feel themselves bound to make their findings accord with the statements they see already in the literature. The definite application of a subspecific name carries an implication of finality that is often a bar to further enquiry. And in the case of these Horned Owls it is understanding that we need rather than names.

The unexpected occurrence of a distinctly black Horned Owl in this region brings forcefully to my mind the problem presented in another species, that is, the true status of the Black Merlin (*Falco columbarius suckleyi*). I know of no proof that that name represents a valid geographic race, confined within boundaries to the exclusion of other forms of *columbarius*. Most assuredly it is not of the humid coastal strip, as has been supposed. I have collected specimens of "*suckleyi*" at Hazelton and at Atlin, south-bound migrants all; it must breed somewhere in this general region, where, however, typical *columbarius* also occurs. The Black Merlin may, I think, serve as an example of a case where the definite application of a subspecific name has acted as an obstacle to a true understanding of conditions.

There is still a third raptorial bird of the region that comes to mind in this connection, *Buteo borealis harlani*. This, too, is a local form that has attained dark coloration, again one that is black with none of the rich brown seen in the dark colored coastal races. I will doubtless be accused of inconsistency in according subspecific recognition to the *Buteo* and not to the others, but there is far more information now available concerning this bird. Also, as I have said, the name applied is of relative unimportance compared to an understanding of conditions.—H. S. SWARTH, *California Academy of Sciences, San Francisco, June 26, 1933.*

Additional Notes from Santa Catalina Island.—During the past two years I have accumulated the following notes which add to the knowledge of the Catalina avifauna.

Casmerodius alba. Egret. During the month of May, 1930, a bird of this species appeared at the bird park in Avalon and remained for about three weeks. Several unsuccessful attempts were made to capture it by E. H. Lewis, superintendent of the park. This is an addition to the Channel Island list.

Branta nigricans. Black Brant. Captain Hugh Mackay of Avalon saw one of these birds on the water of Avalon Bay, February 7, 1930. This is apparently the first record from any of the Channel Islands.

Charadrius nivosus. Snowy Plover. Fairly common on the beach at Howland's Landing, May 3, 1933.

Columba fasciata. Band-tailed Pigeon. Twelve birds were feeding in the scrub oak trees near the summit of Orizaba Peak (elevation 2000 feet), January 10, 1932. Twenty more were seen in the same locality, January 16, 1932.

Colaptes cafer collaris. Red-shafted Flicker. Five eggs were found in a nest excavated in the rotten trunk of an elderberry tree, three feet from the ground, on the golf course at Avalon, May 15, 1933.

Progne subis. Purple Martin. Two birds seen on the wing around the streets of Avalon during the entire afternoon of May 10, 1933.

Ixoreus naevius meruloides. Northern Varied Thrush. A dead male bird was found on the grounds of the Avalon High School, December 28, 1931.

Agelaius phoeniceus neutralis. San Diego Red-wing. Several competent observers have told me that red-wings have been seen on Catalina many times during the past twenty years.

Carpodacus purpureus californicus. California Purple Finch. A male bird was under close observation for a half hour, at Avalon on January 26, 1933.

On March 22, 1930, I saw five Song Sparrows (*Melospiza melodia*), subspecific status undetermined, in some brush near the summit house, about three miles north of Avalon. During five years of residence on Catalina Island these are the only Song Sparrows I have seen; they were probably migrants from the mainland rather than any of the subspecies reported from the other islands.—DON MEADOWS, *Avalon, California, September 3, 1933.*

Fossil Bird Remains from the Pliocene and Pleistocene of Texas.—From a large collection of fossil vertebrates secured in Hemphill County, Texas, by the Bureau of Economic Geology of Texas and the University of California Museum of Paleon-

tology, three fragmentary bird fossils have been turned over to me for identification. Two of these came from Terrace No. 2 of the beds which Reed and Longnecker (Univ. Texas Bull., 3231, 1932, p. 32) call "Lower (?) Pleistocene." The third was found in the Hemphill Beds of the Lower Pliocene. The two determinable specimens are the Coot (*Fulica americana*) and the Green-winged Teal (*Nettion carolinense*).

Fulica americana. Distal end of left humerus (fig. 7, a), Univ. Calif. Mus. Paleo. no. 30436, loc. V2826 (loc. 28 of Reed and Longnecker, *op. cit.*, pp. 41, 68), Pleistocene of Hemphill County, Texas, collected by Reed and Longnecker, 1928. This specimen was reported as being the humerus of *Nettion* (*op. cit.*, p. 68), but examination proves it to have been misidentified. In *Nettion* the external condyle is skewed only at its proximal end, the internal condyle is long and narrow and is tilted diagonally across the bone, and the impression for the brachialis anticus is small; while in the fossil specimen the external condyle is oblique, the internal condyle is bulbous and lies at right angles with the longitudinal axis of the bone, and the impression for the brachialis anticus is wide and long. It is unusually small but agrees in size and characters with the smallest specimen I have examined of *Fulica americana* (Univ. Calif. Mus. Vert. Zool. no. 46140, ♀). The palmar surface is well preserved whereas the ectepicondyle is broken on the anconal surface.

a b

Fig. 7. *a*, Distal end of left humerus of *Fulica americana*, U. C. Mus. Paleo. no. 30436. *b*, Proximal half of left ulna of *Nettion carolinese*, U. C. Mus. Paleo. no. 30560. × 2.

In connection with this small specimen it is interesting to consider Shufeldt's *Fulica minor* from the Pleistocene of Fossil Lake, Lake County, Oregon. He states (Amer. Nat., 25, 1891, p. 820, and Acad. Nat. Sci. Phila., ser. 2, 9, 1892, p. 412) that the type of *F. minor*, a left humerus, is 62 mm. in length. He compared it with a humerus of *F. americana* 70 mm. in length and said that except for the difference in size the two were alike. In a series of 15 specimens of *F. americana* I find this bone to vary from 79.5 to 65.0 mm. in length. The question naturally comes to mind whether a larger series of the modern coot would not include specimens as small as 62 mm.

Nettion carolinense. Proximal half of left ulna (fig. 7, b), Univ. Calif. Mus. Paleo. no. 30560, loc. V2823 (loc. 20 of Reed and Longnecker, *op. cit.*, p. 66), Coffee Ranch, Lower Pliocene of Hemphill County, Texas, collected by Univ. Calif. Mus. Paleo., 1932. This bone is identical with those of modern skeletons, except that the prominence for the anterior articular ligament is slightly longer and narrower, and the external cotyla is slightly more rounded on its external margin. Both are differences of minor significance. This form has been reported frequently from the Pleistocene, but this record is the first of occurrence in the Pliocene; also this is the second modern North American species to be reported from this epoch. The specimen is of distinct importance since it establishes the existence in the Pliocene of a duck identical in osteological characters of the ulna with the present day Green-winged Teal, and demonstrates the great antiquity of this bird. The bone is cream colored and is calcified, as are the other vertebrate remains taken from this quarry.

Indeterminate: Proximal half of left ulna, Univ. Calif. Mus. Paleo. no. 30439, loc. V2826, Pleistocene of Hemphill County, Texas, collected by Reed and Longnecker, 1928. I cannot identify with certainty this fragment of a passerine. However, it apparently belongs to the family Fringillidae and it compares closely in size and detail with the Field Sparrow, *Spizella pusilla*.

Skeletons of modern forms were loaned through the courtesy of the authorities in charge at the United States National Musuem, the University of California Museum of Vertebrate Zoology, and the University of Kansas Museum of Birds and Mammals. The drawings were made by Mr. Owen Poe.—LAWRENCE V. COMPTON, *Museum of Paleontology, University of California, Berkeley, California, October 1, 1933.*