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WOODCHUCKS

ANY PEOPLE KNOW woodchucks by the name "groundhog," and the two terms seem to be used with about equal frequency (Figure 98). "Whistle pig" is also a proper appellation, but less used. It is, however, a better descriptor for this species, which whistles shrilly at a predator's approach. Woodchuck aficionados make the news once a year on February 2, nationally recognized as Groundhog Day. On this date, Phil, a chosen representative of the

species and resident of the small Pennsylvania town of Punxsutawney, traditionally captures the nation's attention by prognosticating on the duration of winter. If Phil sees his (or her) shadow, the nation will have six more weeks of winter; if not, spring is on its way. Modern science cannot explain why this event predicts climate, reminding all that there are still many mysteries on the planet to be solved.

As with many other species of wild animals that occasionally trouble people, woodchucks have greatly benefited from human alteration of the landscape. The conversion of wooded habitat to cropland started landscape improvements for the species, but

- Figure 98 Woodchuck
- The name "woodchuck" comes from the Cree Indian word "wuchak" (which is not to be confused with the more contemporary "Whazup?").
- During hibernation, a woodchuck's body temperature decreases dramatically as she takes as little as one breath every six minutes.
- Recent behavioral studies suggest that these animals have no interest in any form of manual labor, much less in chucking wood.

where farmlands are converted to subdivisions, woodchucks often make the transition from rural to suburban as well.

Classification and Range

The woodchuck (Marmota monax) is a large, bulky rodent, weighing five to ten pounds and measuring sixteen to twenty inches in length, with a tail four to eight inches long. Coat color ranges from light to dark brown, often with a gravish tint intermixed. The several recognized subspecies range from New England south, through parts of Georgia and Alabama, and into the Midwest. Woodchucks are, for the most part, absent from states west of the Great Plains but do range north throughout much of Canada and into Alaska. The woodchuck also has several close relatives in North America, known as marmots, all of which generally inhabit alpine or highlatitude meadows.

Habits

Woodchucks adapted readily to agricultural areas with open fields and edge habitat, to their apparent great benefit. The species now colonizes suburban, and even urban, habitats, although many such presences may just be adaptive shifts after farmlands are converted to subdivisions. Burrows may be established under sheds, garages, or even houses. It is also common to see woodchucks in the grassy edges and sometimes medians of highways, where they are often left alone and find refuge from all but vehicular traffic. Woodchucks are herbivores and primarily eat grasses and forbs such as clover and dandelion. There are few studies documenting nonagricultural plants commonly eaten by woodchucks. Any gardener who has dealt with woodchucks, however, will have a long list, starting with beans and continuing on from there.

Woodchucks breed in March and April after emerging from hibernation, and the usual litters of four to six young are born about a month after mating. Woodchucks produce just one litter per year, with only about half of the young surviving to the end of their first year. The young mature rapidly; after about a month of nursing, they are weaned and emerge from the natal burrow for the first time to explore the aboveground world. Then they are usually on their own, sleeping away from home and wandering widely by midsummer. Most young disperse and establish their own territories at the end of their first summer, while one or two female young may stay and share their mother's home range during their second summer.

The burrow that a woodchuck excavates is almost as good a sign of her presence as is seeing the animal herself. Generally there is one prominent main entrance, often marked by an obvious spillway of soil dumped out front, and from one to several well-concealed back doors or "bolt holes." The dog or other animal trying to dig the woodchuck out may find she is not home after much tiring work. Burrows are often rather shallow (two to three feet deep), and the system may range from a single tunnel terminating in a chamber to a complex maze with multiple branches. Complexity probably depends on the length of occupancy and the number of woodchucks in residence. Sometimes entrances are next to a large rock or nestled among tree roots to provide support that may discourage predators from trying to dig their way in. Some burrow systems will be inhabited for decades by successive generations of woodchucks and may be occupied by many other species of wildlife, both during and between periods of woodchuck occupancy.

In fall woodchucks will find a burrow suitable for hibernation (called a hibernaculum), which may or may not be the same burrow the animal used during the summer months. Woodchucks are true hibernators and will sleep for up to five months after the onset of cold weather. The exact timing of the beginning and end of hibernation varies from year to year (except in Punxsutawney) and geographically. The woodchuck's high-elevation and high-latitude cousins remain dormant for up to eight months.

Public Health Concerns

Woodchucks are not considered to be a significant source of any infectious disease that can be transmitted to humans. They can get rabies and may be boldly aggressive when this disease has taken its final hold on them. For this reason unprovoked attacks by woodchucks must be treated very seriously as potential rabies exposures.

Problems

Woodchucks will occasionally eat garden or field crops, and in a small garden, they can cause considerable damage in a very short period (Figure 99). Because the animals hibernate, woodchuck damage is unlikely between early November and late February. Damage done during this time is more likely to be caused by deer or rabbits. Burrow systems are regarded as problems where agriculture is practiced, because farm machines can be damaged when they run over a spill mound. Similarly, many horse owners do not like to see woodchuck burrows in the paddock



Figure 99 A woodchuck sampled this squash before giving up and moving on to other, tastier, nongarden plants, or he might have been just a ship passing in the night to begin with. The major campaign to address this "problem" was never executed, as the gardener recognized sheepishly that a "problem" didn't even exist.

for fear of injury to their horses. Even the claim that people can be injured by tripping in woodchuck burrows is encountered from time to time. This is possible, we believe, but far down the list of threats to our own species.

Solutions

Tolerance

People and woodchucks can coexist for years without conflict. Where buildings have sprung up on old farmlands and woodchucks have burrows in the remnant woodlots, the only contact may be an occasional early morning or evening sighting of woodchucks grazing at lawn edges. The animals do no recognizable harm and are simply a part of the natural scene. Then one day a perennial bed or a vegetable garden suffers damage, and the presence of woodchucks becomes an issue.

To some woodchucks may be simply "vermin," unusable animals that do humans no obvious service and are thus worthy of persecution. Just the possibility that woodchucks might cause problems in the future is used as an excuse to "control" them. Woodchucks may not appear terribly useful to humans, but to the extent that urban and suburban landscapes constitute an ecosystem, the woodchuck should certainly be accepted as a part of this circle of life, even in these heavily humanaltered areas. They are prey for coyotes, foxes, weasels, badgers, hawks, and eagles, and their burrows provide shelter for numerous amphibians, reptiles, smaller rodents, and even larger animals, such as foxes.

Closing Burrows

Where woodchuck burrows are deemed to be problems, eviction and exclusion are the recommended courses of action. Woodchucks can be driven from burrows by harassment or by disturbing the burrow system. Timing is everything, however. Before attempting to evict and exclude woodchucks, think about when you will act. Since breeding female woodchucks have dependent young in their burrows from late winter until spring or early summer, it would be inhumane to try to get them to give up their burrows during this time. Females will resist abandoning young, even under great duress. But wait too late in the year, and you will impede winter survival, which means putting on weight and securing a suitable hibernaculum to sleep away the season. Adult woodchucks, therefore, may be especially hard to budge in the fall.

The best time to try evicting woodchucks from burrows is from mid- to late summer, or between early July and late September in most areas. If you watch closely, you may actually see the young woodchucks as they first venture above ground; if you do you can time your woodchuck eviction to begin about three weeks later with relative assurance that it will avoid affecting dependent offspring.

Start by testing for activity. Loosely fill all of the burrow entrances (use grass clippings, newspaper, or similar material) and monitor activity to determine if the burrow is currently vacant. Remember that several exits may be present in a given burrow system, and all should be located and plugged. If, after three to five days in good summer weather, the material has not been disturbed, the burrow can be assumed to be unoccupied and permanently closed. Heavy-gauge, welded fencing wire (with no larger than three-inch squares) is recommended to close burrows. Cut the wire into about three-square-foot sections. Then center a section over each burrow entrance and bury it at least one foot deep, pinning it down if necessary with landscape staples.

If the burrow system is occupied, harass the residents by partially digging the entrance out. Clear vegetation away from entrances and put some benign but strongsmelling substance just inside the entrance (we have had success with urine-saturated clumps of kitty litter), then loosely seal the entrance so the smell stays inside the burrow. Monitor the closed burrow every few days to make sure it is not still occupied; when it is clear that the burrow is empty, a permanent seal can be provided.

Fencing may be needed to protect gardens. Fences work best when protecting relatively small areas. Woodchucks are good climbers as well as diggers, something to keep in mind when designing and building a fence. A perimeter garden fence should be made of a chicken or welded wire with mesh size no bigger than three by three inches. It should be three to four feet above ground level, and the woodchuck should not be able to dig under it (an L-footer that is buried or pinned to the ground or a single strand of electric fencing four inches off the ground and six inches in front can help prevent this). The key to a successful fence is to leave a good twelve to eighteen inches at its top unsecured so it will wobble back and forth as the woodchuck climbs up to it. The feeling of insecurity often (based on admittedly anecdotal feedback) discourages the woodchuck from climbing.

If you want to put up a more rigid fence, bend the top ten to fifteen inches outward at a 45-degree angle to create a barrier to help prevent climbing. Electric fences will work as well, and often the simple single strand of electrified wire about four inches from the ground is enough to discourage visits. If not, an additional strand can be rigged at about nine inches in height. (All of the precautions with using electric fences apply, of course.)

Scare Devices

Woodchucks are cautious animals. Novel stimuli, such as a scarecrow or a beach ball left to move with the wind across an open area, may keep them out temporarily. These scare devices are more likely to work if they are changed frequently. Before going to any greater trouble or expense, you may want to buy a couple of silvery Mylar[®] helium balloons at your local party store and tether them in the garden on a two- to three-foot line, so the wind can bounce them onto the ground occasionally. This may frighten exploring woodchucks away, not to mention birds you may want to keep out as well.

Habitat Modification

Woodchucks like to have fairly high vegetation to move around as both approach and escape cover. Removing vegetation around burrows can create insecurity and, with other eviction methods applied simultaneously, can encourage them to abandon a burrow system—especially one that has not been used for long. Beyond that, mowing to keep undergrowth and grass cover low may deny woodchucks the security they would like to start burrowing around buildings and residences.

During the course of the year, woodchucks move between burrow systems a lot as part of their normal routine. Frequently a burrow is abandoned or unoccupied for weeks, or even months, before it is reopened. A highly developed sense of smell allows woodchucks to locate places where others have lived months (and maybe years) after the occupants have left, even when the entrance is barely recognizable as such. It's only a few minutes' work for the average woodchuck, and the tunnel system is open and usable again; this is why we recommend burying the three-foot-square panel of welded wire, centered over the entrance hole.

Repellents

There are no commercial repellents registered for use on woodchucks.

A Last Word

It is a paradox that we make a celebrity of one woodchuck over a fictitious relationship between shadows and seasons and a villain of another a few weeks later over garden vegetables. There are ways to deal with woodchucks that make it possible to live more or less in harmony with them, even when the potential for conflict is high. In places or at times when woodchucks must be evicted from an area, recognize that this is only a first step, to be followed by managing the factors that caused a problem in the first place. What exactly these factors are remains to some extent to be better studied—or studied at all, given the low priority of understanding how to live in harmony with this planet's living communities.

Resources

Woodchucks have been the object of dozens of university extension bulletins, most of which encourage lethal control. As is the case with voles and other species, good books about living in harmony remain to be written.

