

Chiroderma improvisum. By J. Knox Jones, Jr., and Robert J. Baker

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Chiroderma improvisum Baker and Genoways, 1976

Antillean White-lined Bat

Chiroderma improvisum Baker and Genoways (1976:1). Type locality 2 km S, 2 km E Baie-Mahault, Basse-Terre, Guadeloupe.

CONTEXT AND CONTENT. Order Chiroptera, Suborder Microchiroptera, Family Phyllostomatidae, Subfamily Stenoderminae. The genus *Chiroderma* contains five species. *C. improvisum* is monotypic.

DIAGNOSIS. Size large, both externally and cranially (Figs. 1 and 2); largest known species of genus *Chiroderma*. Dorsal pelage rich, dark brown overall, with a tinge of gray; faint but distinct white line down center of posterior half of dorsum, indistinct white lines above and below eyes, whitish around nose-leaf. Karyotype distinct among those known for genus by presence of a pair of small, nearly acrocentric autosomes and only two pairs of subtelocentric autosomes.

GENERAL CHARACTERS. The large size of *C. improvisum* serves to distinguish it from the other four known species in the genus, although *C. doriae* of southeastern Brazil approaches *improvisum* in some dimensions (Baker and Genoways, 1976). The dorsal pelage of the adult holotype is dense and somewhat "wooly" in appearance; individual hairs (about 10 mm long middorsally) are pale brownish gray throughout most of their length, slightly darker basally, and tipped with dark, rich brown; individual dorsal hairs of a young adult female, however, are distinctly tricolored, dark brown basally, pale brown medially, and dark brown again terminally. The ventral coloration is grayish brown, the individual hairs being tipped with white and thus producing a "frosted" appearance.

External and cranial measurements (mm) of an adult male and young adult female (Baker and Genoways, 1976; Jones and Baker, 1979) are as follows: total length, 87, 85; length of hind foot, 15, 17; length of ear, 21, 21.5; length of forearm, 57.5, 57.3; greatest length of skull, 29.9, 29.2; condylobasal length, 27.7, 27.5; zygomatic breadth, 18.9, 18.8; mastoid breadth, 14.3, 14.2; least postorbital constriction, 6.5, 6.4; breadth across upper ca-

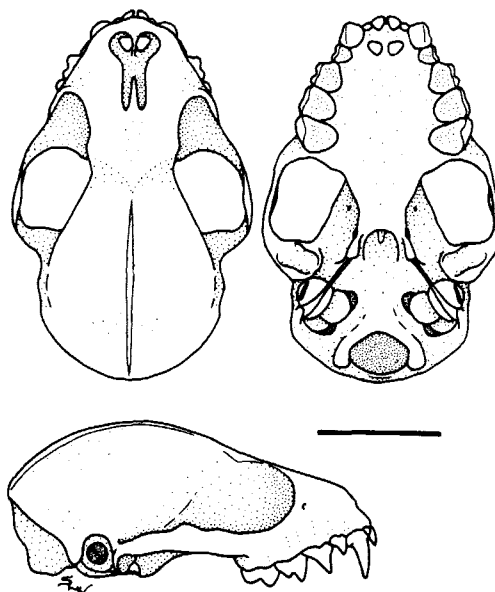


FIGURE 2. Dorsal, ventral, and lateral views of skull of holotype of *Chiroderma improvisum* (TTU 19900, ♂). The black line represents 5 mm. Drawing by Stephen L. Williams.

nines, 7.2, 7.0; length of maxillary tooththrow, 10.7, 10.8; mandibular length, 20.3, 20.6.

On the holotype, the nose-leaf measured 5.9 mm and the calcar 7.2.

DISTRIBUTION. This species is known from two specimens, the holotype from Guadeloupe and a second specimen from nearby Montserrat, both islands in the Lesser Antilles. The distribution is not mapped.

ECOLOGY. Little is known of the natural history of *C. improvisum*; presumably it is frugivorous like other members of the genus. The holotype was taken in a mist net "at sea level in



FIGURE 1. Young adult female *Chiroderma improvisum* (TTU 31403) photographed in life on Montserrat.

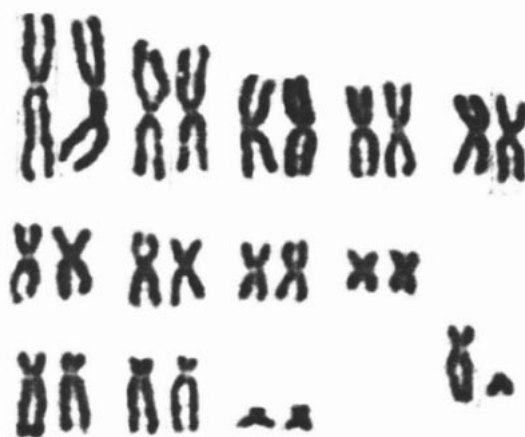


FIGURE 3. Karyotype of male holotype (TTU 19900) of *Chiroderma improvisum*. Presumed sex chromosomes are in the lower right hand corner.

an open field adjacent to gallery forest" (Baker et al., 1978). The specimen from Montserrat was netted over the Belham River, about a half mile above its mouth and under gallery forest. *Noctilio leporinus*, *Artibeus jamaicensis*, *Ardops nichollsi*, *Brachyphylla cavernarum*, and *Molossus molossus* were taken at the same place. Both specimens were examined for ectoparasites but none was found.

GENETICS. The karyotypes of this (Fig. 3) and other species (*Chiroderma salvini*, *C. trinitatum*, *C. villosum*) of the genus thus far studied have a diploid number of 26 chromosomes. Although all the autosomes are biarmed in *C. improvisum*, those of the smallest pair are nearly acrocentric. In the other three species, chromosomes of the smallest pair are submetacentric. The X-chromosome is subtelocentric and the Y-chromosome is small and has a minute second arm (Baker and Genoways, 1976).

REMARKS. *C. improvisum* is a large and unique species of the genus that evidently is limited in distribution to the northern islands in the Lesser Antilles. The nearest place another kind

of *Chiroderma* has been taken is on Trinidad. The specific epithet stems from the Latin and means "unforeseen" or "unexpected."

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