

## FRUIT BATS – THE REAL STORY

Are you plagued by fruit bats that eat your naseberries and papayas? If so, read on. The problem is not as simple as you may think. Often, people attempt to kill the bats in their roof to save their fruits but this will not work. Why? Because we have **nine** different kinds of bats! Some eat fruits and others eat moths and mosquitoes, grasshoppers, katydid, fruit flies, locusts, root worms, cut worms, cucumber beetles, most other types of beetles, and even cock-roaches!

The bats in the roof eat insects and actually help farmers, fruit growers, and everyone else! In some places, farmers put up bat houses in their fields to help control insect pests. Each insect-eating bat can eat up to 2000 insects every night! This equals TONS of insects every year! Fruit bats are bigger than insect-eating bats, they never live in roofs or houses (or bat houses) and they help the fruit farmer, in ways that most people don't realize.

Let's deal with the biggest problem first -- how to keep bats away from your fruit. Fruit bats like their fruit to be ripe or over-ripe. If fruit is picked a day or two early and allowed to ripen indoors, the problem can be avoided. This works with everything but naseberries (sometimes called Sapodilla). Since bats seem to like varieties of this fruit when it is too green to pick, we have a special problem.

*To try to protect naseberries from bats, try putting thin plastic bags over the fruits while they are still green. This prevents the smell from escaping and attracting bats. Water accumulates inside the bags, but does not harm the fruit. Another solution is to tent the entire tree with large sheets of thick netting but this must touch the ground and be firmly anchored to work. If there are openings, bats will go up inside the net. This netting protects the tree from birds, as well. Do not use a fine thread net or bats and birds will tangle in it. Some farmers are installing owl roosting boxes near their naseberry trees. Since owls prey upon bats, it is hoped that the bats will avoid these areas. The Bat Conservation Project can provide a tape of the owl's hunting call that can be played all night near your trees when the naseberries are starting to get ripe. Some people have tried hanging shiny disposable foil pie pans in the tree to confuse and frighten the bats.*

*These foil pans or sheets of aluminum foil also work well to discourage bats from flying near buildings and soiling the walls with their droppings. Bathroom tile cleaner (such as Tilex) works best for cleaning these stains.*

These are not perfect answers. Netting is expensive and difficult to handle; owls may not move into the nesting boxes; bats may not be fooled by the tape recording; but all these things have worked some of the time and may work for you.

**DO NOT TRY TO KILL BATS! WHEN PEOPLE HAVE TRIED TO SAVE THEIR FRUIT BY KILLING BATS, THE PROBLEMS BECAME MUCH WORSE!** Turn this page over to find out why!

## **KILLING FRUIT BATS CAN INCREASE, RATHER THAN DECREASE, FRUIT LOSSES.**

Farmers are finding that when fruit bats are killed, insects eat more fruit than the bats were eating! Fruit bats often eat fruits that ripen either too soon, or too late to be found by pickers, or those that are simply missed. Such fruits become breeding grounds for insects and fungi that can be far more serious pests than bats. If the local fruit bats are killed off, these fruits will no longer be eaten. This gives insect pests plenty of food and places to breed. Fruit bats also clean up all over the islands by eating over-ripe fruits in the wild. These fruits would otherwise rot on the ground and provide more breeding ground for fungus and insect pests.

Fruit bats control insects in another way. Up to 25% of a fruit bat's diet has been shown to be insects on the fruit, so they are helping to protect the very fruits that they damage. Bats also pollinate fruit trees, both on farms and in the wild.

Fruit bats contribute to the health of our ecology in yet another way. As they fly they drop seeds from wild fruit trees into the forest. The trees that grow from seeds dropped by bats provide homes and food for many other animals, such as birds and iguanas, which in their turn have a role to play in keeping our island vital, beautiful and ecologically stable.

The loss of bats may seriously damage entire ecosystems upon which we ourselves depend. These losses are not reversible; the consequences are unpredictable and potentially disastrous. Science is discovering more reasons for conserving bats every day. They are proving valuable in medicine, surgical procedures, longevity and fertility studies, pollution control, energy conservation, and other important technologies.

**\*KNOW YOUR BATS! All bats are not the same! We have 9 species of bats in the Cayman Islands and only 2 of these eat cultivated fruit. Some of these species are very rare and found on only a few islands. One is found ONLY on Grand Cayman Island. Since insect-eating bats roost in large colonies, and are easier to find, often they are mistakenly killed. Then, the insect problems become worse instead of better.**

Two sad cases show us what can happen without bats. In Israel during the 1960s, bats were poisoned in their caves by the government park service. Too late, it was discovered that these were not fruit bats, but insect-eating bats that had been eating crop-pests without anyone realizing it. After the poisonings, millions of insects attacked crops. Pesticide spraying had to be started on a large scale. Not only was this expensive, but it hurt birds that eat insects during the day and beneficial insects like honeybees. This has affected the health of the local citizens and the environment. Because bats breed so slowly, (they only bear one pup per year) it will take centuries for the bat populations of Israel to recover.

In Guam, a small tropical island in the Pacific Ocean, people ate fruit bats. As the human population grew, and guns, shipping, tourism and freezers were introduced, the bats were wiped out on that island. Without the fruit bats, there was an overwhelming increase in flies and fungus due to fruit rotting in the forests. The problem became so bad that fruit farming had to be abandoned. No amount of pesticide could control all the fruit flies and fungus that were now breeding freely on that island.

We in the Cayman Islands can learn from these sad cases. We can find a balance with nature and use non-poisonous ways to protect fruit crops and keep our islands healthy, green, and productive for years to come. For more information, call the National Trust at 949-0121 or for emergencies call 917-BIRD. We take your problems very seriously and will do all we can to help. Email us at [info@caymanwildlife.org](mailto:info@caymanwildlife.org) or visit [www.nationaltrust.org.ky](http://www.nationaltrust.org.ky) or [www.caymanwildlife.org](http://www.caymanwildlife.org) for more on Cayman Islands' bats.