Earth Almanac: September/October 2009

By Ted Williams

Gigantic Happy Faces Feathered Clouds Eating Fire Beautify Your Yard Resilient Redheads



Pilot Whale. Photo by Gerard Soury

Gigantic Happy Faces

If the sea wind is down, you'll often hear them first—long sighs that seem to express profound relief. Then black, glistening bulbous heads and high backs roll into view. Get close enough, and you'll see their mouths, turned upward in perpetual smiles. They're pilot whales, the dolphin family's second-largest member after killer whales (which may prey on them and of which they're deathly afraid). Males may measure 20 feet and weigh three tons. You can see pilot whales at any time of year—the long-finned species in temperate seas, the short-finned species in the tropics. But now long-finned females will be nursing young. They bear one calf every three years and stay with it until it reaches sexual maturity, which for males is about 12 years. Some females will live for 30 years after they can no longer become pregnant, extremely unusual among animals, and they can live up to 60 years (males can live up to 40). In even more unusual behavior, during these post-reproductive years they may nurse the calves of other mothers. All this contributes to pilot whales' tight social structure, one that gave rise to their name when it was mistakenly believed that one whale "pilots" the others. But such social behavior has its downside, probably contributing to the mass strandings pilot whales so frequently suffer when they follow their pod mates into shallow water.



Tree swallow. Photo by Daniel Cadieux

Feathered Clouds

The day is windless and cloudless with a sky the shade of azure you see only in September. So why is there a shifting, swirling black smudge above that distant barrier island? Line it up in your spotting scope, and you'll discover it's several hundred thousand tree swallows, staging for migration to their winter habitat in the southern states. Other swallows have to push on to Central and South America because they depend entirely on insects. During the cold months, however, tree swallows can subsist largely on fruit—especially bayberries. In addition to their flocking behavior, these highly social birds engage in an apparent game in which they drop a feather from considerable altitudes, then compete to see who can snatch it. The winner climbs, and drops the feather again. And offspring from the previous year will assist parents in feeding hatchlings. Tree swallows are doing better these days thanks to the great popularity of bluebird boxes; European starlings—one of the swallows' major nesting competitors—cannot fit into them.



Fireweed. Photo by Laurie Campbell/NHPA

Eating Fire

In Canada, northern Eurasia, and the United States save Texas and the Southeast, roadsides and disturbed woodlands are flushed red and purple with fireweed's prolific blooms. Like all members of the evening primrose family, the flowers have four petals. Leaves can be as long as eight inches, stems as high as eight feet. The plant's name comes not from the color of its flowers but from the way its rhizomes explode into new surface growth in the wake of fire. Soon the four-sided, four-celled fruits will split, spewing silk-tufted seeds that float away on the autumn breeze. Few wild plants please the human palate as well as fireweed, and, depending on season, all parts can be consumed. In spring and early summer the asparagus-like shoots and stems can be peeled and eaten raw or steamed, and the young leaves are excellent in salads. Later, jelly can be made from the flowers. The roots can be eaten raw or cooked, and the pith of mature stems will flavor and thicken soups. Fireweed is easily cultivated. But don't plant too much, because with its fast-moving rhizomes it can quickly dominate your garden.



Red-spotted purple. Photo by Piece of Lace Photography

Beautify Your Yard

The bananas are black, the pears mushy, and the melon rinds piled up around your sink. So what are you waiting for? Just toss it all onto the grass. That way you can attract some of North America's most colorful and ubiquitous butterflies—red-spotted purples, occurring in every state and active in the warmer months, especially now. Watch as they imbibe the fermented juices, opening and closing their wings in seeming delight. The wings' top and bottom sides are strikingly different—the former iridescent black and purple fringed with tiny white spots, the latter decorated with the striking reddishbrown and orange spots that gave rise to the insect's name. In northern states you may have noticed butterflies that are identical save for broad, white median bands on the upper sides of both wings. These "white admirals," as they're called, had been thought to be genetically distinct, but now most taxonomists believe they're just different forms of the same species. Hybridization happens where the two forms overlap; it also occurs with the closely related viceroy, which derives protection from predators by mimicking the color pattern of the toxic monarch. Employing the same strategy, the redspotted purple mimics the toxic pipevine swallowtail. While few butterflies are more beautiful than red-spotted purples, their cream-and-brown caterpillars look like, well, scat—specifically, bird droppings. By this mimicry they, too, gain protection from predators.



Redhead duck. Photo by Fred Lang

Resilient Redheads

In early autumn redhead ducks move down from northern states and Canada to their winter ranges around the Great Lakes, along the Mississippi Valley, and in the southern half of the United states, particularly the Laguna Madre in Texas, where it's not uncommon to see rafts of at least a quarter-million birds. Look for them, especially in the evening, as they dive and dabble for plants, seeds, and invertebrates. Redheads were a favorite with market hunters, who took advantage of their curiosity by waving red flags, thereby luring the ducks into shotgun range. This unrestricted killing coupled with the introduction of European carp (which deprive aquatic vegetation of sunlight by muddying the water) caused a population crash. But the Migratory Bird Treaty Act along with the redhead's fecundity facilitated a spectacular recovery. Contributing to that fecundity is the species' ability to breed in its first year and its cowbird-like strategy of laying eggs in the nests of other ducks, particularly those of canvasbacks, and even, on occasion, nests of such unrelated species as bitterns and northern harriers.