

FLYING MAMMALS

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Facts can never dispel the element of mystery that surrounds bats. Their lives are lived in a dimension so greatly removed from our own that an appreciation of even the simplest elements of their biology makes demands upon the imagination.

On the other hand, the mere mention of bats sends many people into paroxysms of fear and images flood the mind - of darkness and evil, of vampires and rabies, of wild, erratic flight ending in a terrifying tangle of bats and hair. Myths about bats abound (cp. *Macbeth*, *Dracula*); also the belief that all bats drink blood and that all are blind.

There are about 950 different kinds of bats in the world. Bats vary in size from about 4 g to species with a wingspan of 1,5 metres and a mass of 2000 g. Besides hanging upside-down and flying, some bats can swim, jump, walk, climb, swing, catch fish and hover at open flowers sipping nectar with long, hairy tongues.

The majority (70%) of bat species eat insects, but some feed on fish, birds, frogs, fruit, nectar and pollen. Some bat species are known to live for 30 years. Bats suckle their live-born young just as we do, yet they are the only mammals with the ability to fly.

RABIES AND BATS

Vampire bats are the cause of great concern in Latin American countries. About two million head of livestock are lost annually with an associated financial loss exceeding 100 million dollars. In the United States most of the non-blood sucking bats are carriers of rabies and bats are regarded as the number one public health hazard.

Although fruit-eating bats and many species of insectivorous bats occur in South Africa, vampire bats do not occur anywhere in Africa. At present there is no evidence to suggest that South African Chiroptera (the order of bats) are possible vectors of the rabies virus and their role as vectors of rabies-related viruses seems insignificant. Of the 410 bats examined for rabies by the Research Institute at Onderstepoort only 14 were found positive for rabies-related viruses. Thirteen of these were from

Durban and one from Louis Trichardt, and in most cases the species involved was the fruit-eating bat. However, care should be taken in the interpretation of these figures, since the sample represents bats from only one part of South Africa.

In conclusion, the contribution of bats as carriers of rabies and rabies-related viruses is insignificant compared with that of other South African mammals such as the Yellow mongoose, Black-backed jackal, semi-feral dog, etc, and in the Republic there has been only one case of a person dying after being bitten by a bat.



A vampire bat. *Walker, Mammals of the World.*

HOW BATS CAME TO BE

Early one morning on his way to his home in the sky, Father Sun got caught in the branches of a tall tree. He tried to free himself but only entangled himself more firmly.

That morning all the animals waited in vain for Father Sun. When he did not appear, they went quietly back to their beds. They thought that they had not slept long enough and that it was still night. When Father Sun did not appear the next day, the animals began to suspect that he had got lost on the way home.

One little squirrel discovered Father Sun stuck in the topmost branches of a tall tree. By this time Father Sun was very pale and weak.

'Little squirrel,' he cried, 'set me free.'

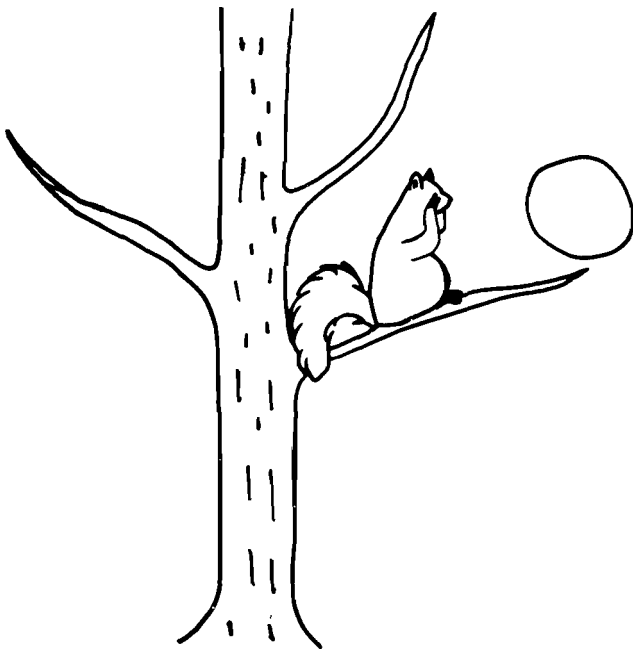
'Certainly, Father Sun,' replied the little squirrel, and he ran up the trunk.

But Father Sun's heat drove him back to the ground.

Again Father Sun called out, 'Little squirrel, set me free.'
 'Oh, Father sun, you are too hot,' said the little squirrel sadly.
 'You have already burnt my fine long tail.'
 'Try again,' pleaded Father Sun. 'I am so tired that my light will soon go out.'

The little squirrel ran up the trunk a second time. He almost reached Father Sun before the fierce heat drove him back again. Father Sun groaned, 'Little squirrel, please try one more time.' 'Father Sun,' cried the squirrel, 'your heat has burnt off my fine long tail. My fur is black, what is more, your light has made me blind.'

'Please, little squirrel,' whispered Father sun. Once more the little squirrel ran up the trunk. When he reached the top branches, he gave Father Sun a tremendous push. Father Sun



Rotunda

The squirrel held on to the branches with all his might. The intense heat had made his arms grow longer and his skin stretch out. Now it seemed that he was caught at the top of the tree forever. There was no one that could rescue him.

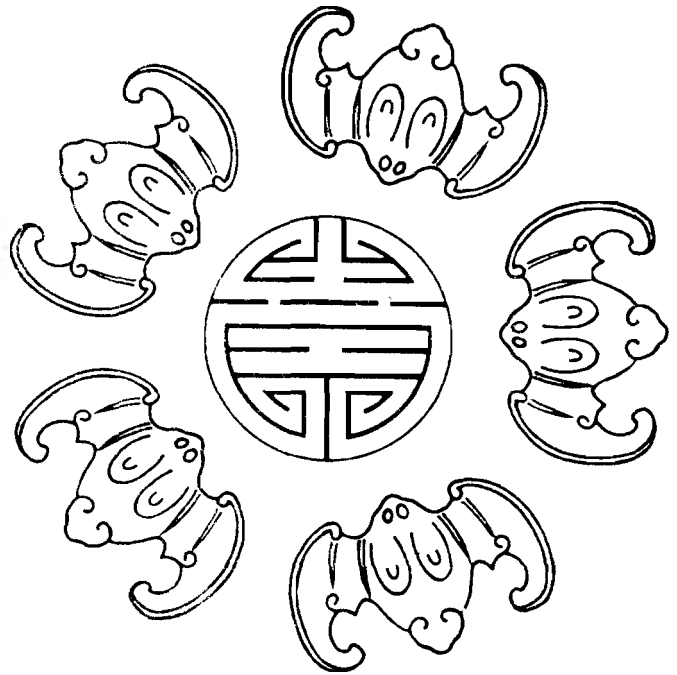
Father Sun paused and looked back. He was distressed to see how much he had harmed the kind squirrel.

'Poor little squirrel,' he said, 'in helping me you have been hurt. Now I shall repay your kindness. What is your dearest wish?' 'I have always wanted to fly,' the squirrel answered, 'but now it is too late.'

Father Sun nodded and suddenly the pain left the squirrel.

'From now on,' said Father Sun, 'you will be able to fly just as you have always wanted to do. Since my light hurts your eyes, you will fly at night. Although your eyes are blind, your ears are still very sharp. When you call out, the trees and rocks will send back echoes to you. Then you will know that there is something in your way. I shall see you in the morning and in the evening on my journey back and forth.'

The squirrel dropped his arms from the branches and flew away. By saving Father Sun so that the world could have light and warmth he had become a little brown bat.



Biome

Not all cultures are as prejudiced against the bat as ours is. In China the word for bat is *fu*, which is also the name of the written character for happiness. Thus the bat is a symbol of good things and is incorporated into many Chinese designs. Five bats are often used together, as in the drawing above, to signify the five blessings of health, wealth, virtue, longevity and a peaceful end.

REFERENCES

- ANON. 1982. Bats in the limelight. *Biome* 2: 1.
 JOHNSTON, B.H. 1981/2. How bats came to be. *Rotunda* 14: 4-6.
 KINGDOM, J. 1974. *East African mammals*. Vol. II, Part A. London: Academic Press.
 VAN DER MERWE, M. 1982. Bats as vectors of rabies. *S. Afr. J. Sci.* 78: 421-422.