000 (C. LaRue), 3 in the lower 0.5 mile of Harris Wash, Escalante River, on 17 May 1999 (C. LaRue), one on the Kaiparowits Plateau on 25 May 2000 (C. LaRue), one at Page STP on 13 September 2000 (C. LaRue), 11 on the Kaiparowits Plateau 14–17 September 1999 (C. LaRue, J. Holmes), one on the Kaiparowits Plateau on 26 September 2000 (C. LaRue), one at Navajo Point, Kaiparowits Plateau on 30 September 2000 (C. LaRue), and one at Page STP on 3 November 2000 (C. LaRue, C. Goetze).

GRAY FLYCATCHER (*Empidonax wrightii*).—A common widespread summer resident and probable breeder in pinyon-juniper woodlands on the Kaiparowits Plateau, Andy Miller/Waterhole Flat, and the Big Ridge. This species is a common migrant in riparian brush and trees throughout GLCA and present from 19 April to 26 September (both in 2000 on the Kaiparowits Plateau, C. LaRue). Spring migrants have been seen until 28 May (1998 in Last Chance Creek, C. LaRue), and fall migrants have appeared in riparian sites as early as 23 August (2000 at Lonely Dell, C. LaRue).

DUSKY FLYCATCHER (*Empidonax oberholseri*).—An uncommon local summer resident

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

and breeder in montane scrub and pinyon-juniper-filled ravines on the Kaiparowits Plateau. A bird building a nest in a maple was seen on 24 May 2000 (C. LaRue). Also an uncommon widespread migrant in riparian areas. Spring migrants have been seen in riparian areas from 28 April (1998 at Lonely Dell, C. LaRue) to as late as 2 June (1999 at Lees Ferry, C. LaRue). A remarkable 22 seen on the Kaiparowits Plateau on 13 May 1999 (C. LaRue) surely represent a period of peak passage. Fall migrants have been seen in lowland sites as early as 9 August 2000 in Lake Canyon, C. LaRue), and it appears that most have passed through by mid-September.

CORDILLERAN FLYCATCHER (*Empidonax occidentalis*).—A rare widespread migrant, and possible summer resident and breeder. The 5 records are as follows: 2 seen on the Kaiparowits Plateau on 24 May 2000, and one seen there on 25 May 2000 (C. LaRue), one in a canyon off of the Great Bend on 30 May 1994 (J. Spence), one at Moqui Seep, Kaiparowits Plateau on 6 June 2000 (C. LaRue), and several seen near Navajo Point, Kaiparowits Plateau, on 25 August 1994 (J. Spence).

BLACK PHOEBE (*Sayornis nigricans*).—An uncommon widespread summer breeding resident along canyon streams and along the Colorado River. This species was not detected by workers in the 1930s and 1950s, so it appears that this species has recently expanded into GLCA. Dates of occupancy span from 8 March (1999 at Wahweap, C. LaRue) to 22 September (2000 at Page STP, C. LaRue et al.). The only winter records are of 1–2 birds that wintered in Glen Canyon below the dam in 1998–1999, 1999–2000, 2000–2001, 2008–2009, and 2009–2010. Breeding has been documented 10 times as follows: a begging fledgling attended by 2 adults in Cow Canyon on 30 July 1992 (J. Spence), an incubating bird at Colorado River RM –12.0R on 20 April 1999 with this nest containing 2 eggs on 16 June 1999 (C. LaRue et al.), the same nest with 4 eggs on 27 April 2000 (C. LaRue), an incubating bird at a nest above a beaver pond in Bown's Canyon on 9 May 2000 (C. LaRue), a nest with 2 fledglings on the Escalante River near the Moody Creek confluence (J. Spence), a nest with 4 eggs at RM –13.4L on 16 June 1999 (C. LaRue, J. Holmes), a bird near a nest on the San Juan River at RM 56.5L on 27 June 1999 (J. Muller), a bird at a nest in Slickhorn Canyon on 28 June 1999 (J. Muller), a family group of 3 (at least one begging fledgling) at the base of Glen Canyon Dam on 7 July 1997 (C. LaRue), and adults carrying food to a nest concealed in a cleft below Chaol Falls on 10 July 1997 (C. LaRue). The species has been recorded on 5 of 12 CBCs.

EASTERN PHOEBE (*Sayornis phoebe*).—A rare local migrant with 4 records as follows: one at Colorado River RM 1.0R on 1 April 1999 (C. LaRue et al.), one at RM 1.6R on 1 April 1999 (K. McMullen et al.), one at Wahweap on 5 June 1999 (J. Alston), and one in Page on 22 October 2000 (C. Goetze).

SAY'S PHOEBE (*Sayornis saya*).—A common widespread summer resident and breeder along open wash courses with rock ledges and at other similar locations throughout GLCA. Also an uncommon winter resident at the lowest elevations in at least the southern portions of the area, and regular in winter along the Colorado River below the dam. Breeding records include a nest with 3 young of the year in rock ledges near Lees Ferry on 18 June 1995 (J. Grahame), an adult carrying food to a nest over the water at Colorado River RM –1.5R on 27 April 2000 (C. LaRue), an incubating bird on a nest in a niche in a small alcove 200 feet above the floor of Explorer Canyon on 10 May 2000 (C. LaRue), and a fledgling at Wahweap and an incubating bird at Page STP on 13 May 1997 (C. LaRue). This species also nests annually at Lonely Dell. Old nest sites persist for years within the sheltered ledges on which they were built and are common along wash courses. Spring migrants are conspicuous in open country in late March. The species has been recorded on all 12 CBCs.

VERMILION FLYCATCHER (*Pyrocephalus rubinus*).—A rare local transient with 5 records as follows: an immature male at Page STP 26 October–18 December 1996 (C. Goetze et al.), an adult male at Lonely Dell on 5 May 2009 (S. Putz), an adult male at Lonely Dell 24 May–1 June 1997 (L. Bush et al.), one at Page golf course from 26 April to 28 May 1998 (J. Spence et al.), and an immature female at Page STP on 11 November 2000 (C. LaRue, C. Goetze).

ASH-THROATED FLYCATCHER (*Myiarchus cinerascens*).—A common widespread summer resident and breeder in most wooded situations throughout GLCA. It occurs in tamarisk along the Colorado River and along the Lake Powell shoreline, in the riparian groves of the tributary canyons and the Escalante River, and throughout the elevational extent of the pinyon-juniper woodland. Seemingly remarkable was a bird

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

carrying food to a nest in crevice 300 feet above the Colorado River at RM –6.5R on 24 June 1998 (C. LaRue). Other breeding records include adults feeding vocal young in a Gambel oak snag in the mouth of Scorpion Gulch, Escalante River, on 22 June 1999 (C. LaRue, J. Holmes), vocal young in a cottonwood in 25 Mile Wash, Escalante River, on 23 June 1999 (J. Holmes), adults carrying food to a nest in a cottonwood in Cottonwood Canyon on 30 June 1999 (C. LaRue), a nest with 1–2 large young in a Utah juniper snag in Cottonwood Canyon on 30 June 1999 (J. Holmes), adults carrying food to a nest in a partially submerged cottonwood in Moqui Canyon on 30 June 1998 (C. LaRue, N. Brown), a fledgling seen below Chaol Falls on 10 July 1997 (C. LaRue), and a adult bringing food to a nest in planted tree at Lonely Dell on 18 June 1995 (J. Grahame). The period of occupancy spans from 27 April (1982 at Lonely Dell, G. Stolz GLCA files) to the end of August. Exceptionally late individuals were single birds at Wahweap and Page STPs from 7 to 8 September 2000 (C. LaRue et al.) and at Page STP on 10 September 1997 (C. LaRue).

CASSIN'S KINGBIRD (*Tyrannus vociferans*).—An uncommon restricted summer resident and breeder in open pinyon-juniper woodland on benchlands of the Andy Miller Flat/Waterhole Flat area and near Hans Flat. It occasionally breeds in residential areas, as at Page in 1997. Adults building a nest in a Siberian elm (*Ulmus pumila*) at Page golf course on 12 May 1997 were seen with 2 fledglings on 9 July (C. Goetze et al.). A pair with 2 small fledglings were seen at a stock pond at Andy Miller Flat on 15 July 1999 (J. Holmes). A bird was also seen on the summit of the Kaiparowits Plateau on 6 June 2000 (C. LaRue). The period of occupancy in the regions surrounding GLCA is from late April through September.

WESTERN KINGBIRD (*Tyrannus verticalis*).—A common widespread migrant throughout the region in May and from late July through mid-September, and a uncommon local summer resident and breeder at large residential shade trees in developed areas. A summer transient was seen in dense pinyon-juniper woodland on the summit of the Kaiparowits Plateau on 19 July 2000 (C. LaRue et al.).

EASTERN KINGBIRD (*Tyrannus tyrannus*).—A rare local transient with only one record: one at Lees Ferry on 14 July 1994 (J. Grahame).

SCISSOR-TAILED FLYCATCHER (*Tyrannus forficatus*).—Vagrant. One seen at Bullfrog on 8 June 1978 (A. Heggen GLCA files).

Family LANIIDAE

LOGGERHEAD SHRIKE (*Lanius ludovicianus*).—An uncommon widespread permanent resident and breeder of open desert flats throughout the area. An increase in numbers in fall suggests an influx of northern birds during that season. Winters widely throughout the area including in the broad, open side canyons and in tamarisk at open portions of the Lake Powell shoreline. The only breeding record is a nest with 5 eggs in a 3-foot-tall blackbrush (*Coleogyne ramosissima*) on Antelope Island on 31 May 1995 (J. Spence et al.). The biology of this species (which has declined over much of its range in North America) is poorly known in GLCA. The species has been recorded on 11 of 12 CBCs.

NORTHERN SHRIKE (*Lanius excubitor*).—A sparse local winter resident. There are 6 records as follows: one at Bullfrog from 21 to 22 October 1966 (Christensen GLCA files), an immature carrying a lizard at the head of Wahweap Bay on 14 December 1998 (C. LaRue, J. Spence), an immature at Lonely Dell on 1 January 1998 (J. Spence), an immature at Lees Ferry on 15 January 1997 (C. LaRue), an adult found dead at Lees Ferry on 1 February 2000 (C. Bland, specimen at University of Arizona), and an immature in an isolated tamarisk thicket on the road on the north side of Wahweap Bay on 13 March 1994 (C. LaRue).

Family VIREONIDAE

WHITE-EYED VIREO (*Vireo griseus*).—Vagrant. A single bird was seen at Chaol Falls, Kaibito Creek on 3 July 1997 (C. LaRue, D. Smith). This is one of 2 records of this species in northern Arizona.

BELL'S VIREO (*Vireo bellii*).—A sparse local spring and summer transient and possible breeder in dense riparian thickets in the southern portions of GLCA. Although this species is a common summer resident along the Colorado River in the Grand Canyon from about RM 50 downstream, in GLCA it appears to occur as a transient with no indication of breeding so far. The 8 records are as follows: one at Colorado River RM 1.6 on 28 April 1997 (C. LaRue), one singing (with a possible second individual) about 1.0 mile below Chaol Falls/Kaibito Creek on

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

10 May 2000 (J. Spence), 2 on Last Chance Creek on 17 May 1995 (J. Grahame GLCA files), 2 at Colorado River RM –8.8L on 2 June 1993 (J. Spence), 2 at RM –8.4R on 6 June 1995 (J. Grahame), one at Lees Ferry on 7 June 1973 (Atwood et al. 1980), one on Lake Powell at Chaol Canyon/Kaibito Creek on 3–10 July 1997 (C. LaRue et al.), and one at Colorado River RM –2.3 on 7 July 1997 (C. LaRue, N. Brown). Since the construction of Glen Canyon Dam, this species has expanded its range upstream along the Colorado River into the upper Grand Canyon, and these observations are a manifestation of that expansion (Brown et al. 1987).

GRAY VIREO (*Vireo vicinior*).—An uncommon widespread summer resident and probable breeder in open pinyon-juniper woodland–covered slopes generally at the lower elevational limits of the woodland. There are no breeding records. A key component within these areas appears to be the presence of a deciduous shrub or small tree, typically Utah serviceberry (*Amelanchier utahensis*) and/or singleleaf ash (*Fraxinus anomala*). The majority of the birds in GLCA are found along Fifty Mile Bench at the base of the Kaiparowits Plateau and along the Chinle, Moenkopi, and Cutler formation slopes and canyons of the Andy Miller Flats and Waterhole Flat area. The 12 records from GLCA are as follows: one on steep, wooded slopes below the Hans Flat Ranger Station on 3 August 1994 (J. Spence), one on the summit of Kaiparowits Plateau on 25 May 2000, one singing on the benchland below the west rim of Kaiparowits Plateau on 26 May 2000, one singing at end of the road on Fifty Mile Bench on 7 June 2000, 4 heard (one seen) on Fifty Mile Bench on 8 June 2000, 6 seen/heard at base of the Big Ridge above Waterhole Flat, one seen in upper Clearwater Canyon, and one singing in Clearwater canyon on 14 June 2000, one singing east of the old corral in Waterhole Flat on 15 June 2000, 6 singing near Teapot Rock on 16 June 2000, a pair seen on the Kayenta Formation terrace below Gordon Flat, Big Ridge, on 13 July 1999, and one singing below Bagpipe Butte overlook and one singing near Flint Seep on 15 July 1999 (all C. LaRue).

PLUMBEOUS VIREO (*Vireo plumbeus*).—An uncommon restricted summer resident and breeder of the pinyon-juniper woodland of the Kaiparowits Plateau and the riparian woodlands of the upper Escalante River. The following breeding records have been noted: a pair building a nest in a Fremont cottonwood in Harris Wash on 17 May 2000 (C. LaRue), one incorporating Gambel oak catkins into a nest 15 feet up in a 22-foot pinyon on the Kaiparowits Plateau on 22 May 2000 (C. LaRue) and and a bird incubating 3 eggs in a nest in a bigtooth maple on the Kaiparowits Plateau on 24 May 2000 (C. LaRue). A late-spring individual was one at Lees Ferry on 2 June 1999 (C. LaRue).

CASSIN'S VIREO (*Vireo cassinii*).—A sparse but widespread transient in pinyon-juniper and riparian woodlands and residential areas. The 7 records are as follows: one on the Kaiparowits Plateau on 10 May 1999 (C. LaRue), another there on 14 September 1999 (J. Holmes), one in Cottonwood Canyon on 11 May 2000 (C. LaRue), one on the Kaiparowits Plateau on 17 September 1999 (C. LaRue), one at Wahweap Trailer Village on 20 September 2000 (C. Goetze), one at GLCA headquarters on 22 September 2000 (C. LaRue et al.), and one on the Kaiparowits Plateau on 26 September 2000 (C. LaRue).

WARBLING VIREO (*Vireo gilvus*).—An uncommon widespread migrant in pinyon-juniper and riparian woodlands throughout the area. The migratory period of this species is prolonged and the spring and fall passage together spans nearly continuously from mid May to mid-September.

RED-EYED VIREO (*Vireo olivaceus*).—Vagrant. One record of an immature at Lonely Dell on 23 September 1998 (C. LaRue, N. Brown).

Family CORVIDAE

PINYON JAY (*Gymnorhinus cyanocephalus*).—A common widespread permanent resident and breeder in pinyon-juniper woodland. Most frequently seen in more-open stands as in Hans, Waterhole, and Andy Miller flats and the bench at the base of the Kaiparowits Plateau. It is enigmatic why it was not observed in the dense woodlands on the summit of the Kaiparowits Plateau during the series of trips there until May 2000. The only breeding records are a raucous group of about 40 juveniles on the southwest rim of the Kaiparowits Plateau on 24 May 2000 (C. LaRue) and a flock with begging juveniles at Hans Flat on 13 July 1999 (C. LaRue). The species has been recorded on one of 12 CBCs.

STELLER'S JAY (*Cyanocitta stelleri*).—A rare and irregular local winter and fall transient. Known in GLCA only from a remarkable southbound passage of migrants at Navajo Point,

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

25–30 September 2000 (C. LaRue et al.), when 226 individuals were counted. A single bird was noted in Page on 6 October 2000 (C. Goetze). Numbers of montane jays were noted in lowland areas throughout the southwest in the fall of 2000. This species undergoes periodic irruptions (Phillips et al. 1964)

BLUE JAY (*Cyanocitta cristata*).—Vagrant. One at Wahweap, 31 October–9 November 1976, documented by J. Middleton (Monson and Phillips 1981).

WESTERN SCRUB-JAY (*Aphelocoma californica*).—A common widespread permanent resident and breeder of the pinyon-juniper woodlands of the Kaiparowits Plateau, the Big Ridge, and the Andy Miller and Waterhole flats area. Smaller numbers are present in the better-developed riparian zones in the tributary canyons where Gambel oak (*Quercus gambelii*) occurs, with breeding season records from 2 unnamed side canyons off of the Great Bend, Cottonwood Canyon, Bown's Canyon, Explorer Canyon, and Moqui Canyon. May occasionally migrate widely through GLCA as in September 2000 when 39 birds in 5 groups were noted in the Page area from 19 to 22 September. The 6 breeding records are as follows: a pair repeatedly carrying food off the east rim of the Kaiparowits Plateau at Moqui Seep on 22 May 2000 (C. LaRue), 4 stub-tailed fledglings on the southwest rim of the Kaiparowits Plateau on 24 May 2000 (C. LaRue), a family group on the Kaiparowits Plateau on 6 June 2000 (C. LaRue), a family group on Fifty Mile Bench on 8 June 2000 (C. LaRue), 3 adults with 2 fledglings in a side canyon off the Great Bend on 9 June 1999 (C. LaRue, L. Dickson), and a family group on the east rim of the Kaiparowits Plateau on 7 July 1999 (J. Holmes). In recent winters, birds have wintered at Greenehaven feeders. The species has been recorded on 5 of 12 CBCs.

CLARK'S NUTCRACKER (*Nucifraga columbiana*).—An irregular sparse local migrant. One was seen on the summit of the Kaiparowits Plateau on 7 July 1999 (J. Holmes). Additional records from the Kaiparowits Plateau are one on 25 August 1994 and several on 2 November 1994 (J. Spence). An incredible 765 were counted migrating past Navajo Point, Kaiparowits Plateau, 25–30 September 2000 (C. LaRue et al.). Three were seen in Page on 14 February 1997 (J. Alston), and one was at the Page cemetary on 11 May 1997 (C. Goetze et al.). This species is known for its occasional irruptions in the Southwest. It is not to be expected on a regular basis in GLCA.

BLACK-BILLED MAGPIE (*Pica hudsonia*).—Rare local winter resident. Atwood et al. (1980) reported several from Wahweap Creek within 1.5 miles of GLCA, 18 December 1971–13 February 1972. These birds likely strayed into GLCA that winter. This species is expected as a winter transient following drainages and the associated riparian vegetation into GLCA from populations outside the area such as at Wahweap Creek, the Escalante River, the Dirty Devil River, and the Green River.

AMERICAN CROW (*Corvus brachyrhynchos*).—A rare local transient. Two birds were observed flying (and vocalizing) over the pinyon-juniper woodland of the Kaiparowits Plateau on 23 May 2000 (C. LaRue), and 3 were at Page golf course on 25 April 1982 (G. Stolz GLCA files).

COMMON RAVEN (*Corvus corax*).—A common widespread permanent resident and breeder. Nests primarily in cliffs, but with one nest in a planted Arizona cypress at Lake Powell Lodge, Wahweap, in 2006 that successfully fledged at least one young. Notable were concentrations of up to 300 birds kettling over the Kaiparowits Plateau before migrating to the southeast, 25–29 September 2000 (C. LaRue et al.). Despite the presence of West Nile Virus in northern Arizona, there has been no noticeable decline in the species on the Glen Canyon CBC. The species has been recorded on all 12 CBCs.

Family ALAUDIDAE

HORNED LARK (*Eremophila alpestris*).—A common widespread winter resident and rare and local summer resident and breeder. The species migrates widely throughout the area including over the summit of the Kaiparowits Plateau. Its status and distribution as a breeding bird in GLCA is unclear. The single breeding record is of fledglings being fed by adults on Antelope Island, 4 May 1995 (J. Spence et al.). The species has been recorded on 8 of 12 CBCs.

Family HIRUNDINIDAE

PURPLE MARTIN (*Progne subis*).—A rare local transient with a single record: one at Lees Ferry on 19 August 1994 (J. Grahame).

TREE SWALLOW (*Tachycineta bicolor*).—A common widespread migrant throughout the area but congregating at sewage treatment plant settling ponds. Dates span from the exceptionally early date of 25 February (1998 in Page,

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

J. Spence; typically appears in early March) to 15 May (1967 at Good Hope, Christensen GLCA files) and again from July to 2 November (2000 at Page STP, C. LaRue). Remarkably, a bird was seen in Warm Creek Bay on 5 January 2009, and was still there on 30 Janaury (J. Spence). This appears to be the first midwinter record for the Glen Canyon region. The species has been recorded on 1 of 12 CBCs.

VIOLET-GREEN SWALLOW (*Tachycineta thalassina*).—A common to abundant widespread migrant, summer resident, and probable breeder at cliffs and elsewhere throughout GLCA. Early spring records include 4 March 1999 (exceptionally early) at Navajo Bridge (S. Farey) and 8 March (1998 at Page STP, C. Goetze). The 300+ at Lees Ferry on 22 March 2000 (C. LaRue) is an exceptional number for so early in the season in northern Arizona. Fall birds persist into October. Although this species is almost certainly a breeder, there are no breeding records from GLCA. It appears that the breeding population largely vacates the lower-elevation breeding sites by late July.

NORTHERN ROUGH-WINGED SWALLOW (*Stelgidopteryx serripennis*).—A common widespread migrant and possible local summer resident and breeder. Although this species is known to breed in the region, there so far is no indication it does so in GLCA. One seen at Lees Ferry on 16 January 2000 (C. Bland) is the only winter record.

BANK SWALLOW (*Riparia riparia*).—An uncommon widespread migrant near water. Periods of passage from surrounding regions are April to May in spring and from 29 July into early September in fall.

CLIFF SWALLOW (*Petrochelidon pyrrhonota*).—A common widespread migrant and sparse local breeder. Dates span from 21 March (2000 at Page STP, C. LaRue) into September. Breeding occurred following the Colorado River experimental flood of 1996 at RM 1.6R below Lees Ferry, where individuals were observed building nests and feeding young from April through June (J. Grahame, J. Spence). More recently, a colony of about 20 nests with adults feeding young was found in a small cove on the south side of Wahweap Bay on 2 June 2001 (J. Spence). This colony was active through 2005, but had been abandoned by 2006 because of low lake levels.

BARN SWALLOW (*Hirundo rustica*).—A common widespread migrant. Dates span from 17 April (1995 at Lees Ferry, J. Grahame) to 5 November (1996 at Lees Ferry, C. LaRue).

Family PARIDAE

MOUNTAIN CHICKADEE (*Poecile gambeli*).—An uncommon restricted permanent resident and breeder of the pinyon-juniper woodlands of the Kaiparowits Plateau and uncommon widespread winter resident. Migrates and winters widely and irregularly throughout GLCA in riparian areas and possibly in pinyon-juniper woodlands from August to April. A notable migratory passage was 33 tallied on 28 September 2000 (with 78 total from 25 to 30 September) leaving Navajo Point, Kaiparowits Plateau. Breeding records include a bird with nest material on 19 April 2000, a pair carrying food to a nest in a Colorado pinyon on 12 May 1999, another pair carrying food to a nest in a pinyon on 24 May 2000, and a family group with young fledglings and another pair carrying food on 6 June 2000 (all C. LaRue). The species has been recorded on 5 of 12 CBCs.

JUNIPER TITMOUSE (*Baeolophus ridgwayi*).—A common widespread permanent resident and breeder in pinyon-juniper woodlands on the Kaiparowits Plateau, the Big Ridge, and at Andy Miller/Waterhole flats. The species is certainly present in the pinyon-juniper woodlands on the benchlands above the Escalante River (where one was seen at Allen Dump on 3 March 2000, C. LaRue). It may also breed in juniper-dominated canyons off of Lake Powell as the presence of 2 individuals in a tributary off of the Great Bend on 29 June 1999 (J. Holmes) suggests. Some winter movements into riparian areas may occur, as during the fall of 1998 when birds were seen in Page on 14 and 22 September, at Wahweap on 5–7 and 23 November, in Wilson Creek (3 birds) on 1 December, and in Navajo Canyon (3 birds) on 2 December (all C. LaRue). Breeding records include a bird entering a nest in a Utah juniper on the Kaiparowits Plateau on 22 May 2000, a pair with one feigning injury there on 23 May 2000, a pair with 2 large fledglings there on 24 May 2000 and a family group of 5 there on 7 June 2000 (all C. LaRue). The species has been recorded on 4 of 12 CBCs.

Family AEGITHALIDAE

BUSHTIT (*Psaltriparus minimus*).—A common widespread permanent resident and breeder in pinyon-juniper woodlands throughout the area and in riparian areas on the Colorado and Escalante rivers and in the tributary canyons. Found widely in winter in denser brush. It was exceptionally common in riparian areas in the winter

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

of 1999–2000 when larger-than-normal groups were common. The largest of these groups contained 69 individuals at Colorado River RM –9.4L on 2 February (C. LaRue). Breeding has been noted as follows: nest building in tamarisk at Lonely Dell on 4 March 1999 (L. Dickson, J. Holmes), adults bringing food to a nest in tamarisk at Lees Ferry on 3 April and 17 April 1995 (J. Grahame and D. Felley), nest building in a Utah juniper in a tributary canyon off of the Great Bend on 18 March 1999 (J. Holmes, L. Dickson), a used nest 10 m up in a Fremont cottonwood at Scorpion Gulch, Escalante River, on 22 June 1999 (C. LaRue), a pair with a fledgling in Last Chance Creek on 28 May 1998 (C. LaRue), and 15 family groups (or combined family groups) of 10–50 individuals noted from June to mid-July in 1999 and 2000 (J. Holmes et al.). The species has been recorded on 8 of 12 CBCs.

Family SITTIDAE

RED-BREASTED NUTHATCH (*Sitta canadensis*).—A sparse and irregular local migrant and winter resident in pinyon-juniper and riparian woodlands throughout the area. The records are as follows: one on the Kaiparowits Plateau from 18 to 19 July 2000 (C. LaRue), one in cottonwoods in Lake Canyon on 9 August 2000 (J. Nelson, C. LaRue), about 10 on the Kaiparowits Plateau on 25 August 1994 (J. Spence), one there on 14 September 1999 (C. LaRue), one in Miller's Creek on 23 September 1992 (J. Spence), 6 at Navajo Point, Kaiparowits Plateau, on 26 September 2000 (C. LaRue), one there on 23 October 1998 (C. LaRue), 2 near French Spring on 16 November 1998 (C. LaRue), and 3 on the Kaiparowits Plateau on 13 May 1999 (C. LaRue).

WHITE-BREASTED NUTHATCH (*Sitta carolinensis*).—An uncommon local permanent resident in the pinyon-juniper woodland on the Kaiparowits Plateau. The only breeding record is a full-sized fledgling seen on 8 July 1999 (C. LaRue). The species has been recorded on one of 12 CBCs.

PYGMY NUTHATCH (*Sitta pygmaea*).—Vagrant. This near-obligate of ponderosa pine (*Pinus ponderosa*) woodlands is known from GLCA only from a single individual seen on the Kaiparowits Plateau at Navajo Point on 28 September 2000 (C. LaRue et al.).

Family CERTHIIDAE

BROWN CREEPER (*Certhia americana*).—A sparse and irregular restricted transient and winter resident in pinyon-juniper and riparian woodlands with 11 records as follows: 2 near Navajo Point on 26 September 2000 (C. LaRue), one at Hite on 21 October 1958 (Behle; Behle and Higgins 1959), one at Bullfrog on 22 October 1996 (B. Zurcher), one on the Kaiparowits Plateau on 23 October 1998 (C. LaRue), one at Page golf course on 1 November 2000 (C. LaRue), one at Colorado River RM –11.4L on 4 November 1998 (C. LaRue), one at Flint Seep on 18 November 1998 (C. LaRue), one at the Wahweap campground on 4 January 2003 (L. Holsten), one in tamarisk at Colorado River RM –0.5R on 4 February 2000 (C. LaRue), one at RM –8.8L in Glen Canyon on 25 April 1996 (J. Spence), 2 at Lees Ferry on 26 April 1982 (G. Stolz GLCA files). The species has been recorded on one of 12 CBCs.

Family TROGLODYTIDAE

ROCK WREN (*Salpinctes obsoletus*).—A common widespread permanent resident and breeder, much less common in winter. This species is restricted to talus and other rocky situations throughout GLCA. Breeding records include a family group of 5 at Colorado River RM –8.3R on 21 May 1998 (C. LaRue), 2 young fledglings at Last Chance Creek on 28 May 1998 (C. LaRue), fledglings in Cottonwood Canyon on 10 June 1999 (C. LaRue), family groups seen in 3 side canyons off the Great Bend on 29 June 1999 (C. LaRue, J. Holmes), a second family group in Cottonwood Canyon on 30 June 1999 (C. LaRue), and nearly grown fledglings on the west rim of the Kaiparowits Plateau on 8 July 1999 (C. LaRue). The species has been recorded on all 12 CBCs.

CANYON WREN (*Catherpes mexicanus*).—A common widespread permanent resident and breeder at cliffs and talus. It occasionally utilizes riparian thickets primarily in nonbreeding periods. Breeding records include 2 family groups in a side canyon off the Great Bend on 8 June 1999 (C. LaRue), a family group on Fifty Mile Bench on 8 June 2000 (C. LaRue), a family group in Alcove Canyon on 29 June 1999 (C. LaRue), a family group in Cottonwood Canyon on 30 June 1999 (J. Holmes), a fledgling in Millard Canyon on 14 July 1999 (C. LaRue), and an adult carrying food at Lees Ferry on 14 June 1995 (C. Pinnock). The species has been recorded on all 12 CBCs.

BEWICK'S WREN (*Thryomanes bewickii*).—A common widespread permanent resident and

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

breeder in pinyon-juniper and riparian woodlands. Some dispersal appears to take place during fall and winter. The 6 breeding records are 2 young fledglings in Cottonwood Canyon on 11 May 2000 (C. LaRue), 2 family groups in a side canyon off the Great Bend on 8 June 1999 (C. LaRue), fledglings seen in Cottonwood Canyon on 9 June 2000 (C. LaRue), a family group of 3 on the Kaiparowits Plateau on 7 July 1999 (J. Holmes), a fledgling in Millard Canyon on 14 July 1999 (C. LaRue), and a fledgling being fed by an adult at Lees Ferry on 14 June 1995 (C. Pinnock). The species has been recorded on all 12 CBCs.

HOUSE WREN (*Troglodytes aedon*).—An uncommon widespread migrant in dense riparian brush. The spring records are from 24 April (2010 at Page headquarters, J. Spence) to 20 May (1999 on the Escalante River at Fence Canyon, C. LaRue). The fall passage is from 19 August (1994 at Lees Ferry, J. Grahame) to 20 September (1976 at the Carl Hayden Visitor Center, D. Smith GLCA files).

PACIFIC WREN (*Troglodytes pacificus*).—Apparently a sparse and irregular local winter resident in dense riparian vegetation along the Colorado River and tributary canyons of Lake Powell. The 9 records from GLCA are one in tamarisk at Colorado River RM –8.5R on 2 November 1998 (C. LaRue, J. Spence), 2 in tamarisk at RM –7.0L and one at RM –2.4L on 3 November 1998 (C. LaRue), one at Rainbow Bridge on 24 November 1998 (C. LaRue), 3 in Cottonwood Canyon on 1 December 1998 (C. LaRue), 2 in a side canyon off the Great Bend on 2 December 1998 (C. LaRue), one in another tributary off the Great Bend on 3 December 1998 (C. LaRue), one at Paria Beach on 15 December 1998 (C. LaRue) and one at Colorado River RM –3.5R on 13 February 1998 (C. LaRue, C. Goetze). The species has been recorded on one of 12 CBCs.

WINTER WREN (*Troglodytes heimalis*).—Vagrant. An individual of the nominate species was found at Paria Beach in dense tamarisk south of Lees Ferry on 1 January 2011 (photo S. Putz).

MARSH WREN (*Cistothorus palustris*).—An uncommon widespread migrant and winter resident in dense riparian brush and sewage treatment ponds. The dates span from 1 September to 16 May (1994 and 1995, respectively, at Paria Beach, both J. Grahame). The species has been recorded on all 12 CBCs.

Family POLIOPTILIDAE

BLUE-GRAY GNATCATCHER (*Polioptila caerulea*).—A common widespread summer resident and breeder, common migrant, and a sparse local winter resident. Dense shrubs and small trees—such as juniper-oak scrub in side canyons, pinyon-juniper woodlands, and, to a lesser extent, riparian vegetation—are favored. Gambel oak and Utah serviceberry (*Amelanchier utahensis*) appear to be important components determining much of this species distribution in GLCA. On the Kaiparowits Plateau and on Fifty Mile Bench below, sites that were dominated by big sage (*Artemisia tridentata*) with scattered oak, serviceberry, pinyons, and junipers appeared to support the highest densities of gnatcatchers in GLCA. A sparse winter resident in riparian brush in the southernmost portions of the area with the following records: 3 at Lees Ferry on 5 December 1995 (J. Grahame, C. LaRue), one there on 20 December 1994 and into the winter (J. Grahame), one at GLCA headquarters on 14 February 2000 (C. LaRue), 2 near Wahweap STP on 2 January 2001, 2 at Glen Canyon NPS headquarters on 3 January 2003, and again on 3 January 2007 and 5 January 2010 (all J. Spence). The breeding records include numerous birds carrying food on the Kaiparowits Plateau on 6 June 2000 (C. LaRue), a female feeding 3 small nestlings in a Utah juniper in Clearwater Canyon on 14 June 2000 (C. LaRue), and an adult on a nest 15 feet up in tamarisk at Colorado River RM –3.2R on 15 June 1998 (C. LaRue). The bulk of the summer population is present from April into October but a late bird was observed at Wahweap on 30 November 1996 (C. LaRue, T. Corman). The species has been recorded on 5 of 12 CBCs.

BLACK-TAILED GNATCATCHER (*Polioptila melanura*).—Vagrant. A bird of the Lower Sonoran and Mojave deserts with one record: one at Lees Ferry on 16 May 1981 by L. and S. Terrill (Brown et al. 1984).

Family CINCLIDAE

AMERICAN DIPPER (*Cinclus mexicanus*).—An uncommon widespread migrant and winter resident, and possible rare summer resident and breeder, along the Colorado River and occasionally along other streams and the Lake Powell shoreline. One to two have wintered regularly at the base of Glen Canyon Dam from 1994 to 2002. Two were on Wahweap Bay on 28 February 1979 (J. Coons GLCA files). Dates span from

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

24 September (1997 at Glen Canyon Dam, C. LaRue) to 26 May (1992 in Wilson Creek, J. Spence). Several pre-lake records from Bridge Canyon suggest that the American Dipper may have bred along that stream. The species has been recorded on 3 of 12 CBCs.

Family REGULIDAE

GOLDEN-CROWNED KINGLET (*Regulus satrapa*).—A sparse restricted migrant and winter resident in pinyon-juniper and dense riparian woodlands. The 11 records from GLCA are as follows: one at Navajo Point on 25 September 2000 (C. LaRue), one at Cave Spring on Grand Bench on 26 September 2007 (J. Spence), one 0.5 mile north of Navajo Point on 27 September 2000 (C. LaRue), one banded at Lees Ferry on 7 October 1998 (J. Hart), one south of French Spring on 16 November 1998 (C. LaRue), one at Flint Seep on 18 November 1998 (C. LaRue), 3 at Colorado River RM –7.0L on 3 November 1998 (C. LaRue), 2 at Colorado River RM –8.8L on 19 March 2002 (J. Spence), one at RM –3.2R on 1 April 1996 (J. Spence, C. Pinnock), one at Colorado RM –13 on 5 January 2004 (C. LaRue et al.), and one at Lees Ferry 27 November 1994 to 7 February 1995 (J. Grahame GLCA files). The species has been recorded on one of 12 CBCs.

RUBY-CROWNED KINGLET (*Regulus calendula*).—A common widespread migrant and winter resident in riparian and pinyon-juniper woodlands and in residential areas. The species winters fairly commonly in riparian vegetation along the Colorado River in Glen Canyon and perhaps in shoreline tamarisk on the southern portions of Lake Powell. The dates span from 31 August (1998 above the Paria River, C. LaRue) to 18 May (1999 on the Escalante River at Harris Wash, C. LaRue). A summer vagrant was seen at Lees Ferry on 8 July 1994 (J. Grahame). The species has been recorded on all 12 CBCs.

Family TURDIDAE

WESTERN BLUEBIRD (*Sialia mexicana*).—An uncommon local summer resident and breeder in the pinyon-juniper woodland on the Kaiparowits Plateau, and a common widespread migrant. Breeding records include adults feeding 3 small young in a pinyon on 26 May 2000 (C. LaRue) and family group of 5 on 7 July 1999 (J. Holmes). The winter status and distribution is unclear.

MOUNTAIN BLUEBIRD (*Sialia currucoides*).—An uncommon widespread summer resident and breeder in the open pinyon-juniper woodlands of the Big Ridge, and Andy Miller and Waterhole flats. Occurs to a lesser extent on the Kaiparowits Plateau. A common widespread migrant. The Mountain Bluebird may be conspicuous and abundant during the peak passage in late March, such as the 250+ seen near Lees Ferry on 22 March 2000 (C. LaRue). The winter status and distribution is unclear. However, it likely winters commonly along the Escalante River where, as seen elsewhere on the Colorado Plateau (C. LaRue unpublished data), it would rely heavily on Russian olive (*Elaeagnus angustifolia*) fruit. Thirty-five were seen on the Escalante River at Fence Canyon on 2 March 2000 (C. LaRue). The breeding records include a family group with 3 fledglings on the Kaiparowits Plateau on 7 June 2000 (C. LaRue), a female with a fledgling and a male with a fledgling at Waterhole Flat on 14 June 2000 (C. LaRue), and a fledgling near Hans Flat on 14 July 1999 (J. Holmes). The species has been recorded on 2 of 12 CBCs.

TOWNSEND'S SOLITAIRE (*Myadestes townsendi*).—An uncommon widespread migrant and sparse winter resident in pinyon-juniper and riparian woodlands. The records include 3 on the Kaiparowits Plateau on 25 August 1994 (J. Spence), one at Lonely Dell on 15 and 24 September 1994 (J. Grahame), 1–6 at Navajo Point, Kaiparowits Plateau, from 25 to 30 September 2000 (C. LaRue et al.), 2 at French Spring on 5 October 1999 (J. Holmes), one on the Kaiparowits Plateau on 23 October 1998 (C. LaRue), another there on 21 April 2000 (C. LaRue), one there from 10 to 12 May 1999 (C. LaRue), one at the GLCA headquarters building on 28 December 2000 (J. Spence, B. Bobowski), and one at Wahweap campground on 3 January 2002 (J. Spence). The species has been recorded on 3 of 12 CBCs.

HERMIT THRUSH (*Catharus guttatus*).—An uncommon widespread migrant in pinyon-juniper and riparian woodlands and a rare local winter resident with 2 records: one at Wahweap on 2 February 1992 (J. Spence) and 2 at Colorado River RM –7.0L on 3 February 2000 (C. LaRue, J. Spence). The remaining 8 records are one on the Kaiparowits Plateau on 11 May 1999 (C. LaRue), 3 there on 13 May 1999 (C. LaRue), one at Page golf course on 19 May 1995 (J. Grahame), one at Moqui Seep, Kaiparowits

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Plateau on 23 May 2000 (C. LaRue), one singing on the Kaiparowits Plateau on 25 May 2000 (C. LaRue), another there on 25 August 1994 (J. Spence), one in tamarisk on the Lake Powell shore near Dangling Rope Marina on 14 October 2000 (C. LaRue), one on the Kaiparowits Plateau on 22 October 1998 (C. LaRue), and one at Colorado River RM –7.0L on 3 November 1998 (C. LaRue).

AMERICAN ROBIN (*Turdus migratorius*).—A common widespread migrant and winter resident in pinyon-juniper and riparian woodlands and in residential areas. Its summer status and distribution is unclear but it breeds in at least small numbers on the Escalante River (adult carrying food near Harris Wash on 24 June 1999, J. Holmes), in the well-vegetated side canyons (adult with a fledgling in Slickrock Canyon on 16 July 1998, C. LaRue), and on the Kaiparowits Plateau (an alarmed and singing pair on 25 May 2000 and 7 July 1999). It may also breed in Page in older residential areas with well-developed plantings. The species has been recorded on 8 of 12 CBCs.

VARIED THRUSH (*Ixoreus naevius*).—Rare local spring transient, with a single record of an adult at the mouth of Honey Draw, Colorado River RM –13L, 19 March 2002 (J. Spence).

Family MIMIDAE

GRAY CATBIRD (*Dumetella carolinensis*).—A rare local transient. There are 5 records: one at Lees Ferry on 25 June 1909 (Woodbury and Russell 1945), one at the mouth of Ticaboo Creek on 6 July 1958 (Behle 1960), one at Lonely Dell on 10 October 2009 (B. Gatlin), one at Wahweap from 5 to 6 November 1998 (C. LaRue et al.), and one at Greenehaven on 31 December 2006 (P. Talbott).

NORTHERN MOCKINGBIRD (*Mimus polyglottos*).—A sparse widespread migrant and uncommon local summer resident and breeder. Breeding is apparently restricted to open juniper as at Andy Miller and Waterhole flats and possibly the Hans Flat area and Fifty Mile Bench. The only breeding records are an adult feeding a fledgling at Andy Miller flat on 15 July 1999 (C. LaRue, J. Holmes) and an adult carrying food at Lonely Dell on 14 June 1995 (C. Pinnock). A sparse fall migrant and winter resident with one at Wahweap Trailer Village on 4 November 2000 (C. Goetze), one at Lonely Dell on 18 November 1999 (C. LaRue), and one in Page on 3 January 2000 (K. and B. Bobowski). Since 2000, one or more birds have been recorded on CBCs in Page. The bulk of the records are from April into August. The species has been recorded on 9 of 12 CBCs.

SAGE THRASHER (*Oreoscoptes montanus*).—An uncommon widespread migrant in desert scrub, and possible rare summer resident and breeder. The timing and distribution of occurrence is unclear. Spring passage may begin as early as 23 February (2000 at Page golf course, C. LaRue) and persist to at least 31 March (1995 at Warm Creek, J. Grahame). Fall passage begins by 25 July (1966 at Bullfrog, Christensen GLCA files) and extends to 31 October (2000 at Page golf course, C. LaRue).

BROWN THRASHER (*Toxostoma rufum*).—Vagrant. Two records: a bird at Lees Ferry on 11 November 1990 (N. Kline GLCA files), and one at Hans Flat, 3–4 June 2009 (G. Cox).

CRISSAL THRASHER (*Toxostoma crissale*).—A rare local fall-winter and summer resident and possible breeder with 3 records: a territorial pair on Grand Bench on 25 September 2007 (J. Spence), one at Lonely Dell from 30 November 1999 to 9 February 2000 (C. Bland et al.), and one in Page, 19 December 1998–3 January 1999 (J. Alston, J. Spence). The species has been recorded on 2 of 12 CBCs.

Family STURNIDAE

EUROPEAN STARLING (*Sturnus vulgaris*).—Common widespread exotic permanent resident and breeder. The status and distribution is poorly understood, but the species is at least a common migrant and winter resident at several communites (Page, Wahweap, and Bullfrog), with a noticable peak in late October and early November. Small numbers breed in Page. The largest single count was 450 in Page on 2 Janaury 1999 (J. Spence). The species has been recorded on all 12 CBCs.

Family MOTACILLIDAE

AMERICAN PIPIT (*Anthus rubescens*).—An uncommon widespread migrant and winter resident along the Lake Powell shoreline and at ponds throughout the area from mid-September to late April. The largest number recorded was 150 at Lees Ferry on 12 October 1994 (P. Hodgetts GLCA files). A remarkable sight was a huge flock estimated at 800 individuals flying over Warm Creek Bay and being harassed by 2 Peregrine Falcons on 3 January 2003 (S. Hinde,

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

V. Firlein). The species has been recorded on 11 of 12 CBCs.

Family BOMBYCILLIDAE

BOHEMIAN WAXWING (*Bombycilla garrulus*).—A rare local winter and spring transient with 4 records: 2 at Bullfrog on 21 January 1997 (B. Zurcher), 50 in Page on 17 January 1964 (R. Scott GLCA files), 25 on the Kaiparowits Plateau on 21 April 2000 (C. LaRue), and one at Lonely Dell on 20 May 1992 (J. Spence).

CEDAR WAXWING (*Bombycilla cedrorum*).—An uncommon widespread migrant and winter resident, primarily in riparian areas and residential trees. The records are 15 in Page on 7 March 1998 (C. Goetze), 15 on the Escalante River below Scorpion Gulch on 13 May 1995 (J. Alston), several on the Escalante River from Harris Wash to Fence Canyon from 18 to 19 May 1999 (J. Spence, C. LaRue), 5 at Lees Ferry on 28 May 1997 (C. Goetze), one at Navajo Point, Kaiparowits Plateau, on 29 September 2000 (C. LaRue et al.), 5 in Page on 8 October 2005 (J. Spence), 2 at Bullfrog on 9 November 1992 (C. Wiens GLCA files), 10 in Page on 3 January 2003 (J. Spence et al.), and 7 in Page on 3 January 2005 (J. Spence et al.). The species has been recorded on 2 of 12 CBCs.

Family PTILOGONATIDAE

PHAINOPEPLA (*Phainopepla nitens*).—A rare local transient at Lees Ferry with 4 records: one at Lonely Dell on 19 May 1996 (C. Goetze, J. Spence), one at Lonely Dell 25 May 1997 (L. Bush), one there on 31 May 1994 (P. Hodgetts GLCA files), and one in Page on 25 August 2002 (G. Nealon).

Family CALCARIIDAE

CHESTNUT-COLLARED LONGSPUR (*Calcarius ornatus*).—A rare local migrant with one record: one at Page headquarters on 20 September 1997 (C. LaRue).

Family PARULIDAE

TENNESSEE WARBLER (*Oreothlypis peregrina*).—Vagrant. The only record is one at Lees Ferry on 13 May 1981 by G. Rosenberg (Brown et al. 1984).

ORANGE-CROWNED WARBLER (*Oreothlypis celata*).—An uncommon widespread migrant and rare winter resident in riparian and other dense brush and trees. In winter it has been found in tamarisk and other dense riparian vegetation along the Colorado River in the Wahweap/Page vicinity, where at least 7 individuals have been found wintering from 1996 to 2002. These birds represent the first wintering records from northern Arizona. The spring passage is from 27 April (1982 at Lees Ferry, G. Stolz GLCA files) to 6 June (2000 at Moqui Seep, Kaiparowits Plateau, C. LaRue). Fall passage is from 25 August (1994 on the Kaiparowits Plateau, J. Spence) into November. The species has been recorded on 3 of 12 CBCs.

NASHVILLE WARBLER (*Oreothlypis ruficapilla*).—A rare local migrant in dense riparian and other similar vegetation. The only records are one at Lonely Dell on 23 August 2000 (C. LaRue), one on the Kaiparowits Plateau on 26 August 1994 (J. Spence), one at Page golf course on 12 September 1994 (J. Grahame), and one in Page on 12 September 1998 (J. Spence). The regional status indicates that the Nashville Warbler is more numerous than these records indicate.

VIRGINIA'S WARBLER (*Oreothlypis virginiae*).—An uncommon local summer resident and probable breeder, and widespread fall migrant. Breeding probably occurs in montane scrub on the Kaiparowits Plateau. There are no breeding records. The dates of occurrence span from 19 April to 16 September (2000 and 1999, respectively, on the Kaiparowits Plateau, C. LaRue).

LUCY'S WARBLER (*Vermivora lucae*).—A common widespread summer resident and breeder in riparian stands. This species is distributed along the Colorado River in Glen Canyon, in dense lakeside tamarisk in the heads of bays and in tributary canyons supporting riparian vegetation. It occurs throughout the length of the Escalante River and upstream along the San Juan River. Breeding records include an adult carrying food in a tributary of the Great Bend on 7 June 1999 (C. LaRue), a family group in shoreline tamarisk in Cottonwood Canyon on 30 June 1999 (J. Holmes), a fledgling below Chaol Falls on 10 July 1997 (C. LaRue), a banded male carrying food at Lees Ferry on 29 June 1995 (J. Grahame), and an adult feeding a fledgling Brown-headed Cowbird at Lees Ferry on 21 July 1995 (J. Grahame). A record from Lees Ferry on 18 November 2009 (S. Putz) is remarkably late.

NORTHERN PARULA (*Parula americana*).—Vagrant. One record of a first-fall male at Lonely

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Dell from 18 November to 20 December 1999 (C. LaRue et al.).

YELLOW WARBLER (*Dendroica petechia*).—An uncommon restricted summer resident and breeder and common widespread migrant in riparian brush and trees and to a lesser extent in dense brush elsewhere. The dates of occurrence span from 26 March 1996 on the Colorado River (J. Spence, C. Pinnock) into September. Spring passage persists into early June. Fall passage begins as early as 30 July (1997 at Page golf course, C. LaRue). An uncommon breeding resident along the Colorado River below Glen Canyon Dam. Although this species was a common breeding resident along the river prior to the construction of the dam, it apparently does not breed there currently, except along the Escalante River and at Clay Hills Crossing.

BLACK-THROATED BLUE WARBLER (*Dendroica caerulescens*).—A rare local fall transient with 3 records: an adult male found dead in Page on 3 October 1996 (D. Herron), a female banded at RM 1.0 on 12 October 1994 (Sogge et al. 1998), and an adult male found dead at GLCA headquarters on 7 November 2006 (J. Spence). The last bird had apparently hit a window.

YELLOW-RUMPED WARBLER (*Dendroica coronata*).—A common widespread migrant and winter resident in riparian areas in at least the southern portion of GLCA, as at Wahweap and Lees Ferry, and along lakeshore stands of tamarisk. Spring birds have been noted as late as 7 June (2000 on the Kaiparowits Plateau, C. LaRue). The wintering individuals are primarily the Audubon's subspecies, but a few individuals of the Myrtle subspecies are also known. The species has been recorded on all 12 CBCs.

BLACK-THROATED GRAY WARBLER (*Dendroica nigrescens*).—A common widespread summer resident and breeder in pinyon-juniper woodlands on the Kaiparowits Plateau, the Big Ridge and the area below the Big Ridge at Waterhole Flat and Andy Miller Flat. The most abundant breeding bird on the Kaiparowits Plateau. Nest building was noted on the Kaiparowits Plateau on 13 May 1999, and on 22 May 2000 a female was seen incorporating tent caterpillar silk in a nest 10 feet up in a 18-foot pinyon on the Kaiparowits Plateau. The species appears by 19 April and is present until 17 September (2000 and 1999, respectively, on the Kaiparowits Plateau, C. LaRue). An uncommon migrant in riparian areas with one in Lake Canyon on 24 April 1961 (H. Kingery GLCA files), one at Lees Ferry on 8 May 1995 (J. Grahame), 2 in upper Bown's Canyon from 8 to 9 May 2000 (C. LaRue), one at RM –7.0L on 6 June 1994 (J. Grahame), and one at Lonely Dell on 15 September 1994 (J. Grahame).

TOWNSEND'S WARBLER (*Dendroica townsendi*).—A sparse widespread migrant that is generally more common in the region in fall, although most of the GLCA records are from spring. The records are one in Cottonwood Canyon on 11 May 2000 (C. LaRue), one on the Kaiparowits Plateau on 12 May 1999 (J Spence, C. LaRue), one at Lees Ferry on 15 May 1999 (C. Goetze), one at Moqui Seep, Kaiparowits Plateau, on 6 June 2000 (C. LaRue), 4 near Navajo Point, Kaiparowits Plateau, on 26 August 1994 (J. Spence), and 3 on the Kaiparowits Plateau on 17 September 1999 (J. Holmes, C. LaRue).

HERMIT WARBLER (*Dendroica occidentalis*).—A rare local fall migrant with 3 records as follows: one on 23 August 1994 and 2 on 25 August 1994 near Navajo Point (J. Spence) and an immature male at GLCA headquarters on 22 August 2000 (C. Goetze et al.).

PRAIRIE WARBLER (*Dendroica discolor*).—Vagrant. One record of a bird seen and photographed at Wahweap Trailer Village, 30 November–1 December 1997 (photo M. Stevenson et al.).

BLACKPOLL WARBLER (*Dendroica striata*).—Vagrant. One record of a first-fall bird was seen at Page STP on 8 and 11 September 2000 (C. LaRue, J. Spence). There are 2 previous records of the species from extreme northern Arizona.

BLACK-AND-WHITE WARBLER (*Mniotilta varia*).—Rare local summer and fall transient. There are 2 records: an adult male observed in pinyon-juniper woodland/montane scrub on the Kaiparowits Plateau on 7 July 1999 (C. LaRue, J. Holmes) and one at Wahweap Trailer Village on 11 November 1999 (C. Goetze). This is one of the more frequently seen eastern warblers in the western United States and is typically an early fall migrant.

AMERICAN REDSTART (*Setophaga ruticilla*).—A rare local transient with 3 records: one at Wahweap on 26 May 1977 (D. Smith GLCA files), one near Lonely Dell on 3 June 1986 (C. LaRue), and a female at Bullfrog on 22 October 1966 (B. Zurcher).

PROTHONOTARY WARBLER (*Protonotaria citrea*).—A rare local transient. There are 2 records: one at Colorado River RM –14 on 26 May 1994 (J. Grahame) and one in an isolated stand

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

of lakeshore tamarisk across the lake from Dangling Rope Marina on 14 October 2000 (C. LaRue, C. Salt).

WORM-EATING WARBLER (*Helmitheros vermivorum*).—Vagrant. One record of an individual at Colorado River RM –11 on 15 June 1992 (M. Sogge).

NORTHERN WATERTHRUSH (*Parkesia noveboracensis*).—A sparse and local spring migrant near water in dense riparian areas. The 6 records are one in Bown's Canyon on 9 May 2000 (C. LaRue), 4 at Wahweap on 12 May 1997 (C. Goetze et al.), 2 there on 14 May 1997 (C. Goetze et al.), one at Bullfrog on 14 May 1996 (B. Zurcher), one at Wahweap District Ranger Office on 17 May 1994 (J. Grahame), and one at Wahweap on 19 May 2000 (C. Goetze).

MACGILLIVRAY'S WARBLER (*Oporornis tolmiei*).—A common widespread migrant in dense riparian brush and similar vegetation (i.e., oak thickets) in May and late August to September, and a rare possible summer resident and breeder. An adult male seen in Page on 23 June 2001 was presumably a late migrant (J. Spence). Remarkable was a well-described adult at Lees Ferry on 30 December 2000, representing one of the few winter records for the state (B. and K. Bobowski). The species has been recorded on one of 12 CBCs.

COMMON YELLOWTHROAT (*Geothlypis trichas*).—A common widespread summer resident and breeder in dense shrubby riparian vegetation along the Colorado River in Glen Canyon, in the more densely vegetated side canyons, and along the Escalante River. Dates range from 3 April (1995 at Lees Ferry, J. Grahame) to 1 November (1996 at Lees Ferry, C. LaRue). There is one winter record of a bird at Lees Ferry on 3 January 2002 (J. Spence, C. LaRue). Breeding records include adults feeding a cowbird nestling at Colorado River RM –8.8L on 21 June 1995 (J. Grahame), alarmed birds carrying food in Alcove Canyon and in an unnamed side canyon off the Great Bend on 29 June 1999 (C. LaRue, J. Holmes), an alarmed pair in the head of Cottonwood Canyon on 30 June 1999 (C. LaRue), and a distraction display by an adult in Chaol Canyon, Kaibito Creek, on 3 July 1997 (C. LaRue, D. Smith). The species has been recorded on one of 12 CBCs.

HOODED WARBLER (*Wilsonia citrina*).—Vagrant. An adult male was seen and photographed by many observers at Lonely Dell on 6 May 2008 and was subsequently seen for 2 weeks before disappearing (photo V. Firlein).

WILSON'S WARBLER (*Wilsonia pusilla*).—A common widespread migrant in dense riparian and other vegetation. The spring passage is from 14 April (1982, G. Stolz GLCA files) to 6 June (2000 on the Kaiparowits Plateau, C. LaRue). The fall passage is from 3 August (1938 at Colorado River RM 75, Woodbury and Russell 1945) into October.

YELLOW-BREASTED CHAT (*Icteria virens*).—A common widespread summer resident and breeder in dense riparian vegetation along the Colorado River, Escalante River, and San Juan River (at Clay Hills Crossing) and less commonly in tributary canyons. The period of occurrence is from 11 May (2000 in Cottonwood Canyon, C. LaRue) to 12 September (2000 at RM 1.0, C. LaRue). The only confirmed breeding record is a nest containing 2 chat and 2 cowbird eggs in mule-fat (*Baccharis salicifolia*) at Colorado River RM –9.4L on 17 June 1999 (J. Holmes).

Family EMBERIZIDAE

GREEN-TAILED TOWHEE (*Pipilo chlorurus*).—An uncommon restricted migrant and rare local summer resident and breeder. Frequents dense riparian brush and other dense shrubby situations. Small numbers were found breeding during the bird inventory program in dense *Artemisia tridentata* shrubland on the Kaiparowits Plateau where 8+ were seen on 6 June 2000 including alarmed adults and adults carrying food. Dates of occurrence span from 19 April (2000 on the Kaiparowits Plateau, C. LaRue) to 16 September (1999 on the Kaiparowits Plateau, J. Holmes). Very rare in winter with one in Page from 24 December 1998 to 7 Janaury1999 (J. Alston, J. Spence). The species has been recorded on one of 12 CBCs.

SPOTTED TOWHEE (*Pipilo maculatus*).—A common widespread permanent resident and breeder in pinyon-juniper/big sage/Gambel oak associations on the Kaiparowits Plateau and in riparian groves on the Escalante River. May breed occasionally in dense oak scrub in side canyons (birds seen in Bown's and Explorer canyons, 9–10 May 2000, C. LaRue), in the canyon heads of the Big Ridge, and in the riparian brush along the Colorado River. Likely winters along the Escalante River and possibly elsewhere. The species is most common in migration and rare in winter. The breeding records

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

include a nest with 3 eggs on the Kaiparowits Plateau on 19 April 2000 (C. LaRue), a female carrying nest material 0.5 mile below Fence Canyon, Escalante River, on 19 May 1999 (C. LaRue), a fledgling on the Escalante River above Scorpion Gulch and adults carrying food to vocal nestlings in dense tamarisk on the Escalante River 1.0 mile below Coyote Gulch on 20 May 1999 (J. Spence, C. LaRue), about 20 full-sized juveniles and one small juvenile on the Kaiparowits Plateau from 6 to 7 June 2000 (C. LaRue), and another juvenile there on 7 July 1999 (J. Holmes). The species has been recorded on 6 of 12 CBCs.

RUFOUS-CROWNED SPARROW (*Aimophila ruficeps*).—A sparse local permanent resident and breeder of grassy talus in Glen Canyon from RM –10.0 downstream. Occasionally, individuals have been recorded in the dense tamarisk riparian zone along the river banks. Breeding was indicated by a fledgling seen at Colorado River RM –7.0L on 21 May 1998 (C. LaRue). The species has been recorded on one of 12 CBCs.

AMERICAN TREE SPARROW (*Spizella arborea*).—A rare local winter resident with 3 records: one on the ridge between Bullfrog and Hall's Creek bays on 29 November 1994 (J. Grahame, J. Spence), one at Wahweap government housing from 3 to 5 November 1996 (C. Goetze), and one in Page on 3 January 2003 (J. Spence, B. Russell). The species has been recorded on one of 12 CBCs.

CHIPPING SPARROW (*Spizella passerina*).—A common local summer resident and probable breeder, also a common widespread migrant. Breeding may occur in the pinyon-juniper woodlands of the Kaiparowits Plateau, the Big Ridge, and the Andy Miller/Waterhole flats area. The dates of occurrence are from April into October. Fall migrants have been seen as early as 29 July (1997 at Lees Ferry, C. LaRue). There are no winter records.

CLAY-COLORED SPARROW (*Spizella pallida*).—A rare local transient. There are 2 records: one at Wahweap STP on 28 April 1998 (C. LaRue) and one at Lees Ferry on 2 May 1995 (J. Grahame).

BREWER'S SPARROW (*Spizella breweri*).—An uncommon local summer resident and breeder, and a common to abundant widespread migrant, and a rare and irregular local winter resident in desert scrub and weedy riparian areas. Peak passage appears to be in early May and late August. Winter records are one in Page on 22 December 1999 (C. LaRue), one near page STP on 1 January 1998 (J. Spence), 30 there on 8 January 1998 (C. LaRue et al.), 2 near Page STP on 9 February 1999 (C. LaRue, C. Goetze), and 25 at Colorado River RM –3.5R on 13 February 1998 (C. LaRue, C. Goetze). The only breeding population is found on the Kaiparowits Plateau where the species nests in big sagebrush near the GLCA boundary and on Fifty Mile Bench below: singing birds on 23 and 25 May 2000, alarmed birds on 6 June 2000, and an adult carrying a fecal sac on 7 June 2000 (all C. LaRue).

BLACK-CHINNED SPARROW (*Spizella atrogularis*).—Rare local summer resident and breeder. In May and June 2000, this species was fairly common in big sagebrush (*Artemisia tridentata*) with scattered serviceberry and junipers on the summit and north-facing slope of the Kaiparowits Plateau and on Fifty Mile Bench below. The records are one heard singing below the cap rock cliff of the plateau on 23 May, 3 singing males (including an alarmed individual carrying nest material) and one female in a sage-filled valley on the plateau summit, one singing from slopes below "point" triangulation station, and one singing from slopes one mile south of "point" triangulation station on 25 May, 2 singing on summit near Moqui Seep and one singing in upper Trail Hollow nearby on 6 June, 2 more (or the same) near Moqui Seep, a pair plus a single on the summit about 500 m south of Moqui Seep and 2 singing at the end of the road on Fifty Mile Bench on 7 June, and 7 singing on Fifty Mile Bench on 8 June. These records represent an apparent range extension from known breeding areas in southwestern Utah and adjacent Arizona.

VESPER SPARROW (*Pooecetes gramineus*).—A common widespread migrant in open grassy desert scrub. Abundant for a brief period during the peak of the fall passage in mid-September. The spring passage is in March and April, and fall passage is from late August into October.

LARK SPARROW (*Chondestes grammacus*).—An uncommon restricted summer resident and breeder and common widespread migrant, mostly in open pinyon-juniper woodlands and open brushy situations. Status and distribution as a breeding resident are poorly known but the species is at least an uncommon breeder in open pinyon-juniper woodlands, with breeding season records from Gordon Flat (pair carrying food on 13 July 1999, J. Holmes), the Kaiparowits Plateau (a pair of adults on 7 June 2000, C. LaRue),

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

and Waterhole Flat (adult carrying food on 14 June 2000, C. LaRue).

BLACK-THROATED SPARROW (*Amphispiza bilineata*).—A common widespread summer resident and rare local winter resident. This species is the most common breeder of desert flats and benches (even within side canyons) throughout the area, and is the characteristic breeding bird of much of GLCA. It breeds primarily in blackbrush, sand sagebrush, shadscale and, in one restricted locality on Fifty Mile Bench, in big sagebrush. Some of the breeding records are a fledgling on Antelope Island 31 May 1995 (J. Spence et al.), a fledgling at Wahweap on 13 May 1997 (C. LaRue), an adult carrying food at Last Chance Creek on 28 May 1998 (C. LaRue), 4 fledglings in Cottonwood Canyon on 30 June 1999 (C. LaRue), a juvenile in open pinyon-juniper woodland at Hans Flat on 13 July 1999 (J. Holmes), a juvenile at headquarters on 24 August 1998 (C. LaRue), and a nest with 2 eggs in a small cliffrose (*Purshia stansburiana*) in Andy Miller Flats on 14 June 2001 (J. Spence). Small numbers occasionally remain in winter in the Page/Wahweap area: one at Wahweap on 1 December 1997 (C. Goetze), one in Page on 22 December 1999 (C. LaRue), another (or the same) at Wahweap and one at headquarters on 1 January 1998 (J. Spence, J. Alston), 2 at headquarters on 2 February 1998 (C. LaRue), and one near Page STP on 9 February 1999 (C. Goetze). Black-throated Sparrows have been found on the 7 of the 12 CBCs.

SAGE SPARROW (*Amphispiza belli*).—A rare restricted summer resident and breeder and uncommon widespread winter resident in blackbrush and sandy shrublands. Summer status and distribution are poorly understood, but small numbers breed in sand sagebrush (*Artemisia filifolia*) shrubland in at least the Wahweap area. Indications of breeding here were a nest with 3 small young in a pillar false gumweed (*Vanclevea stylosa*) in Ferry Swale on 5 May 2000 (C. LaRue), a juvenile at Wahweap STP on 1 July 1997 (C. LaRue), and 20 adults and juveniles there on 28 July 1998 (C. LaRue). The other breeding record is of fledglings attended by adults on Antelope Island on 31 May 1995 (J. Spence et al.). Migrants/transients are occasionally seen in unexpected places, such as 2 in the dense riparian vegetation in Lake Canyon on 9 August 2000 (C. LaRue) and one on the summit of the Kaiparowits Plateau on 20 October 1998 (C. LaRue). The species has been recorded on 11 of 12 CBCs.

LARK BUNTING (*Calamospiza melanocorys*).—A sparse local migrant in desert scrub and adjacent areas. The 6 records are as follows: one in Page on 9 February 1999 (C. LaRue, C. Goetze), 2 on 11 February 1998 and one on 12 February 1998 near Page STP (C. LaRue, J. Spence), one at Page golf course on 12 May 1994 (J. Grahame), 8 at Bullfrog housing on 16 August 1966 (Christensen GLCA files), and one at Wahweap STP on 18 September 1998 (C. LaRue, J. Spence).

SAVANNAH SPARROW (*Passerculus sandwichensis*).—A common widespread migrant and rare local winter resident in weedy desert scrub and pond edges. The spring passage is from February to May. The fall passage has been noted from 9 July (1997 at Wahweap STP, C. LaRue) into October. The largest number noted was 53 at Page STP on 22 September 2000 (C. LaRue, C. Goetze). In winter the Savannah Sparrow has occurred in most years near Page, with one at Page golf course on 1 January 1999 (J. Spence), 5 there on 8 January 1998 (C. LaRue), 2–7 there on 19–25 January 2000 (C. LaRue), and one on 2 January 2001 (J. Spence). The species has been recorded on 5 of 12 CBCs.

GRASSHOPPER SPARROW (*Ammodramus savannarum*).—Vagrant. One record of one at Paria Beach, Colorado River RM 1.0R on 27 and 31 October 1996 (C. LaRue).

FOX SPARROW (*Passerella iliaca*).—A rare local migrant and possible winter resident in dense riparian thickets. There are 4 records as follows: one each at Lonely Dell on 10 October 2009 (B. Gatlin), Lees Ferry on 27 October 1996 (C. LaRue), Colorado River RM –8.8L on 18 March 1996 (J. Spence), and RM –7.0L on 3 February 2000 (C. LaRue, J. Spence). All of these birds were of the *schistacea* slate-colored group. Two prior records in the GLCA files are uncertain but seem plausible: one at Wahweap government housing on 31 October 1976 (Middleton) and another there on 28 November 1983 (D. Smith). The species has been recorded on one of 12 CBCs.

SONG SPARROW (*Melospiza melodia*).—A common widespread migrant and winter resident in dense riparian brush throughout GLCA. The dates of occurrence span from 23 August (2000 at Lees Ferry, C. LaRue, possibly an over-summering bird), but more typically from early September, to 3 May (1994 at Page golf course,

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

J. Grahame). The species has been recorded on all 12 CBCs.

LINCOLN'S SPARROW (*Melospiza lincolnii*).—An uncommon widespread migrant in dense riparian brush throughout GLCA and an irregular uncommon winter resident in dense riparian brush in Page and along the Colorado River in Glen Canyon. The dates of occurrence span from mid-September through May, with the spring passage beginning in February. The winter records are one at the Wahweap District Ranger Office on 20 December 1999 (C. LaRue), one on the Colorado River on 5 January 2009 (C. LaRue, J. Coons), 11 in Glen Canyon on 8 January 1998 (J. Spence, C. LaRue), 5 more in Glen Canyon on 9 January 1998 (C. LaRue, J. Spence), one at Page golf course on 19 January 1999 (J. Spence), 2 (Colorado River at RM –10.0L and –3.0R) on 25 January 1998 (J. Spence), one at the base of Glen Canyon Dam on 2 February 2000 (C. LaRue), one in Page on 11 February 1998 (C. LaRue) and 6 in Glen Canyon 12–13 February 1998 (C. LaRue, C. Goetze). The species has been recorded on 5 of 12 CBCs.

SWAMP SPARROW (*Melospiza georgiana*).—A sparse widespread migrant and winter resident with 7 records: one at Colorado River RM 1.6R from 30 November 1999 to 23 February 2000 (C. LaRue), one at Colorado River RM –11 on 5 January 2004 (C. LaRue et al.), another there on 17 February 1998 (C. LaRue, R. Radd), 2 at Page STP from 8 January to 12 February 1998 (C. LaRue et al.), one at Colorado River RM –8.8L on 4 February 2000 (C. LaRue), one at Lees Ferry on 14 April 1995 (M. Sogge), and one at Wahweap on 14 April 1997 (C. LaRue, A. Flesch). The species has been recorded on one of 12 CBCs.

WHITE-THROATED SPARROW (*Zonotrichia albicollis*).—A sparse local migrant and winter resident. The 10 records are as follows: one at Wahweap on 23 October 1996 (C. Goetze), one at Colorado River RM –14.3R on 29 October 1998 (C. LaRue), one in Page from 2 to 4 November 2000 (J. Alston), one at Wahweap from 4 November to 14 December 1998 (C. Goetze et al.), one at Lees Ferry on 10 November 2009 (photo S. Putz), one at Lees Ferry from 5 December 1994 to 7 March 1995 (J. Grahame), another at Lees Ferry on 5 December 1995 (J. Grahame), one at Wahweap on 18 December 1968 (Chistensen GLCA files), one at Page golf course from 29 November 1999 to 23 February 2000 (C. LaRue et al.), one at Page STP from 1 to 8 January 1998 (J. Spence et al.), and one at Colorado River RM –0.4L on 27 March 2000 (C. LaRue).

HARRIS'S SPARROW (*Zonotrichia querula*).—A rare local migrant and winter resident with 4 records: one at Wahweap from 3 to 5 November 1996 (C. Goetze), another there on 29 November 1986 (G. Rosenberg, J. Coons GLCA files), one in Page from 11 to 28 January 1998 (J. Spence), and one in Page on 11 May 1997 (C. Goetze et al.).

WHITE-CROWNED SPARROW (*Zonotrichia leucophrys*).—An abundant widespread migrant and winter resident in riparian situations and dense desert scrub. The dates of occurrence span from 7 September (2000 at Page golf course, C. LaRue) to 7 June (1995 at Paria Beach, J. Grahame). The species has been recorded on all 12 CBCs.

GOLDEN-CROWNED SPARROW (*Zonotrichia atricapilla*).—A rare local winter resident with one record: one seen in tamarisk at Colorado River RM –8.0R on 8 January 1998 (C. LaRue, J. Spence).

DARK-EYED JUNCO (*Junco hyemalis*).—A common widespread migrant and winter resident in pinyon-juniper woodlands, dense riparian brush, dense desert scrub, and residential areas. The races found in GLCA are those typical from the region (Phillips et al. 1964, Behle et al. 1985). *Junco h. mearnsi* and *J. h. caniceps* are most frequent early and late during the overwintering period (September and late April through early May). *Junco h. shufeldt/simillimus* types are the abundant wintering bird. A few *J. h. hyemalis/henshawi* types are seen each winter. The dates of occurrence span from 20 September (2000, *J. h. caniceps* at Page headquarters, C. LaRue) to 18 May (1999, *J. h. mearnsi* on the Escalante River below Harris Wash, C. LaRue). The species has been recorded on all 12 CBCs.

Family CARDINALIDAE

SUMMER TANAGER (*Piranga rubra*).—Recently a sparse local spring and summer transient in riparian areas primarily in the southern portion of GLCA, and a rare summer resident and probable breeder. This species appears to be part of the expansion noted in the Grand Canyon (Brown et al. 1987). The 9 records are as follows: one at Page golf course on 11 May 1995 (J. Grahame), a subadult male at Colorado River RM –13.4L on 22 May 1998 (C. LaRue), a subadult male at RM –3.0R on 25 May 1999 (C.

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

LaRue, L. Dickson), a male at Clay Hills Crossing on 6 June 1997 (J. Spence), a male at Clay Hills Crossing on 12 June 2001 (J. Spence), one at Colorado River RM –6.1R on 21 June 1995 (J. Grahame), a subadult male on lower Hall's Creek on 27 June 1997 (N. Brown, C. LaRue), an adult male at Colorado River RM –8.6R on 21 July 1993 (J. Spence), and an adult male in Page on 23 August 1994 (J. Spence).

SCARLET TANAGER (*Piranga olivacea*).—Vagrant. There are 2 records: one at Lees Ferry on 24 May 1981 (G. Rosenberg) and one at Lonely Dell on 16 August 1970 (J. Hildebrandt; Brown et al. 1984).

WESTERN TANAGER (*Piranga ludoviciana*).—A common widespread migrant in riparian and pinyon-juniper woodlands. The spring passage is from 9 May (1994 at Page golf course, J. Grahame) to 7 June (2000 on the Kaiparowits Plateau, C. LaRue). The fall passage is from 7 July (1958 at Aztec Canyon by Higgins; Behle and Higgins 1959) to typically late September, but recently individuals have been seen well into October and November, including a remarkably late adult at Lees Ferry on 10 November 2009 (S. Putz).

ROSE-BREASTED GROSBEAK (*Pheucticus ludovicianus*).—A rare but widespread migrant with 5 records as follows: one at Bullfrog on 17 May 1975 (Mossestad GLCA files), one at Big Water on 18 May 2010 (C. Adams), one at Colorado River RM –8.5L on 19 May 1998 (C. LaRue), one at "Moqui Seep," Kaiparowits Plateau on 23 May 2000 (C. LaRue), and one at Wahweap on 15 December 1996 (C. Goetze, J. Spence).

BLACK-HEADED GROSBEAK (*Pheucticus melanocephalus*).—A sparse restricted summer resident and breeder. Also a common widespread migrant in riparian areas and other dense deciduous vegetation, especially Gambel oak woodlands in tributary canyons, the Escalante River, and the Kaiparowits Plateau. The breeding distribution is poorly understood partly due to the prolonged migratory periods. However, it may breed along the Colorado River in some years: a nest with one egg at Colorado River RM –7.0L on 13 June 1984 and another nest there with 4 eggs on 31 May 1985 (B. Brown), in oaks and maples near the GLCA boundary on the Kaiparowits Plateau at Moqui Seep (many, including 7 different adult males, coming to water on 6 June 2000, C. LaRue), in dense willows and tamarisk at Clay Hills Crossing on the San Juan River (3 singing males on 22 June 1996 and a bird there on 26 June 1997, C. LaRue), along the Escalante River (3 seen, 23–24 June 1999, C. LaRue, J. Holmes), and perhaps in some of the side canyons, especially Moqui Canyon.

BLUE GROSBEAK (*Passerina caerulea*).—An uncommon widespread summer resident and breeder in well-developed riparian vegetation. Occupancy dates span from 11 May (2000 in Cottonwood Canyon, C. LaRue) to 24 September (1998 in Glen Canyon, C. LaRue). Breeding records include a nest with 2 eggs on the Escalante River above Scorpion Gulch on 21 June 1999 (J. Holmes), 2 pairs with a nestling and a fledgling at Colorado River RM –13, 9 on 11 August 1938 (Woodbury and Russell 1945), an adult female feeding 2 fledglings at RM –8.3L on 23 September 1998, a female with 4 fledglings at RM –8.4L on 24 September 1998 (both C. LaRue), and 2 begging juveniles with 2 adults at the upper end of the unnamed canyon in the Great Bend of the San Juan Arm on the north side east of Alcove Canyon on 31 July 2001 (J. Spence).

LAZULI BUNTING (*Passerina amoena*).—An uncommon local summer resident, and probable breeder and common widespread migrant in riparian areas and adjacent dense weedy brush. May breed in riparian vegetation along the Escalante River and possibly elsewhere (as at Clay Hills Crossing). Dates of occurrence span from 23 April (2000 in Page, G. Nealon) to 4 October (1996 at Wahweap, C. Goetze). Spring passage lasts until early June, and fall passage begins by early July and appears to peak in late August and early September. Likely breeding records include an alarmed pair on the Escalante River above Harris Wash on 24 June 1999 (C. LaRue).

INDIGO BUNTING (*Passerina cyanea*).—An uncommon widespread migrant and summer resident and possible breeder in riparian areas and adjacent dense weedy brush. The 8 records are one at Lonely Dell on 4 May 1994 (J. Grahame), one at Wahweap on 31 May 1977 (Davis GLCA files), a female at Colorado River RM –8.0R on 17 June 1997 (C. LaRue), an adult male at the head of Last Chance Bay on 25 June 1997 (C. LaRue, N. Brown), an adult male at Clay Hills Crossing on 26 June 1997 (C. LaRue), one in Moqui Canyon on 5 August 1994 (M. Kropf GLCA files), 4 at Page STP and one at Lonely Dell on 20 September 1997 (C. LaRue, C. Goetze), and an exceptional winter occurrence

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

at Navajo Bridge on 1 December 1996 (C. LaRue, T. Corman).

DICKCISSEL (*Spiza americana*).—A rare local migrant with 5 records: one at Lonely Dell on 8 May 2004 (J. Spence, B. Russell), one in Page on 24 May 1998 (J. Spence), one at Lonely Dell on 10 July 2009 (photo S. Putz), another there on 14 September 1994 (J. Grahame), and one at Wahweap, 22–23 September 1998 (C. LaRue, C. Goetze)

Family ICTERIDAE

BOBOLINK (*Dolichonx oryzivorus*).—A rare local migrant with 5 records: one at Page golf course on 9 May 1994 (J. Grahame), 2 there on 3 June 1999 (J. Alston), one there on 12 May 2000 (B. Bobowski), one at Page STP on 8 September 2003 (G. Rosenberg), and one at Lonely Dell on 15 September 1994 (J. Grahame GLCA files).

RED-WINGED BLACKBIRD (*Agelaius phoeniceus*).—A common widespread migrant and rare winter resident and sparse local breeder at sewage treatment settling ponds, the Lake Powell shoreline, and other open riparian sites. Breeding was only recorded in the 1990s at Wahweap STP, but the species may breed elsewhere. The species has been recorded on 2 of 12 CBCs.

WESTERN MEADOWLARK (*Sturnella neglecta*).—A common widespread migrant and an uncommon winter resident at open brushy and weedy sites. Most of the winter records are from the Page area. The species has been recorded on 8 of 12 CBCs.

YELLOW-HEADED BLACKBIRD (*Xanthocephalus xanthocephalus*).—A common widespread migrant at sewage treatment settling ponds and other brushy and weedy sites. The periods of passage are from early April into May and from July into November. The species is common at Page STP in fall.

BREWER'S BLACKBIRD (*Euphagus cyanocephalus*).—A common widespread migrant and rare local winter resident at sewage treatment settling ponds and other wet weedy sites. The species is regular in small numbers in the winter in Page, with a high count of 68 on 5 Janaury 2004 (J. Spence). The species has been recorded on all 12 CBCs, usually at the horse corrals south of Page.

COMMON GRACKLE (*Quiscalus quiscula*).—A rare local transient. There are 3 records: one at Wahweap STP on 24 April 1997 (C. LaRue, A. Flesch), one at Lees Ferry from 28 May to 2 July 1997 and 2 there from 29 July to 31 July 1997 (C. LaRue et al.).

GREAT-TAILED GRACKLE (*Quiscalus mexicanus*).—A common local permanent resident and breeder at Page, Wahweap, and Bullfrog. An erratically common breeding resident at Lees Ferry. Fledglings are conspicuous at all 3 localities. At Lees Ferry, the breeding colony has nested in the dense common reed (*Phragmites* sp.) and tamarisk below the boat ramp. The species has been recorded on all 12 CBCs.

BROWN-HEADED COWBIRD (*Molothrus ater*).—A common to abundant widespread summer resident and breeder and migrant, and very rare winter resident. The peak of the spring passage is pronounced in late April and early May (e.g., 650 at Page STP/golf course on 3 May 1994, J. Grahame). The species is generally fairly common in summer along the Colorado River, and to a lesser extent in pinyon-juniper woodlands. Its status and distribution in summer is poorly known, and the extent and effects of brood parasitism in GLCA are unknown. Two breeding records: a fledgling being fed by a pair of Lucy's Warblers at Lees Ferry on 21 July 1995 (J. Grahame) and a Yellow-breasted Chat nest containing 2 chat and 2 cowbird eggs in mule-fat (*Baccharis* sp.) at Colorado River RM –9.4L on 17 June 1999 (J. Holmes). The species has been recorded on one of 12 CBCs.

HOODED ORIOLE (*Icterus cucullatus*).—A recent rare local summer resident and breeder in Page first discovered in 1996 (J. Grahame, J. Spence). The dates of occurrence are from 16 April (1996) to 20 September (J. Spence). An adult female with a fledgling was seen at Bullfrog NPS housing on 9 August 2000 (C. LaRue). An adult female was seen taking nectar on a Yucca near Paria Beach, Lees Ferry, on 18 April 2004. The colonization of GLCA follows a pattern of expansion into the Grand Canyon region noted as early as 1974 (Brown et al. 1987) and may continue. Eventually this species may breed along the Colorado River in Glen Canyon and in other riparian and residential areas (e.g., Wahweap). The northward expansion in the Lower Colorado River Valley has also been associated with residential areas (Rosenberg et al. 1991). Recently, this species has been seen in planted *Populus fremontii* at Wahweap.

BULLOCK'S ORIOLE (*Icterus bullockii*).—An uncommon widespread summer resident and breeder and migrant in riparian areas, in residential areas, and occasionally in pinyon-juniper

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

woodlands. A fairly common summer resident in Page and Wahweap and along the Colorado River. Breeding records include an adult carrying food at Colorado River RM –8.3R on 17 June 1997 (C. LaRue), an adult carrying food to a nest in tamarisk at RM –14.2R on 8 July 1998 (C. LaRue), and 2 nests at RM –14.3R on 23 June 1995 (Grahame and Pinnock 1995b). The dates span from 21 April (1984 at Wahweap, G. Gossard GLCA files) to early to mid-September. The fall passage begins by mid- to late July. There is one late record of a first-year male in Page on 13 November 2005 (J. Spence).

BALTIMORE ORIOLE (*Icterus galbula*).—Vagrant. One record of a bird collected at Lees Ferry on 4 September 1978 by S. Terrill and G. Rosenberg (Brown et al. 1984).

SCOTT'S ORIOLE (*Icterus parisorum*).—An uncommon widespread summer resident and breeder in open pinyon-juniper woodlands, and an uncommon migrant in riparian areas. The only certain breeding record is from Andy Miller Flat where a bird was heard singing on 15 July 1999; a nest with 2 small young was found the next day (J. Holmes, C. LaRue). An adult male and female were seen at Waterhole Flat on 14 June 2000 (C. LaRue), suggesting breeding there also. The 5 records of migrants are one on 12 May 1982 and 2 on 13 May 1982 at Colorado River RM –10.0L (G. Stolz GLCA files), one on the rim of the Kaiparowits Plateau at Moqui Seep on 7 June 2000 (C. LaRue), a subadult male in a side canyon off of the Great Bend on 8 June 2000 (C. LaRue), a subadult male at Clay Hills Crossing on 22 June 1996 (C. LaRue), and one at Lees Ferry housing on 8 August 1982 (G. Stolz GLCA files).

Family FRINGILLIDAE

BLACK ROSY-FINCH (*Leucosticte atrata*).—An irregular and generally sparse widespread winter resident on open rocky slopes and open flatlands. There are 5 records: 50 on the north side of Wahweap Bay on 10 November 2000 (J. Alston), "several" on the slopes of the Navajo Creek Arm of Lake Powell on 5 November 1991 (B. Hetzler), flocks totaling over 100 birds at Bullfrog government housing and adjacent desert on 14 January 1997 (B. Zurcher), a flock of 75 at the upper end of Hall's Creek Bay on 25 January 2001 (J. Spence), and a flock of about 100 in Crosby Canyon on 27 January 2001 (J. Spence). The flocks seen in 2001 were foraging on recently exposed mudflats and sandy shoreline of Lake Powell among drowned tamarisk. Some Gray-crowned Rosy-Finches (*Leucosticte tephrocotis*) may also occasionally winter in GLCA, but their presence has not yet been confirmed. The species has been recorded on one of 12 CBCs.

CASSIN'S FINCH (*Carpodacus cassinii*).—A sparse local migrant and possible winter visitor in pinyon-juniper woodlands, riparian areas, and residential areas. Most of the records have come from the Kaiparowits Plateau, where 42 were counted migrating past Navajo Point on 25–30 September 2000 (C. LaRue et al.).

HOUSE FINCH (*Carpodacus mexicanus*).—A common widespread permanent resident and breeder in riparian and residential areas and, to a lesser extent, in pinyon-juniper woodlands. The House Finch is perhaps the most ubiquitous bird found in riparian areas in GLCA throughout the year. Large flocks are occasionally seen in winter, such as the 568 counted on the Glen Canyon CBC on 3 January 2007 (J. Spence). The species has been recorded on all 12 CBCs.

RED CROSSBILL (*Loxia curvirostra*).—A sparse local transient and rare breeder in the pinyon-juniper woodland on the Kaiparowits Plateau and perhaps the Big Ridge area. The presence of this species in GLCA is largely tied to pinyon mast. Birds were detected on 6 of 7 trips to the Kaiparowits Plateau from July 1999 to September 2000 during a period of heavy cone production. Fledglings were seen on 20 April 2000 (C. LaRue). The species is an occasional fall and winter transient in residential areas: one at Bullfrog, 28–29 October 1996 (B. Zurcher), and 11 birds in Page, 15–16 December 1996 (J. Spence, B. Russell).

PINE SISKIN (*Spinus pinus*).—The status, distribution, and movements in GLCA are poorly understood. At least an irregularly uncommon restricted migrant in riparian areas, pinyon-juniper woodlands, and residential areas, and an occasional winter resident, primarily at feeders, in Page. The dates span from 8 July (1999 on the Kaiparowits Plateau, C. LaRue) to 26 May (2000 on the Kaiparowits Plateau, C. LaRue). The largest flock seen was a group of 25 birds associated with about 30 American goldfinches foraging on rabbitbrush (*Ericameria nauseosus*) fruit in Bowns Canyon on 4 November 2000 (J. Spence). In Page, the Pine Siskin usually appears at feeders in April and May or late September through October; most birds depart

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

thereafter (J. Spence). The species has been recorded on 4 of 12 CBCs.

LESSER GOLDFINCH (*Spinus psaltria*).—An uncommon widespread permanent resident and breeder in riparian areas (including isolated and restricted pockets of such) throughout GLCA from April to early December, and a rare summer breeder in residential areas. Birds have been seen in the last few years year-round at feeders in Page, including numerous juveniles. Other breeding records include a young fledgling at GLCA headquarters on 29 April 1998 (C. LaRue), and a fledgling in Page on 20 May 1999 (C. Goetze). In winter, the Lesser Goldfinch occurs regularly at feeders in Page (J. Spence). The species has been recorded on 6 of 12 CBCs.

AMERICAN GOLDFINCH (*Spinus tristis*).—An uncommon widespread migrant and winter resident in riparian and residential areas. The dates span from 25 August (1995 at Paria Beach, J. Grahame) to 13 June (1995 at Waterhole Canyon, J. Grahame). Two at Clay Hills Crossing on 22 June 1996 (C. LaRue) and one at Sevenmile Canyon on 8 July 1958 (Behle and Higgins 1959) document sparse summer vagrancy. This species is the most common small finch seen on the Glen Canyon CBC, with a high count of 66 on 5 January 2004 (J. Spence). The species has been recorded on 9 of 12 CBCs.

EVENING GROSBEAK (*Coccothraustes vespertinus*).—A sparse local migrant and rare winter resident in riparian and residential areas and in pinyon-juniper woodlands. The 8 records are 17 migrating past Navajo Point, Kaiparowits Plateau, on 26 September 2000 (C. LaRue et al.), one there 28 September 2000 (C. LaRue et al.), 6 in Page on 16 October 1996 (C. Goetze), 7 at Bullfrog on 22 October 1996 (B. Zurcher), one on the Kaiparowits Plateau on 22 October 1998 (C. LaRue), 3 in Page on 14 December 1963 (Mazzer GLCA files), one at Wahweap on 19 January 1990 (C. Pinnock), and 2 there on 14 May 1969 (S. Hider GLCA files).

Family PASSERIDAE

HOUSE SPARROW (*Passer domesticus*).—A common widespread permanent exotic resident and breeder at residential, developed, and landscaped areas. The species has been recorded on all 12 CBCs, with a high count of 730 on 5 January 2009 (J. Spence).

ACKNOWLEDGMENTS

We thank the following people for their extensive support, submitted bird observations, and advice over the years: Cynthia Adams, Joe Alston, Ben and Katie Bobowski, Mike Britten, Bryan Brown, Nikolle Brown, Lara Dickson, Vivian Ferlien, Chris Florian, Christine Goetze, Tom Haberle, Brent Hetzler, Jennifer Holmes, Leslie Holsten, Jeanette Muller, Gerry Nealon, Jon Nelson, Clive Pinnock, Shaun Putz, Brenda Russell, Mark Sogge, Larry Stevens, Frank and Pat Talbot, Charles van Riper III, Dave Willey, Bill Wolverton, Becky and Pat Zurcher, Zack Zdniak, as well as all other visitors and residents of the region who have turned in wildlife cards.

LITERATURE CITED

AMERICAN ORNITHOLOGISTS' UNION. 1998. Check-list of North American birds. 7th edition. American Ornithologists' Union, Washington, DC.

ANDERSON, P.B., T.C. CHIDSEY JR., D.A. SPRINKEL, AND G.C. WILLIS. 2000. Geology of Glen Canyon National Recreation Area, Utah–Arizona. *In:* D.A. Sprinkel, T.C. Chidsey Jr., and P.B. Anderson, editors, Geology of Utah's parks and monuments. Utah Geological Association Publication 28.

ATWOOD, N.D., C.L. PRITCHETT, R.D. PORTER, AND B.W. WOOD. 1980. Terrestrial vertebrate fauna of the Kaiparowits Basin. Great Basin Naturalist 40:303–350.

BEHLE, W.H. 1960. The birds of southeastern Utah. University of Utah Biological Series Vol. 12, No. 1.

_____. 1985. Utah birds: geographic distribution and systematics. Occasional Publication No. 5, Utah Museum of Natural History, University of Utah, Salt Lake City, UT.

_____. 1990. Utah birds: historical perspectives and bibliography. Occasional Publication No. 9, Utah Museum of Natural History, University of Utah, Salt Lake City, UT.

BEHLE, W.H., J.B. BUSHMAN, AND C.M. GREENHALGH. 1958. Birds of the Kanab area and adjacent high plateaus of southern Utah. University of Utah Biological Series Vol. 11, No. 7.

BEHLE, W.H., AND H.G. HIGGINS. 1959. Birds of Glen Canyon. Pages 107–133 *in* A.M. Woodbury, editor, Ecological studies of the flora and fauna in Glen Canyon. Anthropological Papers No. 40, Glen Canyon Series No. 7, University of Utah, Salt Lake City, UT.

BEHLE, W.H., E.D. SORENSEN, AND C.M. WHITE. 1985. Utah birds: a revised checklist. Utah Museum of Natural History Occasional Publication No. 4, University of Utah, Salt Lake City, UT.

BENSON, S.B. 1935. A biological reconnaissance of Navajo Mountain, Utah. University of California Publications in Zoology 40:439–456.

BLAKE, J.G. 1981. Avifauna of the Mt. Dellenbaugh Region, Shivwits Plateau, Arizona. Great Basin Naturalist 41: 259–268.

BRADFIELD, M. 1974. Birds of the Hopi Region, their Hopi names and notes on their ecology. Museum of Northern

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use

Arizona Bulletin No. 48, Northern Arizona Society of Arts and Science, Inc., Flagstaff, AZ.

BRITTEN, M.W. 1998. Migration routes and non-breeding areas of a sub-arctic and temperate latitude breeding population of Peregrine Falcons. Master's thesis, Colorado State University, Boulder, CO.

BROTHERSON, J.D., L.A. SZYSKA, AND W.E. EVENSON. 1981. Bird community composition in relation to habitat and season in Betatakin Canyon, Navajo National Monument, Arizona. Great Basin Naturalist 41:298–309.

BROWN, B.T., S.W. CAROTHERS, AND R.R. JOHNSON. 1987. Grand Canyon birds. University of Arizona Press, Tucson, AZ.

BROWN, B.T., S.W. CAROTHERS, R.R. JOHNSON, M.M. RIFFEY, AND L.E. STEVENS. 1984. Birds of the Grand Canyon region: an annotated checklist. 2nd edition. Grand Canyon Natural History Association Monograph No. 1.

BROWN, B.T., AND L.E. STEVENS. 1997. Winter Bald Eagle distribution is inversely correlated with human activities along the Colorado River, Arizona. Journal of Raptor Research 31:7–10.

CORMAN, T.E., AND C. WISE-GERVAIS, EDITORS. 2005. Arizona breeding bird atlas. University of New Mexico Press, Albuquerque, NM.

EATON, S.W. 1992. Wild Turkey. *In:* A. Poole, P. Stettenheim, and F. Gill, editors, The birds of North America, No. 22. Academy of Natural Sciences, Philadelphia, PA; American Ornithologists' Union, Washington, DC.

GIDDINGS, L. 2007. The birds of San Juan County, Utah. Utah Birds 20:15–44.

GRAHAME, J.D., AND C.A. PINNOCK. 1995a. Breeding birds along the Colorado River through Glen Canyon—past and present. Final report to Glen Canyon Environmental Studies, Bureau of Reclamation. Resource Management Division, Glen Canyon National Recreation Area.

_____. 1995b. Wintering and breeding waterfowl on the Colorado River from Glen Canyon Dam to Lees Ferry: the 1995 report. Final report submitted to Glen Canyon Environmental Studies. National Park Service, Glen Canyon National Recreation Area.

JACOBS, B. 1986. Birding on the Navajo and Hopi reservations. Jacobs Publishing Company, Sycamore, MO.

JENNINGS, J.D. 1998. Glen Canyon: an archeological summary. University of Utah Press, Salt Lake City, UT.

LARUE, C.T. 1994. Birds of northern Black Mesa, Navajo County, Arizona. Great Basin Naturalist 54:1–63.

LARUE, C.T., L.L. DICKSON, N.L. BROWN, J.R. SPENCE, AND L.E. STEVENS. 2001. Recent bird records from the Grand Canyon region, 1974–2000. Western Birds 32:101–118.

MONSON, G., AND A.R. PHILLIPS. 1981. Annotated checklist of the birds of Arizona. 2nd edition. University of Arizona Press, Tucson, AZ.

PHILLIPS, A.R., J.T. MARSHALL, AND G. MONSON. 1964. The birds of Arizona. University of Arizona Press, Tucson, AZ.

RASMUSSEN, D.I. 1941. Biotic communities of the Kaibab Plateau, Arizona. Ecological Monographs 11:229–275.

ROSENBERG, K.V., R.D. OHMART, W.C. HUNTER, AND B.W. ANDERSON. 1991. Birds of the lower Colorado River valley. University of Arizona Press, Tucson, AZ.

SOGGE, M.K., D. FELLEY, AND M. WOTAWA. 1998. Annotated species list and summary in riparian bird community ecology in the Grand Canyon–final report. Colorado Plateau Field Station Report, U.S. Geological Survey, Flagstaff, AZ.

SPENCE, J.R. 1998. 1994–1997 Lake Powell winter aquatic bird surveys, Glen Canyon National Recreation Area, Utah and Arizona. Unpublished report, National Park Service, Resource Management Division, Glen Canyon National Recreation Area.

_____. 2001. Climate of the central Colorado Plateau, Utah and Arizona: characterization and recent trends. Pages 187–203 *in* C. Van Riper III, K.A. Thomas, and M.A. Stuart, editors, Proceedings of the Fifth Biennial Conference of Research on the Colorado Plateau. U.S. Department of the Interior, U.S. Geological Survey Report Series USGSFRESC/COPL/2001/24.

_____. 2002. The SRFR vegetation classification for the Colorado Plateau. Version 4.0. Unpublished report, National Park Service, Resource Management Division, Glen Canyon National Recreation Area.

_____. 2005. The riparian and aquatic bird communities along the Colorado River from Glen Canyon Dam to Lake Mead, 1996–2000. Final report to the U.S. Geological Survey Grand Canyon Monitoring and Research Center, Flagstaff. Resource Management Division, Glen Canyon National Recreation Area. 397 pp.

SPENCE, J.R., AND B.A. BOBOWKSI. 2003. 1994–1997 water bird surveys of Lake Powell, a large oligotrophic reservoir on the Colorado River, Utah and Arizona. Western Birds 34:133–148.

SPENCE, J.R., AND S. BORTHWICK. 1995. A preliminary account of the birds of Capitol Reef National Park. Utah Birds 11:1–12.

SPENCE, J.R., B.K. RUSSELL, AND W.B. "Tug" Kangus. 2002. Bald Eagle surveys at Glen Canyon National Recreation Area, Utah and Arizona, 1991–2002. Utah Birds 16:12–22.

TANNER, V.M. 1940. A biotic study of the Kaiparowits Region of Utah. Great Basin Naturalist 1:97–126.

WALTERS, R.E., EDITOR. 1983. Utah bird distribution: latilong study 1983. Utah Division of Wildlife Resources, Salt Lake City, UT.

WARNER, T.J., EDITOR. 1995. The Domíngez-Escalante journal. Their expedition through Colorado, Utah, Arizona and New Mexico in 1776. [Fr. A. Chavez, translator]. University of Utah Press, Salt Lake City, UT.

WAUER, R.H. 1997. Birds of Zion National Park and vicinity. Utah State University Press, Logan, UT.

WOODBURY, A.M., AND H.N. RUSSELL JR. 1945. Birds of the Navajo country. Bulletin of the University of Utah Vol. 35, No. 41; Biological Series IX, No. 1.

Received 27 August 2010
Accepted 13 December 2010

Downloaded From: https://bioone.org/journals/Monographs-of-the-Western-North-American-Naturalist on 28 Mar 2024
Terms of Use: https://bioone.org/terms-of-use