

Bats at Finca Cántaros.

Introduction.

Bats are nocturnal mammals with remarkable biological and ecological diversity, playing key roles in tropical ecosystems. These species are essential in various natural processes, such as pollinating numerous plants, effectively dispersing seeds, and biologically controlling potentially harmful insects (Kunz et al., 2011). Thanks to their specialized adaptations, bats occupy different ecological niches, from capturing insects in flight to consuming fruits and nectar, significantly influencing the structure and dynamics of the forest.

However, these important species face multiple threats, including habitat loss and fragmentation, environmental pollution, disturbances caused by human activities, and unjustified negative beliefs about their behaviour and biology. For this reason, it is crucial to promote research, conservation, and environmental education initiatives that highlight the relevance of bats and promote their protection.

This report aims to present an updated summary of the bat families identified at Finca Cántaros since 2021. The study is the result of a valuable collaboration with the Bat Jungle of Monteverde and highlights the remarkable richness and biological diversity of this ecosystem, emphasizing the importance of conserving these species to maintain the ecological stability and health of the tropical forest.

Bat Families and Number of Species Identified at Finca Cántaros Since 2021:

1. **Emballonuridae** (6 species).
This family of insectivorous bats typically roosts in hollow trees, fallen logs, or caves, known for their agile flight and ability to capture flying insects (Reid, 2009).
2. **Phyllostomidae** (25 species).
Considered the most diverse family of neotropical bats, it includes frugivorous, nectarivorous, and insectivorous species. Its role is critical in seed dispersal and pollination, actively contributing to plant biodiversity (Fleming et al., 2009).
3. **Mormoopidae** (3 species).
Characterized by distinctive facial features with folded structures, these insectivorous bats primarily inhabit caves and are efficient controllers of nocturnal insect populations (Simmons & Conway, 2001).
4. **Molossidae** (5 species).
These bats are known for their fast and powerful flight, capturing insects at great

heights and in open areas. They are valuable ecological allies in the biological control of agricultural pests (Freeman, 1981).

5. **Vespertilionidae** (16 species).

Insectivorous bats that occupy various types of habitats. Their specialized diet in insects significantly contributes to the ecological control of populations potentially harmful to crops and forests (Nowak, 1994).

6. **Natalidae** (1 species).

Characterized by their small size and exclusively insectivorous habits, these bats roost in caves and play a specific role in controlling nocturnal insect populations (Tejedor, 2011).

Conclusion.

The remarkable diversity of bats found at Finca Cántaros reflects the high ecological value and biological richness of this tropical forest. The identification and detailed study of these species is crucial for conservation efforts, especially due to their key role in seed dispersal, thereby supporting ecological restoration processes in the area (Muscarella & Fleming, 2007). Strategic partnerships, such as the one established with the Bat Jungle of Monteverde, strengthen scientific research and highlight the urgent need to protect and conserve these species essential for ecological health and regional biodiversity.

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