

Summer visitant to the Transition zone in the more easterly part of the State. Occurs at lower elevations in migration (Mina Abundancia, April 25) and even in the Tropical zone in winter (Alamos, February 27). Mid-summer records are from the Pajaritos Mountains (Arizona side of the boundary), June 17, 1931 (L. Miller coll.); the San Luis Mountains, July 5 to 13, 1892 (U. S. Nat. Mus.; Mearns notes), and El Tigre Mountains, July 27 and 28, 1935 (Univ. Mich.). The record of Evermann and Jenkins (1888, p. 67) of this species heard at Nogales in July is most unlikely and doubtless pertains to the Poor-will.²⁵

ORDER APODIFORMES SWIFTS AND HUMMINGBIRDS

Family APODIDAE Swifts

CHAETURA VAUXI VAUXI (TOWNSEND)

VAUX SWIFT

Cypselus Vauxi J. K. Townsend, Nar. Journ. Rocky Mts., April, 1839, 348 (Columbia River—Fort Vancouver, Washington).

Chaetura vauxi van Rossem, 1931 c, 252 (10 miles N. of Guaymas).

Detected as a late spring migrant at two widely separated points. Noted as migrating "in flocks" at Magdalena on April 20, and May 14 and 15, 1925 (Dawson notes); specimen taken from a small flock 10 miles north of Guaymas, May 9, 1930 (Dickey coll.).

AERONAUTES SAXATALIS SAXATALIS (WOODHOUSE)

WHITE-THROATED SWIFT

Acanthylis saxatalis Woodhouse, Rep. Sitreaves' Expl. Zuni and Colorado Rivers, 1853, 64 (Inscription Rock, New Mexico).

Aëronautes saxatalis saxatalis Rogers, 1939, 465 (Sonora; crit.).—Twomey, 1942, 403, in text (Sonora; crit.).

[*Chaetura*] *saxatilis* Giebel, 1872, 628 (Sonora).

Aëronautes melanoleucus Allen, 1893 a, 36 (Granados).—Ridgway, 1911, 687, part (Senoyita, "etc.").

Seemingly a resident throughout the eastern and central part of the State, except that there are no records from any locality within the Tropi-

²⁵ Whether *vociferus* and *ridgwayi* ever come into direct contact at the edges of their respective zonal habitats during the breeding season is problematical. *Vociferus* is present in southwestern Chihuahua very close to the Sonora boundary but only *ridgwayi* was found at Rancho Santa Bárbara in June, 1937. The call notes are utterly different and were the two species ever to occupy the same locality the fact could be ascertained by ear alone.

cal zone. Localities where observed are the San Pedro River, October 21, 1892; Sonoyta, January 21, 1894 (U. S. Nat. Mus.); Cajón Bonito Creek and Guadalupe Cañon, "common; breeding," in early July, 1892 (Mearns notes); Magdalena, April 22 and May 17, 1925 (Dawson notes); Rancho Santa Bárbara, common in early June, 1937 (van Rossem notes); Grana-dos, November 16, 1890.

Family TROCHILIDAE Hummingbirds

CYNANTHUS LATIROSTRIS MAGICA (MULSANT AND VERREAUX)

BROAD-BILLED HUMMINGBIRD

Hylocharis magica Mulsant and Verreaux, Ann. Soc. Linn. Lyon, 18, Jan. 31, 1872, 110 (Mazatlan, Basse California [=Mazatlán, Sinaloa, México]).

Cynanthus latirostris magica Moore, 1939 a, 58, in text (Camoá; Yaqui River; Agiabampo; Masocari Island; Guirocoba; etc.; crit; nomen.); 1939 c, 315 (Guirocoba; nesting).

Cynanthus latirostris (not of Swainson) Ridgway, 1911, 371, part (Dist. of Moctezuma; Nuri; Ysleta; Guaymas; Opodepe; La Chumata).—Cory, 1918, 195, part (Oposura).—van Rossem, 1931 c, 254 (Magdalena; Pesqueira; Tecoripa; San Javier; Saric; Tesia; vic. Guaymas; vic. Obregon); 1934 d, 441 (Guaymas; Alamos; Hacienda de San Rafael; Nacozari; Oposura).—Bent, 1940, 465 (Guirocoba; Tesia; San Javier; Moctezuma; Saric; life history).

Iache latirostris Belding, 1883, 344 (Guaymas).—Salvin, 1892, 60, part (Dist. of Moctezuma; Nuri; Ysleta).—Salvin and Godman, 1892, 256, part (same locs.).—Sheffler, 1931 a, (Imuris; Rancho Los Alamos [=El Alamo]); 1931 b, 165 (Santa Ana).

Phaoptila latirostris Thayer and Bangs, 1906, 18 (Opodepe; La Chumata).

Common, generally distributed, summer visitant in Tropical, Sonoran, and lower Transition zones throughout the State eastward from about the longitudes of the Pajaritos Mountains and Guaymas; westernmost records are from El Alamo and San Carlos Bay. There are no records for any of the islands, nor from the western deserts northwest of Guaymas. Common permanent resident in the Tropical zone, north, coastwise, to the vicinity of Guaymas, and in the interior to the vicinity of Moctezuma. In spite of the abundance of summer records there are little data to indicate the migratory movements north of the Tropical zone. The species was noted as common at Magdalena from March 25 forward (Dawson notes). The latest recorded northern date is Cajón Bonito Creek, September 27, 1893 (common; Mearns notes). Localities not cited above are Pilares, El Tigre Mine, and El Tigre Mountains in July, 1935 (Univ. Mich.), and Rancho Santa Bárbara in June, 1937 (van Rossem notes); Guadalupe Cañon, August 31, 1893 (U. S. Nat. Mus.).

HYLOCHARIS LEUCOTIS BOREALIS GRISCOM

NORTHERN WHITE-EARED HUMMINGBIRD

Hylocharis leucotis borealis Griscom, Amer. Mus. Novit., No. 379, Oct. 17, 1929, 10 (Pinos Altos, Chihuahua, México); *ibid.*, in text (Sonora).—van Rossem, 1934 d, 441 (Mina Abundancia; [Sierra de] Oposura).

Hylocharis leucotis leucotis (not *Trochilus leucotis* Vieillot) A. O. U. Comm. 1931, 184, part (Sonora).—Bent, 1940, 464 (Oposura).

Common summer visitant to the Transition zone (oak-pine associations above about 5,500 feet) of the Sierra Madre and adjacent spur ranges nearly the full length of the State. Midwinter occurrences in nearby Chihuahua localities presuppose permanent residence in Sonora, at least southerly. In the University of Michigan Museum of Zoology there are eight specimens taken by Campbell in El Tigre Mountains [Sierra de Madera] between July 26 and August 3, 1935; the species was also found to be common at Rancho Santa Bárbara in early June, 1937, at which time breeding activity had waned and young of the year were in evidence (van Rossem notes). Incidentally, the "Sonora" citations of Salvin, 1892; Salvin and Godman, 1892; and Ridgway, 1911, are based on the erroneous placing, by the first author, of Tutuaca in Sonora instead of Chihuahua.

AMAZILIA VIOLICEPS CONJUNCTA GRISCOM

SONORA AZURE-CROWNED HUMMINGBIRD

Amazilia violiceps conjuncta Griscom, Bull. Mus. Comp. Zoöl., 75, No. 10, Jan., 1934, 377 (Álamos; Sonora, México).—van Rossem, 1934 d, 440 (Álamos; Hacienda de San Rafael).—Peters, 1943, 69 (re type).

Uranomitra violiceps conjuncta Berlioz, 1938, (Sonora; crit.).

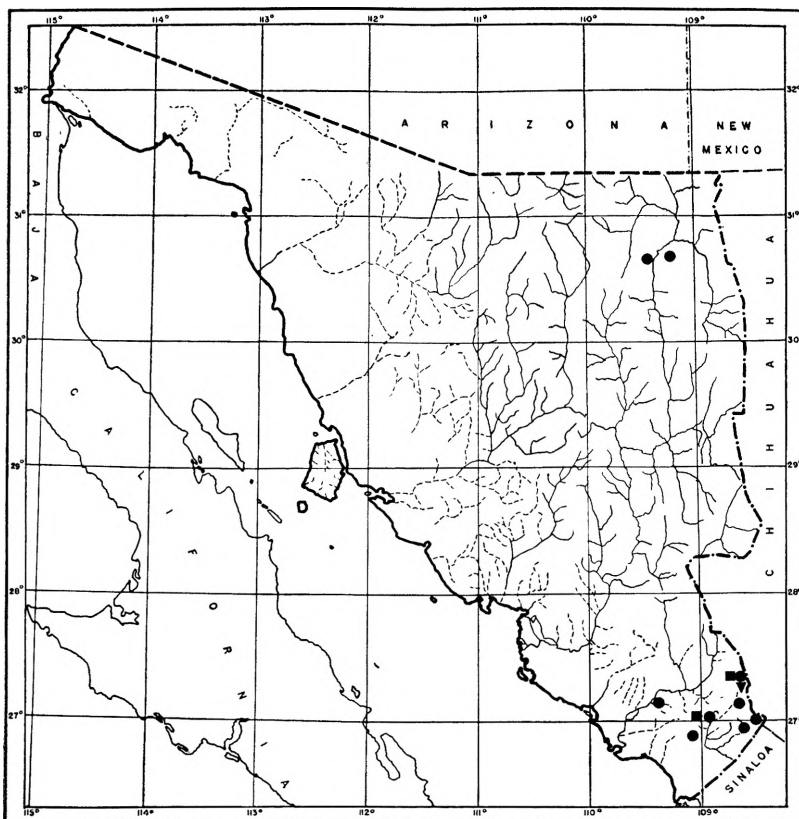
Amizilis verticalis (not *Trochilus verticalis* Licht.) Ridgway, 1911, 422, part (Álamos).

Amazilis verticalis van Rossem, 1931 c, 253 (Guero-coba; crit.).

Amazilis ellioti (not of Berlepsch) Hellmayr, 1913, 252 (Sonora).

Uranomitra ellioti Simon, 1921, 325, part (Sonora).

Common resident in the extreme southeast, north, perhaps only as a summer visitant, to Pilares and El Tigre Mountains. Most numerous in the Tropical zone foothills above 1,000 feet but penetrating to about 6,000 feet altitude in the Transition zone in summer. Records for the lowlands are Tesia, June 20, 1937 (Dickey coll.), and Chinobampo, March and April, 1931 (Bishop coll.). Additional stations from which specimens have been examined are San Francisco Cañon, May 31, 1937; Rancho Santa Bárbara, common in June, 1937, in Upper Sonoran and Transition zones (Dickey coll.; van Rossem notes); Pilares, June 27 and July 19, 1935; El Tigre Mine, July 11, 1935 (Univ. Mich.).



MAP 7. Distribution of the genus *Amazilia*. Circles, *A. violiceps conjuncta*; squares, *A. beryllina viola*; inverted triangle, *A. florenceae*.

AMAZILIA BERYLLINA VIOLA MILLER

VIOLACEOUS HUMMINGBIRD

Amazilia beryllina viola Miller, Bull. Amer. Mus. Nat. Hist., 21, Nov. 24, 1905, 353 (Jalpa, Sinaloa, México).

Saucerottia beryllina viola van Rossem, 1934 d, 440 (Alamos; Hacienda de San Rafael).

Summer visitant, apparently in some numbers, in the mountains of the extreme southeast. Found to be abundant in early June, 1937, at 5,000 to 5,500 feet in the oak-pine association at Rancho Santa Bárbara (Dickey and Sheffler colls.; van Rossem notes). The fact that Frazar failed to find

the species at Mina Abundancia in April strongly indicates only a summer residence in the mountains. Three specimens taken by him at Álamos on February 20, and on March 14 and 30, 1888, are of uncertain status. They were possibly seasonal visitants in the locality.

AMAZILIA FLORENCEAE (VAN ROSSEM AND HACHISUKA)

FLORENCE HUMMINGBIRD

Saucerottia florenceae van Rossem and Hachisuka, Trans. San Diego Soc. Nat. Hist., 8, Jan. 18, 1938, 408 (Rancho Santa Bárbara, alt. 5000 ft., extreme south-eastern Sonora, México).

Saucerottia (ocai) florenceae Zimmer, in Zimmer and Mayr, 1943, 252, 261 (crit.).

Known only from the unique type collected by van Rossem and Hannum at Rancho Santa Bárbara on June 9, 1937. Its characters cannot be accounted for by hybridization between any of the species known to inhabit the region.

LAMPORNIS CLEMENCIAE BESSOPHILUS (OBERHOLSER)

ARIZONA BLUE-THROATED HUMMINGBIRD

Cyanolaemus clemenciae bessophilus Oberholser, Condor, 20, No. 5, Sept. 27, 1918, 121 (Fly Park, Chiricahua Mountains, Arizona).

Lampornis clemenciae bessophilus van Rossem, 1934 d, 439 ([Sierra de] Oposura).—Bent, 1940, 330, in text (Oposura).

Lampornis clemenciae clemenciae (not *Ornismya clemenciae* Lesson ?) Moore, 1938 a, 25 (Baromicon).

Occurs in summer, probably never very commonly, in the Transition zone in the eastern mountains. There are five known localities: San Luís Mountains on the boundary, July 11, 12 and 13, 1892 (Mearns notes); El Tigre Mountains [Sierra de Madera], July 26 to August 2, 1935 (Univ. Mich.); Sierra de Oposura, June 10, 1887; Baromicon, May 18, 1933; Rancho Santa Bárbara, June 11, 1937, (Sheffler coll.). Contributory data from near-by Chihuahua localities show the Blue-throated Hummingbird to be present in the region as late as September 11.²⁶

²⁶ Moore records from Baromicon an intermediate between *bessophilus* and *clemenciae* as, in his opinion, closer to the nominate race. In this region of intermediates I naturally hesitate to accept a single specimen as *clemenciae*, especially since the Santa Bárbara specimen is typical *bessophilus* and Oberholser cites intermediates closer to *bessophilus* from the adjacent portion of southwestern Chihuahua.

EUGENES FULGENS AUREOVIRIDIS VAN ROSSEM

NORTHERN RIVOLI HUMMINGBIRD

Eugenes fulgens aureoviridis van Rossem, Proc. Biol. Soc. Wash., 52, Feb. 4, 1939, 7 (Chiricahua Mountains, Cochise Co., Arizona); *ibid.*, in text (Sonora).

Eugenes fulgens (not *Trochilus fulgens* Swainson) van Rossem, 1934 d, 439 (Mina Abundancia; Oposura).—Moore, 1938 a, 25 (Baromicon).—Bent, 1940, 325 (Oposura).

Summer visitant in the Transition zone of the Sierra Madre and adjacent ranges and probably, in accord with the distribution in Arizona, in more westerly ranges as well. Additional localities are El Tigre Mountains, August 3, 1935 (Univ. Mich.) and San Luís Mountains, July 19 and 23, 1892 (Mearns notes). Dates range only from April 13 (Mina Abundancia) to August 3 (San Luís Mountains).

HELIOMASTER CONSTANTII SURDUS (VAN ROSSEM)

SONORA STAR-THROATED HUMMINGBIRD

Anthoscenus constantii surdus van Rossem, Bull. Mus. Comp. Zool., 77, No. 7, Dec., 1934, 439 (Álamos, Sonora, México); *ibid.*, in text (Sierra de Alamos; Guirocoba).—Peters, 1943, 70 (re type).

Floricola leocadiae (not *Trochilus leocadiae* Bourcier and Mulsant).—Salvin and Godman, 1892, 306, part (Sierra de Alamos).

Anthoscenus constantii leocadiae Ridgway, 1911, 353, part (Sierra de Alamos).

Floricola leocadiae Salvin, 1892, 232, part (Sierra de Alamos).

Resident in the Tropical zone foothills (chiefly riparian associations) in the extreme southeast. Known, however, only from three closely adjacent localities, Álamos, Sierra de Álamos, and Guirocoba. The fact that Frazar took but one specimen at Álamos in February (date not recorded) suggests that there may be a partial exodus during the winter months. Guirocoba dates range from March 25 (Bishop coll.) to June 17 (Dickey coll.), with young of the year on the wing as early as the middle of May.

ARCHILOCHUS ALEXANDRI (BOURCIER AND MULSANT)

BLACK-CHINNED HUMMINGBIRD

Trochilus Alexandri Bourcier and Mulsant, Ann. Soc. Agric. Lyon, 9, 1846, 330 (Sierra Madre, México).

Trochilus alexandri Salvin, 1892, 402 (Nuri).—Salvin and Godman, 1892, 359 (Nuri).

Archilochus alexandri Ridgway, 1911, 633 (Nuri).—Bailey, 1928, 354 (central Sonora).—A. O. U. Comm., 1931, 180 (Sonora).—van Rossem, 1931 c, 253 (San Javier; Saric); 1934 d, 439 (Alamos; Nacoziari).—Wetmore, 1932, 74 (Sonora).—Bent, 1940, 361, in text (San Javier and Guaymas in breeding range [!]).

Summer visitant to foothills and mountains (chiefly Upper Sonoran and lower parts of the Transition zones) from the Pajaritos Mountains eastward. Occurs as a migrant, probably rather generally, over the eastern half of the State. Certain or probable breeding localities are Rancho La Arizona, May 8, 1937 (van Rossem notes), and May 29, 1929; west side of the San Luís Mountains, Cajón Bonito Creek, and Guadalupe Cañon, July, 1892 (Mearns notes); Nogales, May 10; Magdalena, dates in mid-May, 1925 (Dawson notes). Extreme arrival and departure dates are March 26 (Álamos) and September 8 (Cajón Bonito Creek). The many citations of the Black-chinned Hummingbird as nesting at Guaymas (Heerman, 1853, *et seq.*) are erroneous and pertain to *Calypte costae*.

CALYPTE ANNA (LESSON)

ANNA HUMMINGBIRD

Ornismya Anna Lesson, Hist. Nat. Ois.-Mouch., 1839, xxxi, 205, pl. 74 (La Californie=San Francisco).

Calypte anna Ridgway, 1911, 619 (San Jose Mountains).—Cory, 1919, 298 (Sonora).—A. O. U. Comm., 1931, 180 (Sonora).—Huey, 1935, 254 (Punta Peñascosa).—Bent, 1940, 387, in text (Punta Peñascosa).

Z.[ephyritis] Annae Simon, 1921, 401 (San Jose Mts.).

Calypte costae (not *Ornismya costae* Bourcier) Allen, 1893 a, 36 (El Pinita [=Los Pinitos]).

Fall and winter visitant. There are three records, all northerly: San José Mountains, August 19, 1893, taken by Mearns and Holzner (U. S. Nat. Mus.); Los Pinitos, October 14, 1890, taken by Robinette (Amer. Mus.); Punta Peñascosa, February 21, 1934, taken by Huey (Nat. Hist. Mus.).

CALYPTE COSTAE (BOURCIER)

COSTA HUMMINGBIRD

Ornismya Costae Bourcier, Revue Zool., 2, No. 8, Oct., 1839, 294 (la Californie [=Magdalena Bay, Baja California México]).

Calypte costae Cooper, 1870, 360 (Guaymas).—Brewer, 1874, 457, in text (Guaymas).—Belding, 1883, 343 (Guaymas).—Stephens, 1885, 230 (Port Lobos).—Salvin and Godman, 1892, 359 (Guaymas).—Bailey, 1928, 355 (Sonora).—van Rossem, 1931 c, 253 (Tesia; Port Lobos; San Esteban Island; Guaymas); 1932, 136 (Tiburón Island); 1934 d, 439 (Nacozari; Oposura).—Bent, 1940, 370, in text (Tiburón Island; Tesia).—Huey, 1942, 366 (Arizona-Sonora boundary).

Trochilus alexandri (not of Bourcier and Mulsant) Heermann, 1853, 269 (Guaymas; breeding); 1859, 56 (Guaymas).—Cassin, 1856, 141 (Guaymas).—Cooper, 1870, 354 (Guaymas).—De Oca, 1875 (Guaymas).—Ridgway, 1892, 331 (Guaymas).

Common resident of western deserts south at least to Guaymas and San Esteban Island coastwise and to Moctezuma in the interior. During the

summer there is occasional penetration into the Upper Sonoran zone (Rancho La Arizona), and probably in the fall to still higher levels. However, the species is essentially characteristic of Lower Sonoran deserts. Near the southern part of the range there is notable winter concentration, indicating a partial withdrawal from northern areas. The southernmost record at any season is that of a possible casual taken at Tesia in the Mayo River valley, November 29, 1929. Unpublished localities are Kino Bay, December 31, 1931; Hermosillo, May 10, 1937 (van Rossem notes); Pozo de Luís; Nariz, and Sonoyta, December, 1893, and January, 1894 (Mearns notes).

STELLULA CALLIOPE CALLIOPE (GOULD)

CALLIOPE HUMMINGBIRD

Trochilus (Calothorax) calliope Gould, Proc. Zool., Soc. London, 1847, No. 168 [March 29], 11 (México=Real del Monte, Hidalgo).

Stellula calliope calliope van Rossem, 1934 d, 439 (Oposura).

Evidently a not uncommon migrant in the eastern part of the State, although all records save one are from northern boundary localities. Known occurrences are from west side of San Luís Mountains on the boundary, July 13, 1892 and October 1, 1893; San Bernardino Ranch, August 30, September 6 and 14, 1892; Johnson's Ranch, September 25, 1892 (U. S. Nat. Mus.; Mearns notes); Oposura [=Moctezuma], April 8, 1887 (Mus. Comp. Zoöl.).

SELASPHORUS PLATYCERCUS PLATYCERCUS (SWAINSON)

BROAD-TAILED HUMMINGBIRD

Trochilus platycercus Swainson, Philos. Mag., n. s. 1, No. 6, June, 1827, 441 (no locality given=México).

Selasphorus platycercus Salvin, 1892, 396, part (Micoba).—Salvin and Godman, 1892, 355, part (Micoba).—Ridgway, 1911, 597, part (Micoba).

Selasphorus platycercus platycercus van Rossem, 1931 c, 253 (Sarıc); 1934 d, 439 ([Sierra de] Oposura); 1936 c, 26 (Sonora; crit.).—Bent, 1940, 395, in text (Oposura).

Migrant and summer visitant to higher mountains, probably throughout the eastern part of the State. Specific records are, however, few in number. They are: Maicoba, on or about April 4, 1888 (Brit. Mus.); Rancho La Arizona, May 12, 1929 (transient; Dickey coll.); Sierra de Oposura, May 27, June 8 and 10, 1887 (Mus. Comp. Zoöl.); San José Mountains, August 9, 1892 (Univ. Mich.), August 10, 1892 (U. S. Nat.

Mus.); El Tigre Mountains, August 3, 1935 (Univ. Mich.); San Luís Mountains, September 6, 1893 (Mearns notes).

SELASPHORUS RUFUS (GMELIN)

RUFOUS HUMMINGBIRD

Trochilus rufus Gmelin, Syst. Nat., 1, i, 1788, 497 (Nootka Sound, Vancouver Island).

Selasphorus rufus Ridgway, 1911, 612 (San Jose Mountains).—van Rossem, 1931 c, 253 (Tesia; San Esteban Island); 1934 d, 439 Alamos; Nacozari; Oposura).

Selasphorus alleni (not of Henshaw) Allen, 1893 a, 36 (Santa Barbara).

A fairly common fall and spring migrant. Record stations are well scattered geographically and zonally, and indicate that the species may be expected almost anywhere at these seasons. Fall dates are from the northeastern part of the State; San José Mountains, August 6 and 9, and October 7; San Bernardino Ranch, September 6; Cajón Bonito Creek, September 8 (Mearns notes; U. S. Nat. Mus.); Santa Bárbara, September 21. Spring dates range from March 8 at Álamos to April 18 at San Estéban Island. There is a specimen in the Bishop collection taken at Guirocoba, March 28, 1931.

ORDER TROGONIFORMES TROGONS

Family TROGONIDAE Trogons

EUPHILOTIS NEOXENUS (GOULD)

EARED TROGON

Trogon neoxenus Gould, Monog. Trogonidae, ed. 1, 1838, pl. 35, and text (México=Sierra de Nayarit, Jalisco).

Euphilotis neoxenus Allen, 1893 a, 34 ("El Pinita" [=El Puerto]).—Salvin and Godman, 1896, 485 (El Pinita).

Leptuas neoxenus Ridgway, 1911, 471 (La Pinita).

Presumably resident in the Transition zone of the Sierra Madre. Although there are numerous records from Chihuahua localities close to the Chihuahua-Sonora boundary, the only Sonora locality known to date is El Puerto (alt. about 6,300 feet) where Robinette collected a specimen on December 16, 1890. It was erroneously recorded by Allen from "El Pinita" (= Los Pinitos), a locality far to the northwest and in a lower life zone.