



Beavers

Beavers are the largest rodents in Arizona and are uniquely adapted to life in fresh water. Their broad, paddle-like tail and webbed hind feet make them strong swimmers. Their ears have valves that allow them to exclude water when diving. All beavers have long, dense fur, but the Arizona populations have the lightest color of any in North America. Their heavy incisors give them a means to convert small to medium trees into dams and sometimes lodges. They are usually nocturnal, and may be observed at fairly close range as they have poor eyesight.

Beavers can have one to eight young per litter. They build two types of dens: stick houses in the stream or pool and bank houses burrowed along the stream. In the Verde Valley, most are the burrow type. The entrance is underwater and leads to an enlarged cavity above the high water line. Beavers feed on leaves, twigs and bark of many woody species including cottonwood, willow, aspen, salt cedar, as well as cattail, and other tuberous aquatic plant roots. Like other rodents, they must chew to wear away the constantly growing incisors.

Fur trappers first came to the Verde Valley in the 1820's. Kit Carson was among these early trappers. The beaver furs were used to make felt hats which withstood rough wear and successive wettings better than felt made from wool or other types of fur. In many parts of Arizona, including the Verde Valley, beavers were eventually extirpated (made locally extinct).

In terms of ecosystem health and water quality, beavers can play an important role in riparian areas (lands that are adjacent to water). While they are not as plentiful today as they once were, beavers have been reintroduced to many of Arizona's streams and water bodies. They also serve important ecological functions in riparian areas. Their dams slow the flow of water, settling silt, sediment and organic debris. These structures act like a sponge holding the water higher in the watershed.

Because they exert such a strong influence on aquatic and riparian communities, the beaver is considered a keystone species. Such an organism plays a role in its ecosystem that is analogous to the role of a keystone in an arch. While the keystone feels the least pressure of any of the stones in an arch, the arch still collapses without it. Using this analogy, the presence of beavers in an ecosystem can have an effect on many other organisms in an ecosystem. Today, the Arizona Game and Fish Department has successfully reintroduced beavers to the Verde Valley and other riparian areas in across the state.

Sometimes beavers can be destructive where young trees are planted. If you suspect beaver damage, then positively identify the cause before attempting control measures. Look for tracks on the stream bank or tooth marks on the stumps. Their presence is usually obvious. To control damage on a few trees, wrap trees with hardware cloth (heavy galvanized screen) to a height of 36 inches. Another strategy is to build an electric fence about 6-8 inches above the ground. The fence should completely encircle any route between the water and potential target plants. This has been used successfully along Oak Creek in Cornville.

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Adapted from original *Backyard Gardener* publications by Jeff Schalau, Agent, Agriculture & Natural Resources, University of Arizona Cooperative Extension, Yavapai County

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