



Background Information: Bats and Moths

Townsend's Big-Eared Bats are known to live at Bobcat Ridge (and probably also at Coyote Ridge). Here are some facts about this particular species:

- Eats moths, lacewings, flies
- Fly along forest edges, use aerial pursuit and gleaning
- Fly silently through cluttered habitat, listening for rustling sounds made by insect wings against leaves or bark.
- Use short duration echolocation
- Curl ears in hibernation, looking like ram's horns
- May use ears to help in flight – perched forward
- Many hibernate singly, but up to 30 in colony in Colorado.
- Maternity roosts 100s to 1000 or more.
- Mate in autumn, sperm stored until spring
- One pup
- Can live 16 years
- Do not migrate long distances—usually return to same roost locations each year
- We .4 to .7 oz. wingspan is 12-13 inches

One of the things that bats eat are moths. How is the moon important to moths?

Insects use chemical cues and sight to find food and fly at night, but they also seem to use the moon for navigation. They can navigate without the moon on moonless night, but seem to prefer it when it is visible. They keep the moon at their side as they fly (or at a certain angle) and since the moon appears to move with us (because of its distance from us) this serves as a reliable guide. Artificial lights throw them off. As they try to keep it at their side, they end up flying in circles around the light.

Some insects may fly right into a light because in a forest or an enclosed area, light usually indicates a way out. Sometimes we see more insects at lights on cloudy or moonless nights, perhaps because they don't see the moon and follow the light instead. Moths can't see red or yellow very well, which is why these usually don't attract bugs as much.

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