

Koopman, K. 1993. Chiroptera. In: *Mammals Species of the World*. pp:137-242. Wilson, D.E. & Reeder. (eds.). Smithsonian Institution Press.

Pinto, O. 1945. Cinquenta anos de investigação ornitológica. *Arquivos de Zoologia do Estado de São Paulo*, 4: 261-340

Taddei, V.A. & Pedro, W.A. A record of *Lichonycteris* (Chiroptera: Phyllostomidae) from Northeast Brazil. *Mammalia*, 57(3): 454-456

Thomas, O. 1895. On small mammals from Nicaragua and Bogota. *Annals and Magazine of Natural History*, ser. 6, 16: 55-60.

Wilson, D.E. 1996. Neotropical bats: a checklist with conservation status. In: *Neotropical Biodiversity and Conservation*. Gibson, A. C. (ed).pp: 167-177. University of California, Los Angeles, California.

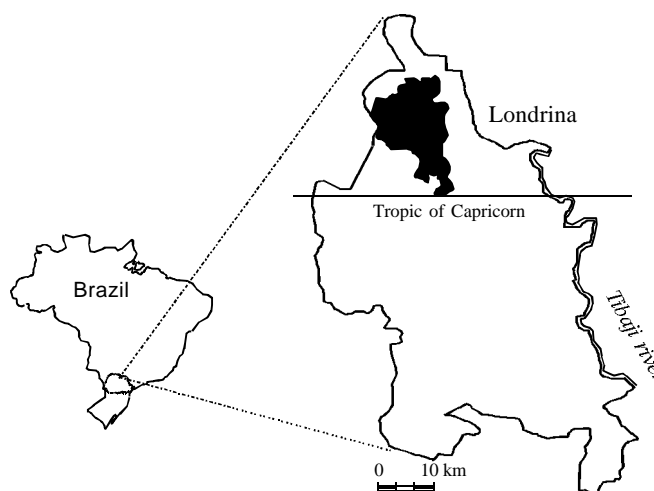


Figure 1 – Location of the City of Londrina.

---

---

## UPDATED LIST OF THE CHIROPTERIANS OF THE CITY OF LONDRINA, PARANÁ, BRAZIL

### Nelio R. Reis

Departamento de Biologia Animal e Vegetal – C.C.B.  
Universidade Estadual de Londrina - Campus  
Universitário - Londrina, PR - 86051-990 Brazil.  
nrreis@sercomtel.com.br

### Adriano L. Peracchi

Instituto de Biologia da Universidade Federal Rural  
do Rio de Janeiro - Cx. Postal: 74503 - Rio de Janeiro,  
RJ – 23851-970 Brazil.

### Isaac P. Lima

Departamento de Biologia Animal e Vegetal – C.C.B.  
Universidade Estadual de Londrina - Campus  
Universitário - Londrina, PR - 86051-990. Brazil.  
lima@ldnet.com.br

### Margareth L. Sekiama & Vlamir J. Rocha

Pós Graduação em Zoologia da Universidade Federal  
do Paraná - Cx. Postal 119020 - Curitiba, PR - 81531-  
990 Brazil. vlamir@inbrapenet.com.br

The richness of plant and animal species in the tropical regions is well known. Bats are no exception (Tamsitt 1967, Fleming 1973). In the city of Londrina, crossed by the Tropic of Capricorn, 36 Chiropterans species are found, most of them inhabiting forest fragments

(Reis & Muller 1995), due to the great degree of deforestation resulting from agricultural production.

Studies on bats have been conducted in the region, with the objective of listing species occurrence (Reis *et al.* 1993a), recognizing present forms (Reis *et al.* 1993b), analyzing resource sharing among frugivorous bats, (Muller & Reis 1992) and evaluating chiropteran diversity in open and forested areas in the region (Reis & Muller 1995).

Our objective is to present an updated list of the Chiropterans species that occur in the Londrina region.

The city of Londrina (Figure 1) is located in northern Paraná state, southern Brazil, and covers an area of 2,119 km<sup>2</sup> (23° 23' 30" W, 51° 11' 05" S). The average altitude of the region is 700m. The highest temperature reaches 39° C and the lowest 10.4° C and average annual rainfall measures 1,615mm (Londrina 1993). The main river of the region is the Tibagi, which flows through the eastern portion of the city. Field collections were made from 1982 to 1997. Collection techniques were adapted from Greenhall and Paradiso (1968). Captures were made with mist nets, preferably set up on nights without moonlight as suggested by Morrison (1978). Nets were opened after sunset for three hours and collections in roosting sites, such as tree hollows, roofs of houses and cracks of rocks were also made.

Bats were usually identified and set free, with two individuals of each species being kept as voucher specimens at the State University of Londrina.

## REFERENCES

Fleming, T.H. 1973. Numbers of mammal species in North and Central forest communities. *Ecology*, 54 : 555-

563. *Zoologia*, 9 (3/4): 345-355.
- Greenhall, A.M. & Paradiso, J. L. 1968. Bats and Bat Banding. *Bureau of Sport Fisheries and Wildlife Resource Publication*, 72: 1-48.
- Secretaria de Planejamento. Centro de pesquisas e informações. 1993. *Perfil de Londrina – dados estatísticos : 1989- 1992*. Londrina. 102p.
- Morrison, D.W. 1978. Lunarphobia in Neotropical Fruit Bat. *Artibeus jamaicensis* (Chiroptera, Phyllostomidae). *Animal Behavior*, 26: 252-855.
- Muller, M.F & Reis, N.R. dos. 1992. Partição de recursos alimentares entre quatro espécies de morcegos frugívoros (Chiroptera, Phyllostomidae). *Rev. Bras. Zoologia*, 9 (3/4): 345-355.
- Reis, N.R. dos, Muller, M.F, Soares, E. S. & Peracchi, A.L. 1993a. Lista e chave de Quirópteros do Parque Estadual Mata do Godoy e arredores de Londrina – Paraná. *Rev. Semina*, 14(2):120-126.
- Reis, N.R. dos, Peracchi, A.L. & Oniki, M.K. 1993b. Quirópteros de Londrina, Paraná, Brasil (Mammalia, Chiroptera). *Rev. Bras. Zoologia*, 10(3): 371-381.
- Reis, N.R. dos & Muller, M.F. 1995. Bat diversity of forests and open areas in a subtropical region of South Brazil. *Rev. Ecologia Austral*, 5: 31-36
- Tamsitt, J.R. 1967. Niche and species diversity in Neotropical bats. *Nature*, 13: 784-786.

---

### BATS OF THE REGION OF LONDRINA

---

#### Family Noctilionidae

*Noctilio albiventris* Desmarest, 1818 \*

#### Family Phyllostomidae

##### Sub-Family Phyllostominae

*Chrotopterus auritus* (Peters, 1856) (Reis *et al.* 1993a; Reis *et al.* 1993b)  
*Miconycteris megalotis* (Gray, 1842) (Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)  
*Phyllostomus hastatus* (Pallas, 1767) (Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)

##### Sub-Family Glossophaginae

*Anoura caudifer* (E. Geoffroy, 1818) (Reis *et al.* 1993a; Reis & Muller 1995)  
*Glossophaga soricina* (Pallas, 1766) (Reis *et al.* 1993a; Reis *et al.* 1993b)

##### Sub-family Carollinae

*Carollia perspicillata* (Linnaeus, 1758) (Muller & Reis 1992; Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)

##### Sub-Family Stenodermatinae

*Artibeus fimbriatus* Gray, 1838 \*  
*Artibeus jamaicensis* Leach, 1821 (Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)  
*Artibeus lituratus* (Olfers, 1818) (Muller & Reis 1992; Reis *et al.* 1993a ; Reis *et al.* 1993b; Reis & Muller 1995)

*Chiroderma doriae* Thomas, 1891 (Reis *et al.* 1993a; Reis & Muller 1995)

*Chiroderma villosum* Peters, 1860 \*  
*Platyrrhinus lineatus* (E. Geoffroy, 1810) (Muller & Reis 1992; Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)

*Pygoderma bilabiatum* (Wagner, 1843) (Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)

*Sturnira lilium* (E. Geoffroy, 1810) (Muller & Reis 1992; Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)

*Uroderma bilobatum* Peters, 1866 \*  
*Vampyressa pusilla* (Wagner, 1843) (Reis *et al.* 1993a; Reis & Muller 1995)

##### Sub-Family Desmodontinae

*Desmodus rotundus* (E. Geoffroy, 1810) (Reis *et al.* 1993a; Reis *et al.* 1993b; Reis & Muller 1995)  
*Diphylla ecaudata* (Spix, 1823) \*

#### Family Vespertilionidae

##### Sub-Family Vespertilioninae

*Eptesicus brasiliensis* (Desmarest, 1819) (Reis *et al.* 1993a; Reis *et al.* 1993b)  
*Eptesicus diminutus* Osgood, 1915 (Reis *et al.* 1993a; Reis & Muller 1995)

---



---

**BATS OF THE REGION OF LONDRINA**


---

<i>Eptesicus furinalis</i> (d'Orbigny, 1847)	(Reis <i>et al.</i> 1993a; Reis & Muller 1995)
<i>Histiotus velatus</i> (I. Geoffroy, 1824)	(Reis <i>et al.</i> 1993a; Reis & Muller 1995)
<i>Lasiurus borealis</i> (Muller, 1776)	(Reis <i>et al.</i> 1993a; Reis & Muller 1995)
<i>Lasiurus ega</i> (Gervais, 1856)	*
<i>Myotis levis</i> (I. Geoffroy, 1824)	(Reis <i>et al.</i> 1993a)
<i>Myotis nigricans</i> (Schinz, 1821)	(Reis <i>et al.</i> 1993a; Reis & Muller 1995)
<i>Myotis ruber</i> (E. Geoffroy, 1806)	(Reis <i>et al.</i> 1993a; Reis <i>et al.</i> 1993b; Reis & Muller 1995)
<i>Rogheessa tumida</i> H. Allen, 1866	*

**Family Molossidae**

<i>Eumops glaucinus</i> (Wagner, 1843)	*
<i>Molossops abrasus</i> (Temminck, 1827)	(Reis <i>et al.</i> 1993a; Reis <i>et al.</i> 1993b)
<i>Molossus ater</i> E. Geoffroy, 1905	(Reis <i>et al.</i> 1993a; Reis <i>et al.</i> 1993b)
<i>Molossus molossus</i> (Pallas, 1766)	(Reis <i>et al.</i> 1993a; Reis <i>et al.</i> 1993b)
<i>Nyctinomops laticaudatus</i> (E. Geoffroy, 1805)	(Reis <i>et al.</i> 1993a; Reis <i>et al.</i> 1993b)
<i>Nyctinomops macrotis</i> (Gray, 1840)	*
<i>Tadarida brasiliensis</i> (I. Geoffroy, 1824)	(Reis <i>et al.</i> 1993a)

---

\* Species which were captured after the publication of the works done in the region.

---



---

**EXTENDING GEOGRAPHIC DISTRIBUTION OF  
*CHIRODERMA DORIAE* THOMAS, 1891  
(PHYLLOSTOMIDAE, STENODERMATINAE)**
**Renato Gregorin**

Seção de Mamíferos, Museu de Zoologia,  
Universidade de São Paulo. Caixa Postal: 42694, CEP  
04299-970; e-mail: gregorin@usp.br

A survey of the Chiropteran collection of the Museu de Zoologia of the Universidade de São Paulo (MZUSP) revealed the presence of two specimens of *Chiroderma doriae* (MZUSP 28591 and 28688) from Barma farm, Brasilândia, state of Mato Grosso do Sul, Brazil (21° 35' S and 52° 07' W) (Figure 1). Specimens were collected by J. L. Silva Filho in November of 1992. These distribution records extend the geographic range of *C. doriae* Westward. Specimens from Brasilândia, both female, are paler and browner than those from Iguape, southern coast of the state of São Paulo. Some morphometrical data (in millimeters) of the specimens MZUSP 28688 and 28591 are, respectively: head and body 77, 72; forearm 52, 55; greatest length of skull 20.5, 29; condylo-incisor length 26.5, 26; postorbital constriction 6.4, 6.4; zygomatic breadth 18.3, 18.5; mastoid breadth 13.9, 14; length of mandible 19.8, 19.3.

*Chiroderma doriae* was described by Thomas, 1891, based on a specimen from the state of Minas Gerais. Since this description, aspects on its geographic distribution and natural history still remain poorly known (e. g., Taddei & Corrêa 1980, Nowak 1993, Pedro & Taddei 1997). *Chiroderma doriae* is considered to be endemic to Brazil and until now presents a geographic

distribution restricted to northern Paraná (Vizzoto *et al.* 1976), the state of São Paulo and southeastern Minas Gerais (Koopman 1982, Nowak 1993, Fazzolari-Corrêa 1995, Faria 1996, Marinho-Filho 1996, Pedro & Taddei 1997), Rio de Janeiro (Esbérard *et al.* 1996) and perhaps, the Distrito Federal and Mambai districts, both within the state of Goiás (Coimbra *et al.* 1982). Nevertheless, recent authors have considered *C. doriae* to be restricted to only São Paulo and Minas Gerais (Nowak 1993, Baker *et al.* 1994, Fazzolari-Corrêa 1995, Faria 1996, Marinho-Filho 1996), ignoring previous records made in regions other than the Atlantic forest.. This "Atlantic Coast distribution" includes both evergreen and semi-deciduous forests.

*Chiroderma doriae* has been included in the vulnerable category (Aguiar & Taddei, 1995) due to two important aspects: 1) geographic restriction to the Atlantic forest, an area which presents intense disturbance and human occupancy, and 2) low abundance (Pedro & Taddei 1997). The latter factor may be inferred, considering the reduced number of specimens housed in collections, providing an indirect evidence of rarity. In fact, populations of the species in São Paulo have declined in the last twenty years (Aguiar & Pedro 1998). Data presented here, in addition to those provided by Pedro & Taddei (1997), show that *C. doriae* is not restricted to tropical Atlantic rainforest (*sensu stricto*), because the species occurs in open and xerophytic areas, as grassland and marshy areas have presented captures. There are, however, no records of the species in the Cerrado (savanna) of western São Paulo state .

**REFERENCES**