

been taken from a warm building. The one from the warm environment froze solid when the temperature went down to 20°F, whereas the other three survived temperatures down to 16°F. Each morning and evening of the experiment they were found to be dormant. When taken to the warm laboratory these three bats became active and flew around the room. They exhibited no apparent harm from the experience.

In a temperature controlled room, Davis and Reite (Biol. Bull., 132:320–328, 1967) reported big brown bats kept overnight at 5°C invariably aroused from dormancy in response to decreasing ambient temperatures to 0°C and below. The bats remained active for several hours, even at ambient temperatures as low as -5°C (23°F). They also reported that attempts to make the bats re-enter dormancy by keeping them overnight at -3° to -5°C were unsuccessful, but this could easily be achieved by changing the ambient temperature to 5°C. Wetmore (J. Mamm., 17:130–131, 1936) kept a big brown bat inside a box from 8 December 1934 to 20 March 1935. During this time the morning temperatures ranged from 15.6 to -14.0°C (6.8°F). On the morning of 20 March it was in a semitorpid condition when the screen covering the box was removed. At 5:20 P.M., the bat had gone.

This note is offered as documentation that big brown bats experience at least short-term survival after exposure to sub-freezing and sub-zero temperatures.—HARRY H. GOEHRING, *Biology Department, St. Cloud State College, St. Cloud, Minnesota 56301. Accepted 3 June 1971.*

#### SECOND SPECIMEN OF *ORYZOMYS DIMIDIATUS*

The species *Oryzomys dimidiatus* was originally named and described by Thomas (Ann. Mag. Nat. Hist., ser. 7, 15:584–591, 1905) as a member of the genus *Nectomys* on the basis of a single specimen from the Río Escondido, 7 miles below Rama, Nicaragua (approximately 1 km. S and 8½ km. E Rama, 20 m, Zelaya), obtained by W. G. Palmer on 5 November 1904. Although there has been speculation on the relationships of this taxon (currently regarded as the only member of the subgenus *Micronectomys*, genus *Oryzomys*—see Hershkovitz, J. Mamm., 51:789–794, 1970, for review), the holotype has remained the only known specimen.

A second individual (University of Kansas Museum of Natural History no. 106607) assignable to this species was taken on 26 July 1966 by R. W. Turner at El Recreo, 25 m, Zelaya, Nicaragua, approximately 15 kilometers to the west of the type locality. This rat, a young adult male, was trapped in a stand of cane, 8 to 10 feet tall, along the south bank of the Río Mico. The cane was nearly impenetrable excepting for two paths through it to the river, and it was along these paths that traps were set, baited with rolled oats. In addition to *O. dimidiatus*, other small mammals taken at this place included *Oryzomys caliginosus*, *O. fulvescens*, *O. palustris*, *Sigmodon hispidus*, and one *Sylvilagus brasiliensis* that was shot along the edge of the cane.

Measurements (in millimeters) of our specimen followed by (in parentheses, when available) those of the holotype given by Hershkovitz (*op. cit.*) are: head and body, 118 (125); length of tail, 110 (115); length of hind foot, 28 (27, dry); length of ear, 15 (13); greatest length of skull, 29.0 (29.8); condylobasal length, 26.7 (27.2); zygomatic breadth, 15.0 (16.8); interorbital breadth, 4.5 (5.2); breadth of braincase, 11.9 (12.3); mastoid breadth, 11.5; interparietal, 2.5 × 6.9 (2.9 × 7.4); length of nasals, 10.7 (11.7); breadth of zygomatic plate, 2.7 (3.1); rostral width, 5.6 (6.1); rostral length, 10.1; length of incisive foramina, 5.9 (6.5); length of diastema, 7.4 (7.5); length of palatal bridge, 5.5; length of maxillary toothrow, 4.4 (4.7); crown length of M1, 2.0 (2.2); breadth across upper molars, 5.4 (6.2); length of mandibular toothrow, 4.5; weight (grams), 46.0. The testes were 11 millimeters long.

Of the species of *Oryzomys* occurring in eastern Nicaragua, *O. dimidiatus* closely resembles *O. palustris*, but differs from that species most conspicuously in smaller external and cranial size, less robust dentition, darker (more black evident) dorsal coloration, grayish as opposed to buffy venter, and proportionally shorter tail (clearly shorter than the length of head and

body in *dimidiatus*, whereas in *palustris* the tail and head and body are approximately the same length).

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#### TWO RHINO MICE (*MUS MUSCULUS*) FROM MINNESOTA

A family of rhinoceros mice, so termed because of their hairless and wrinkled or corrugated skin, was described in 1856 by Gaskoin (Proc. Zool. Soc. London, 24:38–40, 1856). He cited a preserved specimen received by the Museum of the College of Surgeons, London, in 1820, which closely resembled his animals. Allen (Proc. Amer. Acad. Sci., 40:59–163, 1904) described a mouse similar to those reported by Gaskoin, which was caught in Boston about 1904. Howard (J. Hered., 31:467–470, 1940) first used the term “rhino” in designating a specific mutation different from the hairless mutant. She was working with brother-to-sister matings in a laboratory stock derived from a cross between two highly inbred lines. She determined that the mutant gene, rhino, is an allele of hairless and is recessive both to hairless and the normal allele. A rhino mouse may justifiably be considered rare in a natural population of house mice.

On 5 November 1969, Mrs. Agnes Court of St. Cloud, Minnesota, captured a female rhino mouse in her home. This rare mutant of the house mouse had been observed in the kitchen during the previous two months. In late evening, it often ate scraps of food left by the family dog.



FIG. 1.—Rhino mouse (*Mus musculus*) captured in St. Cloud, Minnesota.

The mouse had the typical rhino characteristics (Fig. 1): no hair, except whiskers; excessive growth and folding of the skin to the point where the eyes could no longer be opened and the nails of the right hind foot kept the flank skin constantly irritated; lack of pigment, except that the eyes and the tips of the ears and tail were dark gray. The mouse weighed 36.8 grams. The weights of house mice in Minnesota range from 10 to 25 grams. The rhino mouse was kept in the animal room of the biology department until it died on 2 February 1970. An attempt to breed the mouse to an albino laboratory mouse failed.