Earth Almanac: November/December 2009

By Ted Williams

Canid Chameleon Upland Oysters Singing Fish Riders on the Storm Winter Green Mistletow Misstep



Arctic Fox. Photo by Judy Holmes/Alaska Stock LLC

Canid Chameleon

As tundra slouches from the sun and the aurora borealis dances by day, the only canid to turn color with the seasons dons its luxuriant coat of white or, more frequently in the Aleutian and Pribilof Islands, light gray or steel blue. The diminutive Arctic fox, abiding above the Arctic Circle in North America, Eurasia, Iceland, and Greenland, can deal with temperatures as low as minus-58 degrees Fahrenheit. Small, rounded ears, fur that insulates better than any other in the mammal class, and thick hair covering the feet conserve body heat. The Arctic fox even carries its own blanket in the form of a bushy tail half the length of its body that it wraps around itself when at rest. Deep golden or orange-yellow irises protect the eyes from the fierce glare of the northern sun. Now Arctic foxes follow polar bears, gorging on their leftovers. At other times they feast on lemmings. Food is often cached, and in warmer months permafrost serves as a refrigerator. Eggshells found in the scat of Arctic foxes shortly before the arrival of nesting birds prove they cache eggs for nearly a year.



Oyster mushroom. Photo by Sandra Stewart

Upland Oysters

Throughout most of temperate North America and Eurasia, oysters are appearing in forested uplands. They are the fruits of ubiquitous fungi known as oyster mushrooms. After prolonged rain, look for the new, translucent caps stacked like oysters on the trunks of dead and dying hardwoods. Mature fruits, kidney- or fan-shaped, can reach diameters of 18 inches and, according to some estimates, produce 4 million spores per hour. Oyster mushrooms perform the vital forest function of breaking down lignin, thereby freeing nutrients for use by green plants. As oysters degrade the lignin, the wood softens, and insects move in. Then come the woodpeckers. Few mushrooms can rival oysters for flavor; smaller caps can be stir-fried, larger ones dipped in egg, rolled in breadcrumbs, and panfried. It's hard to confuse oysters with dangerous fungi, and fungi that grow on trees are generally safer to eat than those that grow on the ground. Still, if you're a novice, don't pick any mushroom unless you're in the company of an experienced collector.



Red drum. Photo by Tosh Brown

Singing Fish

The love song of the aptly named red drum (a.k.a. channel bass or redfish) is anything but sweet. What's remarkable about it, however, is that it exists at all. On late-fall evenings in saltwater bays and estuaries from Virginia to Mexico, males court prospective mates by nudging them and simultaneously vibrating a muscle in their swim bladders, thereby creating a drumming occasionally audible on land. A big female can produce two million eggs. They hatch after only about a day, and the larvae drift in the plankton column until they develop fins and scales and are able to forage on their own. Young drum grow quickly on crabs, marine worms, shrimp, and small fish, reaching at least a foot in length their first year. A large, black, eyelike spot (often several) near the tail may protect drum from predators by directing attack away from the head. Red drum flesh was generally scorned by Americans until the early 1980s, when chef Paul Prudhomme popularized his "blackened redfish." The craze precipitated a crash in Gulf State waters. But after Florida, Louisiana, and Texas banned commercial netting, the stock rebounded. Strong, dogged fighters, red drum are among the nation's most prized game fish. For this reason President George W. Bush signed an executive order in 2007 prohibiting the sale of redfish taken in federal waters.



Northern harrier. Photo by Laure Neish/VIREO

Riders on the Storm

Along the edges of the hay field, snow is plastered on the north side of trees and fence posts. Northern harriers pushed south weeks ago. But there's a large, long-tailed hawk flying low and wobbling on the Arctic gale. A straggler? Now it hovers—definitely a harrier! But no, it's too dark. It is a rough-legged hawk, a migrant from the far north that winters in most of the United States save some of the Gulf and southeastern states. This buteo gets its name from feathers extending down the shanks of its legs, an adaptation to its frigid habitat. The rest of the plumage varies widely in individuals—from dark to light. In Europe the bird is known as the rough-legged "buzzard," from the Middle High German buse for cat and aar for eagle, probably in reference to the bird's catlike call. And like our "buzzards"—also known as vultures—the rough-legged hawk will disgorge food when threatened, enabling faster takeoffs.



Oil nut shrub. Photo by Will Coo

Winter Green

In the high country, foothills, and adjacent piedmont of the central and southern Appalachians, patches of green brighten the season's bare and brown hardwood forest. Oil nut shrubs aren't evergreens, but they keep their color after other deciduous leaves have dropped or faded. You're most apt to find them in areas disturbed by fire, wind, insects, or logging. Semi-parasitic, the species relies on minerals and nutrients it appropriates from the roots of other plants. Yet with its chlorophyll-rich leaves it photosynthesizes some of its own food. Oil nut spreads mostly by sending out subterranean rhizomes, which break through the forest floor as leafy shoots, but a single seed about as long as your thumbnail is contained in each dangling, pear-shaped fruit. Oil nut is also known as buffalo nut and elk nut because early settlers saw eastern elk and bison eating it. Suppress any desire to discover how it tastes, however, because the plant (known also as mother-in-law nut) causes severe irritation of the mouth—a discovery doubtless made by a chastened fellow who experienced from his wife's mother an effect on his psyche not unlike the effect of oil nut fruit on his mucous membranes.



Phainopepla. Photo by Robert Royse

Mistletoe Misstep

At this time of year a kiss is not what you'll get if you spend much time under mistletoe in the deserts of our Southwest. Now that the berries are ripe they're being feasted on by phainopeplas. These striking crested birds depend on the fruit not only for nourishment but for something like 95 percent of their water. And the plant depends on phainopeplas to excrete its seeds in suitable habitat—often

washes, riparian corridors, and oak or chaparral woodlands. The phainopepla is easy to find because it habitually perches on the top of a tree. Listen for its call, which has been described as a whistled *hoooeet* or a questioning *wurp*? emitted with a jaunty tail flick as it turns from side to side. (To hear the recorded vocalization, go to Nature Bytes Video.) When berry supplies dwindle phainopeplas hawk insects. They're among the very few passerines that breed in two distinct habitats and at different times. Beginning in February they'll nest in the Sonoran Desert. Then, about May, as the desert heats up and the last berries go by, they'll move to sycamore- and oak-clad canyons in California and Arizona. It's not known if individual birds breed in both habitats in the same year.