



UPDATE

Is your house a refuge or a risk?

BAT BOXES ARE a great way to welcome bats—and their insect-eating services—to your property, but new research suggests placement of the boxes could make the difference between a cozy daytime roost and a potentially lethal sauna.

In the past, experts recommended that bat boxes be placed in sunny spots to provide warmth for females raising pups, says Mark Brigham, a professor at the University of Regina. With increasingly hot weather, however, Brigham and his colleagues wondered at what temperature artificial roosts could become dangerous. They studied big brown bats—a species that is widespread across southern Canada—in a field lab and monitored how rising temperatures affected their respiration. (They used a device called a respirometer; it measured the bats’ oxygen use.) Unlike humans, who sweat to cool down, fur-covered mammals like bats pant. Panting uses muscular energy, which further raises body temperature and can lead to dehydration. From their tests, the researchers extrapolated that “bats could lose up to 30 per cent of their body mass, mostly in the form of

water, in a single day in extreme heat,” says Brigham. It’s a situation that could turn deadly.

Although their study found that the bats could manage temperatures of 46°C to 48°C for a short amount of time without showing signs of distress, there’s an important caveat. The research took place in Lillooet, B.C., one of the hottest—but driest—places in Canada. There, the dry air is thirsty for water, so it readily evaporates water vapour from a panting bat or a sweating human. In more humid climates, bats can struggle to cool themselves. “The air is already full of water,” says Brigham.

Fortunately, the fix is simple: give the bats options, says Brigham. He recommends mounting multiple bat boxes facing different directions. Preserving natural roosts, such as tree cavities and rock crevices, also increases possibilities. And if you build your own bat boxes, insulate them by, for example, using thicker boards, which helps buffer the heat as well as the cold.

“Bats are way better at understanding what they need than we are,” he says. “Let them choose.”—ADRIENNE MASON

PHOTO: ONTARIOPARKS.COM



Holy myths and facts, Batman!

How much do you really know about these winged wonders?



Bats are the world’s only flying mammals.

Fact Flying squirrels don’t count; they glide, as if using a parachute.

Bats are pollinators.

Fact Certain nectar-eating North American species pollinate agave plants. Pass the tequila!

Bats will get tangled in your hair.

Myth Well...they might accidentally get tangled. But bats aren’t attracted to hair. If a bat is swooping near your head, it’s aiming for an insect.



Bats eat roughly half of their body weight in mosquitoes every night.

Myth Bats consume a lot of bugs, but they feed on many different types of flying insects—they don’t specifically target mosquitoes.

Species such as the hoary bat can delay pregnancy for months.

Fact These bats mate before hibernation, but a female’s eggs aren’t fertilized until spring. Talk about a pregnant pause.

