Wildlife Find Food in Pine Trees, Too

Mast is a term that refers to seeds on the forest floor. Seeds are the fruits of trees, shrubs, and vines, which all produce seed for reproduction. Seed is an important food source for animals.

Squirrel, deer, and turkey hunters are familiar with some of the mast-producing trees found in Mississippi’s forests. These include hard mast-producing trees like oak or hickory, and soft mast-producers like black cherry or dogwood (Burger, 2010). Mast is produced by both hardwood and softwood trees. Some are common and well known to hunters and naturalists, while other species are virtually unknown.

Both quality and quantity of mast are important for wildlife food. Mast-producing trees should be distributed across the property. Forest diversity is important, and wildlife habitat in forests can be managed to improve diversity.

Acorns and hickory nuts are some of the most important sources of mast for wildlife. There is, however, another important mast-producing tree in Mississippi that few, if any, hunters recognize. This tree is not even a hardwood—it is the Southern yellow (loblolly) pine.

Pine cones contain seeds, or mast, that are eaten by many wildlife species. Unlike acorns, pine seeds are small and tend not to be noticed by hunters. They contain wings that allow them to be discharged into the wind and gently blow over the forest floor. One bushel of loblolly pine cones can produce up to 18,000 pine seeds! When they land, they may become hidden under other objects such as leaves and twigs. Although hunters may overlook pine seeds on the forest floor, wildlife find them.

Pines are critical food sources for birds and are eaten by many species in North America. Birds’ beaks are ideally suited to extracting seeds from cones. Turkeys readily seek out pine seeds, and, for a turkey, these seeds are easily found. Quail also eat pine seeds.

During certain periods of the year, squirrels feed on pine seeds, which provide a very important food supply. Squirrel cuttings can often be observed under pine trees, especially during September. In addition to food, pines provide nesting habitat for birds and squirrels.

Deer look for pine seeds, as well. One study in Florida found slash pine made up to 0.6 percent of white-tailed deer rumens (part of the digestive system). Although not a favored food source, pine seeds provide deer with year-round protein. Important species of pine seeds include loblolly, longleaf, slash, and shortleaf pines.

Acorns are probably the best-known mast produced by hardwood trees. Acorns are produced by oak trees and are high in fat content. Most native species of oaks in Mississippi begin producing acorns after about 25 years. Therefore, young stands will not have as many acorns as older stands.

White oak acorns mature every year but are irregular seeders. Although red oak acorn production is more reliable, the seeds take 2 years to mature. Unlike
white oaks, red oak acorns are high in tannins, resulting in a very bitter or astringent taste. Acorn production is also highly dependent on soil characteristics. In a good year, acorns can be found covering the forest floor; a poor crop means that wildlife quickly find the few acorns that fall to the ground.

Many squirrel hunters seek out hickory trees because they know squirrels have a preference for hickory nuts. The seed usually has a thick, hard shell that splits nearly to the base of the fruit. Squirrels enjoy the meat of the nut and open the shell while it is still green. Hickory trees that are 40 years and older will produce the most nuts. Squirrels are the most important factor in hickory reproduction because they scatter the nuts across the forest floor.

Acorns and hickory nuts are large enough to be readily noticed by hunters. These seeds can be easily found by humans walking or hunting in a forest.

Wildlife have adapted to multiple food sources in their forest environment. Like people, forest fauna prefer some foods over others. Acorns and hickories are obvious choices, but pine trees also provide an important food source, especially for birds and squirrels. When thinking about forest management, consider activities that promote hardwoods as well as pine trees.

Resources