This seems to be the first record of the Elf Owl in the Big Bend region, although the species has, of course, been reported from the Lower Rio Grande Valley in Texas. Doctor Harry C. Oberholser has determined this specimen to belong to the typical Arizona form of the species, which, so far as we are aware, is new to the state of Texas.

Cynanthus latirostris. BROAD-BILLED HUMMINGBIRD.—A nest of this species containing two eggs was found on May 17, 1934, at Talley's (Johnson's) Ranch, on the Rio Grande, southwest of Mariscal Mountain, Brewster County, Texas. The nest was on the very bank of the Rio Grande, on a drooping twig in a triple fork of a small willow tree some ten or twelve feet above the ground on a steep bank of the river and almost overhung the water. The nest was composed almost entirely of the down of willows ornamented on the outside with yellow blooms and tiny mesquite leaves and bound with spider or insect webs. The materials of the nest lashed it firmly to the twigs on which it rested in an upright fork. This nest is a beautiful structure and agrees entirely with a nest of this species in the United States National Museum. The female was under observation for a considerable period at close range, and her mostly red bill and conspicuous white streak on the side of her head, combined with the other coloration, made the identification positive. The red-billed, green-plumaged male was seen not very far away, although he did not actually visit the nest. While neither the male nor the female of this nest was collected, they were both seen so many times at such close range and their diagnostic characters so well observed, that these features, taken together with the characteristic nest, leave no doubt of correct identification.

Calamospiza melanocorys. LARK BUNTING.—While this species is known to summer in Texas, there is, so far as we are aware, no record of the actual finding of the nest within the state. Therefore, it was with a very great deal of pleasure that we discovered two nests of this bird some two miles west of El Dorado, in Schleicher County, Texas, May 24, 1931, thus extending the breeding range of the species for a long distance southward from the Texas Panhandle. One of the nests contained six eggs and the other five. Each female was flushed from the nest and was soon joined by the male, so that it was possible easily and fully to make identification. Each of the nests was on the ground in a shallow hollow, its rim about an inch and one-half above the ground. Each was placed in the center of an open clump of acacia a few inches high growing in a level meadow that was dotted with similar bushes.—ROY W. QUILLIN, *San Antonio, Texas.*

Some Notes from the Panama Canal Zone—Summer 1934.—Noting a serious gap in the recorded ornithological observations in the Panama Canal Zone region, during the months of July and August, the writers spent this part of the summer of 1934 in an intensive study of the bird-life of the varied ecological areas that comprise this interesting field.

During our stay we used the popular and commendable 'Field-guide' by Bertha B. Sturgis which we found to be a valuable complement to the necessary volumes of Ridgway's 'Birds of North and Middle America.' We observed 264 species, among which were several not included in Sturgis. These are listed below, as well as migration dates, notations on nesting, and data on distribution in summer for comparison with the dry season observations which predominate in the Sturgis 'Guide.'

(1) Additions to the Sturgis list. With two exceptions no previous records have been found.

Micropalama himantopus. STILT SANDPIPER.

Crocethia alba. SANDERLING.

Steganopus tricolor. WILSON'S PHALAROPE.

Polyborus cheriway (cheriway ?). AUDUBON'S CARACARA.—Common at Tapia. Omitted by Sturgis.

Gelochelidon nilotica aranea. GULL-BILLED TERN.

Fluvicola pica. WHITE-SHOULDERED WATER-TYRANT.

Mimus polyglottos (leucopterus ?). WESTERN MOCKINGBIRD.—We were informed that these birds were introduced from California several years ago. They are breeding and have spread.

Vireolanius pulchellus viridiceps. PANAMA SHRIKE VIREO.—Common. Omitted from Sturgis.

(2) North American migrants were recorded as follows.

Squatarola squatarola. BLACK-BELLIED PLOVER.—August 28, three, Panama Vieja.

Pagolla wilsonia beldingi. BELDING'S PLOVER.—August 7 and 28, several, Panama Vieja; also Gatun, August 23, twenty one.

Charadrius semipalmatus. SEMIPALMATED PLOVER.—August 7 and 28, common, Panama Vieja; Gatun, August 30–September 1, one.

Arenaria interpres morinella. RUDDY TURNSTONE.—August 28, Panama Vieja, three.

Numenius hudsonicus. HUDSONIAN CURLEW.—August 28, Panama Vieja, five.

Micropalama himantopus. STILT SANDPIPER.—August 22–26, Gatun, two.

Totanus melanoleucus. GREATER YELLOW-LEGS.—August 12–26, Gatun; August 28, Panama Vieja.

Totanus flavipes. LESSER YELLOW-LEGS.—August 5–September 1, Gatun; August 28, Panama Vieja.

Catoptrophorus semipalmatus (subs?). WILLET.—August 7 and 28, Panama Vieja.

Tringa solitaria solitaria. EASTERN SOLITARY SANDPIPER.—August 15–September 1, Gatun; August 29, Rio Tapia.

Actitis macularia. SPOTTED SANDPIPER.—August 5–September 1, Gatun, abundant.

Bartramia longicauda. UPLAND PLOVER.—August 17, 1933, Gatun, one.

Ereunetes pusillus. SEMIPALMATED SANDPIPER.—August 5 to August 30, Gatun, several, Aug. 7 and 28, Panama Vieja.

Ereunetes mauri. WESTERN SANDPIPER.—August 7 and 28, Panama Vieja.

Pisobia minutilla. LEAST SANDPIPER.—August 7 and 28, Panama Vieja.

Pisobia maculata. PECTORAL SANDPIPER.—August 30 and September 1, Gatun.

Crocethia alba. SANDERLING.—August 8, Gatun, one; also August 7, 1933.

Steganopus tricolor. WILSON'S PHALAROPE.—August 22 to August 26, Gatun, one.

Larus atricilla. LAUGHING GULL.—August 28, Panama Vieja, a dozen.

Larus franklini. FRANKLIN'S GULL.—August 13, 1933, Panama Vieja.

Sterna maxima. ROYAL TERN.—First date, August 1, uncommon, Gatun, Barro Colorado, Pedro Miguel.

Gelochelidon nilotica aranea. GULL-BILLED TERN.—August 28, Panama Vieja, one.

Hydrochelidon nigra surinamensis. BLACK TERN.—August 23, Gatun, not uncommon during following week.

Pandion haliaetus carolinensis. OSPREY.—August 6, first date, Gatun.

Tyrannus tyrannus. EASTERN KINGBIRD.—August 29, Rio Tapia, two.

Riparia riparia. BANK SWALLOW.—August 26, Gatun, later not uncommon.

Hirundo erythrogaster. BARN SWALLOW.—August 14, Gatun, very common.

Petrochelidon lunifrons tachina. LESSER CLIFF SWALLOW.—August 21, Madden Dam, Gatun, September 1, two.

Vireo olivacea. RED-EYED VIREO.—August 29, Tapia, one.

Mniotilta varia. BLACK and WHITE WARBLER.—August 29, Tapia, also August 24, 1933, Tapia.

Dendroica aestiva aestiva. EASTERN YELLOW WARBLER.—August 22, Gatun.

Setophaga ruticilla. REDSTART.—August 29, Rio Tapia, four.

Icterus spurius. ORCHARD ORIOLE.—First date August 10, Gatun, common.

(3) Birds that we found breeding during July and August.

Claravis pretiosa. BLUE GROUND DOVE.

Leptotila cassini cassini. CASSIN'S DOVE.

Leptotila verreauxi verreauxi. VERREAUX'S DOVE.

Phoethornis adolphi nelsoni. DUSKY HERMIT.

Damophila panamensis. PANAMA HUMMINGBIRD.

Malacoptila panamensis panamensis. PANAMA MALACOPTILA.

Thamnophilus doliatus nigricristatus. BLACK-CRESTED ANTSHRIKE.

Thamnophilus punctatus atrinuchus. SLATY ANTSHRIKE.

Automolus palidigularis pallidigularis. PALE-THROATED AUTOMOLUS.

Copurus leuconotus. WHITE-BACKED COPURUS.

Elaenia chiriquensis chiriquensis. LAWRENCE'S ELAENIA.

Oncostoma olivaceum. LAWRENCE'S BENT-BILLED FLYCATCHER.

Legatus leucophaius leucophaius. STRIPED FLYCATCHER.

Myiophobus fasciatus. BRAN-COLORED FLYCATCHER.

Manacus vitellinus vitellinus. GOULD'S MANAKIN.

Thryophilus rufalbus castanonotus. CHESTNUT-BACKED WREN.

Thryophilus galbraithi galbraithi. GALBRAITH'S WREN.

Cyanocompsa cyanoides cyanoides. PANAMA BLUE GROSBEAK.

Sporophila gutturalis. YELLOW-BELLIED SEADEATER.

Sporophila aurita. HICK'S SEADEATER.

Saltator striatipectus isthmicus. PANAMA STREAKED SALTATOR.

Arremonops striaticeps striaticeps. LAFRESNAYE'S SPARROW.

Thraupis cana diaconus. BLUE TANAGER.

Phoenicothraupis fuscicauda. DUSKY-TAILED ANT TANAGER.

Cacicus microrhynchus. SMALL-BILLED CACIQUE.

It is evident from this list that the summer months cannot be called a general breeding season. A fair portion of the nests here recorded were found during the last half of July, and breeding records became fewer as the rains increased. No nests of such commonly represented families as the Vireonidae or Dendrocolaptidae were found, and almost none of the abundant and conspicuous Trochilidae, Formicariidae, Thraupidae or Icteridae. The most commonly nesting birds were the Columbidae and Fringillidae. Such families as the Tyrannidae and Troglodytidae apparently breed in cycles rather than seasons. Gould's Manakin, found in the height of a breeding period during the same months in 1933, did not nest. The localities covered included (1) Panama Vieja, a beach with a broad expanse of mud flat, on the Pacific side, seven miles from Panama City. (2) Rio Tapia, a grassy savannah-land, swampy rolling country on the Pacific side, twenty miles east of Panama City. (3) Madden Dam, primeval rain forest off the Zone up the Chrages river. (4) Barro Colorado Island. Forest type of region, located in Gatun Lake. (5) Pedro Miguel; Pacific side open country and second growth woods. (6) Gatun, Atlantic side, various types of country including grassy savannahs, scrub woodland, deep jungle and open plantations. Most of the shore-birds were seen along the Chagres River below the spillway. For the sake of consistency the order and nomenclature used in Sturgis has been followed. A few 1933 records have been

included and have been so designated.—Robert S. Arbib, Jr. and Frederick W. Loetscher, Jr., *New Haven, Conn.*

Pre-Columbian Bird Remains from Venezuela.—In 1933 Dr. Edward W. Berry, Professor of Paleontology the Johns Hopkins University, conducted excavations in northern Venezuela during which there were obtained quantities of bird bones that have been submitted to me for identification. The region examined is near Lake Valencia (indicated on some maps as Tacarigua or Maracay), principally at a point known as Los Tamarindos near the end of the peninsula of La Cabrera, which extends into the lake on its north side.

According to information supplied by Dr. Berry there are here four wave cut terraces between the present water level and an elevation above it of 45 to 50 feet, indicating a considerable extension of the lake in prehistoric times. The deposits begin with a surface layer of humus of varying thickness, of terrestrial formation, followed by series of deposits of sands and gravels, diatomaceous earths, Planorbis marls, and layers of organic material. Excavation through these has yielded abundant evidence of prehistoric human occupancy in the form of pottery fragments and burials. With such material, and also separately from it, are bones of various vertebrates including the birds presently to be mentioned. While some of these birds were killed by early Indians others appear to have been deposited through natural means. Some of the bird bones were obtained from the waste dumps of earlier excavations and are of unknown origin. The majority were collected during careful stratigraphic studies by Dr. Berry's party, beginning in the superficial layers of humus at a depth of three feet, and extending into lower levels in lake bed deposits ranging from six to eleven feet below the surface. Some bird remains were found in delta deposits in a sand pit known as Cascabel about three and three-fourths miles west of the present shore line on what had formerly been an island in the enlarged lake. Others came from debris accumulated in water beneath pile houses, now forming a slight mound on a low flat two and one-half miles southeast of the lake on the Hacienda Tocorón. These were found from one-fourth meter to one meter below the surface.

Dr. Alfred V. Kidder 2d, of the Peabody Museum at Harvard University, who worked in the Valencia region in 1934 has distinguished in this area two human cultures[1] one supposed to be of a people of Carib affinity who inhabited the area at the arrival of the Spanish, whose remains are found in the surface of humus area, and another, older, of the Arawak group, that, according to Dr. Kidder, dates back at least to 1000 A. D.

The bird bones examined are brown in color, varying somewhat in shade, and while not fossilized are free from organic material. Their actual age is not definite but there is no question that they are several hundred years old and some of them may be considerably older.

Dr. Berry is certain that the older beds at Lake Valencia are Pleistocene but the line of separation between these and the deposits of the Recent period is still to be ascertained. Pleistocene and later invertebrates and plants from these deposits have been discussed by Charles T. Berry.[2] It is possible that birds of Pleistocene age may be found in the deeper layers.

Following is a brief account of the bird material. Except in one form identification is made to species without regard to the subspecies now recognized as ranging in this area.

[1] Science News Letter, February 23, 1935, p. 117; Science, vol. 81, March 1, 1935, p. 222.
[2] Journ. Washington Acad. Sci., vol. 24, 1934, pp. 387–395; idem, p. 500.