Bats and agriculture

Fear vandals, not vampires

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A persecuted creature is good for crops

IN BRAM STOKER'S novel "Dracula", Lucy Westenra's vampire admirer takes the form of a bat that drinks her blood by night. Alas, Stoker did these reclusive creatures a disservice. There are indeed vampire bats, though they generally prefer cattle blood to that of people. But most of the world's 1,100 species of bats are benign—helpful, even—to humans and especially to farmers.

In Texas, a study is under way to quantify that help. Each spring, millions of free-tailed bats fly from Latin to Anglo America—specifically the south-western United States. This creates "probably the largest aggregation of mammals known anywhere", according to Thomas Kunz, an ecologist at Boston University and the study's leader. Exactly how large is unknown, but Dr Kunz proposes to find out by counting the migrating bats with an infra-red imaging device.

The reason is that every bat is worth money to Texas's farmers. Far from deflowering virgins—or even spreading rabies—free-tailed bats feast on masses of moths. Corn earworms (also known as cotton bollworms) are a particular scourge. Their larvae gobble up both crops with alacrity. No precise data are yet available for maize, but early results suggest that each bat near a cotton plantation saves about ten bolls (about two cents' worth) a night in mid-June. Over many nights and millions of bats this adds up to a lot of money.

Bats help farmers in other places, too. In Georgia, free-tailed bats provide their services to pecan growers. In Hawaii, hoary bats eat leaf-hoppers, which damage sugarcane. And in California, pallid bats and big brown bats consume large numbers of moths and beetles, to the advantage of the state's vineyard owners. Not surprisingly, farmers in all these places have started putting bat houses on their land, while in Texas bridgebuilders regularly add bat roosts, with properly sized crevices, to woo the creatures.

All of which makes it unfortunate that, at the other end of their migration route, bats are persecuted. Fear of vampires (which, to be fair, do spread rabies to the cattle they attack, and do also sometimes drink from people) leads to indiscriminate slaughter. In Mexico, for example, bat caves are routinely dynamited and their inhabitants poisoned. Perhaps this would stop if another of bats' benefits to mankind were more widely known. Not all bats are insectivores. Some feed at flowers, and thus act as pollinators. In particular, a Mexican plant called agave is often bat-pollinated. Agave is the principal ingredient of tequila. Without bats, then, Mexico's national drink would be harder to make—and that would, indeed, be a tragedy.