

# The Good, the Invasive and the Nearly Invisible

by Scott Weber

Wisconsin and Minnesota are home to about 50 species of orchids. The exact number depends on changes in taxonomy and whether or not you include subspecies and hybrids. Also, new species are moving into the area while others may be on their way out. The oval ladies' tresses orchid (*Spiranthes ovalis*) is expanding its range northward into southern Wisconsin as our climate warms, whereas the dragon's mouth orchid (*Arethusa bulbosa*) is probably gone from its last site in southern Wisconsin and is now restricted to northern counties and the Upper Peninsula since it requires cool temperatures during its bloom period in May. Orchids of wet prairie are among our most endangered orchids because 98% of their habitat has been destroyed since European settlement. These include the prairie white fringed orchid (*Platanthera leucophaea*), the small white lady slipper (*Cypripedium candidum*), and the western prairie white fringed orchid (*Platanthera praeclara*), a Minnesota species. The helleborine orchid (*Epipactis helleborine*) is a recent invader from Europe and is spreading across Wisconsin from east to west. Many ecologists worry that this species, like most invaders from Eurasia, will spread unchecked and compete against our native orchids.

We do have some very showy orchids. Both Wisconsin and Minnesota are home to the showy lady slipper (*Cypripedium reginae*), the state flower of Minnesota, whose lip petal can be over 5 centimeters long. The white fringed and purple fringed orchids (*Platanthera psycodes*) can grow up to a meter tall with dozens of florets on a 20 centimeter inflorescence. For many of our natives, however, flower size is measured in millimeters. Most of our native orchids fall into the

miniature species category, but like tropical miniatures, they make up for a lack of size with truly remarkable shapes, unusual colors, and a great diversity of habits. With a hand lens or macro photography, we can really appreciate their beauty provided we don't step on them first. Minnesota takes the prize for the smallest, most inconspicuous orchid, the bog adder's



Photo taken north of Lake Itasca, MN. Bog adder's mouth, *Malaxis paludosa*. With flower petals only 2 to 3 millimeters long, this northern Minnesota species gets the prize for the most inconspicuous orchid in our region, not only for its size but color. Plants themselves are only about four inches tall. Novices will need a guide to find this one.

mouth (*Malaxis paludosa*), the ultimate "little green job". It is not recorded in Wisconsin, but given its size and color, maybe we just haven't discovered it here yet.

Although we associate orchids with sphagnum bogs and other special, relatively undisturbed habitats, many orchids are generalists and could be as close as your neighborhood park. Orchids show up in lawns, road ditches, old pastures, and other atypical habitats beyond the bog, fen, and virgin prairie where we might expect them. We assume that all orchids have special

requirements, when in fact many are short lived, opportunistic species that pop up in



The smallest orchid growing wild on our land, the autumn coral root (*Corallorhiza odontorhiza*). This species lacks chlorophyll and lives off decaying wood and fungi. The flower lips are only a few millimeters long. They rarely look this conspicuous. Sauk County.



The very cryptic three birds orchid, *Triphora trianthophora*. Another native of the Baraboo Hills, this species blooms for only a day at a time in late summer. The landowner adjacent to this population found one blooming with a house plant in a pot inside his front door, yet another contradiction to the widely held belief that all native orchids need special soil. Flower about 3/4 inch wide. Sauk County.



The ladies' tresses orchids (7 total species in Wisconsin) are small orchids with tiny, iridescent flowers. This species, photographed in Door County in late August, is the smallest, *Spiranthes lacera*, the slender ladies' tresses orchid.

unexpected places following fire, mowing, utility work and other disturbances. For example, we have ten species of native orchids on our farm in Baraboo Township. They grow in subsoil along our driveway, in our woods, wetlands, former pasture, our asparagus patch, along a gas pipe line, and even in our greenhouse where a few species perpetuate themselves in the pots of other perennials. Many have dynamic populations that expand and contract with variations in precipitation, competition, land management, deer or rabbit populations, and for reasons we are completely clueless about. Except for some lady slipper species, most of our orchids rarely stay in one place for long.

A general rule is that most native orchids do not like competition and will find habitats that restrict it, whether by unusual soil pH or by temporary disturbances which allow seedlings to flourish if only for a few years or so. They do not like annual cultivation, frequent mowing (more than once annually), most farm and lawn chemicals, and poaching. Short life, high seedling mortality, unusual soil pH for some, unpredictable seed germination, unusual water requirements, and high cost of laboratory



The largest orchid on our farm, the purple fringed orchid (*Platanthera psychodes*). This species blooms in mid to late July. Like many of our orchids, individuals are short-lived (one to four years as a blooming plant, we don't know how long from germination to blooming size.) Plants can be from one to four feet tall. Each floret is only about a half inch wide. Sauk County.

work make commercial propagation of many species unprofitable and challenging, to say the least, so they are best enjoyed in the wild where they have the best chance for survival.