



# Bats of the world

An introduction to the amazing variety of bats

There are approximately 1300 species of bats worldwide, making up around a fifth of all mammals. New bat species are constantly discovered but little is known about many of these incredible animals, and few people realise the essential part they play in the natural world.

## All over the world

Bats are one of the most widely distributed groups of mammals. Flight has enabled them to live all over the world, from the far north of Scandinavia, to the deserts of south-western USA.



© Dick Williams

White tent-making bats of Central America

## The bat family tree

Bats are split into two major groups. These groups, used to be called megabats and microbats, but thanks to genetic research into the relationships between families of bats, we now group bats into Yinpterochiroptera and Yangochiroptera. The Yinpterochiropteran group includes all the fruit bats which live in the Old World tropics and subtropics, but are not found in North and South America – one species (the Egyptian fruit bat) just about makes it to Europe. Yangochiroptera are found worldwide.

## Yin and yang bats

The fruit bats of the Yinpterochiroptera have large eyes and often dog-like faces; Yangochiroptera have small eyes and often have elaborate facial structures. All Yangochiroptera use echolocation to detect their prey whilst fruit bats rely on smell and vision to find food. The fruit bats feed almost exclusively on fruit and flowers, while the Yangochiroptera have more varied tastes, eating insects, fruit, pollen, nectar, fish, frogs, other bats and blood.



© Mike Castle

Egyptian fruit bat: Yinpterochiroptera



© John Black

Greater mouse eared: Yangochiroptera

## Hot tropics

Bats are most numerous in the tropics – Indonesia has 225 species of bats (that over 12 times the number of species found in the UK!), while there are 145 in Venezuela and 140 in Mexico. Central and South America are home to almost one third of the world's bats.

## Little and large

Bats can be as large as a small dog or as small as a bumblebee. The largest bats are the flying foxes, with wingspans of up to 2 metres and a body weight of a 1.5 kilograms. At the other end of the scale is the bumblebee bat, weighing only 2 grams, making them the world's smallest mammal. Most of the world's bats are small, similar in size to those found in the UK.



© Daniel Hargreaves

Bumblebee bat



Fruit bat camp

## Island paradise

Islands are interesting places for bats; many of the bats that occur on islands are found nowhere else in the world and in some places bats are the only native mammals. On some islands in the Pacific Ocean bats are so important that they are known as keystone species, and without them the ecosystem would collapse. In New Zealand there are only two native mammals, both of them bats, while in Madagascar, there are 38 different species of bats, two-thirds of them found nowhere else in the world.



## Flower power

In tropical forests, bats are important pollinators of many plant species. In fact, some plants flower only at night to attract bats. There are bats that behave much like hummingbirds – their long, narrow faces and exceptionally long tongues allow them to delve deep inside flowers to drink the nectar. During their travels from plant to plant bats may carry pollen and help to pollinate the flowers.

## Fruits of their labours

Some bats feed on fruit, some of which are of commercial importance to us humans. Bats eat the soft fruits but discard the seeds that later become mature trees. Avocados, peaches and mangos are all fruits that might not be here if it wasn't for bats.



## Something to chew on

Chewing gum, tequila and sisal are just three products that come from plants that at least partly rely on bats for pollination or seed dispersal. Others include foodstuffs, drink, medicine, dyes, fuel, fibre and timber.

## A tasty snack

Bats are eaten by some communities worldwide. Even tiny bats no bigger than those you find in the UK are consumed. It is the larger flying foxes that are most sought after, and in the 1980s a flourishing trade in bat meat in the Pacific brought some species to the verge of extinction. This is now controlled by CITES (Convention on International Trade in Endangered Species) but there are still worries about over-hunting of bats in some countries such as Madagascar and the Philippines.

## The curse of Dracula

The famous novel by Bram Stoker has given bats a poor press. Vampires are a reality, but how much do you really know about them?

- Vampire bats don't live in Transylvania; there are three species and they all live in Central and South America.
- Vampire bats rarely feed on human blood; they much prefer the blood of cattle, horses, pigs and birds.
- A vampire bat doesn't actually 'suck' blood, it makes a graze on its host's skin to encourage a flow of blood and then laps this up with its tongue.
- Vampire bats are small. The commonest is only 7cm to 9cm long and takes approximately a tablespoon of blood each night.
- They are caring towards members of their colony; they participate mutual grooming and will even take care of others who are unable to feed by regurgitating the blood they have collected
- Stroke victims may soon benefit from studies of a clot-dissolving substance in the vampires' saliva.



## Seba the amazing seed disperser

Seba's short-tailed fruit bat weighs only 19 grams but is an incredible disperser of seeds. It is probably the commonest bat in Latin America and eats fruits containing lots of small seeds, such as piper fruit. One bat alone might eat 60,000 seeds in a night! On average there are 400 bats in a Seba colony, which means that a group of this size could disperse almost 9 billion seeds in a year. Even if only 0.1% of these seeds germinated, this would produce 9 million new seedlings – quite a feat for such a tiny bat!

## Under threat

Over 20% of the world's bats are threatened with extinction. Twenty-five species are classed as Critically Endangered and may not survive without human help. Sadly at least 5 species, such as the Puerto Rican flower bat, have already gone the way of the dodo.

## How you can help bats

The Bat Conservation Trust's (BCT) vision is a world where bats and people thrive together in harmony. Your help can make a difference! Become a member of BCT today and help us to ensure future generations to can enjoy these amazing mammals.

You can join online or contact us on the details below. We can also provide details of your local bat group.

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