Pettingill, O. S., Jr. 1970. Ornithology in laboratory and field. Minneapolis, Minnesota, Burgess Publ. Co.

SIMMONS, K. E. L. 1961. Problems of head-scratching in birds. Ibis., 103a: 37-49. Webster, J. D. 1942. Notes on the growth and plumages of the Black Oystercatcher. Condor, 44: 205-211.

DENNIS M. FORSYTHE, Department of Biology, The Citadel, Charleston, South Carolina, 29409 and Department of Zoology, Clemson University, Clemson, South Carolina 29631. Accepted 10 May 72.

Pleistocene birds from the Valley of Mexico.—Through the kindness of Prof. Ticul Alvarez we have been able to study the Pleistocene birds from Chimalhuacán in the eastern part of the state of Mexico. They represent the first published records of fossil birds from the Valley of Mexico, although a mimeographed preliminary report exists on Pleistocene birds from Tlapacoya, a site farther east in the Valley (Brodkorb and Phillips, 1970).

Chimalhuacán is locality 66-5, Departamento de Prehistoria, Instituto Nacional de Antropología e Historia, Mexico, D.F. It is situated at 19° 25′ N, 98° 56′ W, about 20 km east of the Zócalo in Mexico, D.F. About 2.5 km southwest of the settlement is the Cerro Chimalhuacán, a small extinct volcano that was an island during a higher stage of Lake Texcoco when the fossils were deposited. The present shore of the lake lies about 8 km to the north.

The fossils, which are preserved in the Departamento de Prehistoria, are black and heavily mineralized. They were collected below the remains of a mammoth and are of late Pleistocene age. They represent six species, only two of which have previously appeared in the Mexican fossil record. Two of the birds, a grebe and a flamingo, are extinct. The flamingo remains are from a juvenile bird that probably hatched nearby. The other four species are winter visitants in the Valley of Mexico at the present time (Friedmann et al., 1950). All six species occur in the Pleistocene of Fossil Lake, Oregon (Howard, 1946), which is also the type locality of the two extinct birds (Shufeldt, 1891, 1913).

- 1. Aechmophorus occidentalis (Lawrence). Western Grebe. Left coracoid, lacking the head. Miller (1911) described the Fossil Lake bird as an extinct species, A. lucasi, which Howard (1946) reduced to the status of a temporal subspecies A. occidentalis lucasi, with slightly larger average size than the living Western Grebe. The specimen from Chimalhuacán is also large, with a distal width of 15.8 (14–15.0 in Recent males), least width of shaft 4.0 mm.
- 2. Podiceps parvus (Shufeldt). Complete left coracoid and distal end of left humerus. In size this extinct grebe falls between P. grisegena and P. auritus. Measurements of the Chimalhuacán specimens are as follows: length of coracoid to internal distal angle 38.5, width of head 6.8, least width of shaft 12.1; distal width of humerus 9.8 mm. Howard gives the length of two coracoids from Fossil Lake as 35.5–38.0 mm. The humerus is unknown from the type locality.

Qualitative characters of the coracoid of this species have not been described. In the Chimalhuacán specimen the anterior intermuscular line swings abruptly to the middle of the shaft after leaving the sternal facet. In other species of *Podiceps* examined (*P. dominicus, chilensis, ruficollis, caspicus, auritus, grisegena,* and cristatus) and in *Aechmophorus* the intermuscular line inclines regularly toward the head, whereas in *Podilymbus* the line lies along the outer edge of the bone.

3. Phoenicopterus copei Shufeldt. Left tibiotarsus and detached tarsal "epiphysis" of left tarsometatarsus of a juvenile bird. These bones have the somewhat larger

TABLE 1
MEASUREMENTS (MM) OF PLEISTOCENE AND RECENT FLAMINGOS

	Phoenicopterus copei			P. ruber
	Chimalhacái	n Manix Lake	Fossil Lake	6869
Tibiotarsus:	•			
Length	380 ¹			292 - 375
Least width				
of shaft	8.5	_	8.5	6.1 - 7.9
Least depth				
of shaft	8.5			6.0 - 7.9
Depth of				
internal condyle	22.5		20.0	16.2-20.9
Width of distal end	~	-	17.0	14.6–17. 3
Tarsometatarsus:				
Length		328 juv.	_	269 - 386
Proximal width	20.7	19.0		17.1-21.5
Width of				
intercotylar knob	13.1	12.0	_	9.5-12.4
Height of				
intercotylar knob	7.1	6.8		4.9 - 7.2
Distal width			20.1-22.1	17.9-22.0
Width of				
middle trochlea			7.8	7.1 - 8.8

¹ According to a note with the specimen, of which only the distal 155 mm is preserved.

size and broad intercotylar knob of the tarsometatarsus that separate this Pleistocene species from the living American flamingo, *P. ruber*. Measurements are given in Table 1

No flamingo occurs on the Mexican plateau today, although a colony of *P. ruber* breeds at the tip of the Yucatan Peninsula and disperses somewhat along the coastal plain in the postbreeding season (Allen, 1956).

Juvenile specimens of *P. copei* are known from the type locality at Fossil Lake, Oregon (Shufeldt, 1892), from Manix Lake, California (Howard, 1955), and now from saline Lake Texcoco in the Valley of Mexico, so that the breeding range must have been extensive in suitable habitats. Fragmentary remains of large flamingos, quite possibly also referable to *P. copei*, have been reported from the Pleistocene at San Marcos and Chapala in the Mexican state of Jalisco (Howard, 1969).

- 4. Aythya affinis (Eyton). Lesser Scaup. Left humerus. The humerus of this species is very similar to that of the Ring-necked Duck (A. collaris) but it is usually slightly larger and the caput humeri is more swollen. The fossil measures as follows: length 79.7, width through deltoid crest 17.9, least width of shaft 5.2, distal width 11.5 mm. At present this species occurs in Mexico as a winter visitant. Howard (1969) recorded it from the Pleistocene of Jalisco.
- 5. Fulica americana Gmelin. American Coot. Left ulna. Loye Miller (1943) recorded the coot from the Pleistocene of the Mexican state of Nuevo León.

Shufeldt (1892) described the Fossil Lake coot as a new species under the preoccupied name Fulica minor. Howard (1946) suggested that the trinomial Fulica americana minor should be used for the Fossil Lake bird, which has a tendency toward relatively shorter wings and possibly longer legs than the living coot. Brodkorb (1964) proposed Fulica shufeldti to replace the preoccupied name F. minor. The ulna from Chimalhuacán has a length of 59.5 mm, somewhat longer than the maximum of four Fossil Lake ulnae measured by Howard, which ranged from 55.4-59.1, compared with a range of 55.6-67.8 in 77 Recent coots.

6. Recurvirostra americana Gmelin. American Avocet. Right humerus, lacking the proximal end. Distal width 10.5 (10.1–10.5 in Recent birds), least width of shaft 4.2 (4.0–4.3 in Recent). This is the first fossil record of this species for Mexico. It occurs as a winter visitor today.

LITERATURE CITED

- ALLEN, R. P. 1956. The flamingos: their life history and survival. Natl. Audubon Soc., Res. Rept. No. 5.
- Brodkorb, P. 1964. A new name for Fulica minor Shufeldt. Quart. J. Florida Acad. Sci., 27: 186.
- Brodkorb, P., and A. R. Phillips. 1970. Bird remains from Tlapacoya. Pp. 16-19 in The excavations at Tlapacoya, Mexico (José L. Lorenzo, Ed.). Departmento de Prehistoria, I.N.A.H., Mexico, D.F. (mimeographed).
- FRIEDMANN, H., L. GRISCOM, AND R. T. MOORE. 1950. Distributional check-list of the birds of Mexico, part 1. Pacific Coast Avifauna, No. 29.
- HOWARD, H. 1946. A review of the Pleistocene birds of Fossil Lake, Oregon. Carnegie Inst. Washington Publ., No. 551.
- HOWARD, H. 1955. Fossil birds from Manix Lake, California. [U.S.] Geol. Surv. Prof. Pajer, 264J: 199-205.
- HOWARD, H. 1969. Avian fossils from three Pleistocene sites in central Mexico. Contrib. Sci., Los Angeles County Mus., No. 172.
- MILLER, L. 1911. Additions to the avifauna of the Pleistocene deposits at Fossil Lake, Oregon. Univ. California Publ. Geol., 6: 79-87.
- MILLER, L. 1943. The Pleistocene birds of San Josecito Cavern, Mexico. Univ. California Publ. Zool., 47: 143-168.
- SHUFELDT, R. W. 1891. Fossil birds from the Equus beds of Oregon. Amer. Naturalist, 25: 818-821.
- Shuffeldt, R. W. 1892. A study of the fossil avifauna of the Equus beds of the Oregon desert. J. Acad. Nat. Sci. Philadelphia. 9: 389-425.
- SHUFELDT, R. W. 1913. Review of the fossil fauna of the desert region of Oregon, with a description of additional material collected there. Bull. Amer. Mus. Nat. Hist., 32: 123-178.

PIERCE BRODKORB, Department of Zoology, University of Florida, Gainesville, Florida 32601, and Allan R. Phillips, Instituto de Biología, Universidad Nacional Autónoma de México, México 20, D. F. Accepted 11 May 72.

New tern records from Caribbean Honduras.—During the summer of 1970 one of us (CdeB) discovered a ternery at Sandy Cay, west-southwest of Utila Island, one of the Bay Islands, about 34 km off the north coast of Honduras (16° 9′ N, 87° 00′ W). On 19 June 1971 another of us (MR) noted there a number of eggs of two size classes and two downy chicks and (with MDFU) watched the colony closely from 28 June to 6 July. Incubating Least (Sterna albifrons) and Roseate (S. douqallii) Terns and adult Leasts feeding fish to downy young were observed during the day and about 20 immature Least Terns came in to roost in the afternoon. Of the 60–70 adult Least Terns one specimen was collected and, together with a pipped but dead egg, deposited in the collections of the Honduran Flora and Fauna Survey of the University of Honduras at Tegucigalpa. An adult