Deer are Picky Eaters, Just Like Us

I wish I could erase the terms “deer proof” or “deer resistant” from the English language. It is just more complicated than those terms indicate. Animals have things they really like to eat, things they will eat if available, things they only eat when desperate, and then some things they almost never eat.

For white-tailed deer what they eat is determined by what is available and what is not available. If the things that deer would usually prefer are all missing from a given area, then its next most favorite plant will become the thing it eats the most of. That is until all of the latter is gone, in which case something that is seldom eaten in other places may be the only thing they can find to eat. That something might be what you see in catalogues or books or brochures or nurseries listed as “deer proof” or “deer resistant”. So if there is nothing in the area for deer to eat except plants that are classified as “deer proof” or “deer resistant”, then in that area these plants are the new “deer favorites”.

My late friend Bill Armstrong, retired wildlife biologist with the Kerr Wildlife Management Area, was involved with many animal food preference studies. He likens the situation to our opening a can of mixed nuts and first eating the pecans, then cashews, then the filberts, then when nothing is left but peanuts, we eat them too.

A study of what deer have actually eaten in which necropsies were performed on harvested deer showed that most of their stomach contents was cedar! Generally considered their least favorite food—but widely available.

When everything is available in abundance in the Hill Country, deer will prefer things like cedar elm, hackberry, kidneywood, greenbrier, redbud, grape, blackjack oak, post oak, Spanish oak, escarpment black cherry, possumhaw and Carolina buckthorn.

Their second choice plants include Evergreen sumac, gum bumelia, Virginia creeper, live oak, shin oak, walnut, poison ivy and flameleaf sumac. Their third choice selections might be elbowbush, agarita, cedar (Ashe juniper), willow baccharis (poverty weed), mesquite, Mexican and red buckeye, prickly pear and Texas persimmon. Texas mountain laurel is almost never eaten.

Deer are capable of digesting only small amounts of grass, but when very young shoots of some grasses are available they will eat them.

Deer like most forbs (broad-leaved herbaceous plants), but there are a number of common wildflowers that they very seldom eat, such as Mexican hat, queen’s delight, mealy blue sage, antelope horns, horehound, two-leaf senna, cow pen daisy, prairie verbena, frostweed, snow-on-the-mountain, and datura.

The fundamental understanding of food preferences, if not the details, was known in Aldo Leopold's time when he wrote the following in 1938:

"In some cases [wildlife] research has created a brand-new concept hitherto non-existent. For example, there was, previous to a decade ago, no concept of widely differing values and functions as among things animals eat. The presence of a substance in a stomach was *prima facie* evidence of its food value. Thus if we opened the stomach of an arctic explorer and found that he had eaten his boots, it was concluded that leather was a food for *Homo sapiens*, and in case of a hard winter it should be hung on the bushes to keep the race alive. We now have the greatly superior concept of a *palatability sequence*, which supposes that the best food is eaten until it is gone, after which the next best is taken, and so on. Toward the end of the sequence, the birds "eat their boots" and die."

This general principle of food preferences obviously extends to most other animal species as well. We humans tend to apply our preferences to animals in thinking what plants a certain animal will or will not eat, and usually we are wrong. Deer are not really put off by thorns, nor necessarily by bad odors. They might be put off by very hairy or fuzzy leaves or other strange textures.

A question that is often asked, "Do animals 'know' what is good and bad nutrition?" I doubt that they "know" what is good for them, but it is quite possible that individuals that happened to like nutritious plants evolved more successfully than those that did not, and therefore there is some correlation between what plants an animal likes best and what are the most nutritious. Most of the grasses cattle prefer are better for them than the ones they do not.

Until next time…

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