

# Green Scene: Bats in your Belfry?

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[photograph]

[caption: Townsend's big-eared bats hidden away before coming out to feed.  
Kiyoshi Takahashi photo]

[Title in Tri-City News: A bounty of bats]

Bats are likely the most misunderstood of all mammals even though they provide beneficial services to people by eating prodigious quantities of mosquitoes and, in the tropics, pollinating many fruit crops. They are the only true flying mammals. For many species of bats, much of their life cycle remains a mystery. With 16 species in British Columbia, we can boast of having the greatest bat diversity in Canada. Sadly, half of these are now considered to be species at risk.

Like some teenagers, bats spend most of their day simply hanging around. They roost upside down hanging by their hind feet in sites such as buildings, under bark or in tree hollows, between rocks or in animal burrows – in fact, wherever they can find suitably dark cavities. Around dusk, they emerge to eat mostly nocturnal flying insects using echolocation, a type of “radar” that allows them to find their prey. A common misconception is that bats are significant carriers of the rabies virus. Studies in North America have shown that only 0.1-0.5% of bats carry rabies, about the same proportion as do, e.g., pigs. Another misconception is that bats are blind. In fact, because their echolocation works for only 10-40 meters, they rely on eyesight for longer distances.

At least five bat species have been identified locally including one that is a species at risk. Minnekhada Regional Park is our most biodiverse site and provides habitat for the big brown bat, little brown bat, Yuma myotis, silver-haired bat and Townsend’s big-eared bat, the species at risk. When local naturalist, Kiyoshi Takahashi, discovered the Townsend’s big-eared bats in the stables several years ago, it was considered sufficiently noteworthy for one of his photos to be published in Macleans magazine. Colony Farm Regional Park is thought to host three of these bat species, the big brown, little brown and Yuma. If bats are not disturbed, they will continue to use the same site year after year. For example, the Yuma bats at Colony Farm are known to have been there for many decades. The little brown bat, the most widespread species in BC, is especially fond of mosquitoes; a single bat can catch and consume up to 600 mosquitoes per hour.

During the summer breeding season, female bats need warm places to raise their babies. Their own body temperature ranges around 40 degrees C; they require warmth to stimulate milk production. To conserve heat, female bats typically roost communally with their babies and other females in what are called maternity colonies. These are often found in the warm attics of buildings where there is space and ample heat. The old bunkhouse at Colony Farm has such a maternity colony, as do the stables at Minnekhada. Male bats roost elsewhere. A single baby is born to each female in June or July and remains dependent for 7-10 weeks. If disturbed, females are apparently able to carry their babies - which weigh

approximately one quarter of their own weight - to a more suitable site – assuming one can be found close by.

By September, our local bats begin to disappear. Exactly where they go to hibernate in the winter remains a mystery; some are believed to fly a hundred or so kilometers to suitable sites. They seek areas such as abandoned mines where temperatures remain stable and slightly above freezing during the winter. To conserve energy, bats reduce their own body temperature to about 5 degrees C as they shift into hibernation. Nonetheless, a bat will lose up to 20-40% of its weight over the winter and emerge from hibernation in the spring urgently in need of nourishment.

Locally, one of the most accessible places to view bats is at Como Lake at dusk. Given that bats typically eat flying insects such as caddisflies, mayflies and midges (whose aquatic larval forms are predated upon by salmon), a productive salmon river will reliably have bats flying over it at dusk. August is the perfect month to enjoy watching bats. All too soon, they will fade from our skies as autumn approaches.