July 13, 1892, and on the Colorado River at Monument 204, March 25, 1894; Quitovaquita on the boundary (Arizona side), March and November, 1939 (Hucy, 1942, p. 364); Animas Valley on the boundary, September 8, 1893; Sonoyta, January 9 to 25, 1894 (Mearns notes).

ORDER CHARADRIIFORMES SHORE BIRDS, GULLS, AUKS, AND ALLIES

Family HAEMATOPODIDAE Oyster-catchers HAEMATOPUS PALLIATUS FRAZARI BREWSTER

FRAZAR OYSTER-CATCHER

Haematopus frazari Brewster, Auk, 5, No. 1, January, 1888, 84 (Carmen Island, Baja California, México).—Townsend, 1923, 12 (San Esteban Island).—Mailliard, 1923, 454 (San Esteban Island).

Haematopus palliatus frazari Murphy, 1925, 9 (Quotla).—Bent, 1929, 316 (Quotla).—van Rossem, 1932, 133 (Tiburon Island; San Esteban Island; San Pedro, San Carlos, Kino, and Tepopa Bays).—Abbott, 1941, 418 (Guaymas).—Webster, 1943, 41, 45 (Sonora; descr. young).

Common resident of islands and beaches from the head of the Gulf south to the Sinaloa boundary. Unpublished localities are George Island; San Pedro Mártir Island; Masocari Island; Agiabampo; Tóbari Bay (van Rossem notes); Lobos Island (Nat. Hist. Mus.); Kino Point (Anthony notes).

Family Charadriidae Plovers SQUATAROLA SQUATAROLA (LINNAEUS)

BLACK-BELLIED PLOVER

Tringa Squatarolo Linnaeus, Syst. Nat., ed. 10, 1, 1758, 149 (in Europa=Sweden).

Squatarola squatarola Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 329 (Tobari Bay).

Fairly common spring migrant coastwise. Detected also as a winter visitant. Noted in spring from April 26 to May 1 (Tóbari Bay) and in winter from February 8 to 29 (Punta Peñascosa).

CHARADRIUS HIATICULA SEMIPALMATUS BONAPARTE

SEMIPALMATED PLOVER

Charadrius semipalmatus Bonaparte, Journ. Acad. Nat. Sci. Phila., 5, [Aug., 1825], 98 [New name for *Tringa hiaticula* Wilson] (Coast of New Jersey).—van Rossem, 1932, 133 (Tiburon Island).

Charadrius hiaticula semipalmatus van Rossem, 1934 d, 433 (Guaymas).—van Rossem and Hachisuka, 1937 a, 330 (Tobari Bay).

Aegialites [sic] semipalmata Townsend, 1923, 12 (Tiburon Island).

Fairly common spring migrant and, at least occasionally, a winter visitant. In the case of this as well as of the great majority of shore birds the absence of fall records is undoubtedly because of the lack of observation at that season. Spring dates are from March 29 (Las Carpas; Mearns and Holzner in U. S. Nat. Mus. catl.) to May 1 (Tóbari Bay). Winter records are January 13 and 14 (Guaymas).

CHARADRIUS ALEXANDRINUS NIVOSUS (CASSIN)

WESTERN SNOWY PLOVER

Aegialitis nivosa Cassin, in Baird's Rep. Expl. and Surv. R. R. Pac., 9, 1858, xlvi, 696 (Presidio-San Francisco, California).

Charadrius nivosus nivosus van Rossem, 1932, 133 (Tiburon Island).—Huey, 1935, 252 (Punta Peñascosa).

Charadrius alexandrinus nivosus van Rossem, 1934 d, 433 (Guaymas).

Common winter visitant coastwise, at least from Guaymas northward. Unpublished occurrences are Kino Bay, December 28, 1931 (Dickey coll.); Puerto Libertad, February 3 and 4, 1932 ("common," Phillips notes); Colorado River opposite mouth of Hardy, March 29, 1894 (U. S. Nat. Mus.). Extreme dates are December 28 (Kino Bay) and March 29 (Colorado River). Since the Snowy Plover is a common resident the full length of the Baja California peninsula, its apparent summer absence from the coast of Sonora is rather surprising.

CHARADRIUS VOCIFERUS VOCIFERUS LINNAEUS

KILLDEER

Charadrius vociferus Linnaeus, Syst. Nat., ed. 10, 1, 1758, 150 (in America septentrionali=South Carolina).

Charadrius vociferus vociferus van Rossem, 1934 d, 433 (Alamos; Oposura).

Oxyechus vociferus Sharpe, 1896, 242, part (Hermosillo).—Salvin and Godman, 1903, 356, part (Hermosillo).—Stone and Rhoads, 1905, 688 (lower Colorado River).

Oxyechus vociferus vociferus Huey, 1935, 252 (Punta Peñascosa). Aegialitis vociferus Price, 1899, 91 (lower Colorado River).

Common resident everywhere in suitable territory, both insular and on the mainland. Even more numerous in winter, probably because of winter visitants from northern localities. Additional localities are El Doctor, January; Tecoripa, March (Dickey coll.); San Estéban Island, April; Guaymas; Tóbari Bay; Colonia Independencia; Rancho La Arizona; Agiabampo; Masocari Island, May (van Rossem notes); Guadalupe Cañon;

San Bernardino River; San Pedro River, July and November ("common wherever there is water"; Mearns notes).

CHARADRIUS WILSONIA BELDINGI (RIDGWAY)

BELDING PLOVER

Pagolla wilsonia beldingi Ridgway, Bull. U. S. Nat. Mus., 50, pt. 8, June 26, 1919, 108, 112 (La Paz, Baja California, México).—van Rossem, 1932, 133 (Tiburón Island and mainland points [=San Pedro, San Carlos, Kino, and Tepopa Bays; San Estéban Island; Guaymas]).—Bent, 1929, 257 (Guaymas).—Huey 1935, 252 (Punta Peñascosa).

Charadrius wilsonia beldingi van Rossem, 1934 d, 433 (Guaymas).—van Rossem and Hachisuka, 1937 a, 330 (Agiabampo).

Ochthodromus wilsonius (not Charadrius wilsonia Ord) Mailliard, 1923, 454 (Pelican Island).

Common resident of sea beaches, both mainland and insular, from Kino Bay southward, a distribution which corresponds closely with the Tropical zone. By far the most northerly record is Punta Peñascosa (February 16) but whether this indicates a winter dispersal north from known breeding territory, or whether the species is resident so far north cannot be stated at this time.

EUPODA MONTANA (TOWNSEND)

MOUNTAIN PLOVER

Charadrius montanus J. K. Townsend, Journ. Acad. Nat. Sci. Phila., 7, Pt. 2 [Nov. 21], 1837, 192 (near Sweetwater River, Wyoming).

Podasocys montanus Sharpe, 1896, 242 (Hermosillo).—Ridgway, 1919, 105 (Hermosillo).—Bent, 1929, 263 (Santa Rosa; Hermosillo).

Eupoda montana Huey, 1935, 252 (Punta Peñascosa).

Midwinter visitant to Lower Sonoran deserts in the northwestern part of the State. There are three records; Hermosillo, "Dec." [1887], taken by Ferrari-Perez and now in the British Museum; four specimens taken by Mearns and Holzner at Santa Rosa, January 9, 1894; two specimens taken by Huey from a flock of "about three dozen" at Punta Peñascosa, February 19, 1934.

Family Scolopacidae Woodcock, Snipe, Sandpipers and Allies Numenius Hudsonicus Latham

HUDSONIAN CURLEW

Numenius hudsonicus Latham, Ind. Orn., 2, 1790, 712 (in sinu Hudsonis= Hudson Bay).—van Rossem and Hachisuka, 1937 a, 330 (Guaymas; Tobari Bay).

Detected only as a spring migrant along the coast. Dates range from March 25 (Guaymas) to May 1 (Tóbari Bay, "common"). Perhaps

significantly, this curlew was not found anywhere along the Sonora coast in December, 1931, and January, 1932.¹¹

NUMENIUS AMERICANUS PARVUS BISHOP

NORTHERN CURLEW

Numenius americanus parvus Bishop, Auk, 27, No. 1, Jan., 1910, 59 (Crane Lake, Saskatchewan).

Numenius americanus occidentalis (not Numineus occidentalis Woodhouse) Oberholser, 1918 c, 191 (Monument 179; Naris).

There are no data upon which to base any estimate of the relative numbers of the two races of the Long-billed Curlew which occur in Sonora in winter. There are two specific records for the present race: Nariz Temporal, January 8, 1894, and Monument 179, February 9, 1894, by Mearns and Holzner.

NUMENIUS AMERICANUS AMERICANUS BECHSTEIN

LONG-BILLED CURLEW

Numenius americanus Bechstein, in Latham, Allgem. Ueb. Vög., 4, pt. 2, 1812, 432 (New York).

Numenius americanus americanus Oberholser, 1918 c, 188 (Naris).—van Rossem, 1933 b, 199 (San Carlos, Kino, and Tepopa Bays; Querobabi; San Jose de Guaymas).—Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 330 (Tobari Bay).

Numenius longirostris Price, 1899, 91 (lower Colorado River).

Long-billed Curlew Audubon, 1906, 146 (Rancho La Sone [Sonoyta]).

Common winter visitant and migrant, probably in suitable localities throughout the State, although all records to date are westerly. In default of confirmatory data, all sight records of the Long-billed Curlew are included under the nominate race. Actual specimens are seemingly but two in number; Nariz Temporal, January 8, 1894 (U. S. Nat. Mus.), and Kino Bay, December 27, 1931 (Dickey coll.). Dates of record extend from September 14 (Sonoyta) to May 1 (Tóbari Bay).

LIMOSA FEDOA (LINNAEUS)

MARBLED GODWIT

Scolopax Fedoa Linnaeus, Syst. Nat., ed. 10, 1, 1758, 146 (in America septentrionali=Hudson Bay).

Limosa fedoa Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 330 (Tobari Bay).

¹¹ It does not appear to me that *Phaeopus* is of more than subgeneric value in spite of the case presented by Wetmore (Proc. U. S. Nat. Mus., 90, 1941: 490). However, I believe him to be correct in keeping *hudsonicus* as a species apart from the Old World *Numenius phaeopus* because of the difference in color pattern.

A common, at times abundant, winter visitant and migrant coastwise. Extremely common at Tóbari Bay, April 26 to May 1, 1930, and observed as "common" at Agiabampo, May 13 to 16, 1937 (van Rossem notes). A specimen (Dickey coll.) taken on this latter occasion was a non-breeder of the previous year, and it seems probable that some individuals may remain through the summer. The only winter records are from Punta Peñascosa, "thousands," January 21 to 23, 1930 (Sheffler notes); "in limited numbers," February 8 to 28, 1934. The record of Price (1899) of "abundant" at the head of the Gulf in December, 1898, may pertain to the Baja California shore.

TOTANUS FLAVIPES (GMELIN)

LESSER YELLOW-LEGS

Scolopax flavipes Gmelin, Syst. Nat., 1, Pt. 2, 1789, 659 (auctumno in Noveboraco=New York).

Tringa flavipes van Rossem and Hachisuka, 1937 a, 330 (Ciudad Obregon).

One satisfactory record, that of two specimens taken by Wright at Ciudad Obregón in the lower Yaqui River valley, November 14, 1929. It is possible that these were belated fall migrants rather than winter visitants. Mearns and Holzner collected a large series at the San Bernardino Ranch on the boundary, between August 2 and 27, 1892 (U. S. Nat. Mus.) but Mearns' notes definitely cite the specimens as taken in Arizona. This supplemental record indicates a degree of abundance in Sonora, at least during the fall migration.¹²

TOTANUS MELANOLEUCUS (GMELIN)

GREATER YELLOW-LEGS

Scolo pax melanoleuca Gmelin, Syst. Nat., 1, pt. 2, 1789, 659 (Labrador= Chateaux Bay, Labrador).

Tringa melanoleuca van Rossem and Hachisuka, 1937 a, 330 (Guaymas; Hermosillo; Ciudad Obregon).

Probably a fairly common transient and winter visitant, although records are few and scattered. These are Ciudad Obregón, two specimens November 14, 1929; single bird noted by Lamb at Hermosillo, December 22, 1932; three taken by Brown at Guaymas, February 27, 1905; Animas Valley, "Chihuahua," at Monument 67, September 30, 1893 (Mearns

¹² Peters' arrangement (1934) whereby he includes *Totanus* with *Tringa* does not seem to be justified. Wetmore (Bull. U. S. Nat. Mus., 133, 1926:150-152), has shown important structural differences between these two genera.

notes); Quitovaquita on the boundary (Arizona side), March 6, 1939 (Huey, 1942). Incidentally, the old "Sonora" record of Salvin and Godman (1903, p. 373) probably was based on nothing more tangible than Allen (1893 a) who lists a specimen without date or locality.

TRINGA SOLITARIA CINNAMOMEA (BREWSTER)

WESTERN SOLITARY SANDPIPER

Totanus solitarius cinnamomeus Brewster, Auk, 7, No. 4, Oct., 1890, 377 (San José del Cabo, Baja California, México).—Allen, 1893 a, 33 (Cachuta).

Tringa solitaria cinnamomea van Rossem and Hachisuka, 1937 a, 330 (Saric). Helodromas solitarius (not Tringa solitaria Wilson) Salvin and Godman, 1903, 375, part (Cachuta).

Fall and spring transient in the interior. Fall dates are as follows: San Bernardino Ranch, and San Pedro River on the boundary August 13 to October 10, 1892, by Mearns and Holzner (8 specimens in U. S. Nat. Mus. exam.); two specimens taken by Wright at Rancho La Arizona, September 14, 1929 (Dickey coll.); Cuchuta, October 8, 1890, by Robinette (Amer. Mus.). Spring records are those of two individuals seen (one taken but not preserved) by van Rossem and Hannum at Rancho La Arizona, May 7, 1937; Quitovaquita on the boundary (Arizona side), April 28 and 30, 1939 (Huey, 1942). Recorded also from "San Diego, Sonora" by Salvin and Godman (1903), citing Allen (1893 a), but this locality is in Chihuahua.

ACTITIS MACULARIA (LINNAEUS)

SPOTTED SANDPIPER

Tringa macularia Linnaeus, Syst. Nat., ed. 12, 1, 1766, 249 (in Europa and America septentrionali=Pennsylvania).

Actitis macularia Stone and Rhoads, 1905, 688 (lower Colorado River).—Bent, 1929, 78 (Alamos; Hermosillo).—van Rossem, 1932, 133 (Tiburon Island); 1934 d, 433 (Alamos; Oposura).—van Rossem and Hachisuka, 1937 a, 330 (Pilares; Saric; Tobari Bay; Guaymas; San Esteban, San Pedro Martir, and San Pedro Nolasco Islands).

Common winter visitant and transient, both coastwise (including islands) and on interior streams and ponds. Dates of record include every month in the year except June, October, and November; however, there are no breeding records. Additional localities are Colorado River at Monument 205, March 19, 1894; San Bernardino Ranch, July 31, 1892; Cajón Bonito Creek, September 27 and 28, 1893 (Mearns notes; U. S. Nat. Mus.).

CATOPTROPHORUS SEMIPALMATUS INORNATUS (BREWSTER)

WESTERN WILLET

Symphemia semipalmata inornata Brewster, Auk, 4, No. 2, April, 1887, 145 (Larimer County, Colorado).—Price, 1899, 91 (lower Colorado River).

Catoptrophorus semipalmatus inornatus van Rossem, 1932, 133 (San Pedro, San Carlos, Kino, and Tepopa Bays; Tiburon, San Pedro Nolasco, and San Esteban Islands); 1934 d, 433 (Guaymas).—Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 331 (El Doctor; Guaymas; Tobari Bay).

Common, even abundant, winter visitant and transient along the coast and on most Gulf islands. Numerous individuals seen at Agiabampo and Masocari Island, May 13 to 16, 1937, were not in breeding plumage and probably were birds which would have remained in the locality through the summer (van Rossem notes). There are no interior records except for the Colorado River delta, but Arizona boundary occurrences at Quitovaquita, April 28, 1939 (Huey, 1942), and San Bernardino Ranch, August 13, 1892 (U. S. Nat. Mus.), indicate plainly that this is due to lack of observation.

HETEROSCELUS INCANUS (GMELIN)

WANDERING TATLER

Scolopax incanus Gmelin, Syst. Nat., 1, pt. 2, 1789. 658 (Eimeo et Palmerston [=Moorea Island, Society Group, Pacific Ocean]).

Heteroscelus incanus van Rossem and Hachisuka, 1937 a, 331 (San Pedro Nolasco Island).

Detected only as a rare spring migrant or perhaps only as a casual. A single Wandering Tattler was seen by van Rossem on San Pedro Nolasco Island on April 21, 1930, under circumstances which allowed certain identification.

APHRIZA VIRGATA (GMELIN)

SURF-BIRD

Tringa virgata Gmelin, Syst. Nat., 1, pt. 2, 1789, 674 (in sinu Sandwich= Prince William Sound, Alaska).

Aphriza virgata Townsend, 1923, 12 (Tiburon Island).—van Rossem, 1932, 133 (Tiburon Island).

A winter visitant and spring transient. Townsend took one or more specimens at Tiburón Island on April 12, 1911, and J. S. Rowley took one at Punta Peñascosa, January 21, 1930 (Rowley coll.). The Surf-bird is at times an abundant spring migrant on the Baja California side of the Gulf and perhaps will be found to occur on the Sonora side more than casually.

ARENARIA INTERPRES INTERPRES (LINNAEUS)

COMMON TURNSTONE

Tringa Interpres Linnaeus, Syst. Nat., ed. 10, 1, 1758, 148 (Europe and North America = Gotland, Sweden).

Arenaria interpres morinella (not Tringa morinella Linnaeus) Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 331 (Agiabampo; San Pedro Nolasco Island; Tobari Bay).

A winter visitant and spring migrant coastwise. A single individual noted by Huey at Punta Peñascosa on February 15, 1934; specimen taken by Lamb at Agiabampo on April 18, 1933; one seen at San Pedro Nolasco Island, April 21, 1930 (van Rossem); two specimens taken at Tóbari Bay, April 29 and May 1, 1930, comprise the available data.¹³

ARENARIA MELANOCEPHALA (VIGORS)

BLACK TURNSTONE

Strepsilas melanocephalus Vigors, Zool. Journ., 4, 1828 [Jan., 1829], 356 (Northwest coast of [North] America).

Arenaria melanocephala Townsend, 1923, 12 (Tiburon Island).—van Rossem, 1932, 133 (Tiburon Island).—Huey, 1935, 252 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 331 (San Esteban Island; San Pedro Nolasco Island).

Winter visitant coastwise from about latitude 28° northward. Dates extend from December 31 (Tiburón Island) to April 21 (San Pedro Nolasco Island). The species is evidently fairly common at times, for Huey noted as many as "about 20" at one time at Punta Peñascosa and Townsend's party secured five on Tiburón Island.

LIMNODROMUS SCOLOPACEUS (SAY)

LONG-BILLED DOWITCHER

Limosa scolopacea Say, in Long's Exped. Rocky Mts., 1, 1823, 335 (near Boyer Creek=Council Bluffs, Iowa).

Limnodromus griseus scolopaceus van Rossem and Hachisuka, 1937 a, 331, part (Ciudad Obregon).

Winter visitant and transient, probably more common than the three records might indicate. All of these are from fresh water localities: Ciu-

¹³ I agree with Peters (1934, p. 271 and footnote) that Pacific Coast turnstones are best referred to *interpres* (unless *oahuensis* be recognized). At least, in a series of some 40 specimens from various localities from Alaska south to Baja California I can find none which are exactly like *morinella* from the Atlantic coast. Certainly the two Sonora specimens now available for study (Tóbari Bay) are not *morinella*, though I once so recorded them.

dad Obregón, where Wright took seven specimens on November 13, 1929, Animas Valley, "Chihuahua" at Monument 67, September 30, 1893 (Mearns notes); Las Carpas on the Lower Colorado River about 15 miles south of the boundary where Mearns and Holzner collected five on March 29, 1894. Dr. Friedmann states that three of the five listed in the National Museum catalogue from Las Carpas are still present in the collection and that they are definitely scolopaceus. Because of the behavior of the two species in migration in California it seems likely that the apparent preference of hendersoni for salt water and of scolopaceus for fresh water is more than coincidence. An old, erroneous record is "Espia, Sonora" (Ridgway, 1919, p. 201), probably taken from Baird (1859, p. 25). Espia is in Chihuahua.

LIMNODROMUS GRISEUS HENDERSONI ROWAN

HENDERSON DOWITCHER

Limnodromus griseus hendersoni Rowan, Auk, 49, Jan., 1932, 22 (Devil's Lake, Alberta, Canada).

Limnodromus griseus scolopaceus (not Limosa scolopacea Say) van Rossem and Hachisuka, 1937 a, 331, part (Tobari Bay).

Probably a common migrant and winter visitant along the coast, although detected to date only in summer. The only specific records are of two non-breeding specimens still in winter dress taken at Masocari Island on May 16, 1937 (Dickey coll.), and two in similar plumage from Agiabampo, June 7, 1930, and Tóbari Bay, June 27, 1930 (Nat. Hist. Mus.). It is possible that the numerous Dowitchers noted in migration at Tóbari Bay between April 26 and May 1, 1930, were chiefly, perhaps entirely, of this race.¹⁴

CAPELLA DELICATA (ORD)

WILSON SNIPE

Scolopax delicata Ord, in reprint of Wilson, Amer. Orn., 9, 1825, 218 (Pennsylvania).

Gallinago delicata Cooke, 1910, 23 (San Bernardino River).

¹⁴ I follow Rowan (l. c.) and Conover (Auk, 58, July, 1941: 376-380) in considering scolopaceus specifically distinct from griseus. In addition to the darker tail, all the scolopaceus examined in winter plumage differ from griseus and hendersoni in their decidedly darker and much more extensively gray anterior underparts and flanks. There seems to be no certain means of distinguishing winter hendersoni from winter griseus. Sonora specimens are listed under hendersoni partly because of geographic probabilities and partly because they have the very slightly longer bill average given by Conover for that race.

Capella delicata van Rossem, 1934 d, 433 (Granados).—Huey, 1935, 252 (Punta Peñascosa).

Capella gallinago delicata van Rossem and Hachisuka, 1937 a, 331 (El Doctor; Tecoripa; 15 miles south of Nogales).

Migrant and winter visitant in suitable localities, probably throughout the State, although noted so far only north of about latitude 28° 30'. Record stations are widely scattered; San Bernardino River, August 19 and November 13; Santa Cruz River, October 20; San Pedro River, October 22; Sonoyta, January 19 and 20 (U. S. Nat. Mus. catl.); El Doctor, December 8; January 21 and 24 (Dickey coll.); Punta Peñacosca, February 17; 15 miles south of Nogales, February 25; Tecoripa, March 25; Magdalena, April 20 (Dawson notes); Quitovaquita on the boundary (Arizona side), March 4 to May 1 (Huey, 1942, 364) Granados, May 6. The Salvin and Godman records (1903, p. 392) for "Sonora" all pertain to Chihuahua.

CALIDRIS CANUTUS RUFUS (WILSON)

AMERICAN KNOT

Tringa rufa Wilson, Amer. Orn., 1813, 43, pl. 57, fig. 5 (Middle Atlantic States = New Jersey).

Calidris canutus rufus van Rossem and Hachisuka, 1937 a, 331 (Tobari Bay).

Spring migrant on the coast. There is one record, Tóbari Bay from April 26 to May 1, 1930. At this time the Knot was the most abundant shore bird present in the locality and was swarming over the tide flats in flocks of hundreds.

CROCETHIA ALBA (PALLAS)

SANDERLING

Trynga alba Pallas in Vroeg's Cat., 1764, Adumbr., 7 (Coast of the North Sea). Crocethia alba Huey, 1935, 253 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 332 (Tobari Bay).

Calidris arenaria Streets, 1877, 18 (La Libertad).

Coastwise winter visitant and transient. The earliest date is Punta Peñascosa, February 8, 1934; the latest, May 16, 1937, when several small flocks, possibly in part composed of summer-lingering individuals, were seen at Agiabampo and Masocari Island (van Rossem notes).

EREUNETES MAURI CABANIS

WESTERN SANDPIPER

Ereunetes Mauri Cabanis, Journ. für Orn., 6, No. 24, Nov., 1856 [1857], 419 (Cuba).

Ereunetes mauri van Rossem and Hachisuka, 1937 a, 332 (Guaymas; Tobari Bay).

Ereunetes maurii Huey, 1935, 252 (Punta Peñascosa).

Ereunetes occidentalis Allen, 1893 a, 33 (Cachuta).

Ereunetes pusillus (not Tringa pusilla Linnaeus) Sharpe, 1896, 514, part (Hermosillo).—Salvin and Godman, 1903, 382, part (Hermosillo).—Bent, 1927, 244, part (Hermosillo).

Abundant transient and winter visitant coastwise and on interior streams and ponds. In common with various other shore birds it is not improbable that a certain proportion of non-breeding individuals remain through the summer. Unpublished records are San Bernardino Ranch, August 27, 1892; Las Carpas, March 29, 1894 (U. S. Nat. Mus.; Mearns notes); Agiabampo and Masocari Island, May 14 to 16, 1937 (common in non-breeding plumage; van Rossem notes).

EROLIA MINUTILLA (VIEILLOT)

LEAST SANDPIPER

Tringa minutilla Vieillot, Nouv. Dict. Hist. Nat., 34, 1819, 466, (Amérique [etc.]=Halifax, Nova Scotia).—Allen, 1893 a, 33 (San Pedro).—Stone and Rhoads, 1905, 688 (lower Colorado River).

Limonites minutilla Sharpe, 1896, 548 (Hermosillo).—Salvin and Godman, 1903, 387 (Hermosillo; San Pedro).

Pisobia minutilla Huey, 1935, 252 (Punta Peñascosa).

Erolia minutilla van Rossem and Hachisuka, 1937 a, 332 (El Doctor; Guaymas; Tobari Bay).

Common, sometimes abundant, winter visitant and transient, both coast-wise and on fresh-water streams and ponds in the interior. Non-breeding individuals seemingly may be found throughout the year. Additional occurrences are San Bernardino Ranch, August 3; San Pedro River on the boundary, October 15; La Noria, November 30, 1892 (Mearns and Holzner in U. S. Nat. Mus. catl.); Monument 204 and Las Carpas on the Colorado River, March 19 and 29, 1894 (Mearns notes); Quitovaquita on the boundary (Arizona side), March 4 to 7, 1939 (Huey, 1942, p. 365); Agiabampo, May 16; Tesia, June 22, 1937 (van Rossem notes).

EROLIA ALPINA SAKHALINA (VIEILLOT)

RED-BACKED SANDPIPER

Scolopax sakhalina Vieillot, Nouv. Dict. Hist. Nat., 3, 1816, 359 (Russia = Sakhalin Island).

Erolia alpina sakhalina van Rossem and Hachisuka, 1937 a, 332 (Tobari Bay).

Spring migrant. One record, when found to be abundant at Tóbari Bay between the dates of April 26 and May 1, 1930.

Family RECURVIROSTRIDAE Stilts and Avocets HIMANTOPUS MEXICANUS (MÜLLER)

BLACK-NECKED STILT

Charadrius Mexicanus P. L. S. Müller, Natursyst. Suppl., 1776, 117 (México). Himantopus mexicanus Allen, 1893 a, 33 (Cachuta).—Salvin and Godman, 1903, 361 (Cachuta).—Ridgway, 1919, 442 (Cachuta; Arizona-Sonora boundary). Himantopus himantopus mexicanus van Rossem, 1934 d, 434 (Oposura).—van Rossem and Hachisuka, 1937 a, 332 (Ciudad Obregon; Tobari Bay).

Transient and winter visitant to fresh-water streams and coastal marshes; possibly resident locally, though there is no direct evidence. Additional data are from the San Bernardino River on the boundary, August 27, 1892, and October 4, 1893 (U. S. Nat. Mus.; Mearns notes); Magdalena, May 8; Río Mayo, May 18, 1925 (Dawson notes); Quitovaquita on the boundary (Arizona side), April 28 to May 1, 1939 (Huey, 1942, p. 365). Extreme dates are August 27 (San Bernardino River) and May 18 (Río Mayo).

RECURVIROSTRA AMERICANA GMELIN

AVOCET

Recurvirostra americana Gmelin, Syst. Nat., 1, pt. 2, 1789, 693 (in America septentrionali et Nova Hollandia—North America).—Allen, 1893 a, 33 (Oputo).—Salvin and Godman, 1903, 363 (Oputo).—Ridgway, 1919, 437 (Oputo).—van Rossem and Hachisuka, 1937 a, 332 (Guaymas; Aranjuez; Ciudad Obregon; Tobari Bay).

American Avoset [sic] Audubon, 1906, 146 (Rancho La Sone [Sonoyta]).

Transient and winter visitant of uncertain abundance, though probably not uncommon. Two additional localities are Colorado River opposite mouth of the Hardy, March 28, 1894 (U. S. Nat. Mus.); Rancho La Arizona, May 7, 1937. Extreme dates are September 14 (Sonoyta) and May 7 (Rancho La Arizona).

Family Phalaropodidae Phalaropes

PHALAROPUS FULICARIUS (LINNAEUS)

RED PHALAROPE

Tringa Fulicaria Linnaeus, Syst. Nat., ed. 10, 1, 1758, 148 (in America=Hudson Bay).

Phalaropus fulicarius van Rossem, 1933 b, 199 (San Pedro Nolasco Island to Kino Bay).

Probably not uncommon, at times at least, on open water in the Gulf. The only Sonora record to date is that of "small flocks noted at frequent

intervals" between San Pedro Nolasco Island and Kino Bay, December 26, 1931. There are records of transients from the Baja California side (Grinnell, 1928).

STEGANOPUS TRICOLOR VIEILLOT

WILSON PHALAROPE

Steganopus tricolor Vieillot, Nouv. Dict. Hist. Nat., 38, 1819, 136 (Paraguay).
—van Rossem and Hachisuka, 1937 a, 332 (Saric; off Tiburon Island).

Fall and spring transient. Detected in fall at Rancho La Arizona ("Saric"), September 10, 1929, and at the San Bernardino Ranch and San Bernardino River on or near the boundary from July 31 to October 3, 1892, by Mearns and Holzner (13 specimens catalogued; some examined in U. S. Nat. Mus.). There is one spring record, when seen migrating abundantly off Tiburón Island, April 19, 1925.

LOBIPES LOBATUS (LINNAEUS)

NORTHERN PHALAROPE

Tringa tobata Linnaeus, Syst. Nat., ed. 10, 1, 1758, 148, 824 [Lobata; emend.], (Hudson Bay).

Lobipes lobatus van Rossem and Hachisuka, 1937 a, 332 (Saric; San Esteban Island; Tiburon Island).

Fall and spring migrant. Wright collected a single specimen at Rancho La Arizona on September 10, 1929. Observed in the Gulf off San Estéban Island, April 17, and off Tiburón Island, April 19, 1925, migrating northward in immense numbers.

Family LARIDAE Gulls and Terns

LARUS HEERMANNI CASSIN

HEERMANN GULL

Larus Heermanni Cassin, Proc. Acad. Nat. Sci. Phila., 6, 1852, 187 (San Diego, California).

Larus beermanni Townsend, 1923, 5 (Tiburon Island).—Mailliard, 1923, 453 (Georges Island).—Bancroft, 1927 b, 189 (George Island).—van Rossem, 1932, 134 (Tiburon Island).—Huey, 1935, 253 (Punta Peñascosa).—Abbott, 1941, 417 (Guaymas).

Common resident of the Gulf, where found the entire length of the coast and about all islands. Although resident in the sense that numerous individuals can be found throughout the year, the only nesting colony on

the islands lying within Sonora waters seems to be that on George Island in the northern part of the Gulf. There are curiously few published records considering the universal distribution. Some localities where noted (other than above) are San Pedro Mártir Island, and San Estéban Island, January and April; Guaymas in December, April, and May; Kino Bay, December; Tóbari Bay, April; Agiabampo, May (van Rossem notes). Rhoads' (1905, p. 687) sight record of the species for the lower Colorado River has already been rejected (by Grinnell, 1928).

LARUS DELAWARENSIS ORD

RING-BILLED GULL

Larus Delawarensis Ord, in Guthrie's Geogr., 2nd Amer. ed., 1815, 319 (Delaware River, below Philadelphia).

Larus delawarensis Saunders, 1896, 273 (Guaymas).—Salvin and Godman, 1903, 424 (Guaymas).—Cooke, 1915, 43 (Guaymas).—Ridgway, 1919, 623 (Guaymas).—van Rossem, 1932, 134 (Tiburon Island [etc.]=San Pedro, San Carlos, Kino, and Tepopa Bays; San Esteban Island); 1934 d, 434 (Guaymas).—Huey, 1935, 253 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 332 (Guaymas).

Common winter visitant to maritime localities, at least from Guaymas northward. The absence of southern records is probably of no significance. Occurs also, probably not uncommonly, at suitable fresh water localities, such as the Colorado River (U. S. Nat. Mus., March 27 and 28, 1894). Extreme dates are "Dec." and May 14, both records being from Guaymas. The presence of many individuals in immature plumage at the latter date indicates that some, at least, may remain through the summer.

LARUS ARGENTATUS SMITHSONIANUS COUES

HERRING GULL

Larus Smithsonianus Coues, Proc. Acad. Nat. Sci. Phila., [14], No. 6, June [Aug. 1], 1862, 296 (Eastern and Western coasts of North America).

Larus argentatus smithsonianus van Rossem, 1932, 134 (Tiburon Island).

Larus argentatus (not of Pontoppidan) Stone and Rhoads, 1905, 687 (lower Colorado River).

Apparently a rather uncommon winter visitant northerly in the Gulf area. Occurrences known to date are El Golfo, "a few," November 24, 1930 (Anthony notes); Tiburón Island, December 28, 1931; lower Colorado River, "a few" in February, 1905; Colorado River opposite mouth of the Hardy, March 27, 1894 (U. S. Nat. Mus.). Contributory data from the Baja California side are equally rare.

LARUS CALIFORNICUS LAWRENCE

CALIFORNIA GULL

Larus Californicus Lawrence, Ann. Lyc. Nat. Hist. N. Y., 6, 1854, 79 (near Stockton, California).

Larus californicus Stone and Rhoads, 1905, 687 (lower Colorado River).—van Rossem, 1932, 134 (Tiburon Island; coast; etc.).—Huey, 1935 (Punta Peñascosa).
—van Rossem and Hachisuka, 1937 a (San Esteban Island; Guaymas; Tobari Bay).

Common, often abundant, winter visitant and migrant coastwise and about all islands. One fresh-water record; "a few seen" along the lower Colorado River in February, 1905, by Rhoads. Some maritime and coastal occurrences are El Golfo, November 24, 1930 ("extremely common"; Anthony notes); Punta Peñascosa, February 8 to 28, 1934, "abundant"; Tiburón Island and all along the coast between Guaymas and Tepopa Bay in late December, 1931, and early January, 1932; migrating northward in large flocks at San Estéban Island, April 17 to 19, 1930, and at Tóbari Bay, April 26 to May 1, 1930; common in Guaymas Harbor as late as May 14, 1930, although in this last instance most individuals seen were immature.

LARUS OCCIDENTALIS WYMANI DICKEY AND VAN ROSSEM

WYMAN GULL

Larus occidentalis wymani Dickey and van Rossem, Condor, 27, July, 1925, 163 (Santa Catalina Island, California).—van Rossem, 1933 b, 199 (San Pedro Bay).

One record, that of an adult seen at San Pedro Bay on December 25, 1931, under circumstances which permitted satisfactory identification. Winter occurrences of *wymani* in the Gulf are probably not unusual since they have been observed as "fairly common" at Cape San Lucas at that season (February 2 and 3, 1938; George Willett, *in litt*.).

LARUS OCCIDENTALIS LIVENS DWIGHT

YELLOW-FOOTED GULL

Larus occidentalis livens Dwight, Proc. Biol. Soc. Wash., 32, No. 5, Feb. 14, 11 (San José Island, Baja California, México).—Dickey and van Rossem, 1925, 163 (San Pedro Martir and George Islands).—Bancroft, 1927 b, 189 (George Island).—van Rossem, 1932, 134 (Tiburon Island; coast, etc.).—Huey, 1935, 253 (Punta Peñascosa).—Abbott, 1941, 417 (Guaymas).

Larus occidentalis (not of Audubon) Goss, 1888, 240 (San Pedro Martir Isle).—Bryant, 1889, 251 (San Pedro Martir Island).—Townsend, 1890, 138 (Georges Island).—Bent, 1921, 89, part (San Pedro Martir Island).—Mailliard, 1923, 453 (San Esteban Island; Georges Island).

Common resident of the entire Gulf area with breeding apparently confined, so far as Sonora is concerned, to islands from San Pedro Nolasco northward. A few unpublished localities are Tóbari Bay in late April and early May, 1930; Agiabampo and Masocari Island, May, 1937; mouth of the Colorado River, April, 1925 (van Rossem notes). Colorado River records for this strictly maritime gull (Price, 1899; Stone and Rhoads, 1905) almost certainly pertain to some other species.

LARUS GLAUCESCENS NAUMANN

GLAUCOUS-WINGED GULL

Larus glaucescens Naumann, Naturg. Vög. Deutschl., 10, 1840, 35 (North America).—van Rossem, 1933 b, 199 (San Pedro Bay).—Huey, 1935, 253 (Punta Peñascosa).

Winter visitant coastwise. Two records; adult seen by van Rossem at San Pedro Bay on December 25, 1931; immature birds noted as "not uncommon" by Huey at Punta Peñascosa, February 8 to 28, 1934.

LARUS ATRICILLA LINNAEUS

LAUGHING GULL

Larus Atricilla Linnaeus, Syst. Nat., ed. 10, 1, 1758, 136 (In America = Bahamas).

Larus atricilla van Rossem and Hachisuka, 1937 a, 333 (Guaymas; Tobari Bay).

Common in late spring and early summer in coastal lagoons from Guaymas southward. Observed to date at Guaymas, April 22 to May 14, 1930; Tóbari Bay (where apparently preparing to breed), April 26 to May 1, 1930; Médanos, May 10, 1939 (Mus. Vert. Zool.); Agiabampo, May 13 to 15, 1937 (van Rossem notes).

LARUS PHILADELPHIA (ORD)

BONAPARTE GULL

Sterna Philadelphia Ord, in Guthrie's Geogr., 2nd Amer. ed., 1815, 315 (No locality mentioned=near Philadelphia, Penna.).

Larus philadelphia Townsend, 1890, 137 (Upper Gulf); 1923, 5 (Tiburon Island).—Stone and Rhoads, 1905, 681 (30 miles S. of Yuma).—van Rossem, 1932, 134 (Tiburon Island).—Huey, 1935, 253 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 333 (Guaymas).—Abbott, 1941, 417 (Guaymas).

Common, sometimes abundant, winter visitant and migrant coastwise. There is but one fresh-water record, that of Stone and Rhoads for the lower Colorado River. Additional occurrences are El Golfo, November 24, 1930, "common"; Tiburón Island, December 5, 1930, "thousands" (Anthony notes); Puerto Libertad, February 8, 1935 (Nat. Hist. Mus.). Extreme dates are November 24 (El Golfo) and May 4 (Guaymas).

GELOCHELIDON NILOTICA VANROSSEMI BANCROFT

WESTERN GULL-BILLED TERN

Gelochelidon nilotica vanrossemi Bancroft, Trans. San Diego Soc. Nat. Hist., 5, 1929, 284 (Salton Sca, Imperial County, California).—van Rossem and Hachisuka, 1937 a, 333 (Tobari Bay).

Status uncertain. One record, that at Tóbari Bay between April 26 and May 1, 1930, when van Rossem noted the species as not uncommon and evidently preparing to nest. In default of specimens it is presumed that the race is the same as that which breeds on Salton Sea.

HYDROPROGNE TSCHEGRAVA TSCHEGRAVA (LEPECHIN)

CASPIAN TERN

Sterna Tschegrava Lepechin, Novi Comm. Acad. Sci. Petropol., 14, pt. 1, 1770, 500, pl. 13 (Caspian Sea).

Hydroprogne caspia Ridgway, 1919, 461 (Colorado River).

Hydroprogne caspia imperator van Rossem and Hachisuka, 1937 a, 333 Guaymas).

Detected only as a spring migrant. There are but two records, those of a specimen taken on the lower Colorado River opposite the mouth of the Hardy, March 28, 1894 (U. S. Nat. Mus.), and one or more individuals seen daily at Guaymas between April 21 and 23, 1930.

STERNA FORSTERI NUTTALI.

FORSTER TERN

Sterna Forsteri Nuttall, Man. Orn. U. S. and Canada, 2, 1834, 274, note (Banks of Saskatchewan River between Cumberland House and Lake Winnipeg).

Sterna forsteri van Rossem and Hachisuka, 1937 a, 333 (Guaymas; Tobari Bay; Guasimas Lagoon; mouth of the Colorado River).

A winter visitant and spring migrant, evidently in limited numbers. Observed at follows: fairly common at Punta Peñascosa, January 21 to 23, 1930 (Sheffler coll. and notes); noted at mouth of the Colorado near Montague Island, April 23, 1925; at Tóbari Bay, April 26 to May 1, 1930; at Guaymas, April 21 to May 4, 1930; at Guaymas Lagoon, May

1, 1930 (spec. in Dickey collection), and at Agiabampo, May 13 to 15, 1937 (van Rossem notes). The fact that by far the majority of those observed were immature and that these were present as late as the middle of May suggests summer (but non-breeding) residence by some individuals. Price (1899) saw some species of tern "about the size of S. forsteri" at the mouth of the Colorado near Montague Island in early December, 1898, which may or may not have been that species.

STERNA ALBIFRONS MEXICANA VAN ROSSEM AND HACHISUKA

MEXICAN LEAST TERN

Sterna albifrons mexicanus [sic] van Rossem and Hachisuka, Trans. San Diego Soc. Nat. Hist., 8, No. 23, June 15, 1937, 333 (Tóbari Bay, Sonora, México); ibid., in text (Guaymas south to Sinaloa).

Sterna albifrons mexicana Brodkorb, 1940, 542 (Sonora; crit.).—Burleigh and Lowery, 1942, 173, in text (Masocari Island; Tobari Bay; crit.).

Summer visitant to the Tropical zone seacoast southward from Guaymas. Present dates (breeding or about to do so) cover only the short interval between April 26 to May 16. Some race of the Least Tern winters in the northern part of the Gulf but its identity has not been determined (Punta Peñascosa, January 21 to 23, 1930; specimens taken lost en route) (Sheffler and Rowley notes).

THALASSEUS MAXIMUS MAXIMUS (BODDAERT)

ROYAL TERN

Sterna maxima Boddaert, Table Pl. Enlum., 1783, 58 (Cayenne).—Lawrence, 1874, 318 (Guaymas).—Salvin and Godman, 1903, 406, part (Guaymas).—Mailliard, 1923, 453 (Georges Island).—van Rossem, 1932, 135 (Tiburon Island). Huey, 1935, 253 (Punta Peñascosa).—van Rossem and Hachisuka, 1937 a, 334 (Estrada de Tasiota; mouth of the Colorado River; Guaymas; Tobari Bay; Lobos Island; George Island).

Royal Tern Bancroft, 1927 a, 34 (George Island).—Vorhies, 1936, 248, in text (Puerto Libertad).

Common resident of the seacoast and islands from the mouth of the Colorado southward. The only positive breeding station for Sonora seems to be George Island, whence reported by Mailliard, Bancroft, and others; however, numerous pairs seen on a small sand island in Tóbari Bay on May 1, 1930, gave every indication of preparing to nest. Van Rossem and Hannum noted numerous pairs in breeding plumage at Agiabampo and Masocari Island on May 16, 1937.

THALASSEUS ELEGANS (GAMBEL)

ELEGANT TERN

Sterna elegans Gambel, Proc. Acad. Nat. Sci. Phila., 4, No. 6, Dec., 1848 [June 16, 1849], 129 (Mazatlán, [Sinaloa], Pacific coast of México).—Baird, Brewer, and Ridgway, 1884 (2), 287 (Guaymas).—Brewster, 1902, 24 (Guaymas).—Salvin and Godman, 1903, 407 (Guaymas).—Bent, 1921, 219 (Guaymas; San Pedro Martir Island).—Townsend, 1923, 6 (San Esteban Island; Guaymas).—Mailliard, 1923, 454 (Georges Island).—Bancroft, 1927 a, 36 (George Island).

Thalasseus elegans Ridgway, 1919, 472 (Guaymas).—van Rossem, 1932, 135 (Tiburon Island).—Huey, 1935, 253 (Punta Peñascosa).

Common resident throughout the Gulf area; breeding, though, is confined to a few islands of which only one, George Island, is properly within Sonora waters. The northward migration of this species along the Pacific coast indicates the seasonal departure from the Gulf of a part of the population; however, it is common at all seasons. Some further localities are the mouth of the Colorado River at Montague Island; Tóbari Bay; Agiabampo; Masocari Island (van Rossem notes). A good part of the bibliography above concerns an egg in the U. S. National Museum, supposed to have been taken at "Guaymas, west of Sonora." Guaymas has been the chief market for Raza Island eggers from time immemorial, but doubtless will continue to be cited as a breeding locality of the Elegant Tern for the duration of ornithological literature.

Family RYNCHOPIDAE Skimmers

RYNCHOPS NIGRA OBLITA GRISCOM

WESTERN BLACK SKIMMER

Rynchops nigra oblita Griscom, Ibis, July, 1935, 545 (Acapam Lagoon, Pacific Coast of Guatemala).—van Rossem and Hachisuka, 1937 a, 334 (Guasimas Lagoon; Algodones Lagoon).

Known only as an early summer visitant to lagoons between the mouth of the Yaqui River and Guaymas. Six specimens in the Dickey collection, taken at Algodones Lagoon, May 1, 1930, and Guásimas Lagoon, May 12, 1930, were just finishing the prenuptial moult and were apparently nearly ready to breed on the above dates.¹⁵

¹⁵ The name *oblita* is used provisionally, pending a review of the American Skimmers by Dr. Wetmore.

Family ALCIDAE Auks, Murres, and Puffins

BRACHYRAMPHUS HYPOLEUCUS CRAVERI (SALVADORI)

CRAVERI MURRELET

Uria Craveri Salvadori, Atti Soc. Ital. Sci. Nat., 8, 1865, 387 ("Golfo della California"=Raza Island, Gulf of California, México).

Endomychura craveri Bancroft, 1927 b, 188 (George Island; San Esteban Island).—van Rossem, 1932, 135 (Tiburon Island; off Kino Bay).

Brachyramphus hypoleucus craveri van Rossem, 1939 f, 441 (nomen.; crit.).
Brachyramphus craverii Townsend, 1923, 5 (Tiburon Island).—van Rossem, 1926 a, 82 (George Island; 5 miles west of Tiburon Island).

Common resident of the Gulf; on the Sonora side from San Pedro Nolasco Island north to George Island. The proportion of the population which leaves the Gulf to winter north along the Pacific coast cannot even be estimated; however, numbers have been seen in midwinter at San Pedro Nolasco Island, December 26, 1931; San Pedro Mártir Island, January 10, 1932 (where breeding in April, 1925); San Estéban Island, January 11, 1932, Kino Bay, and Tiburón Island, December 28, 1931, and January 1, 1932. Due to the absence of rocky islands south of San Pedro Nolasco, the breeding range abruptly stops at that point,—this in contrast to the almost continuous distribution on the Baja California side. 16

ORDER COLUMBIFORMES PIGEON-LIKE BIRDS

Family COLUMBIDAE Pigeons and Doves

COLUMBA FLAVIROSTRIS FLAVIROSTRIS WAGLER

EASTERN RED-BILLED PIGEON

Columba flavirostris Wagler, Isis von Oken, 1831, col. 519 (México=Vera Cruz).

Columba flavirostris flavirostris Peters, 1937, 65 (Southeastern Sonora).

Columba flavirostris restricta (not of van Rossem, 1930) van Rossem, 1934 d, 434, part (Alamos, part).

¹⁶ In curious error, Cooke (Auk, 1916, p. 80) states that the latitude as given by Salvadori is not that of Natividad Island (which it is), but is that of Raza Island (which it is not). It seems clear from Salvadori's remarks that the latitude and longitude given were intended to be that of Natividad Island, where Craveri also (italics mine) saw, or thought he saw, murrelets. However, since San Pedro Mártir and Raza were the only two guano islands of any former importance in the Gulf, and since Salvadori specifically places his type locality in the Gulf area, Raza will do well enough. The longitude as given by Salvadori is surely a typographical error: "110°" instead of 115°. 110° is in the desert east of Guaymas!