

Queries for swna-57-02-23

This manuscript/text has been typeset from the submitted material. Please check this proof carefully to make sure there have been no font conversion errors or inadvertent formatting errors. Allen Press.

NOTES

NEW RECORDS OF THE ENDEMIC CHINANTECO DEERMOUSE *HABROMYS CHINANTECO* (RODENTIA: CRICETIDAE) IN THE SIERRA MADRE DE OAXACA, MEXICO

MIGUEL BRIONES-SALAS,* A. HERNÁNDEZ-ALLENDE, M. MARTÍNEZ CORONEL, AND G. GONZÁLEZ PÉREZ

Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional, Unidad Oaxaca, Instituto Politécnico Nacional, Hornos 1003, Santa Cruz Xoxocotlán, 71230 Oaxaca, México (MBS, AHA, GGP)
Departamento de Biología, División de Ciencias Biológicas y de la Salud, Universidad Autónoma Metropolitana, Unidad Iztapalapa, Apartado Postal 55-535, 09340, México Distrito Federal, México (MMC)

*Correspondent: mbriones@ipn.mx

ABSTRACT—During a study of rodents at Cerro Pelón, Oaxaca, Mexico, in the northwestern portion of the Sierra Madre de Oaxaca physiographic subprovince, we collected three Chinanteco deermice *Habromys chinanteco*. This microendemic rodent is rare in terms of habitat and population, and had not been collected in the wild since 1975. These records corroborate continuing presence of *H. chinanteco* in this region.

RESUMEN—Durante un estudio sobre roedores en la localidad de Cerro Pelón, ubicado en la parte noroeste de la subprovincia fisiográfica de la Sierra Madre de Oaxaca, México, colectamos tres individuos del pequeño ratón roedor arborícola *Habromys chinanteco*. Este roedor microendémico es raro en términos de hábitat y poblaciones, el cual no había sido colectado en campo desde 1975. Estos registros corroboran la continua presencia de *H. chinanteco* en esta región.

The genus *Habromys* contains several species of little-known, rare, small, Neotropical rodents (Romo-Vázquez et al., 2005; León-Paniagua et al., 2007). Species in this genus have a disjunct geographical distribution, limited to patchy, humid, cloud forests in southern Mexico, Guatemala, El Salvador, and probably Honduras (Carleton et al., 2002).

Since its discovery, the Chinanteco deermouse (*Habromys chinanteco*) has been collected only on the northern slope of Cerro Pelón Mountain, Ixtlán District, Oaxaca, Mexico, in the northwestern portion of the Sierra Madre de Oaxaca physiographic subprovince (Ortiz Pérez et al., 2004). The site is at an elevation of 2,650 m above sea-level and slopes toward the Gulf of Mexico (Robertson and Musser, 1976; Briones-Salas and González, 1999). There are only five specimens of *H. chinanteco*; these are deposited in the Museum of Natural History at the University of Kansas. Little is known about the biology of *H. chinanteco* (Briones-Salas and González, 1999).

During July 2005–October 2006, we studied rodents at Cerro Pelón. On three linear transects, 500 m apart, we placed a total of 120 Sherman live traps baited with barley, oats, and vanilla (40 traps/transect). Traps were set on roots, trunks, and branches of trees, at an average height of 2 m. We checked traps 5 times/month. We collected three

male *H. chinanteco* along with *H. ixtlani*, *Megadontomys criophylus*, *Oryzomys chapmani*, *Peromyscus aztecus*, *P. gratus*, *P. levipes*, *P. melanocarpus*, *Reithrodontomys mexicanus*, and *Microtus oaxacensis*. Two adult male *H. chinanteco* with abdominal testes were collected during the rainy season, August and October 2005, at Cerro Pelón, 5.6 km E San Pedro Yolox, Municipality of Santiago Comaltepec (17°35'12.77"N, 96°29'59.88"W), 2,700 m (OAXMA3557), Oaxaca, and at Cerro Pelón, 6 km E San Pedro Yolox, Municipality of Santiago Comaltepec (17°35'25.53"N, 96°29'30.92"W), 2,450 m (OAXMA3677), Oaxaca. A subadult with abdominal testes was collected during the dry season, March 2006, at Cerro Pelón, 7.25 km E San Pedro Yolox, Municipality of Santiago Comaltepec (17°35'24.59"N, 96°29'1.40"W), 2,360 m (OAXMA3636), Oaxaca.

Specimens were prepared and deposited in the Colección Regional de Mamíferos del Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional del Instituto Politécnico Nacional, in Oaxaca (coded OAXMA.026.0497). Measurements (mm) of OAXMA3557, OAXMA3677, and OAXMA3636, respectively, were: length of head and body, 180, 200, 180; length of tail, 105, 110, 105; length of hind foot, 20, 22, 20; length of ear, 17, 17, 18; greatest length of skull, 26.04,

26.06, 24.80; zygomatic breadth, 13.30, 12.75, 12.49; breadth of zygomatic plate, 2.02, 2.00, 1.94; interorbital breadth, 4.26, 4.31, 4.30; breadth of braincase, 12.00, 12.02, 12.18; breadth of occipital condyles, 5.85, 5.95, 6.10; height of braincase, 9.27, 9.21, 9.13; length of rostrum, 8.58, 8.33, 8.23; and weight (g), 11, 16, 12. External characteristics of specimens are similar to those given in the original description (Robertson and Musser, 1976). Ventral fur is grayish white, soft, and thick; lateral lines are well marked on both ventral and dorsal sides. Tail is unicolored, longer than length of body, and covered with monochromatic, long, soft hair. Feet are white, dorsal pelage near toes is grayish brown. There is a dark ring around the outside edge of the eyes.

We captured *H. chinanteco* in a transition zone between oak-pine (*Quercus-Pinus*) forest and cloud forest. Collecting locations were exposed to humid winds coming from the Gulf of Mexico, and temperatures may reach subzero in winter. Sites had a dense understory with a thick layer of fallen leaves. Trees were covered with moss, bromeliads, orchids, and other epiphytes. Robertson and Musser (1976) described a similar habitat for *H. chinanteco*. These specimens represent the most recent records of *H. chinanteco*, after 33 years of attempts by numerous researchers to capture the species in this type of habitat (Briones-Salas and González, 1999).

We thank municipal authorities of Santiago Comaltepec for allowing this study on their land. This research was supported in part by Secretaria de Investigación y Posgrado del Instituto Politécnico Nacional (SIP 20060058; SIP 20070443), Conservación de la Biodiversidad por Comunidades Indígenas (NF/CO/OAX/050/A/150/2005), and the World Wildlife Fund. MBS and GGP were funded by Comisión de Operación y Fomento a las Actividades Académicas of the Instituto Politécnico Nacional. MBS also was funded by Estimulos al Desempeño de la Investigación of the Instituto Politécnico Nacional and Sistema Nacional de Investigadores. Thanks are extended to M. Luna for help with fieldwork, to Mr. Hernandez

for being more than a field guide, and to K. Traube for help with English. We thank two anonymous reviewers for useful comments that improved the manuscript.

LITERATURE CITED

- BRIONES-SALAS, M., AND G. GONZÁLEZ. 1999. *Habromys chinanteco* (Rodentia: Muridae) un mamífero endémico poco conocido de la Sierra Norte de Oaxaca. *Avances en Ciencia y Tecnología* 2:15–19.
- CARLETON M. D., O. SÁNCHEZ, AND G. URBANO-VIDALES. 2002. A new species of *Habromys* (Muroidea: Neotominae) from Mexico, with a generic review of species definitions and remarks on diversity patterns among Mesoamerican small mammals restricted to humid montane forests. *Proceedings of the Biological Society of Washington* 115:488–533.
- LEÓN-PANIAGUA L., A. NAVARRO-SIGÜENZA, B. HERNÁNDEZ-BAÑOS, AND J. C. MORALES. 2007. Diversification of the arboreal mice of the genus *Habromys* (Rodentia: Cricetidae: Neotominae) in the Mesoamerican highlands. *Molecular Phylogenetics and Evolution* 42:653–664.
- ORTIZ PÉREZ, M. A., J. R. HERNÁNDEZ SANTANA, AND J. M. FIGUEROA MAH-ENG. 2004. Reconocimiento fisiográfico y geomorfológico. Pages 43–54 in *Biodiversidad de Oaxaca* (A. J. García-Mendoza, M. J. Ordoñez, and M. Briones-Salas, editors). Instituto de Biología, Universidad Nacional Autónoma de México–Fondo Oaxaqueño para la Conservación de la Naturaleza–World Wildlife Fund, México, Distrito Federal, México.
- ROBERTSON, P. B., AND G. G. MUSSER. 1976. A new species of *Peromyscus* (Rodentia: Cricetidae), and a new specimen of *P. simulatus* from southern Mexico, with comments on their ecology. *Occasional Papers of the Museum of Natural History, University of Kansas* 47:1–8.
- ROMO-VÁZQUEZ, E., L. LEÓN, AND O. SÁNCHEZ. 2005. A new species of *Habromys* (Rodentia: Sigmodontinae) from Mexico. *Proceedings of the Biological Society of Washington* 118:605–611.

Submitted 22 June 2010. Accepted 12 June 2011.
Associate Editor was Celia López-González.