

**ANNOTATED CHECKLIST OF THE BIRDS OF
GLEN CANYON NATIONAL RECREATION AREA**

Order GAVIIFORMES
Family GAVIDAE

Pacific Loon (*Gavia pacifica*). A sparse restricted winter resident and migrant (always as singles) on Lake Powell and the Colorado River (three records). There are about 20 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 Lee's 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).

Common Loon (*Gavia immer*). An uncommon widespread migrant and winter resident on Lake Powell and a sparse migrant on the Colorado River (seven records) in Glen Canyon. Typically it occurs as lone birds but a group of five birds were seen in Warm Creek Bay on 15 February 1996 (J. Spence et al.). Dates range from July 4 to April 16.

Yellow-billed Loon (*Gavia adamsii*). A rare local winter resident on Lake Powell with nine records. Most of the records are from consecutive months in Warm Creek and Wahweap Bay's from 1994 to 1999, suggesting that they may all represent one individual that returned for several consecutive winters. These 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 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 on 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.

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 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 three records from Lee's Ferry: two on 30 March 1995 (J. Spence), two on 7 November 1997 (J. Spence), and two on 9 January 1998 (J. Spence et al.).

Red-necked Grebe (*Podiceps grisegena*). A rare local winter resident with two 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).

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 1,800 near Wahweap Marina on 16 January 1997 (C. LaRue, S. Davidson). Nearly all had departed by sunrise the next morning.

Western Grebe (*Aechmophorus occidentalis*). A common to abundant widespread winter resident on Lake Powell with considerable inter-annual 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. It is an uncommon summer resident on Lake Powell, with a single breeding record (adult with young chick on 17 September 1997 on the San Juan Arm between Piute canyon and Neskahi Wash-V. Firlein). It is a sparse transient on the Colorado River.

Clark's Grebe (*Aechmophorus clarkii*). An uncommon restricted migrant and summer visitor on Lake Powell. There are approximately fifteen records, including several from winter. Breeding has not been confirmed despite several summer records of pairs.

Order PELECANIFORMES
Family PELICANIDAE

American White Pelican (*Pelecanus erythrorhynchos*). An uncommon restricted migrant on Lake Powell. Groups up to 300 have been noted. It is sparse in winter with four 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 to 24 March 2000 (J. Sweeny et al.). Fall migrants have been seen as late as 16 December 1998 when eight were seen at Antelope Island (C. LaRue).

Brown Pelican (*Pelecanus occidentalis*). A rare local transient with three 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 of six in Hall's Creek Bay on 17 October 1994 (J. Spence).

Family PHALACROCORACIDAE

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 at the base of Glen Canyon Dam in 1991 and by 2005 the number had grown to 32 individuals.

Order CICONIIFORMES
Family ARDEIDAE

Great Blue Heron (*Ardea herodias*). An uncommon widespread migrant and winter resident on Lake Powell and along the San Juan and Colorado Rivers from July through March. It is less common the remainder of the year. While it bred formerly in Glen Canyon, the only recent nesting attempts have been: in 1998-2005 when one to four pairs began nesting at Lees Ferry and (in 1998 only) unsuccessfully as a single attempt 74 meters 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 to breed in Hall's Creek Bay are often unsuccessful because of rapid lake rises in May-June drowning nests and recreational disturbances. Interestingly, a colony of herons with five nests was discovered at RM 117 (117 miles above Lee's 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.

Great Egret (*Ardea alba*). A sparse restricted transient with six 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 Lee's Ferry on 1 June 2000 (J. Spence) and another there on 2 June 1999 (C. LaRue).

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 three 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 four 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 Lee's Ferry (J. Spence), two at Lee's Ferry on 13 May 2000 (J. Spence), and one on 1 June 2000 at Lee's 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 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, the Lake Powell shoreline, sewage treatment ponds, and at large shade trees (e.g., Wahweap). The 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).

Family THRESKIORNITHIDAE

White-faced Ibis (*Plegadis chihi*). A common widespread migrant along the Colorado River, the Lake Powell shoreline, sewage treatment settling ponds and residential areas. One winter record: two in Warm Creek Bay on 10 February 1994 (J. Spence et al.). Remarkable 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 June. The fall passage is from late June into September.

Roseate Spoonbill (*Platalea ajaja*). A rare local transient. A series of four reports by “Hoffman” in the GLCA files (four on 3 March 1964, eight on 23 March 1962, seven on 13 April 1963 and four 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 two 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, Righter and Andrews 1992). The frequency of reports from Arizona and California has apparently declined since the mid-1900s (Monson and Phillips 1981, Small 1994) to the point where it is now very 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.

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 that roosts at the Page cemetery and often lingers 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 re-introduced 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 Lee's Ferry.

Order ANSERIFORMES
Family ANATIDAE

Greater White-fronted Goose (*Anser albifrons*). A rare local migrant and winter resident. The four records (all from the 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.), and an immature from 21 October to 3 January 2005 (J. Spence).

Snow Goose (*Chen caerulescens*). A sparse local migrant and winter resident. Most records are of birds wintering with Canada Geese at the Page STP. The ten certain records are as follows: one at Wahweap STP 10-11 November 1999 (C. LaRue), one at Bullfrog on 16 November 1999 (C. Goetze), three at Page STP on 29 November 1999 (J. Spence), one on Antelope Island on 6 December 1995 (J. Spence), two at Page STP from 1 December 1999 to 1 February 2000 (J. Spence et al.), one at Wahweap STP from 1 December 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.), four at Page STP on 26 January 1999 and three there on 4 February 1999 (both C. LaRue et al.). A few uncertain prior records exist and it is likely that most of the records of white geese from the area are of this species.

Ross's Goose (*Chen rossii*). A rare local migrant and winter resident. Most occurrences are from the Page STP. The six records are as follows: two 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), two 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.), five 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).

Canada Goose (*Branta canadensis*). A common widespread migrant and winter resident and a rare local summer resident and breeder. Most have been seen at the Page STP and golf course where up to 350 (on 19 January 1997-C. LaRue) have been seen. Lesser numbers are seen on Lake Powell and the Colorado River. Two breeding records: two adults with three large young on the San Juan river at mile 43 on 26 June 1999 (J. Muller), and two adults seen repeatedly with young below Glen Canyon Dam on the Colorado River between June-July of 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 to the one breeding record, other summer records include: two birds seen on the San Juan River on 4 June 1997 (J. Spence), a probable family group of seven in Hansen Creek on 19 June 1994 (GLCA files), and a probable family group of six at the same location on 1 July 1995 (GLCA files).

Trumpeter Swan (*Cygnus buccinator*) A rare local transient. Only two 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 presumably are of this species. However, the occasional presence of Trumpeter Swans in the region and the difficulty of separating the two species preclude the positive identity of these individual solely from the records on file. The only recent records are of an adult on the Page STP the winter of 2002-2003 (J. Spence, C. LaRue), and an adult in Good Hope Bay on 20 January 2004 (J. Spence).

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 17 records range from 8 June to 12 August.

Gadwall (*Anas strepera*). An common widespread migrant and winter resident in the bays on Lake Powell (where it is the most numerous puddle duck), the Colorado River, and 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.). It is 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 six counts of over 500 birds from November through February 1992-98. Over 350 were concentrated at Lees Ferry on 13 January 1991 (C. LaRue).

Eurasian Pigeon (*Anas penelope*). A rare local transient in the winter and early spring. There have been five reports of males as follows: one at Page STP on 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), and one at the Page STP on 3 January 2005 (J. Spence, B. Russell). A hybrid male Eurasian X American Wigeon was seen at the Page STP on 12 October 2000 (C. LaRue, C. Goetze).

American Wigeon (*Anas americana*). A common widespread migrant and winter visitor on Lake Powell. An abundant winter resident at the Page STP and along the Colorado River in Glen Canyon. Up to 600 (on 31 January 1994-C. LaRue) winter regularly at the 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 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 Lee's Ferry on 13 January 1991 (C. LaRue), and 592 on the river on 2 January 2001 (J. Spence).

Mallard (*Anas platyrhynchos*). A common widespread winter resident in the bays on Lake Powell with peak numbers in January. It is 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). It breeds commonly along the Colorado River in Glen Canyon and at least occasionally in well-watered tributaries (female with four downy young on a beaver pond in Bown's Canyon on 9 May 2000 and half-grown juvenile on the Escalante River at Scorpion Gulch on 21 June 1999-C. LaRue). From 1997 to 1999 16 broods of 1 to 19 young (mean of 8.2 young/brood) were noted from the river. A hybrid male Mallard X Northern Pintail was present at Lee's Ferry on 30 November 1999 (C. LaRue).

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 and the preceding species 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 X Cinnamon teal was seen at Wahweap STP from 14 to 23 April 1997 (C. LaRue, A. Flesch).

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 is 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. It is decidedly less numerous along the Colorado River (where sparse) in Glen Canyon. Numbers peak on the lake in February. Several hundred winter regularly at the Wahweap STP.

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 less than 50 individuals with a group of 225 in Warm Creek Bay on 21 February 1997 being exceptionally large. It is less numerous along the Colorado River.

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. It is 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). This 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 on January surveys, with 367 found in 2003 and 565 in 2005.

Canvasback (*Aythya valisineria*). A sparse local migrant and winter resident on the Colorado River, at sewage treatment settling ponds and, to a lesser extent, Lake Powell. Distribution and movements are unclear. 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 the Page STP, with a high count of 15 on 4 January 2006 (J. Spence).

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. It is a sparse non-breeding summer resident on the river.

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 nine times from 1992-1998. Recently, it has become more common on January Glen Canyon CBC's, such as 1015 on 5 January 2003 and 1201 on 3 January 2004. Most of these large flocks have been at the Page STP.

Greater Scaup (*Aythya marila*). An uncommon local winter resident along the Colorado River in Glen Canyon where up to 110 on 27 February 1995 have been present since 1994 (J. Spence, C. Pinnock). Rare elsewhere as at the Page and Wahweap sewage treatment plants and on Lake Powell where the following five 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.), five in Wahweap Bay on 15 March 1996 (J. Spence, C. Pinnock), and an adult male at Wahweap STP 21-24 April 1997 (C. LaRue, A. Flesch).

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. It is 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 ten counts over 500 from 1992-1998. In recent years it has become abundant in winter at the Page STP, with counts of >500 since 2005. One seen 23 June 1995 on the Colorado River is the only summer record.

Surf Scoter (*Melanitta perspicillata*). A sparse restricted and primarily fall migrant with 11 records as follows: an adult male at Lees ferry from 19 September 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), two 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: two at Lee's Ferry on 13 April 1990 (M. Britten), one in Warm Creek Bay on 15 October 1997 (J. Spence), two 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.), four at Lees Ferry on 10 December 1990 with two 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).

Black Scoter (*Melanitta nigra*). A rare winter visitor on Lake Powell. One record of a female at the Bullfrog Marina on 21 December 2006 (L. Giddings).

Long-tailed Duck (*Clangula hyemalis*). A sparse local winter resident and migrant primarily along the Colorado River. The nine river records are as follows: one below the dam on 30 November 1993 (C. Pinnock), one at Lee's 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 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 on 27-28 March 2000 (C. LaRue, B. Bobowski), and one on the river between December 20 and January 3, 2007 (G. Nealon; R. Radd et al.). There is one record from the Page STP on 16 December 2000 (M. Stevenson, G. Rosenberg). The certain lake records are: one near Iron Top Mesa on 1 November 1991 (M. Britten), in Warm Creek bay from 6 December 1995 to 20 January 1996 (J. Spence, J. Grahame), one in Hall's Creek Bay on 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).

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. It is 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 over 250 have been recorded 12 times from November through February 1992-98. Summer stragglers along the river include one to two 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 on 25-26 June 1998 (both C. LaRue, N. Brown).

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. This, the Gadwall and the 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.

Barrow's Goldeneye (*Bucephala islandica*). A common 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, three birds remained in 1999 until 15 June, one male remained until 31 May 2000, and one remained to 10 July 2001. Rarely recorded elsewhere with three records from Lee's Ferry and two records from Lake Powell. A hybrid male Barrow's X Common Goldeneye was seen at Lee's Ferry on 20-23 December 1999 (C. LaRue, C. Goetze). At least 21 examples are known of this hybrid combination (Martin and Di Labio 1994).

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).

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 to 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 nine young at Mike's Canyon on 25 June 1997 (C. LaRue, N. Brown), female with five young in Cottonwood Canyon on 30 June 1999 (C. LaRue, J. Holmes) and a pair with five young on 30 June 1999 in the Great Bend, San Juan Arm (GLCA files).

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. It is a sparse migrant along the Colorado River where the only records are four 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, two at Colorado River RM 1.0 on 27 March 1997 (C. LaRue). and 2 on 5 January 2004 (J. Spence).

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 number peak in January. The species is also common on the Page STP in fall and winter, where recent counts have been as high as 120.

Order FALCONIFORMES
Family ACCIPITRIDAE

Osprey (*Pandion haliaetus*). An uncommon widespread migrant and rare local breeder. Stragglers are seen rarely in summer, and are rare in winter. It has attempted to breed in Hall's Creek Bay but without success due to rising lake levels drowning nests and disturbance from recreationists. Most records are from the Colorado River and Lake Powell but it has been encountered at sites far from water. The four winter records are one at CRM -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 of 2002 along the Colorado River below Glen Canyon Dam 51 observations were made between August 30-October 25, including a high count of 10 individuals on October 4 (G. Nealon).

Bald Eagle (*Haliaeetus leucocephalus*). A common widespread winter resident along the Lake Powell shoreline primarily distributed along the open bays. On recent winter surveys (1990 to 2002), from 7 to 28 have been recorded from throughout the NRA (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-anon.) 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 (B. Russell).

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 breeder, with two records; an adult pair and a nest with five 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 ca 100+acres extent) 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 three weeks earlier. This breeding attempt was likely related to the assumed 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).

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 25-30 September 2000 (C. LaRue).

Cooper's Hawk (*Accipiter cooperi*). An uncommon widespread breeding resident, common widespread migrant, and an uncommon winter resident. A total of 96 were counted migrating past Navajo Point 25-30 September 2000 (C. LaRue et al.). It breeds in pinyon-juniper woodland

and riparian stands. Sixteen nest sites have been located. The densest population occurs on the Kaiparowits Plateau where ten sites have been found. However, perhaps only five to six 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 Waterholes 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 seven 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/nest with the age at counting ranging from 15 to 34 days.

Northern Goshawk (*Accipiter gentilis*). A rare restricted transient known certainly from four 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*) 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 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, pers. com.).

Red-shouldered Hawk (*Buteo lineatus*). A rare local fall transient. There are three records, all from the Page STP/golf course. Each of these birds were immature and at least two 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 (G. Nealon, photo).

Swainson's Hawk (*Buteo swainsoni*). A sparse widespread migrant. There are ten 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 Page golf course on 19 September 1994 (J. Grahame), one at Navajo Point on 25 September 2000, another there on 27 September 2000 and two there on 29 September 2000 (all C. LaRue et al.), and two at Wahweap and Glen Canyon Dam on 12 October 1982 (G. Stolz GLCA files).

Red-tailed Hawk (*Buteo jamaicensis*). A common widespread permanent resident. 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 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 ca. 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 of 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 two fledglings at Colorado River RM -14.5 on 26 June 1998, two fledglings seen in the upper end of the Navajo Canyon arm on 3 July 1997, two 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 Flat on 15 July 1999 (all C. LaRue et al.). Remarkable behaviors noted during the I and M period include an adult male that pirated an antelope squirrel (*Ammospermophilus*) 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.).

Ferruginous Hawk (*Buteo regalis*). A rare restricted transient with three records: an adult seen two 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 have been the same bird ca. 12 miles south of Page along the Glen Canyon rim on 13 November 2000 (J. Spence). This species is to be expected primarily during then none-breeding periods in open grassy and shrubby flatlands as near Wahweap and Bullfrog.

Rough-legged Hawk (*Buteo lagopus*). No certain records exist from within GLCA. However, two 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 such as near Wahweap and Bullfrog.

Golden Eagle (*Aquila chrysaetos*). An uncommon widespread permanent resident throughout GLCA. Nesting has been documented from several areas of the NRA. One-day/month winter aerial surveys around Lake Powell since 1990 have located between 3 and 25 individuals per survey. The species became extremely scarce the winter of 1997-1998, but recovered in the following winter with the highest count recorded of 25 birds in December of 1998. The second highest count was of 23 birds detected in December 2000.

Family FALCONIDAE

American Kestrel (*Falco sparverius*). An uncommon widespread permanent resident. Although breeding has been documented, the summer status and distribution remains poorly known. The wintering population is comprised almost exclusively of males.

Merlin (*Falco columbianus*). An uncommon widespread migrant and winter resident in open flatlands. There are approximately 22 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).

Peregrine Falcon (*Falco peregrinus*). A common widespread summer resident and breeder from March through September on Lake Powell and Glen Canyon with more than 80 different breeding locations documented in the 1980's and 1990's. 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 eight radio-collared peregrines from Glen Canyon migrated to west Mexico for the winter while the eighth bird wintered in Nicaragua. A female peregrine,

color-banded as a nestling in Glen Canyon, was photographed two years later in Japan (Britten 1998).

Prairie Falcon (*Falco mexicanus*). An uncommon widespread permanent resident throughout GLCA. Although a few breeding records are known, the status and distribution of this species in GLCA is poorly known. It is seemingly more numerous in winter suggesting an influx of birds during the non-breeding period.

Order GALLIFORMES
Family PHASIANIDAE

Chukar (*Alectoris chukar*). A common widespread permanent exotic resident of riparian areas and adjacent open grass and shrub covered slopes in tributary canyons and on mesas throughout the area. There is one breeding record, of an adult with four YOY in Moody Canyon on 25 October 2005 (J. Spence). The species occurs in open pinyon-juniper on mesa summits adjacent to slopes and grassland. Records obtained during the inventory and monitoring program come from the rim of the Kaiparowits Plateau (where 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 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 likely to have been an escapee, wild populations do occur within about 60 km of Page to the northeast of Kanab, Utah.

Wild Turkey (*Meleagris gallopavo*). A rare local probable permanent resident. Extirpated and re-introduced. Known from GLCA only from tracks found along the Escalante River at and below Harris Wash on 17-18 May 1999 (these were independently observed and reported by J. Lauersdorf on 22 May 1999) and three birds seen along the Escalante River about two miles above Harris Wash on 15 October 2000 (W. Wolverton). These individuals likely dispersed from upstream in the higher reaches of the Escalante River watershed.

Order GRUIFORMES
Family RALLIDAE

Virginia Rail (*Rallus limicola*). A sparse local migrant in dense herbaceous-dominated riparian sites. The seven records are as follows: three near Wahweap government housing from 14 April to 12 May 1997 with one remaining on 12 May (C. Goetze et al.), one calling at head of Hall's Creek bay on 27 June 1997 (C. LaRue), and single birds at Colorado River RM -8.8L on 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.).

Sora (*Porzana carolina*). A sparse widespread migrant in dense herbaceous-dominated riparian sites. The nine records are as follows: two near Wahweap government housing on 15 March 1999 (C. Goetze), one to four 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), two 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 may likely have been a Virginia Rail.

Common Moorhen (*Gallinula chloropus*). A rare local breeder and transient with four records: one at Lee's 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 the Page STP, raising 4 YOY (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 to be seen on the lake, although numbers have declined significantly 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 3,906 in Warm Creek Bay on 17 January 1997 (J. Spence, C. LaRue), 2,996 in Hall's Creek Bay on 20 December 1994 (J. Spence, C. Pinnock), 2,690 in Wahweap Bay on 22 November 1994 (J. Spence, J. Grahame), and 2,384 in Hall's Creek Bay 21 November 1994 (J. Spence, J. Grahame). The largest river count 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. At least one probable breeding record, of adults feeding begging juveniles at Page STP on October 21, 2005.

Family GRUIDAE

Sandhill Crane (*Grus americana*). A rare restricted migrant through the region with three records: an early record of 3 at Kane Creek near Bullfrog on 5 May 1982 (NPS files), and of 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 a concentration this large of Great Blue Herons (the only possible species Sandhill Cranes could be confused with) would be out of the question, we admit 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 four records as follows: one in Wahweap Bay on 6 April 1998 (J. Spence),

nine at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), one there on 27 April 2000 (C. LaRue, C. Goetze) and one at Page STP on 11 May 1995 (J. Grahame).

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*. Furthermore, at this date the bird was certainly in near-full or full alternate plumage and would have been east to identify. We are therefore inclined to consider this record valid.

Snowy Plover (*Charadrius alexandrinus*). Vagrant. The only record is one at Lee's Ferry on 10 June 1982 (Brown et al. 1984).

Semipalmated Plover (*Charadrius semipalmatus*). A sparse local migrant. The eight records are as follows: three 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), two at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), two at Page STP on 1 May 1995 (J. Grahame), two at Wahweap STP on 2 August 1995 (J. Spence GLCA files), one at Page STP on 18 August 1998 (C. Goetze), three at Page STP 2 to 13 September 1998 (C. LaRue et al.) and one at Wahweap STP on 2 October 1997 (C. LaRue).

Killdeer (*Charadrius vociferus*). An uncommon restricted permanent resident at sewage treatment settling ponds and at open shorelines on Lake Powell. There are two breeding records, an adult with a downy juvenile at Wahweap on 1 June 1994 (K. Patraw), and two adults with three chicks at Lone Rock Beach on 30 May 1990 (M. Britten). Its 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 and 27 September (2000 and 1999, respectively-C. LaRue, C. Goetze).

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 count is 23 in Wahweap Bay on 21 April 1999 (L. Dickson et al.).

American Avocet (*Recurvirostra americana*). A common widespread migrant along the Lake Powell shoreline and at sewage treatment settling ponds and rare local breeder at the Wahweap STP and occasionally at Page STP. Two records from the Colorado River: 13 at Lees Ferry on 2 May 1995 (J. Grahame, J. Alston) and two 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 small island in Warm Creek Bay on 9 September 2003 (J. Spence).

Family SCOLOPACIDAE

Greater Yellowlegs (*Tringa melanoleuca*). An uncommon widespread migrant at ponds, along the Lake Powell shoreline and, rarely, 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 five birds in different areas of Lake Powell between 20-23 January 2004 (J. Spence). This indicates that the species occasionally over-winters on Lake Powell.

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).

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

Willet (*Catoptrophorus semipalmatus*). An uncommon restricted spring migrant at sewage treatment settling ponds, the Lake Powell shoreline and along the Colorado River. One fall record: a bird 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).

Spotted Sandpiper (*Actitis macularia*). A common widespread migrant and rare summer resident and breeder at lake, pond, river and stream shores throughout the area. There are three breeding records; three adults with one 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 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 two winter records: a bird at Paria Beach on 31 January 1995 (J. Grahame), and two in Wahweap Bay of Lake Powell on 3 January 2000 (J. Spence).

Whimbrel (*Numenius phaeopus*). A rare local spring transient with two 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 12 April (1996 on Antelope Island-C. Pinnock) 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 five more that day in the Wahweap area.

Marbled Godwit (*Limosa fedoa*). A common restricted spring migrant along the lake shore and often seen in flocks over the larger bays and 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 ten records are as follows: one on rocks on the north shore of Wahweap Bay on 21 April 1999 (J. Spence et al.), five at Lone Rock Beach on 23 April 1999 (C. LaRue et al.), one on Lone Rock Beach on 26 April 1999 (C. LaRue), another there on 28 April 1999 (C. LaRue), an adult at Wahweap STP 11 to 15 August 1997 (C. LaRue et al.), one at Wahweap STP 8-9 September 1998 (C. LaRue, C. Goetze), two at Wahweap STP on 13 October 1992 (M. Britten), two near the mouth of Warm Creek Bay on 18 September 1991 (M. Britten), a juvenile at Page STP on 21-22 September 2000 (C. LaRue et al.) and five juveniles at Lone Rock Beach on 22 September 2000 (C. LaRue).

Semipalmated Sandpiper (*Calidris pusilla*). A sparse local migrant. The six records are as follows: one adult at Lone Rock Beach on 22 April 1999 (C. LaRue, C. Goetze), one adult at Wahweap STP 22-23 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 a juvenile at Page STP 7-10 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 frequent species of *Calidris* at GLCA, this is the 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 7 November (1999 at Page STP-C. LaRue). The eight winter records are as follows: eight at Wahweap STP on 1 December 1997 (J. Spence, J. Alston), six at the head of Wahweap Bay on 20 December (1999-C. LaRue), two at Wahweap STP on 1 January 1998 (C. Goetze, B. Mellberg), two 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 on the Wahweap STP 2 January 2001 (B. & K. Bobowski), 6 in upper Wahweap Bay on 3 January 2003, and one there on 3 January 2005 (J. Spence).

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 two 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 seven at Page STP on 20 September 2000 (C. Goetze).

Dunlin (*Calidris alpina*). A sparse restricted transient and winter resident with four records as follows: one at Wahweap STP on 1 May 1997 (J. Spence), another there 28-29 September 1998 (C. LaRue, J. Spence), two 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 ten 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), two 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), three at Wahweap STP on 1 September 1982 (G. Stolz GLCA files), five 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 six records, all of 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 that again was joined by a second 13-15 September 2000 with this second bird remaining alone 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 the records of this species from Arizona are of immature birds in fall (Monson et al. 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 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. It has appeared as early as 27 July (1994 at the Page golf course-J. Grahame) and the latest spring record is 29 April (1992 at Wahweap STP-J. Spence). The highest number recorded is five at Lees Ferry on 7 March 1995 (J. Grahame).

Wilson's Phalarope (*Phalaropus tricolor*). A common local migrant at sewage treatment settling ponds. 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 and 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 fulicaria*). A rare local transient with one record: one in Bullfrog Bay on 1 November 1991 (M. Britten). Of the three species of phalaropes, this is the least likely to be seen and occurs throughout the interior western North America the latest in fall.

Family LARIDAE

Parasitic Jaeger (*Stercorarius parasiticus*). A rare local transient. There is one record from GLCA. A single light morph adult was seen at Lone Rock Beach/Wahweap Bay on 21 September 2000 (C. LaRue).

Franklin's Gull (*Larus pipixcan*). A common restricted spring migrant on Lake Powell and at the Wahweap sewage treatment plant. 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).

Bonaparte's Gull (*Larus 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*). This species 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 the kittiwake records from Arizona have been of stranded/exhausted such as a pelagic gull in an inland parking lot would tend to be.

Mew Gull (*Larus canus*). A rare local transient with one record; a second-year bird at Wahweap from 30 November to 21 December 1996 (C. LaRue et al., ph T. Corman AFN51:96).

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.

California Gull (*Larus californicus*). A common widespread migrant on Lake Powell, less numerous in the fall. It is sparse in summer as straggling individuals. One winter record: 15 about 1.0 mile above Glen Canyon Dam on 4 January 2000 (C. LaRue). 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 Lee's Ferry on 30 March 2001 (J. Spence).

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 (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 3 January to 21 January 2000 (C. LaRue et al.), one 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 two first-winter birds at Lone Rock Beach on 21 April 1999 (C. LaRue et al.).

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, ph G. Rosenberg). This represented the first confirmed record of this species from Arizona, and the second record for Utah. It occurs in the Sea of Cortez and the Salton Sea.

Sabine's Gull (*Xema sabini*). A rare local fall migrant with four records: three immatures over Wahweap Bay on 22 September 1998 (C. LaRue et al.), two adults (possibly four) in Wahweap Bay on 23 September 1999 (C. LaRue et al.), two immatures in Warm Creek Bay on 20 September 2000 (C. LaRue et al.), one immature at Lone Rock Beach on 21 September 2000 and two there 22 September 2000 (C. LaRue). These records suggest that this species may be regular on Lake Powell in mid to late September.

Caspian Tern (*Sterna caspia*). A rare local migrant on Lake Powell. There are two 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).

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 six records as follows: one at Lone Rock Beach on 22 April 1999 and five there on 23 April 1999 (C. LaRue et al.), one at Lone Rock Beach on 29 September 1999 (J. Coons et al.), one adult with three 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) and 14 there (at least four adults and five juveniles) on 22 September 2000 (C. LaRue).

Forster's Tern (*Sterna forsteri*). An uncommon widespread migrant on Lake Powell. Certain records are: one at Wahweap Marina and six 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.), three at Lone Rock and two at Page STP on 23 April 1999 (C. LaRue), three 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. 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 is the more frequent. 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.

Black Tern (*Chlidonias niger*). A sparse restricted migrant at sewage treatment settling ponds and on Lake Powell. The nine records are: one at Wahweap STP on 11 May 1995 (J. Grahame), seven 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), four at Page STP on 30 August 1999 (C. LaRue), three 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).

Order COLUMBIFORMES
Family COLUMBIDAE

Rock Dove (*Columba livia*). Uncommon local permanent exotic resident 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).

Band-tailed Pigeon (*Columba 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*). An uncommon local permanent resident in Page that first showed up on the 2004 Christmas Bird Count of 5 January 2004 (J. Spence, L. Holsten). This species has 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). As of September 2005 birds were being seen regularly in the Wahweap area on Lake Powell (J. Spence, B. Russell). The Glen

Canyon CBC recorded 75 birds from different areas of Page and Wahweap on 4 January 2006 (J. Spence), and 204 on 3 January 2007 (J. Spence) in Grenehaven, Page, and Wahweap.

White-winged Dove (*Zenaida asiatica*). A sparse restricted migrant. There are 15 records: two at Lee's 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 Lee's Ferry on 8 May 1999 (C. Goetze), one at Wahweap on 12 May 1997 (C. LaRue, C. Goetze), one at Page on 15 May 1996 (C. Pinnock, J. Spence), one at 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), two in Page 21 July-24 August 1999 (C. LaRue), three at Page golf course on 1 September 1982 (G. Stolz GLCA files), three to five 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). Two birds spent the summer in Page in 2003, and were seen from 1 March through 25 August, with four individuals seen at a feeder on 14 August, suggesting the possibility that breeding occurred (G. Nealon). This species has clearly become increasingly more frequent in the Page area probably as a manifestation of its ongoing range expansion in Arizona.

Mourning Dove (*Zenaida macroura*). A common widespread summer resident and breeder in riparian areas throughout GLCA, and a common migrant throughout, with a few over-wintering. The bulk of the spring passage is in late April and a noticeable fall passage takes place in mid September. The following nesting records have been obtained: a nest with two 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 two eggs in tamarisk on 23 May 1995 at RM -14.5 (J. Grahame), two 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 2 eggs in a Utah juniper in a side canyon off of The Great bend on 7 June 1999 (C. LaRue), 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). It is uncommon in winter in open riparian brush in the Page area.

Inca Dove (*Columbina inca*). A rare transient and local winter resident with four records: one at Lonely Dell on 24 October 1992 (A. LaRue), three 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).

Common Ground-Dove (*Columbina passerina*). Vagrant. One was seen at Lees Ferry on 14 October 1991 (S. Ganley).

Order PSITTACIFORMES
Family PSITTACIDAE

Budgerigar (*Melopsittacus undulatus*). Escapee. One was seen in the Page Cemetery on 16 June 1997 (C. LaRue).

Order CUCULIFORMES
Family CUCULIDAE

Yellow-billed Cuckoo (*Coccyzus americanus*). A rare restricted transient in dense riverside tamarisk thickets. There are five records: one at Colorado River RM -14 on 6 June 1995 (J. Grahame), one at Lee's Ferry on 21 June 1995 (J. Grahame), four at Clay Hills Crossing on 21-22 June 1996 (J. Grahame, C. LaRue), two 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. 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) and at least two young fledged from this nest on 30 August (B. Russell, J. Spence). This represents the first confirmed breeding of this species in northern Arizona. Roadrunners appear to be increasing in the Page area.

Order STRIGIFORMES
Family TYTONIDAE

Barn Owl (*Tyto alba*). A rare widespread permanent resident with three records; one road-killed at Page on 14 May 1999 (J. Alston), one road-killed at mile post 8.0, highway 89 near Big Water on 14 June 1996 (C. LaRue) and two seen alive then one found dead at Sooner Rocks, Escalante Bench on 7-11 September 1995 (C. Goetze).

Family STRIGIDAE

Western Screech-Owl (*Megascops kennicottii*). An uncommon widespread permanent resident of riparian stands along the Escalante River and in pinyon-juniper woodlands in the Orange Cliffs. A group of five fledglings were found at Waterholes Flat on 13 June 2000 and another group of four 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).

Great Horned Owl (*Bubo virginianus*). A common widespread permanent resident 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.

Northern Pygmy-Owl (*Glaucidium gnoma*). A rare local fall transient and possible winter resident. Records from surrounding areas suggest that it 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. Spence), one at Navajo Point, Kaiparowits Plateau on 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 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 Hall's Crossing Airport on 9 January 2004 (B. Russell).

Spotted Owl (*Strix occidentalis*). A rare local permanent resident in canyons containing deeply fissured cliffs. Recent surveys (1992-98) found this species in the canyon heads off of The Big Ridge, Easter Canyon, several Escalante River tributaries, Millard Canyon, and in Miller's Canyon (Wiley 1998).

Long-eared Owl (*Asio otus*). An uncommon widespread winter resident in dense pinyon-juniper woodland and riparian areas and 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 (below), may appear irruptively in areas experiencing peaks in small mammal abundance. Five (perhaps six) 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 big tooth maple (*Acer grandidentatum*) and a Utah juniper (*Juniperous osteosperma*). An incubating bird (oak site) and one with three small nestlings (maple site) was found on 19-20 April. A pair with two 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 the oak site) were seen on 17 July. The following additional records have been accumulated: one at Bullfrog on 1 January 1967 and four 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), three 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 five 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, a pair bred in a planted Arizona cypress at Lake Powell Lodge (Wahweap) in 2006 with thousands of people walking past the nest. Four young fledged in May and the family was last seen on June 12 (J. Spence, J. Mayer; photo).

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 five individuals were found in the pinyon-juniper woodland of the Kaiparowits Plateau on 21-23 April and 22-25 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 six eggs. A molted feather was found in a 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 1992-93 (LaRue 1994). One lowland record: a bird photographed at Grenehaven on 14 September 2000 (J. Gable).

Order CAPRIMULGIFORMES
Family CAPRIMULGIDAE

Lesser Nighthawk (*Chordeiles acutipennis*). A common local summer resident at 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 in open pinyon-juniper woodlands perhaps mostly at Andy Miller/Waterhole Flats but possibly elsewhere. 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 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 two miles above Fools Canyon (J. Spence).

Order APODIFORMES
Family APODIDAE

Vaux's Swift (*Chaetura vauxi*). A rare local transient with two records, a lone bird struggling against strong head winds low over the blackbrush flats at mile post 552.8 on 21 September 2000 (C. LaRue), and a bird over Padre Bay on 20 April 2002 during two days of strong westerly winds.

White-throated Swift (*Aeronautes saxatalis*). A common to abundant widespread migrant and summer resident along cliffs throughout GLCA, although breeding has not been confirmed. Records span from 4 March (1999 near Grenehaven-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 isolate 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 two young observed for several weeks at Paria Beach in April-May of 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 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 Grenehaven during December and January of 2005-2006 (V. Firlein).

Calliope Hummingbird (*Stellula calliope*). A rare widespread migrant that is known only from three records: one at the mouth of Warm Springs Creek, 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).

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 anywhere 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). 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 summer and fall migrant at riparian areas and other situations supporting suitable flowers. The bulk of migration is in August, but the species can occur as early as July 5 (J. Spence).

Order CORACIIFORMES
Family ALCEDINIDAE

Belted Kingfisher (*Ceryle 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 four 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 four 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 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).

Downy Woodpecker (*Picoides pubescens*). A sparse local fall migrant in riparian zone trees and developed areas with eight records: one in cottonwoods at the head of Long Canyon on 4 September 1992 (J. Spence), two or more heard along the Escalante River above Harris Wash 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), two there on 3 January 2005, one there on 3 January 2007 (J. Spence), one in Page on 3 January 2005 (J. Spence), and two in Page on 3 January 2007 (J. Spence). It is probably not as scarce as these records indicate and may be regular and common in the riparian groves of the Escalante River.

Hairy Woodpecker (*Picoides villosus*). A common widespread permanent resident 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 four breeding records include an alarmed adult at a cavity in a Gambel's 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 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).

Northern Flicker (*Colaptes auratus*). An uncommon restricted permanent resident 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 remains of an undetermined age (three partial remiges) of another were found in an alcove in Ribbon Canyon on 7 May 1997 (J. Spence).

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 eight records are as follows: two 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), two in Page on 17 August 1999 (C. LaRue), and one on the Kaiparowits Plateau on 14 September 1999 (C. LaRue). It may be more frequent than these records indicate.

Western Wood-Pewee (*Contopus sordidulus*). An uncommon widespread migrant in wooded habitats throughout GLCA. It may 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. The endangered southwestern subspecies formerly bred in Glen Canyon (Woodbury and Russell 1945; Behle and Higgins 1959). 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 hammondi*). 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), three in the lower 0.5 miles 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 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 in pinyon-juniper woodlands on the Kaiparowits Plateau, Andy Miller/Waterhole Flat, and The Big Ridge. It is a common migrant in riparian brush and trees throughout GLCA. This species is present from 19 April to 26 September (both in 2000 on the Kaiparowits Plateau-C. LaRue). Spring migrants have been seen to 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 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 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. The five records are as follows: two 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. The dates 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 one to two birds that wintered in Glen Canyon below the dam in 1998-99, 1999-2000, and 2000-2001. Breeding has been documented ten times as follows: a begging fledgling attended by two 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 two eggs on 16 June 1999 (C. LaRue et al.), the same nest with four 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 two fledglings on the Escalante river near the Moody Creek confluence (J.

Spence), a nest with four 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 three (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).

Eastern Phoebe (*Sayornis phoebe*). A rare local migrant with four 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 situations 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 three yoy in rock ledges near Lee's Ferry on 18 June 1995 (J. Grahame), an adult carrying food to nest over the water at Colorado River RM -1.5R on 27 April 2000 (C. LaRue), an incubating bird on a nest in 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.

Vermilion Flycatcher (*Pyrocephala rubinus*). A rare local transient with four records as follows: an immature male at Page STP 26 October-18 December 1996 (C. Goetze et al.), 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 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), 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 on 7-8 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 situations on bench lands 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 the Page Golf course on 12 May 1997 were seen with two fledglings on 9 July (C. Goetze et al.). A pair with two 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 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 the broader open side canyons and in tamarisk at open portions of the Lake Powell shoreline. The only breeding record is a nest with five eggs in a three-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.

Northern Shrike (*Lanius excubitor*). A sparse local winter resident. There are six records as follows: one at Bullfrog on 21-22 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 to 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 two records of this species in northern Arizona.

Bell's Vireo (*Vireo bellii*). A sparse local spring and summer transient 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 eight 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 miles below Chaol Falls/Kaibito Creek on 10 May 2000 (J. Spence), two on Last Chance Creek on 17 May 1995 (J. Grahame GLCA files), two at Colorado River RM -8.8L on 2 June 1993 (J. Spence), two 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). This species has expanded its range upstream along the Colorado River into the upper Grand Canyon since the construction of Glen Canyon Dam 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 Flat and Waterhole Flat area. The 12 records from GLCA are as follows: on steep wooded slopes below the Han's Flat Ranger Station on 3 August 1994 (J. Spence), one on the summit of Kaiparowits Plateau on 25 May 2000, one singing on bench 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, four heard (one seen) on Fifty Mile Bench on 8 June 2000, six 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, six singing near Teapot Rock on 16 June 2000, a pair seen on 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's Oak catkins into a nest 15 feet up in a 22 foot pinyon on the Kaiparowits Plateau on 22 May 2000 (C. LaRue) and a bird incubating three 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 seven 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

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 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 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's Oak (*Quercus gambelii*) occurs, with breeding season records from two 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 five groups were noted in the Page area from 19 to 22 September. The six breeding records are a pair repeatedly carrying food off the east rim of the Kaiparowits Plateau at Moqui Seep on 22 May 2000 (C. LaRue), four 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), three adults with two 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 Grenehaven feeders.

Pinyon Jay (*Gymnorhinus cyanocephalus*). A common widespread permanent resident in pinyon-juniper woodland. It is 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).

Clark's Nutcracker (*Nucifraga columbiana*). An irregular sparse and 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 cemetery 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 18 December 1971 to 13 February 1972 within 1.5 miles of GLCA. These birds likely strayed into GLCA that winter. This species is to be 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 three were at the Page golf course on 25 April 1982 (G. Stolz GLCA files).

Common Raven (*Corvus corax*). A common widespread permanent resident, nesting 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.).

Family ALAUDIDAE

Horned Lark (*Eremophila alpestris*). A common widespread winter resident and rare and local summer resident and breeder. 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.).

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 at Page-J. Spence) but typically 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).

Violet-green Swallow (*Tachycineta thalassina*). A common to abundant widespread migrant and summer resident 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 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. 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, 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 still active as of 2005.

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 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 25-30 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).

Juniper Titmouse (*Baeolophus ridgwayi*). A common widespread permanent resident in pinyon-juniper woodlands on the Kaiparowits Plateau, The Big Ridge, and at Andy Miller/Waterhole Flats. It 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 two 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 (three birds) on 1 December and in Navajo Canyon (three 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 two large fledglings there on 24 May 2000 and a family group of five there on 7 June 2000 (all C. LaRue).

Family AEGITHALIDAE

Bushtit (*Psaltriparus minimus*). A common widespread permanent resident 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 of 1999-2000 when larger than normal groups were common. The largest of these 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 meters 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 to 50 individuals noted from June to mid July in 1999 and 2000 (J. Holmes et al.).

Family SITTIDAE

Red-breasted Nuthatch (*Sitta canadensis*). An uncommon 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 on 18-19 July 2000 (C. LaRue), one in cottonwoods in Lake Canyon on 9 August 2000 (J. Nelson, C. LaRue), ca 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), six at Navajo point, Kaiparowits Plateau on 26 September 2000 (C. LaRue), one there on 23 October 1998 (C. LaRue), two near French Spring on 16 November 1998 (C. LaRue), and three 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).

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 CARTHIDAE

Brown Creeper (*Certhia americana*). A sparse and irregular restricted transient and winter resident in pinyon-juniper and riparian woodlands with 10 records as follows: two near Navajo Point on 26 September 2000 (C. LaRue), one at Hite on 21 October 1958 (Behle-in 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), two at Lees Ferry on 26 April 1982 (G. Stolz GLCA files).

Family TROGLODYTIDAE

Rock Wren (*Salpinctes obsoletus*). A common widespread permanent resident and breeder, much less common in the winter. This species is restricted to talus and other rocky situations throughout GLCA. Breeding records include a family group of five at Colorado River RM –8.3R on 21 May 1998 (C. LaRue), two 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 three side canyons off of 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),

Canyon Wren (*Catherpes mexicanus*). A common widespread permanent resident at cliffs and talus. It occasionally utilizes riparian thickets primarily in non breeding periods. Breeding records include two family groups in a side canyon off of 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 Lee's Ferry on 14 June 1995 (C. Pinnock).

Bewick's Wren (*Thryomanes bewickii*). A common widespread permanent resident in pinyon-juniper and riparian woodlands. Some dispersal appears to take place during fall and winter. The four breeding records are two young fledglings in Cottonwood Canyon on 11 May 2000 (C. LaRue), two family groups in a side canyon off of the Great Bend on 8 June 1999 (C. LaRue), fledglings seen in Cottonwood Canyon on 9 June 2000 (C. LaRue), a family group of three 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 feed by an adult at Lee's Ferry on 14 June 1995 (C. Pinnock).

House Wren (*Troglodytes aedon*). An uncommon widespread migrant in dense riparian brush. The spring records are from 9 May (2000 in Bown's Canyon-C. LaRue) 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).

Winter Wren (*Troglodytes troglodytes*). Apparently a sparse and irregular local winter resident in dense riparian vegetation along the Colorado River and tributary canyons of Lake Powell. The nine records from GLCA are: one in tamarisk at Colorado River RM –8.5R on 2 November 1998 (C. LaRue, J. Spence), two 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), three in Cottonwood Canyon on 1 December 1998 (C. LaRue), two in a 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).

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).

Family CINCLIDAE

American Dipper (*Cinclus mexicanus*). An uncommon widespread migrant and winter resident 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 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 it may have bred along that stream.

Family REGULIDAE

Golden-crowned Kinglet (*Regulus satrapa*). A sparse widespread migrant and winter resident in pinyon-juniper and dense riparian woodlands. The ten records from GLCA are as follows: one at Navajo Point on 25 September 2000 (C. LaRue), 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), three at Colorado River RM -7.0L on 3 November 1998 (C. LaRue), two 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).

Ruby-crowned Kinglet (*Regulus calendula*). A common widespread migrant and winter resident in riparian and pinyon-juniper woodlands and residential areas. It winters fairly commonly in riparian vegetation along the Colorado River in Glen Canyon and perhaps in shoreline tamarisk in 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).

Family SYLVIIDAE

Blue-gray Gnatcatcher (*Poliophtila caerulea*). A common widespread summer resident and breeder, and common migrant, and a sparse local winter resident. Vegetation of dense shrubs and small tree 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. Sites on the Kaiparowits Plateau and on Fifty Mile Bench below 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. It is a sparse winter resident in riparian brush in the southernmost portions of the area with the following records: three 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), two near Wahweap STP on 2 January 2001, two at Glen Canyon NPS headquarters on 3 January 2003, and again on 3 January 2007 (all J. Spence). Glen Canyon CBC's have found the species on four of the nine counts. The breeding records include numerous birds carrying food on the Kaiparowits Plateau on 6 June 2000 (C. LaRue), a female feeding three 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 with a late bird at Wahweap on 30 November 1996 (C. LaRue, T. Corman).

Black-tailed Gnatcatcher (*Poliophtila melanura*). Vagrant. A bird of Lower Sonoran and Mojave Deserts with one record: one at Lee's Ferry on 16 May 1981 by L. and S. Terrill (Brown et al. 1984).

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 three small young in a pinyon on 26 May 2000 (C. LaRue) and family group of five 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, Andy Miller and Waterhole Flats and to a lesser extent on the Kaiparowits Plateau. A common widespread migrant. It 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 three 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).

Townsend's Solitaire (*Myadestes townsendi*). An uncommon widespread migrant and sparse winter resident in pinyon-juniper and riparian woodlands. The records include three on the Kaiparowits Plateau on 25 August 1994 (J. Spence), one at Lonely Dell on 15 and 24 September 1994 (J. Grahame), one to six at Navajo Point, Kaiparowits Plateau 25-30 September 2000 (C. LaRue et al.), two at French Spring on 5 October 1999 (J. Holmes), one on the Kaiparowits Plateau on 23 October 1998 (C. LaRue), another there 21 April 2000 (C. LaRue), one there 10-12 May 1999 (C. LaRue), one at GLCA headquarters building on 28 December 2000 (J. Spence, B. Bobowski), and one at Wahweap campground on 3 January 2002 (J. Spence).

Hermit Thrush (*Catharus guttatus*). An uncommon widespread migrant in pinyon-juniper and riparian woodlands and a rare local winter resident with two records: one at Wahweap on 2 February 1992 (J. Spence) and two at Colorado River RM -7.0L on 3 February 2000 (C. LaRue, J. Spence). The remaining eight records are one on the Kaiparowits Plateau on 11 May 1999 (C. LaRue), three there on 13 May 1999 (C. LaRue), one at Page golf course on 19 May 1995 (J. Grahame), one at Moqui Seep, Kaiparowits 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 more well-vegetated side canyons (adult with a fledgling in Slickrock Canyon on 16 July 1998-C. LaRue), on the Kaiparowits Plateau (an alarmed and singing pair on 25 May 2000 and 7 July 1999). It may also breed in older residential areas in Page with well-developed plantings.

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 four 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 Wahweap 5-6 November 1998 (C. LaRue et al.), and one at Grenehaven 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 situations 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). It is 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 CBC's in Page. The bulk of the records are from April into August.

Sage Thrasher (*Oreoscoptes montanus*). An uncommon widespread migrant in desert scrub. The timing and distribution 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 extend to 31 October (2000 at Page golf course-C. LaRue).

Brown Thrasher (*Toxostoma rufum*). Vagrant. One record: a bird at Lees Ferry on 11 November 1990 (N. Kline GLCA files).

Crissal Thrasher (*Toxostoma cissale*). A rare local winter resident with two records: one at Lonely Dell from 30 November 1999 to 9 February 2000 (C. Bland et al.) and one in Page from 19 December 1998 to 3 January 1999 (J. Alston, J. Spence).

Family STURNIDAE

European Starling (*Sturnus vulgaris*). Common local exotic permanent resident. The status and distribution is poorly understood but at least a common migrant and winter resident at communities (Page, Wahweap, and Bullfrog) with a noticeable peak in late October and early November. Small numbers breed in Page. The largest single count was of 450 in Page on 2 January 1999 (J. Spence).

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 of a huge flock estimated at 800 individuals flying over Warm Creek Bay being harassed by two peregrine falcons on 3 January 2003 (S. Hinde, V. Firlein).

Family BOMBYCILLIDAE

Bohemian Waxwing (*Bombycilla garrulus*). A rare local winter and spring transient with four records: two 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 18-19 May 1999 (J. Spence, C. LaRue), five at Lees Ferry on 28 May 1997 (C. Goetze), one at Navajo Point, Kaiparowits Plateau on 29 September 2000 (C. LaRue et al.), five in Page on 8 October 2005 (J. Spence), two at Bullfrog on 9 November 1992 (C. Wiens GLCA files), 10 in Page on 3 January 2003 (J. Spence et al.), and seven in Page on 3 January 2005 (J. Spence et al.).

Family PTILOGONATIDAE

Phainopepla (*Phainopepla nitens*). A rare local transient at Lees Ferry with four 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 PARULIDAE

Tennessee Warbler (*Vermivora peregrina*). Vagrant. The only record is one at Lees Ferry on 13 May 1981 by G. Rosenberg (Brown et al. 1984).

Orange-crowned Warbler (*Vermivora 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 seven individuals have been found wintering from 1996-2002. These 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.

Nashville Warbler (*Vermivora 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 it is more numerous than these records indicate.

Virginia's Warbler (*Vermivora 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 off 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 Lee's Ferry on 29 June 1995 (J. Grahame), and an adult feeding a fledgling brown-headed cowbird at Lee's Ferry on 21 July 1995 (J. Grahame).

Northern Parula (*Parula americana*). Vagrant. One record of a first fall male at Lonely 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). It is an uncommon breeding resident along the Colorado River below Glen Canyon Dam. Although it 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 three 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 Glen Canyon NRA headquarters on 7 November 2006 (J. Spence).

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, 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 comprised of primarily Audubon's subspecies, but a few Myrtle subspecies individuals are also known.

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. It is 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). It is 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), two in upper Bown's Canyon 8-9 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*). An uncommon 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), four near Navajo Point, Kaiparowits Plateau on 26 August 1994 (J. Spence), and three on the Kaiparowits Plateau on 17 September 1999 (J. Holmes, C. LaRue).

Hermit Warbler (*Dendroica occidentalis*). A rare local fall migrant with three records as follows: one and two respectively near Navajo Point on 23 August and 25 August 1994 (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 on 30 November-1 December 1997 (M. Stevenson et al.).

Blackpoll Warbler (*Dendroica striata*). Vagrant. One record of a first fall bird was seen at the Page STP on 8, 11 September 2000 (C. LaRue et al.). There are two previous records of the species from extreme northern Arizona.

Black-and-white Warbler (*Mniotilta varia*). Rare local summer and fall transient. There are two records: an adult male was observed in pinyon-juniper woodland/montane scrub on the Kaiparowits Plateau on 7 July 1999 (C. LaRue, J. Holmes) and one was at Wahweap Trailer Village on 11 November 1999 (C. Goetze). This is one of the more frequently seen eastern warblers in the western U. S. and is typically an early fall migrant (Garrett and Dunn 1997).

American Redstart (*Setophaga ruticilla*). A rare local transient with three 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 two records: one at Colorado River RM -14 on 26 May 1994 (J. Grahame) and one in an isolated stand of lakeshore tamarisk across the lake from Dangling Rope Marina on 14 October 2000 (C. LaRue, C. Salt).

Worm-eating Warbler (*Helminthos vermivorus*). Vagrant. One record of an individual at Colorado River RM -11 on 15 June 1992 (M. Sogge).

Northern Waterthrush (*Seiurus noveboracensis*). A sparse and local spring migrant near water in dense riparian areas. The six records are one in Bown's Canyon on 9 May 2000 (C. LaRue), four at Wahweap on 12 May 1997 (C. Goetze et al.), two 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. An adult male seen in Page on 23 June 2001 was presumably a late migrant (J. Spence). Remarkable was a well described adult at Lee's Ferry on 30 December 2000, representing one of the few winter records for the state (B. & K. Bobowski).

Common Yellowthroat (*Geothlypis trichas*). A common widespread summer resident and breeder of dense shrubby riparian vegetation along the Colorado River in Glen Canyon, in the more densely vegetated side canyons and 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 Lee's 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 canyon off of 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).

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 periods 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 two chat and two cowbird eggs in *Baccharis salicifolia* at Colorado River RM -9.4L on 17 June 1999 (J. Holmes).

Family THRAUPIDAE

Summer Tanager (*Piranga rubra*). Recently a sparse local spring and summer transient in riparian areas primarily in the southern portion of GLCA. Breeding has not been confirmed. This appears to be part of the expansion noted in the Grand Canyon (Carothers et al. 1975). The nine 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. LaRue, L. Dickson), a male at Clay Hills Crossing on 6 June 1997 (J. Spence), a male at Clay Hill's 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 two records: one at Lees Ferry on 24 May 1981 by G. Rosenberg and one at Lonely Dell on 16 August 1970 by 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-Higgins-Behle 1959) to 30 September (1976 at Wahweap-J. Middleton GLCA files).

Family EMBERIZIDAE

Green-tailed Towhee (*Pipilo chlorurus*). An uncommon restricted migrant and rare local summer resident and breeder. The species 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. The dates of occurrence span from 19 April (2000 on the Kaiparowits Plateau-C. LaRue) to 16 September (1999 on the Kaiparowits Plateau-J. Holmes). It is very rare in winter with one in Page from 24 December 1998 to 7 January 1999 (J. Alston).

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 the riparian groves on the Escalante River. It may breed occasionally in dense oak scrub in side canyons (birds seen in Bown's and Explorer Canyons on 9-10 May 2000-C. LaRue) and the canyon heads of The Big Ridge and in the riparian brush along the Colorado River. It likely winters along the

Escalante River and possibly elsewhere. The species is most common in migration, and rare in winter. The breeding records include a nest with three 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), ca 20 full-sized juveniles and one small juvenile on the Kaiparowits Plateau on 6-7 June 2000 (C. LaRue), and another juvenile there on 7 July 1999 (J. Holmes).

Rufous-crowned Sparrow (*Aimophila ruficeps*). An uncommon local permanent resident 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).

American Tree Sparrow (*Spizella arborea*). A rare local winter resident with two records: one on the ridge between Bullfrog and Hall's Creek Bays on 29 November 1994 (J. Grahame, J. Spence) and one at Wahweap government housing on 3-5 November 1996 (C. Goetze).

Chipping Sparrow (*Spizella passerina*). A common local summer resident and probable breeder and 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 breeding records.

Clay-colored Sparrow (*Spizella pallida*). A rare local transient. There are two 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 common to abundant widespread migrant and 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 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.), two 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 it nests in big sage 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. Recently, this species was found to be fairly common summer in May and June, 2000 in big sage 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, three 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, two singing on summit near Moqui Seep and one singing in

upper Trail Hollow nearby on 6 June, two more (or the same) near Moqui Seep, a pair plus a single on summit ca 500m south of Moqui Seep and two singing at the end of the road on Fifty Mile Bench on 7 June, and seven singing on Fifty Mile Bench on 8 June. This is apparently a 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. It is 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. Its status and distribution as a breeding resident are poorly known but it 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), and Waterholes 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, sandsage, and shadscale and, in one restricted locality on Fifty Mile Bench, in big sage. 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), four 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) and a juvenile at headquarters on 24 August 1998 (C. LaRue), and a nest with two eggs in a small cliffrose (*Purshia stansburiana*) in Andy Millers Flat 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 at 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), two 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 six of the last seven CBC's near Page and Wahweap.

Sage Sparrow (*Amphispiza belli*). A rare local summer resident and breeder and uncommon widespread winter resident in blackbrush and sandy shrublands. Its summer status and distribution is poorly understood but small numbers breed in sand sage shrubland (*Artemisia filifolia*) in at least the Wahweap area. Indications of breeding here were a nest with three small young in a *Vanleavea stylosa* shrub 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 31 May 1995 (J. Spence et al.). Migrants/transients are occasionally seen in unexpected places such as two 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).

Lark Bunting (*Calamospiza melanocorys*). A sparse local migrant in desert scrub and adjacent areas. The six records are as follows: one in Page on 9 February 1999 (C. LaRue, C. Goetze), two and one near Page STP on 11-12 February 1998 (C. LaRue, J. Spence), one at Page golf course on 12 May 1994 (J. Grahame), eight 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 it has occurred in most years near Page, with one at the Page golf course on 1 January 1999 (J. Spence), five there on 8 January 1998 (C. LaRue), two to seven there on 19-25 January 2000 (C. LaRue), and one on 2 January 2001 (J. Spence).

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 winter resident in dense riparian thickets. There are three records as follows: one at Lees Ferry on 27 October 1996 (C. LaRue), at Colorado River RM-8.8L on 18 March 1996 (J. Spence) and at RM-7.0L on 3 February 2000 (C. LaRue, J. Spence). All of these birds were *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).

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-J. Grahame).

Lincoln's Sparrow (*Melospiza lincolni*). An uncommon widespread migrant in dense riparian brush throughout GLCA and an irregularly uncommon winter resident in dense riparian brush at 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), 11 in Glen Canyon on 8 January 1998 (J. Spence, C. LaRue), five more in Glen Canyon on 9 January 1998 (C. LaRue, J. Spence), one at Page golf course on 19 January 1999 (J. Spence), two (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 six in Glen Canyon 12-13 February 1998 (C. LaRue, C. Goetze). It has been recorded on three of the last nine CBC's in early January.

Swamp Sparrow (*Melospiza georgiana*). A sparse widespread migrant and winter resident with seven 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 one there on 17 February 1998 (C. LaRue, R. Radd), two at Page STP 8 January – 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).

White-throated Sparrow (*Zonotrichia albicollis*). A sparse local migrant and winter resident. The nine 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 2-4 November 2000 (J. Alston), one at Wahweap 4 November-14 December 1998 (C. Goetze et al.), one at Lees Ferry 5 December-1994 to 7 March 1995 (J. Grahame), another at Lees Ferry on 5 December 1995 (J. Grahame), one at Wahweap 18 December 1968 (Chistensen GLCA files), one at Page golf course 29 November 1999 to 23 February 2000 (C. LaRue et al.), one at Page STP 1-8 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 four records: one at Wahweap on 3-5 November 1996 (C. Goetze), another there on 29 November 1986 (G. Rosenberg, J. Coons GLCA files), one at Page 11-28 January 1998 (J. Spence) and one at Page on 11 May 1997 (C. Goetze et al.).

White-crowned Sparrow (*Zonotrichia leucophrys*). A common to 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).

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 to abundant widespread migrant and winter resident in pinyon-juniper woodlands, dense riparian brush, dense desert scrub situations and residential areas. The races found in GLCA are those typical from the region (Phillips et al. 1964, Behle 1985). *J. h. mearnsi* and *J. h. caniceps* are most frequent early and late during the period (September and late April-early May). *J. h. shufeldti/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 headquarters-C. LaRue) to 18 May (1999 *J. h. mearnsi* on the Escalante River below Harris Wash-C. LaRue).

Chestnut-collared Longspur (*Calcarius ornatus*). A rare local migrant with one record: one at headquarters, Page on 20 September 1997 (C. LaRue).

Family CARDINALIDAE

Rose-breasted Grosbeak (*Pheucticus ludovicianus*). A rare but widespread migrant with four records as follows: one at Bullfrog on 17 May 1975 (Mossestad GLCA files), 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 rare local breeder and common widespread migrant in riparian areas and other dense deciduous vegetation, especially Gambel's Oak woodlands in tributary canyons, the Escalante River and on the Kaiparowits Plateau. The breeding distribution is poorly understood partly due to the prolonged migratory periods. However, it may breed along the Colorado River some years: a nest with one egg at Colorado River RM -7.0L on 13 June 1984 and another nest there with four eggs on 31 May 1985 (B. Brown), in oaks and maples near the GLCA boundary on the Kaiparowits Plateau at Moqui Seep (many, including seven different adult males, coming to water on 6 June 2000-C. LaRue), in the dense willows and tamarisk at Clay Hills Crossing on the San Juan River (three singing males on 22 June 1996 and a bird there on 26 June 1997-C. LaRue), along the Escalante River (three seen 23-24 June 1999-C. LaRue, J. Holmes), and perhaps some of the side canyons, especially Moqui Canyon.

Blue Grosbeak (*Passerina caerulea*). An uncommon widespread summer resident and breeder in well developed riparian vegetation. The dates span from 11 May (2000 in Cottonwood Canyon-C. LaRue) to 24 September (1998 in Glen Canyon-C. LaRue). The breeding records include a nest with two eggs on the Escalante River above Scorpion Gulch on 21 June 1999 (J. Holmes), two pairs with a nestling and fledgling at Colorado River RM -13 9-11 August 1938 (Woodbury and Russell 1945), an adult female feeding two fledglings at RM -8.3L on 23 September 1998, a female with four fledglings at RM -8.4L on 24 September 1998 (both C. LaRue), and two begging juveniles with two 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 possible breeder and common to abundant 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). The 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 the 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 in riparian areas and adjacent dense weedy brush. The eight 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), and adult male at Clay Hills Crossing on 26 June 1997 (C. LaRue), one in Moqui Canyon on 5 August 1994 (M Kropf GLCA files), four at Page STP and one at Lonely Dell on 20 September 1997 (C. LaRue, C. Goetze) and an exceptional winter occurrence at Navajo Bridge on 1 December 1996 (C. LaRue, T. Corman).

Dickcissel (*Spiza americana*). A rare local migrant with four records: one at Lonely Dell on 8 May 2004 (J. Spence, B. Russell), one at Page on 24 May 1998 (J. Spence), another there on 14 September 1994 (J. Grahame), and one at Wahweap on 22-23 September 1998 (C. LaRue, C. Goetze)

Family ICTERIDAE

Bobolink (*Dolichonx oryzivorus*). A rare local migrant with five records; one at the Page golf course on 9 May 1994 (J. Grahame), two there on 3 June 1999 (J. Alston), one there on 12 May 2000 (B. Bobowski), one at the 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, winter resident and sparse breeder at sewage treatment settling ponds, the Lake Powell shoreline and other open riparian sites. Breeding is known only at Wahweap but it may breed elsewhere.

Western Meadowlark (*Sturnella neglecta*). A fairly common widespread migrant and an uncommon winter resident at open brushy and weedy sites. Most of the winter records are from the Page area.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*). A common to locally abundant 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. Common at the 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 January 2004 (J. Spence).

Common Grackle (*Quiscalus quiscula*). A rare local transient. There are three records, one at Wahweap STP on 24 April 1997 (C. LaRue, A. Flesch), one at Lees Ferry on 28 May-2 July 1997 and two there 29 July-31 July 1997 (C. LaRue et al.).

Great-tailed Grackle (*Quiscalus mexicanus*). A common local permanent resident at Page, Wahweap, and Bullfrog. It is an erratically common breeding resident at Lees Ferry. Fledglings are conspicuous at all three localities. At Lees Ferry, the breeding colony has nested in the dense common reed (*Phragmites*) and tamarisk below the boat ramp.

Brown-headed Cowbird (*Molothus ater*). A common to abundant widespread summer resident and breeder and migrant. 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). It 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 of impacts of brood parasitism in GLCA is unknown. Two breeding records: a fledgling being fed by a pair of Lucy's Warblers at Lee's Ferry on 21 July 1995 (J. Grahame), and yellow-breasted chat nest containing two chat and two cowbird eggs in *Baccharis* at Colorado River RM -9.4L on 17 June 1999 (J. Holmes).

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 11 May (1996) to 17 August (1999-C. LaRue). 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, Lee's Ferry on 18 April 2004. The colonization of GLCA follows a pattern of expansion into the Grand Canyon region noted as early as 1974 (Carothers and Brown 1991) 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).

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).

Bullock's Oriole (*Icterus bullockii*). An uncommon widespread summer resident and breeder and migrant in riparian areas, residential areas and occasionally in pinyon-juniper woodlands. It is a fairly common summer resident at Page, 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 two nests at RM -14.3R on 23 June 1995 (Grahame and Pinnock 1995). The dates span from 21 April (1984 at Wahweap-G. Gossard GLCA files) to early-middle 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).

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 and a nest with two 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 five records of migrants are one and two at Colorado River RM -10.0L on 12-13 May 1982 (G. Stolz GLCA files), one on the rim of the Kaiparowits Plateau at Moqui Seep on 7 June 2000 (C. LaRue), a sub adult male in a side canyon off of The Great Bend on 8 June 2000 (C. LaRue), a sub adult 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 five 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 ca. 100 in Crosby Canyon on 27 January 2001 (J. Spence). The flocks seen in 2001 were foraging on recently exposed mud flats 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.

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. This is perhaps the most ubiquitous bird to be found in riparian areas in GLCA throughout the year. Large flocks are occasionally seen in winter, such as the 349 counted on the Glen Canyon CBC on 3 January 2005 (J. Spence).

Red Crossbill (*Loxia curvirostra*). A sparse local resident and 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 six of seven 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). It is an occasional fall and winter transient in residential areas: one at Bullfrog on 28-29 October 1996 (B. Zurcher) and 11 birds on the 15-16 of December 1996 at Page (J. Spence, B. Russell).

Pine Siskin (*Carduelis pinus*). The status, distribution, and movements in GLCA are poorly understood but it is at least an irregularly uncommon restricted migrant in riparian areas, pinyon-juniper woodlands, and residential areas, and 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 mixed associated with about 30 American goldfinches foraging on rabbitbrush (*Chrysothamnus nauseosus*) fruit in Bowns Canyon on 4 November 2000 (J. Spence). In Page it usually appears at feeders in late September or early October (J. Spence).

Lesser Goldfinch (*Carduelis psaltria*). A common widespread summer 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. 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 it has been recorded once on the Glen Canyon CBC, on 3 January 2002 (J. Spence).

American Goldfinch (*Carduelis 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 7-mile Canyon on 8 July 1958 (Behle and Higgins 1959) document sparse summer vagrancy. This is the most common the finches seen on the Glen Canyon CBC, with a high count of 66 on 5 January 2004 (J. Spence).

Evening Grosbeak (*Coccothraustes vespertinus*). A sparse local migrant and winter resident in riparian and residential areas and in pinyon-juniper woodlands. The eight 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.), six in Page on 16 October 1996 (C. Goetze), seven at Bullfrog on 22 October 1996 (B. Zurcher), one on the Kaiparowits Plateau on 22 October 1998 (C. LaRue), three at Page on 14 December 1963 (Mazzer GLCA files), one at Wahweap on 19 January 1990 (C. Pinnock), and two there 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.

ACKNOWLEDGEMENTS

We would like to 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, Brenda Russell, Mark Sogge, Larry Stevens, Frank and Pat Talbot, Charles van Riper III, Dave Willey, Bill Wolverton, Becky and Pat Zurcher, as well as all the other visitors and residents of the region that have turned in wildlife cards.

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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. The period of operation of the stations is also listed.

Station	Years	Elevation¹	MAT²	MIT³	MXT⁴	PRECIP⁵	SNOW⁶
Bullfrog	1967-2006	1165	15.2	8.3	22.5	151	122
Han's Flat	1981-2006	2012	10.6	5.4	16.4	246	965
Hite	1978-2006	1220	15.5	9.8	22.3	194	66
Lee's Ferry	1916-2006	978	16.9	9.2	24.8	158	56
Mexican Hat	1948-2006	1265	13.6	5.2	22.2	159	79
Page	1959-2006	1372	14.5	8.2	21.1	162	114
Wahweap	1967-2006	1136	15.7	8.8	22.8	158	15

¹Elevation in meters

²MAT=Mean Annual Temperature (°C)

³MIT=Mean Annual Minimum Temperature (°C)

⁴MXT=Mean Annual maximum temperature (°C)

⁵PRECIP=Mean Annual Precipitation (mm)

⁶SNOW=Mean Annual Snowfall (mm)

Table 2. The principal vegetation communities and other habitats at Glen Canyon National Recreation Area, with approximate areas in hectares. All riparian vegetation is combined into one category. The vegetation is classified using the SRFr system. Grassland amount is estimated only as it was originally classified with shrubland communities.

Climate-Elevation Zone	Physiognomic Class and Formation	Example Alliances	Area (hectares)
Montane	Evergreen Forest	<i>Peudotsuga menziesii</i>	2
	Cold-deciduous Woodland	<i>Acer grandidentatum</i>	25
Cold-temperate	Cold-deciduous Woodland	<i>Quercus gambelii</i>	500
	Evergreen Woodland	<i>Pinus edulis-Juniperus osteosperma</i>	42,000
	Evergreen Shrubland	<i>Coleogyne ramosissima</i> <i>Atriplex confertifolia</i> <i>Atriplex canescens</i> <i>Artemisia tridentata</i>	290,000
	Evergreen Dwarf Shrubland	<i>Atriplex corrugata</i> <i>Ephedra torreyana</i>	6,000
	Short Bunchgrass Grassland	<i>Achnatherum hymenoides-</i> <i>Hesperostipa comata</i>	2,000
	Short Sodgrass Grassland	<i>Bouteloua gracilis</i>	1,000
	Mixed Grassland	<i>Acnatherum hymenoides-</i> <i>Hilaria jamesii</i>	4,000
	Aquatic	<i>Potomageton foliosus</i> <i>Najas marina</i>	67,000
	Barrens/Unclassified	Cliffs, Slickrock, Clay Barrens	92,000
	Riparian and Wetland Woodland, Shrubland, Marshland, Forbland	<i>Populus fremontii</i> <i>Salix exigua</i> <i>Tamarix ramosissima</i> <i>Typha domingensis</i>	2,300

Table 3. Summary of avian databases and inventory and research efforts at Glen Canyon National Recreation Area. 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
1933-2007	Individual bird observations	Individual observations
1958	Colorado River and side canyon surveys	Boat and foot/visual encounters
1983-1997; 2005-2007	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
1991-2007	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	Lee's Ferry bi-weekly land bird surveys	Foot/timed area search
1997-1999	Lower Lake Powell bi-weekly aquatic bird surveys	Boat/timed area search
1998-2000	Glen Canyon land bird inventory	Foot/point count, timed area search
1998-2007	Full Lake Powell aquatic bird surveys	Boat/timed are search
1999-2007	Glen Canyon Christmas Bird Count	Boat and foot/surveys
200005	Peregrine falcon occupancy surveys	Boat/visual search

Table 4. Residency, abundance and distribution terms and their definitions used in the checklist of the birds of Glen Canyon National Recreation Area, Utah and Arizona.

Category	Term	Definition
<i>Residency</i>	Permanent Resident	Year round, although may not be the same individuals in summer and winter
	Summer Resident	Present in breeding season; March-August
	Winter resident	Present in non-breeding Season; September-April
	Migrant	Spring and/or autumn migrant, non-breeding, does not linger in area more than a few days or weeks
	Transient	Unexpected, irregular and unpredictable visitor that occurs every few years
	Vagrant	Not expected, only recorded once, not a migrant in surrounding areas (=accidental)
	Extirpated/Re-introduced	Originally native, extirpated, then re-introduced by humans; may or may not have self-sustaining populations
	Exotic	Not native to North America, introduced by humans, with self-sustaining populations
	Escapee	Captive bird or pet, not part of a self-sustaining wild population
<i>Abundance</i>	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, numerous in appropriate habitat
	Abundant	Expected every year, abundant in appropriate habitat
<i>Distribution</i>	Local	Only found in one portion of NRA or only found in one or a few areas of available habitat
	Restricted	Found in several areas of NRA, in many but not all examples of available habitat
	Widespread	Found throughout the NRA where-ever available habitat occurs

Table 5. Residency, distribution and abundance status of the 315 bird species documented for Glen Canyon National Recreation Area, Utah and Arizona. For species that are both migrant and resident, the most common abundance and distribution values are used. Escapees and vagrants are not assigned abundance or distribution values.

Category	Term	Number of Species (% of total)
<i>Residency</i>	Permanent Resident	46 (15)
	Summer Resident	47 (15)
	Winter resident	78 (25)
	Migrant	70 (22)
	Transient	43 (13)
	Vagrant	21 (7)
	Extirpated/Re-introduced	2 (<1)
	Exotic	5 (2)
	Escapee	3 (<1)
<i>Abundance</i>	Rare	73 (25)
	Sparse	40 (14)
	Uncommon	83 (29)
	Common	86 (30)
	Abundant	8 (3)
<i>Distribution</i>	Local	98 (34)
	Restricted	33 (11)
	Widespread	159 (55)

Table 6. Species records excluded from Glen Canyon NRA based on either inadequate documentation or a lack of documentation.

Species	Date	Observers	Reasons for Rejection
Red-throated Loon	2/27/1984	E. & R. Sorensen	Lack of documentation
White-tailed Hawk	4/16/1980	E. Sorensen	Out of range, inadequate documentation
Black Scoter	9/7/1966	Christensen	Flock of 40, highly unlikely, probably American coot; lack of documentation
Purple Gallinule	8/1974	A. Kidwell & L. Daniels	Lack of documentation
<i>Brachyramphus</i> sp.	9/1998	Lake party-no names	Lack of documentation, not found on follow-up searches
Allen's Hummingbird	8/25/1966	Christensen	Lack of documentation, difficult to distinguish from Rufous Hummingbird
Philadelphia Vireo	8/10/1966	Thurston	3 birds seen together, lack of documentation
Chihuahuan Raven	3/7/1983	G. Gossard	Out of range, lack of documentation
Painted Bunting (female-plumaged)	5/13/1996	B. Zurcher	Documentation provided but tentative identification, out of range, missing several retrices, possible escaped cage bird?

Figure 1. Glen Canyon NRA.