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BIRDS OF GUNNISON AND CUB ISLANDS GREAT SALT LAKE, UTAH

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ABSTRACT.—A total of 87 avian species were recorded on islands of Great Salt Lake by Behle, with 17 observed on Gunnison and Cub islands. This paper presents sightings and salvaged carcasses recorded on Gunnison and Cub islands, 1972-1974. Of the 112 species observed, 95 are first records for Gunnison and Cub islands and 49 are first records on or near any island of Great Salt Lake. Over 90 percent of species observed on the islands were transients.

Behle (1958) reported a total of 87 avian species occurring on the islands of Great Salt Lake, Utah. Those records resulted from collecting expeditions to larger islands, plus field observations of species during brief visits to smaller islands. This paper reports observations of species recorded during prolonged stays on two of the smaller islands, 1972-1974.

Nine islands occur within Great Salt Lake (for map, see Marshall 1940). Gunnison and Cub islands lie about 25 m apart in the northwest arm of the lake, approximately 14 km north of Lakeside, Utah, 40 km from Promontory Point and 13 km from the west shoreline. Water depths around the islands average 3 m, and these plus the distance to the western shoreline vary with annual fluctuations in water levels of the lake (Knopf 1974). The two islands become a single land mass during years when the lake level drops approximately one meter below the "normal" of 1,280 m above sea level.

Gunnison Island is about 1.6 km long by 0.8 km wide with its long axis extending in a north-south direction. This island has an irregular shoreline of 4.5 km with four small bay areas, rises 85 m above mean lake level, and includes 66 ha. The substrate is loose soil with protruding rocks and cliffs. The shorelines are rock except for sandy areas along the bays. Vegetation is typical of the Great Basin desert, with June Grass (*Bromus tectorum*) predominating. *Opuntia fragilis*, *Salsola kali*, and *Bassia hyssopifolia* are also

widely dispersed and common. Sandy areas along the shoreline support pure or mixed stands of *Sarcobatus vermiculatus*, *Atriplex* sp., and *Chrysothamnus nauseosus*, with the latter also occurring on north- and east-facing slopes at higher elevations.

Cub Island lies just north and east of Gunnison, is comma shaped, and comprises 3.2 ha. The physiography, substrate, and vegetation of Cub are similar to Gunnison, although larger vegetative forms are less common. *Sarcobatus* is absent. This latter species was used by many transient birds (Tyranidae, Sylviidae) on Gunnison Island, birds not seen elsewhere on the islands. The nearest fresh water is at Locomotive Springs, about 40 km north of the islands.

Sightings of birds were recorded between 15 April and 4 August 1972; 6 April and 2 August 1973; and 5 April and 25 July 1974. We spent 11 days on the islands in 1972, and over 70 days each in 1973 and 1974. We surveyed the islands for birds at least one hour daily and also recorded all sightings of species observed at other times. Each sighting reported herein was verified at the time of the observation by at least one other person. The specific area surveyed included the islands plus the lake surface within 25 m of shoreline.

LIST OF SPECIES

Behle (1958) lists 17 species of birds reported on Gunnison Island, with no separate

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account for Cub Island. We recorded 15 of those species from 1972 to 1974 also. The following list (a preliminary listing was reported in Rawley 1976) includes the dates of sight records for 95 additional species (denoted by ° or °°), giving a total of 112 species recorded on Gunnison and Cub islands. In addition, 47 of the species (denoted by °° only) observed in these efforts represent new records for any island in Great Salt Lake, bringing the total to 134 species occurring on all islands. Carcasses of Great Egret (*Casmerodius albus*) and Ancient Murrelet (*Synthliboramphus antiquus*) found on Gunnison Island may have washed ashore after death and have not been included in the Gunnison/Cub Island list. They do represent species recorded for the first time for Great Salt Lake, bringing the lake total to 136, (49 new records in this paper). For information on the murrelet, see Knopf (1976).

- °*Podiceps nigricollis*. Eared Grebe. 8 June 1973, flock of 25 birds 29-30 April 1974. Abundant on lake in migration.
- °°*Aechmophorus occidentalis*. Western Grebe. 14 April 1974. Common on lake in migration.
- Pelecanus erythrorhynchos*. White Pelican. Nesting and abundant (Behle 1958), with 5,000 to 5,200 birds estimated for each season, 1972-1974 (Knopf 1975).
- °*Phalacrocorax auritus*. Double-crested Cormorant. 16 April 1972, 15 April 1974.
- Ardea herodias*. Great Blue Heron. Formally nesting on Gunnison Island (Behle 1958). One pair nested on Cub Island each season 1972-1974.
- °*Botaurus lentiginosus*. American Bittern. 14 May 1973.
- °*Plegadis chihi*. White-faced Ibis. Flock of 3 birds 16 May 1973.
- °*Branta canadensis*. Canada Goose. 24 April 1972, 14 April 1974, 6 May 1974.
- °*Anas acuta*. Pintail. Flock of 11 birds 29 May 1973.
- °*Anas crecca*. American Green-winged Teal. 15 April 1972, 6 April 1973.
- °°*Anas discors*. Blue-winged Teal. 14 May 1973.
- °°*Anas cyanoptera*. Cinnamon Teal. 23 April 1973, 15 May 1973, 14 April 1974.
- °°*Anas americana*. American Wigeon. 1 May 1974, 3 birds in one flock.
- °°*Melanitta deglandi*. White-winged Scoter. Two birds flew across Gunnison Island 15 April 1972.
- °°*Oxyura jamaicensis*. Ruddy Duck. 14, 18 May 1973; 9, 15 May 1974.
- °°*Mergus serrator*. Red-breasted Merganser. 16 April 1974.
- °°*Cathartes aura*. Turkey Vulture. 23 May 1973.
- °°*Accipiter gentilis*. Goshawk. 25 April 1973.
- °°*Accipiter cooperii*. Cooper's Hawk. Two birds on Gunnison Island 6-7 May 1974.
- Buteo swainsoni*. Swainson's Hawk. 11 June 1948 (Behle 1949), 9 June 1974.
- °*Aquila chrysaetos*. Golden Eagle. 21 May 1974.
- °*Circus cyaneus*. Marsh Hawk. 4 August 1972, 6 April 1973, 15 May 1973, 24 July 1974.
- Falco mexicanus*. Prairie Falcon. One pair successfully nested on cliffs at the north end of Gunnison Island each year, 1972-1974. The species has apparently nested at the site annually since 1944 (Behle 1958).
- °°*Falco columbarius*. Pigeon Hawk. 6 May 1973.
- °*Falco sparverius*. American Kestrel. 26 April 1972, 24 July 1974.
- °°*Fulica americana*. American Coot. 4, 23 April 1973, 14 May 1973.
- °*Charadrius vociferus*. Killdeer. 4, 7 May 1973, 15 April 1974.
- °*Pluvialis squatarola*. Black-bellied Plover. 23-25 April 1973.
- °°*Capella gallinago*. Common Snipe. 23 April 1973, 4 May 1973.
- °*Numenius americanus*. Long-billed Curlew. 20 April 1972, 3 May 1973.
- °°*Tringa macularia*. Spotted Sandpiper. 6, 15-16 May 1973; 22-23 May 1974.
- °*Catoptrophorus semipalmatus*. Willet. 3, 8 May 1974. A total of 10 birds in 3 flocks.
- °°*Calidris bairdii*. Baird's Sandpiper. 15 May 1973. A total of 26 individuals in a mixed flock with *Calidris pusilla*.

- °°*Calidris pusilla*. Semipalmated Sandpiper. 15 May 1973, 3 individuals.
- °°*Limosa fedoa*. Marbled Godwit. 3 May 1974 and 24 July 1974, a total of 36 individuals.
- °°*Recurvirostra americana*. American Avocet. 16 April 1974.
- Himantopus mexicanus*. Black-necked Stilt. Previously recorded on Gunnison Island (Behle 1958). Twenty-eight individuals seen in one flock 6 May 1974.
- °°*Phalaropus tricolor*. Wilson's Phalarope. 20 June 1973.
- Larus californicus*. California Gull. Gunnison Island is a traditional nesting site for California Gulls (Behle 1958). Numbers of the birds were estimated to be about 15,000 individuals annually, 1972-1974.
- °°*Larus pipixcan*. Franklin's Gull. 4 May 1973.
- °°*Sterna caspia*. Caspian Tern. A single Caspian Tern "mobbed" investigators on Gunnison Island 4 August 1972. A nest was not located. Four nests (with incomplete clutches) were discovered at the same location 10 June 1974. A fifth nest was also observed 11 June 1974.
- °°*Columba livia*. Rock Dove. 5 May 1973.
- °°*Zenaida macroura*. Mourning Dove. Late April through mid June annually. No nests were located.
- Asio flammeus*. Short-eared Owl. Permanent resident of Gunnison Island (Behle 1958). This species was present 1972-1974, with as many as 4 individuals being seen simultaneously. One investigator was harassed on Gunnison Island 20 May 1974 by a single bird, but no nest was found.
- °°*Selasphorus platycercus*. Broad-tailed Hummingbird. 4, 14, 16 May 1973; 1, 23 May 1974.
- °°*Megasceryle alcyon*. Belted Kingfisher. 23 April 1973.
- °°*Colaptes auratus*. Common Flicker. 6 April 1973.
- °°*Tyrannus verticalis*. Western Kingbird. 2 May 1974.
- °°*Tyrannus vociferans*. Cassin's Kingbird. 5 May 1973. This is the northernmost record of the Cassin's Kingbird in Utah.
- Myiarchus cinerascens*. Ash-throated Flycatcher. 11 June 1949 (Behle 1958), 8, 22 May 1974.
- Sayornis saya*. Say's Phoebe. 11 June 1949 (Behle 1958), 6 May 1974.
- °°*Empidonax hammondii*. Hammond's Flycatcher. 1 May 1974. This bird was considered *E. hammondii* based upon the contrast between yellowish underparts and a grayish crest, by olive-colored tinge on the back, and by tail-flicking behavior while perched. However, no definite means of discerning between *E. hammondii* and *E. oberholseri* is reliable in the field, and the classifying of this sighting as *hammondii* must be considered speculative.
- Empidonax oberholseri*. Dusky Flycatcher. This species was reported 8 June 1937 (Marshall and Leatham 1942), but its identity was questioned by Behle (1958). This species failed to appear in Rawley (1976) and was incorrectly listed as not observed on Gunnison or Cub Island. No sightings were available 1972-1974.
- °°*Empidonax wrightii*. Gray Flycatcher. 14 May 1973; 15, 21 May 1974.
- °°*Empidonax difficilis*. Western Flycatcher. 22-23, 28 May 1974.
- °°*Contopus sordidulus*. Western Wood Pewee. 4-14 May 1973, 14-22 May 1974.
- °°*Eremophilus alpestris*. Horned Lark. 23 April 1973, a flock of 8 individuals.
- °°*Tachycineta thalassina*. Violet-green Swallow. 1 May 1974.
- °°*Tachycineta bicolor*. Tree Swallow. 6 April 1973, 14 May 1974.
- °°*Riparia riparia*. Bank Swallow. 1 May 1974.
- °°*Stelgidopteryx ruficollis*. Rough-winged Swallow. 22 May 1974.
- °°*Hirundo rustica*. Barn Swallow. 25 April 1973; 5-6 May 1973; 1, 8-10, 15, 22 May 1974.
- °°*Petrochelidon pyrrhonota*. Cliff Swallow. 25 April 1973, 10 May 1974.
- Corvus corax*. Common Raven. A common nesting species (Behle 1958). One pair nested annually 1972-1974.
- °°*Corvus brachyrhynchos*. Common Crow.

- 16 April 1972.
- °° *Gymnorhinus cyanocephalus*. Pinon Jay. 15 May 1974, a single flock of 24 birds.
- °° *Parus gambeli*. Mountain Chickadee. 22 May 1974, 3 individuals were seen in one flock in *Atriplex* bushes.
- °° *Cinclus mexicanus*. Dipper. 12 May 1972, a lone bird sitting among rocks and in apparent good health.
- Salpinctes obsoletus*. Rock Wren. Nesting and abundant (Behle 1958), 1972-1974.
- ° *Mimus polyglottis*. Mockingbird. 28 May 1974.
- ° *Dumetella carolinensis*. Gray Catbird. 23 April 1973.
- ° *Oreoscoptes montanus*. Sage Thrasher. 30 April 1974; 6, 15, 28 May 1974; 11 June 1974.
- ° *Turdus migratorius*. American Robin. 23 April 1973, 4 May 1973, 29 April 1974, 2 May 1974.
- ° *Catharus guttatus*. Hermit Thrush. 4-5, 8, 14 May 1973; 29 April 1974; 2 May 1974.
- °° *Catharus ustulatus*. Swainson's Thrush. 16 April 1972; 15, 22 May 1974.
- °° *Myadestes townsendi*. Townsend's Solitaire. 6 May 1973.
- ° *Poliophtila caerulea*. Blue-gray Gnatcatcher. 12 April 1973; 5-6 May 1973; 29 April 1974; 7, 21 May 1974.
- °° *Regulus calendula*. Ruby-crowned Kinglet. 15 April 1972; 4, 8, 14 May 1973; 1-2, 8, 15 May 1974.
- °° *Anthus spinoletta*. Water Pipit. 23-24, 26-27 April 1973; 15, 29 April 1974; 1 May 1974.
- ° *Lanius ludovicianus*. Loggerhead Shrike. Two pairs nested in 1973 with one nest resulting in 4 fledglings. A single sighting on 29 April was the only 1974 record.
- ° *Vireo gilvus*. Warbling Vireo. 29 May 1974.
- °° *Vermivora celata*. Orange-crowned Warbler. 5 May 1973.
- Dendroica petechia*. Yellow Warbler. Previously recorded on islands (Behle 1958). Common 8-13 May 1973, 6-24 May 1974.
- ° *Dendroica coronata auduboni*. Yellow-rumped Warbler. 25 April 1973; 4 May 1973; 30 April 1974; 1, 7, 11, 15, 22, 29 May 1974. *D.c. coronata*. 16 May 1973.
- °° *Dendroica nigrescens*. Black-throated Gray Warbler. 9-10 May 1974.
- °° *Geothlypis tolmiei*. MacGillivray's Warbler. 6, 8 May 1973; 2, 14, 22-24, 28 May 1974.
- °° *Wilsonia pusilla*. Wilson's Warbler. 8 May 1973; 6, 10-11, 22-23, 28 May 1974.
- ° *Setophaga ruticilla*. American Redstart. 21 May 1974.
- ° *Sturnella neglecta*. Western Meadowlark. 12 May 1972, 25-26 April 1973, 5 May 1973, 1-2 May 1974.
- Xanthocephalus xanthocephalus*. Yellow-headed Blackbird. Previously recorded on Gunnison Island (Behle 1958). 28 May 1972; 23-24 April 1973; 5, 14, 23 May 1973; 22-23, 29 May 1974.
- ° *Agelaius phoeniceus*. Red-winged Blackbird. 15-16 April 1972; 24 April 1973; 3, 5-6 May 1973.
- ° *Icterus galbula*. Northern Oriole. 4 May 1973, 22 May 1974.
- ° *Euphagus cyanocephalus*. Brewer's Blackbird. 24, 26-27 April 1973; 3-8, 14, 23 May 1973; 15 April 1974; 3, 23 May 1974.
- Molothrus ater*. Brown-headed Cowbird. Previously recorded on Gunnison Island (Behle 1958). 24 April 1973; 22-24, 29 May 1974; 24-25 July 1974
- Pheucticus melanocephalus*. Black-headed Grosbeak. Previously recorded (Behle 1958), but not seen 1972-1974.
- ° *Passerina amoena*. Lazuli Bunting. 6 May 1973.
- ° *Carpodacus mexicanus*. House Finch. 16 April 1972, 10 May 1974.
- ° *Pipilo chlorura*. Green-tailed Towhee. 4-8, 14, 23 May 1973; 1-2, 7-10, 14-15, 22-23, 29 May 1974.
- Pipilo erythrophthalmus*. Rufous-sided towhee. 15-16 April 1972, 4 May 1973, 7 May 1974.
- ° *Passerculus sandwichensis*. Savannah Sparrow. 29-30 April 1974.
- ° *Poocetes gramineus*. Vesper Sparrow. 4-6 May 1973, 30 April 1974, 9 May 1974.
- ° *Chondestes grammacus*. Lark Sparrow. 4-5,

- 7 May 1973; 7, 10, 14, 21-22 May 1974.
- ° *Aimophila bilineata*. Black-throated Sparrow. 2-3 May 1973.
- °° *Aimophila belli*. Sage Sparrow. 16 April 1972.
- °° *Junco hyemalis*. Dark-eyed Junco. 5-6, 23-24, 26-27 April 1973; 13 May 1973; 15 April 1974.
- °° *Junco caniceps*. Gray-headed Junco. 8 May 1973, 8 May 1974.
- °° *Spizella arborea*. Tree Sparrow. 21 May 1974.
- Spizella passerina*. Chipping Sparrow. Previously recorded on Gunnison Island (Behle 1958). 13 May 1973; 30 April 1974; 1, 6-7, 14-15, 22, 24, 29 May 1974.
- °° *Spizella pallida*. Clay-colored Sparrow. 9 May 1974.
- ° *Spizella breweri*. Brewer's Sparrow. 5-6, 8 May 1973; 30 April 1974; 9-10, 15, 23-24 May 1974.
- ° *Zonotrichia leucophrys*. White-crowned Sparrow. 15-16 April 1972; 23 April 1973; 3, 5-6 May 1973; 29 April 1974; 2, 6-10, 14-15, 23-24 May 1974.
- °° *Zonotrichia melodia*. Song Sparrow. 15 April 1972.

COMMENTS ON THE AVIFAUNA

The avifauna of Gunnison and Cub islands consisted primarily of transient species. Of 112 species, 104 (93 percent) occurred as transients. Transients which found abundant food on the islands (e.g., individuals of the Columbidae and Fringillidae) were present in larger numbers and for longer periods of time than those not finding food (e.g., individuals of the Anatidae and Scolopacidae). None of the species occurring as transients were present long enough to be considered seasonal residents. The Short-eared Owl was the only non-nesting species considered to be a resident.

Species observed on the two islands were typical of those occurring in similar habitats throughout northern Utah. Some notable exceptions were the "sedentary" Dipper and Mountain Chickadee, both being 40 km

from their typical habitats. The Black-billed Magpie (*Pica pica*), which is abundant in the region, was not seen on the islands.

Few species of birds actually nested on Gunnison and Cub islands relative to the surrounding Great Basin desert. Many of the desert species (Mourning Dove, Horned Lark, Lark Sparrow, Brewer's Sparrow) were observed on the islands in large flocks during spring migration. The impoverished community of breeding birds may reflect poorer nesting habitat for these species. Habitats for Loggerhead Shrike appeared marginal (as developed by Johnson 1965:121), with two pairs breeding in 1973, where none bred in 1972 or 1974.

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