

April 21 at Guaymas and San Pedro Nolasco Island. In April, 1925, there was a fairly populous breeding colony on the west end of San Pedro Mártir Island, and in April, 1930, certain off-shore rocks near Guaymas gave fairly good evidence of having at one time been used as nesting sites by Brandt Cormorants. The questionable record by Price (1899, p. 90) for the Colorado River most likely pertains to another species.

Family FREGATIDAE Man-o'-war-birds

FREGATA MAGNIFICENS ROTHSCILDI MATHEWS

MEXICAN MAN-O'-WAR-BIRD

Fregata minor rothschildi Mathews, *Birds Australia*, 4, 1915, 280 (Aruba, Dutch West Indies).

Fregata magnificens rothschildi van Rossem and Hachisuka, 1937 a, 325 (Guaymas; Lobos Island).—Abbott, 1941, 417 (Guaymas).

Fregata magnificens (not *Fregata minor magnificens* Mathews) van Rossem, 1932, 130 (Tiburon Island).

Fregata aquila (not *Pelecanus aquilus* Linnaeus) Evermann and Jenkins, 1888, 69 (Guaymas).—Bryant, 1889, 265, in text (San Pedro Martir Island).—Mailiard, 1923, 454 (Pelican Island).

Present throughout the year in the entire Gulf area, although much more common southerly. There are no nesting colonies known within Sonora territory. Additional localities where observed are Estero de Tasiota; Kino Point (Anthony notes); San Pedro Nolasco Island; San Estéban Island; George Island; Tóbari Bay; Agiabampo (van Rossem notes).

ORDER CICONIIFORMES HERONS, STORKS, IBISES, AND ALLIES

Family ARDEIDAE Herons and Bitterns

ARDEA HERODIAS TREGANZAI COURT

TREGANZA HERON

Ardea herodias treganzai Court, *Auk*, 25, No. 3, July, 1908, 291 (Egg Island, Great Salt Lake, Utah).—Oberholser, 1912, 545, part (Cajon Bonito Creek; Sonoyta River; Santa Cruz River; San Bernardino Ranch; Colorado River at Mon. 204).—Bailey, 1928, 87, part (Sonora).—van Rossem, 1932, 130 (Tiburon Island).—Huey, 1935, 251 (Punta Peñascosa).

Ardea herodias (not of Linnaeus) Price, 1899, 91 (lower Colorado River).—Stone and Rhoads, 1905, 688 (lower Colorado River).

Common resident coastwise and on larger interior streams in the northern part of the State, where all definite records to date are from points on

or near the Arizona boundary. In default of specimens, records from Punta Peñascosa and Tiburón Island are allocated provisionally and in conformance with known southward distribution in Baja California.

ARDEA HERODIAS SANCTI-LUCAE THAYER AND BANGS

ESPÍRITU SANTO HERON

Ardea herodias sancti-lucae Thayer and Bangs, Proc. New Engl. Zool. Club, 4, Feb. 23, 1912, 83 (Espíritu Santo Island, Baja California, México).

Ardea herodias treganzai (not of Court) Oberholser, 1912, 545, part (Guaymas ?).—Bent, 1926, 123, part (Guaymas).—van Rossem and Hachisuka, 1937 a, 325 (Guaymas; San Pedro Nolasco Island; Tobarí Bay).—Abbott, 1941, 417 (Guaymas).

Common resident of the Tropical zone coast, including Gulf and bay islands, from Guaymas and San Pedro Nolasco Island southward. Additional localities (sight records only) are Ciudad Obregón, Tesia, Agiabampo, and Masocari Island in May and June, 1937 (van Rossem).²

BUTORIDES VIRESCENS ANTHONYI (MEARNS)

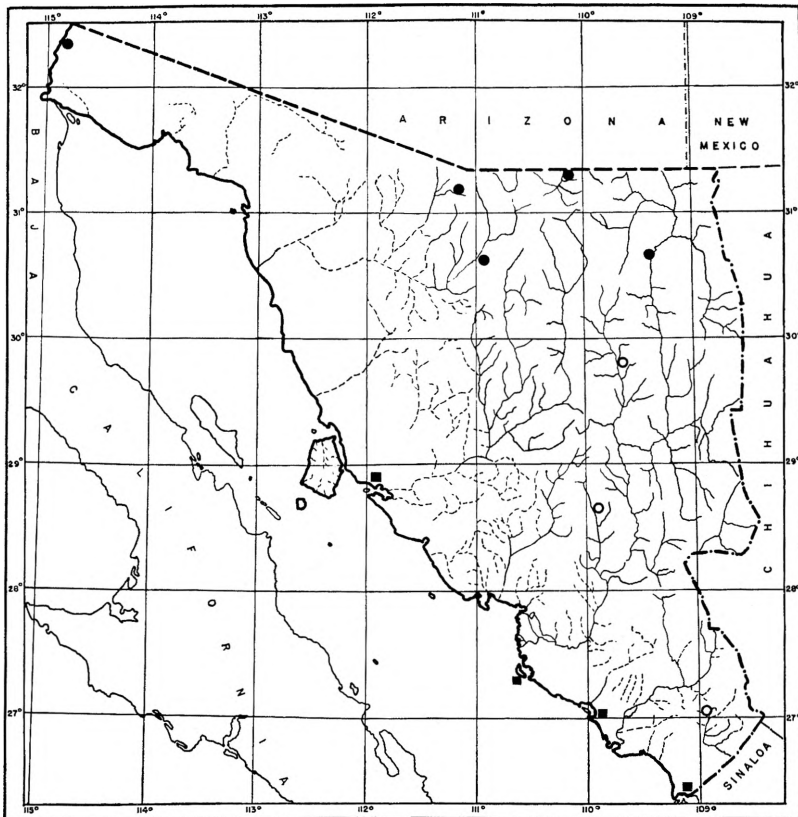
ANTHONY GREEN HERON

Ardea virescens anthonyi Mearns, Auk, 12, July, 1895, 257 (Seven Wells, Salton River, Baja California, México); *ibid.*, in text (Monument 77; San Pedro River on boundary).

Butorides virescens anthonyi Oberholser, 1912 a, 543 (San Pedro River near U. S. boundary; San Bernardino River near U. S. boundary).—Bent, 1926, 195 (San Pedro River).—A. O. U. Comm., 1931, 30 (northern Sonora).—van Rossem, 1934 d, 427 (Alamos; Oposura).—van Rossem and Hachisuka, 1937 a, 326 (Tecoripa; Saric; Pilares).

Fairly common summer visitant to suitable watercourses in Sonoran zones in the northern part of the State. Westernmost breeding station, Colonia Independencia on the Colorado River (May 3, 1937, van Rossem notes); easternmost, Pilares; southernmost, Magdalena (May 15, 1925, Dawson notes). Records from Tecoripa, March 1, 1929; 2 miles south of Magdalena, March 28, 1936 (Mus. Vert. Zool.); Oposura, April 15, 1887, are most probably those of transients although the localities may be within the breeding range. There is one midwinter record, far to the south of the breeding range, from Alamos, February 7, 1888.

² There appear to be no differences in color or size between Sonora specimens (Guaymas, 2; Tobarí Bay, 1) and topotypical *sancti-lucae*, in spite of the former positive (but erroneous) allocation of the former to *treganzai* (van Rossem and Hachisuka, 1937 a). How much further south along the coast the range of *sancti-lucae* may extend is problematical. George Willett informs me that similarly light-colored birds were noted by him at various points south to Jalisco; however, no specimens were taken.



MAP 2. Distribution of *Butorides virescens*. Circles, *B. v. anthonyi*; hollow circles, winter or transient stations outside of established breeding range; squares, *B. v. virescens*.

BUTORIDES VIRESCENS VIRESCENS (LINNAEUS)

EASTERN GREEN HERON

Ardea virescens Linnaeus, Syst. Nat., ed. 10, 1, 1758, 144 (in America=South Carolina).

Butorides virescens virescens van Rossem and Hachisuka, 1937 a, 326 (Tobari Bay; Kino Bay; Lobos Island; crit.).

Fairly common summer visitant to Tropical zone mangrove lagoons north to Kino Bay. Although probably a permanent resident, present dates extend only from April 27 to June 12, all of them for breeding birds,

however. Green Herons seen at Agiabampo in May, 1937 (van Rossem notes), were undoubtedly of this race.

FLORIDA CAERULEA CAERULESCENS (LATHAM)

SOUTHERN LITTLE BLUE HERON

Ardea caerulescens Latham, Index Orn., 1790, 2, 690 (Cayenne).

Florida caerulea caerulescens van Rossem and Hachisuka, 1937 a, 326 (Lobos Island; Tobarí Bay).

Florida caerulea (not *Ardea caerulea* Linnaeus) van Rossem, 1932, 130 (Tiburón Island).

Rather common, in summer at least, in the Tropical zone mangrove association north to the vicinity of Guaymas (Guásimas Lagoon). The single winter record from Tiburón Island, December 28, suggests a seasonal dispersal northward and is also confirmation that some part of the population is resident. An additional locality is Agiabampo, where noted May 13, 1937 (van Rossem notes).

DICHROMANASSA RUFESCENS DICKEYI VAN ROSSEM

DICKEY EGRET

Dichromanassa rufescens dickeyi van Rossem, Condor, 28, Sept., 1926, 246 (San Luis Island, Baja California, México); 1933 b, 199 (Tepopa Bay).—van Rossem and Hachisuka, 1937 a, 326 (Guaymas; Tobarí Bay).—Abbott, 1941, 418 (Guaymas).

Dichromanassa rufescens (not *Ardea rufescens* Gmelin) Townsend, 1923, 10 (Guaymas).

Fairly common, although rather local, inhabitant of Tropical zone coastal lagoons. There are no breeding colonies actually on record, but specimens taken at Tobarí Bay on April 28, 1930, were in breeding condition. Dates of occurrence range from December 23 at Guaymas to May 13 at Agiabampo (van Rossem notes).³

CASMERODIUS ALBUS EGRETTEA (GMELIN)

AMERICAN EGRET

Ardea Egretta Gmelin, Syst. Nat., 1, Pt. 2, 1789, 629 (Cayenne).

Casmerodius albus egretta van Rossem, 1933 b, 199 (Hermosillo; Guaymas; Tepopa Bay).—Huey, 1935, 251 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 326 (Guaymas; Tobarí Bay).

³ Peters (1931, p. 109) does not recognize this race. When skins not impregnated with fat are compared, the differences between *rufescens* of the southeastern United States and *dickeyi* are obvious, the latter being uniformly and decidedly darker. Wetmore (Proc. U. S. Nat. Mus., 40, 1941, p. 487) has made a similar observation in upholding the validity of *Florida caerulea caerulescens*, a race also rejected by Peters.

Rather common resident coastwise and along suitable interior streams. Recorded as breeding at Tóbari Bay, and undoubtedly does so at other points. Further records, previously unpublished, are Colonia Independencia in the Colorado delta, May 3; Agiabampo, May 14; Tesia on the Mayo River, June 20, 1937 (van Rossem notes); Colorado River opposite mouth of the Hardy, March 28, 1894 (Mearns notes).

LEUCOPHOYX THULA BREWSTERI (THAYER AND BANGS)

BREWSTER EGRET

Egretta candidissima brewsteri Thayer and Bangs, Proc. New Engl. Zool. Club, 4, April 29, 1909, 40 (San José Island, Baja California, México); *ibid.*, in text (Guaymas).—Bent, 1926, 156 (Guaymas).

Egretta thula brewsteri van Rossem, 1932, 130 (Tiburon Island); 1933 d, 199 (Tepopa Bay).—Huey, 1935, 251 (Punta Peñascosa).—Abbott, 1941, 418 (Guaymas).

Leucophoyx thula brewsteri van Rossem, 1934 d, 427 (Guaymas).—van Rossem and Hachisuka, 1937 a, 326 (Guaymas; Lobos Island).

Egretta candidissima (not *Ardea candidissima* Gmelin) Townsend, 1923, 9 (Tiburon Island).

Fairly common resident coastwise from Guaymas southward. The several records north of Guaymas are most probably for winter or post-breeding vagrants. An additional station is Agiabampo, May 12 to 14, 1937, where observed as rather common (van Rossem notes).

HYDRANASSA TRICOLOR RUFICOLLIS (GOSSE)

LOUISIANA HERON

Egretta ruficollis Gosse, Birds Jamaica, 1847, 338 (Burnt Savanna River, [Jamaica]).

Hydranassa tricolor ruficollis van Rossem, 1933 b, 199 (Guaymas).—van Rossem and Hachisuka, 1937 a, 327 (Tobari Bay).

Seemingly a rather uncommon resident of coastal lagoons from Guaymas southward to Agiabampo (May 12 to 14, 1937, van Rossem notes). There are two widely separated winter records from fresh water localities. The species was found commonly 9 miles S.W. of Ciudad Obregón, November 24, 1944 (Sheffler notes; 1 taken), and Mearns notes mention two flocks of 6 and 11 individuals seen, presumably along the Sonoyta River, between January 27 and February 7, 1894.

NYCTICORAX NYCTICORAX HOACTLI (GMELIN)

BLACK-CROWNED NIGHT HERON

Ardea Hoactli Gmelin, Syst. Nat., 1, Pt. 2, 1789, 630 (In Novae Hispaniae Iacubus = Valley of México).

Nycticorax nycticorax hoactli van Rossem and Hachisuka, 1937 a, 327 (Guaymas; Tobarí Bay).

Nycticorax nycticorax naevius Price, 1899, 91 (lower Colorado River).—Stone and Rhoads, 1905, 681 ("Colony").

Resident in suitable Sonoran and Tropical zone localities almost everywhere in the State, although probably more generally distributed in winter and during post-breeding wanderings. Some additional localities are Colonia Independencia, Rancho La Arizona, and Agiabampo in May, 1937 (van Rossem notes); San Bernardino River on the boundary, July 31 and October 16, 1892; Colorado River at Monument 204, March 22 and 28, 1894 (U. S. Nat. Mus. catl.); San Pedro River on the boundary, October 11, 1892 (Mearns notes); Magdalena, April 20, 1925 (Dawson notes).

NYCTANASSA VIOLACEA BANCROFTI HUEY

BANCROFT NIGHT HERON

Nyctanassa violacea bancrofti Huey, Condor, 29, No. 3, May 15, 1927, 167 (Scammon Lagoon, Baja California, México).—van Rossem, 1933 b, 199 (Tepopa Bay).—van Rossem and Hachisuka, 1937 a, 327 (Tobarí Bay).

Fairly common but apparently rather local resident of coastwise lagoons north to Tepopa Bay. Although detected at but three points, Tepopa Bay, Tóbarí Bay, and Agiabampo (van Rossem notes), numbers were observed on each occasion.

HETEROCNUS MEXICANUS FREMITUS VAN ROSSEM AND HACHISUKA

NORTHWESTERN TIGER HERON

Heterocnus cabanist [sic] *fremitus* van Rossem and Hachisuka, Proc. Biol. Soc. Wash., 50, September 30, 1937, 161 (Guirocoba, Sonora, México).

Heterocnus mexicanus fremitus van Rossem, 1942 i, 572 (nomen.).

Heterocnus cabanisi (not of Heine) Peters, 1931, 119 (Sonora).—van Rossem and Hachisuka, 1937 a, 327 (Tesia).—Moore, 1938, 24 (Guirocoba; Alamos).

Heterocnus mexicanus (not *Tigrisoma mexicana* Swainson) Cooke, 1913, 67, part (Alamos).

Fairly common resident along fresh-water streams in Tropical zone lowlands and foothills. There are no records for salt, or even brackish, water. Unpublished data are from Guirocoba, where common in December,

1941 (Sheffler notes); Cuchujaqui River near Álamos; San Francisco Cañon, May, 1937 (van Rossem notes).

IXOBRYCHUS EXILIS HESPERIS DICKEY AND VAN ROSSEM

WESTERN LEAST BITTERN

Ixobrychus exilis hesperis Dickey and van Rossem, Bull. So. Calif. Acad. Sci., 23, Feb. 20, 1924, 11 (Buena Vista Lake, Kern Co., California).—van Rossem, 1930 j, 228, in text (Kino Bay).

Known only from two specimens taken, respectively, at Tóbari Bay, April 28, 1930, and at Kino Bay, May 16, 1930 (Natural History Museum). Although both of these males were in breeding condition, they may have been transients.

IXOBRYCHUS EXILIS PULLUS VAN ROSSEM

SONORA LEAST BITTERN

Ixobrychus exilis pullus van Rossem, Trans. San Diego Soc. Nat. Hist., 6, No. 15, Nov. 28, 1930, 227 (Tóbari Bay, Sonora, México); *ibid.*, in text (Kino Bay; Miramar; Guasimas Lagoon; Lobos Island).—Peters, 1931, 132 (range in Sonora).

Fairly common summer visitant (possibly resident) in Tropical zone mangrove lagoons from Kino Bay south to Tóbari Bay. Dates of record (all breeding) cover only the limited time from April 28 to May 25.⁴

BOTAURUS LENTIGINOSUS (MONTAGUE)

AMERICAN BITTERN

Ardea lentiginosa Montague, Suppl. Orn. Dict., 1813, (not paged), (Piddletown, Dorsetshire, England).

Botaurus lentiginosus van Rossem and Hachisuka, 1937 a, 327 (El Doctor).

Detected as a winter visitant and migrant. There are four records: El Doctor in the Colorado delta, January 25, 1929 (Dickey coll.); San

⁴ The systematic status of *pullus* remains undecided. Two adult male *hesperis* have been collected in breeding condition at places where *pullus* was definitely breeding at the time. These, of course, may have been transients, but so late a date as May 16 would almost rule out such a possibility. One of the Kino Bay *pullus* shows some evidence of *hesperis* coloration, but whether this is the result of hybridization, or is a normal variation, is pure speculation at this time. In May, 1937, I spent three days in the mangrove lagoons at Agiabampo with the principal object of determining this point but failed to find a trace of either form. Neither was the species encountered at Guaymas or Kino Bay in December, 1932. My impression at this time is that *pullus* will prove to be of specific value.

Bernardino Ranch on the boundary [though evidently on the Arizona side], August 28, 1892, and San Bernardino River on the boundary, October 5, 1893 (U. S. Nat. Mus.); two seen at Tóbari Bay, November 25, 1944 (Scheffler notes).

Family CICONIIDAE Storks and Wood Ibises

MYCTERIA AMERICANA LINNAEUS

WOOD IBIS

Mycteria americana Linnaeus, Syst. Nat., ed 10, 1, 1758, 140 (in America calidiore=Brazil).—van Rossem and Hachisuka, 1937 a, 327 (Guaymas; Tobarí Bay).
Tantalus loculator Stone and Rhoads, 1905, 688 (lower Colorado River).

Common in summer in Tropical zone coastal lagoons and river valleys from Guaymas southward. There is good, though not conclusive, evidence that breeding colonies exist at Guásimas Lagoon and perhaps other points. Sporadic occurrences have been noted in fall and winter at several northern localities such as the lower Colorado River in "February," the San Bernardino River, August 6, 1892 (U. S. Nat. Mus. catl.), and September 10, 1892 (Mearns notes), and the Sonoyta River where (Mearns notes) on an unspecified date Lieut. Gaillard "shot several." Other southern localities are Agiabampo in May, and Tesia on the lower Mayo River in June, 1937 ("common"; van Rossem notes).

GUARA ALBA (LINNAEUS)

WHITE IBIS

Scolopax alba Linnaeus, Syst. Nat. ed. 10, 1, 1758, 145 (Carolina).
Guara alba van Rossem, 1933 b, 199 (Tepopa Bay).—van Rossem and Hachisuka, 1937 a, 327 (Tobarí Bay; Guasimas Lagoon).

Present, both in midwinter and summer, and presumably resident, in Tropical zone coastal lagoons. A winter record is from Tepopa Bay, where not uncommon on January 2, 1932. Spring and summer occurrences are Tóbari Bay, April 28 to June 12, 1930; Guásimas Lagoon, May 12, 1930; Agiabampo, May 12 to 14, 1937; (van Rossem notes).

PLEGADIS MEXICANUS (GMELIN)

WHITE-FACED GLOSSY IBIS

Tantalus mexicanus Gmelin, Syst. Nat., 1, 1788, 652 (Novae Hispaniae=México).

Plegadis guarauna (not *Scolopax guarauna* Linnaeus) Allen, 1893 a, 33 (Cachuta).—Salvin and Godman, 1902, 194 (Cachuta).

Ibis ordii (not of Bonaparte) Baird, 1858, 685 (Santa Cruz); 1859, 24 (Santa Cruz).—Brewer, 1844, 99, in text (Santa Cruz).

Status uncertain. Detected at widely separated fresh-water localities in spring, summer, and fall, but not so far found to breed. Recorded from Santa Cruz in June, 1855, and Cuchuta on October 5, 1890. Additional localities are Colonia Independencia in the Colorado delta, where common on May 5, 1937; Tesia on the lower Mayo River, common in late June, 1937 (van Rossem notes); in the U. S. National Museum catalogue are records of nine specimens taken by Mearns and Holzner on the San Bernardino River on the boundary line, August 2, 1892, and October 4 and 5, 1893; noted "by thousands" in the lower Yaqui River valley west of Ciudad Obregón, November 24, 1944 (Sheffler notes); Huey (1942, p. 363) noted several in migration at Quitovaquita on the boundary (though on the Arizona side) April 11 and 12, 1939.

AJAJA AJAJA (LINNAEUS)

ROSEATE SPOONBILL

Platalea ajaja Linnaeus, Syst. Nat., ed. 10, 1, 1758, 140 (in America australi = Brazil).

Ajaja ajaja van Rossem and Hachisuka, 1937 a, 327 (Mayo River valley; Tobarí Bay; Guaymas).

Ajaja [sic] *ajaja* Dawson, 1923, 1932 (Guaymas).

Fairly common in summer in coastal lagoons from Guaymas southward. Reported at one inland point, the lower Mayo River valley near Tesia. Additional localities are Agiabampo, where common in mid May, 1937 (van Rossem notes), and Kino Bay in "September" (Nat. Hist. Mus.) The latter instance is possibly that of a seasonal wanderer. The basis of the statement by Dawson that the Spoonbill breeds at Guaymas cannot be ascertained. Possibly it does so at some point or points along the Tropical zone coast, but no colonies have, to date, been definitely recorded from Sonora.

ORDER ANSERIFORMES SWANS, GEESE, AND DUCKS

Family ANATIDAE Swans, Geese and Ducks

CHEN HYPERBOREA (PALLAS)

LESSER SNOW GOOSE

Anser hyperboreus Pallas, Spic. Zool., 1, Fasc. vi, 1769, 25 (in terris borealibus ad Orientem 130° longitudinis . . . =northeastern Siberia).

Cben hyperborea van Rossem and Hachisuka, 1937 a, 328 (San Luis; El Doctor).

Common, perhaps even abundant, winter visitant in the Colorado River delta. Observed by Dickey (notes) as common all along the river from