



## *Saving Some for Later:*

### **Wildlife Food Hoarding Behavior**



Our nation's traditional autumn harvest celebration, Thanksgiving, is almost here; a time for family, friends, and, of course, lots of great food! However, as the days grow shorter and the weather cooler, we are not the only ones with food surplus on the brain; many of our wildlife neighbors are busily harvesting and storing away (caching) supplies during these months. Venture out into the nearby mountains for a hike, take a stroll in a local park, or even just step outside your back door, and these are just a few animals you may catch-in-the-act of their own version of fall food hide-and-seek:

#### **Gray Squirrels**

This industrious species are considered “scatter-hoarders”; they hide their food in separate locations scattered throughout an area – collecting items like pine cones and acorns one at a time. Gray squirrels tend to hide their collections underground and rely primarily on their sense of smell to relocate their stashes. They may also use visual cues and memory to find their hiding places; however, they are just as likely to uncover and raid another squirrel's cache as their own. This constant threat of cache-thievery is a common problem for all sorts of wildlife food hoarders, and many have adapted to compensate for this potential loss. For example, the very fact that gray squirrels use so many hiding places may be a result of the competition they face from other wildlife.



Fall is a particularly busy time of year for gray squirrels; although they do not hibernate, they do slow down their activity to help reserve fat stores during the winter months. As such, they take advantage of ripening of certain food sources (like acorns) during the autumn months, and so can often be found at this time of year hurriedly burying this food source. As they are not always able to relocate their stashes, some of these nuts and seeds are eventually able to germinate and become new trees and plants.

## Scrub Jays

Scrub jays are also scatter-hoarders, storing their food in many cache sites in the ground – they will sometimes also use natural crevices in trees. They tend to hide their food by driving it into the soil with their beaks and then covering it with ground litter, like leaves and loose soil; however, unlike squirrels, they do not rely on a strong sense of smell, but their highly-refined spatial memory to relocate their food later.

As members of the corvid family, like crows and ravens, scrub jays are very clever birds. Through observation and scientific experiments, they have been shown capable of “episodic-recall,” meaning they seem capable of remembering in what order they’ve done something. This comes in handy for a species that not only must defend against, but actively participates in, the hoarding of other’s food caches. For example, if a scrub jay suspects another animal has observed where they’ve hidden a food item, they will often go back and re-hide that item when no other animal is looking! They also use their intelligence to carefully plan for the future, ensuring they choose sites to allow for the volume and variety of food necessary to their survival.



## Acorn Woodpeckers

One of most prolific of food hoarding species, acorn woodpeckers will collect thousands of acorns (and other nuts) to store in their granary (often, a dead tree). They accomplish this monumental task by working together as a family unit, not only to collect their food, but also to maintain and defend their cache. In fact, they tend to search for food within a well-defended territory and will chase off potential thieves like squirrels and other birds. As such, where you spot one of these red-crowned birds, you’re sure to find more nearby.



As “larder-hoarders” - meaning they store their food all in one place –the energy they expend in guarding and maintaining their granary is vital. Each acorn is carefully fit into pre-drilled holes, making it difficult for thieves to run off with items or for gravity to send them falling to the ground below – although, naturally, some do eventually fall and germinate, helping to sustain oak woodlands. Acorn woodpeckers also utilize other methods to ensure the viability of their cache; over time, acorns will dry and shrink so this species will recheck their stockpile to see which may need to be repositioned. As such, constant upkeep is required, keeping this species busy throughout the year.

Pepper, our acorn woodpecker Ambassador