My friend and I were hunting rattlesnakes one spring when we saw it.

“What is that?” John asked, indicating a strange flower tucked between a rock and pine tree, hidden deep in shadow along the trail. Looking like an inflated purple balloon atop a green lollipop stick, it was big and brightly colored, and as we passed, a ray of sunlight struck the flower and lit it up like a Chinese lantern.

We found the answer in Peterson's Field Guide. It was an orchid! An orchid that is native to Maryland, the pink lady's slipper.

This was a jarring discovery. I had always thought of orchids as exotics, found only in far away tropical places. The discovery of this flower on that April day launched my lifelong quest for orchids in Maryland's mountains, wetlands and rich forests.

Yes, there are orchids in our woods!

COLLECTORS’ MANIA

The history of orchids is as colorful as the flower itself. They have been sought and coveted like gold or diamonds for centuries. Elaborate expeditions were mounted in the 18th and 19th centuries to search for new orchids in the remote jungles and rainforests of Africa, South America and Asia. Competition could be murderously intense. More than one adventurer met an untimely death at the hands of another jealous collector.

Today, hundreds of millions of dollars are spent annually cultivating and selling orchids across the planet. Although there are bans against the mining of orchids in the wild, millions of beautiful specimens are removed from natural habitats every year and sent to collectors and orchid fairs worldwide. Thus, natural populations sometimes suffer unsustainable losses and are not able to reproduce themselves. Orchid sites can experience declines that accelerate into headlong collapse, resulting in the elimination of long-established populations.

The orchid family is one of the largest families of plants in the world. It is estimated that there are more than 30,000 species of orchid occurring naturally on this planet. The majority of these are found in tropical habitats. Moving away from the equator toward the poles, the number of orchid species diminishes, but a few species even exist near the Arctic Circle.

Orchids are found in nearly every climate and grow on almost any kind of terrain on earth. Many of the tropical species are epiphytic, which means they grow on the trunks and limbs of trees like aerial artists, sometimes suspended over 100 feet from the ground. Terrestrial orchids can be quite abundant in the swamps and wetlands of our southeastern states. A few species are known to grow even in desert climates.

Experts believe there are about 48 orchid species native to Maryland. [See list below.] Our orchids grow in various habitats from the Atlantic coast to the Allegany Plateau in Garrett County. Unlike those tropical species that dangle from trees, all Maryland species are terrestrial, growing in meadows, wetlands and woodlands across the state. Some
species are quite showy, though most are inconspicuous and very small, presenting tiny green or brown flowers, and are therefore easy to overlook.

But a species that is not easily overlooked is the intensely beautiful yellow fringed orchid (Platanthera ciliaris). At sixteen I saw for the first time the bright orange sparkle of this lovely flower along a sunlit stream in the Catoctins. I didn’t know then that it was a threatened species in Maryland, but it immediately became, and remains to this day, one of my very favorite orchids. It was this encounter that drove me into the woods in my lifelong quest for Maryland orchids.

Generally, orchids are not difficult to find. Take a walk in the nearest woods and you’re likely to find an orchid or two. Some of our woodland species are plentiful, scattered in forested habitats across the state.

Downy rattlesnake-plantain grows in rocky woods and upper portions of stream banks. They can be found during the winter because their distinctive, white-veined leaves are evergreen. Pink lady’s slipper grows throughout Maryland and is quite plentiful in many locations, usually growing in forested habitats. Its big, brightly colored flowers are not to be missed during its blooming period between late April and early May.

Autumn coralroot also is common here, flowering in well-drained woods in late September and October. Its stick-like stem is difficult to spot on the forest floor, so be sure to walk slowly and look carefully or you’ll miss it.

Green wood orchid usually occurs along the mossy borders of wetlands and streams. It is diminutive, with small white or greenish-white flowers, and hides beneath taller vegetation which makes it difficult to spot, but you’ll find it if you search carefully.

Other native orchids are right outside your back door. Get a wildflower guide and learn what they look like. Go orchid hunting! It’s fun and rewarding and doesn’t cost a thing.

“Experts believe there are about 48 orchid species native to Maryland.”
WHERE HAVE ALL THE ORCHIDS GONE?
As some of our orchids are showy and not difficult to find, it is easy for unscrupulous collectors to poach them, a significant factor in the decline of some of our native populations.

There are, of course, other reasons. Logging disrupts the symbiotic relationship between orchids and their soil fungi, a relationship necessary for the orchids’ production of nutrients. Urban sprawl is destroying the ecological balance of the flowers’ habitat, especially in forested zones. The invasion of non-native weeds and heavy browse from deer can also be cited. There is reason to suspect that spraying to control gypsy moth populations may have a deleterious effect on certain insects that pollinate the flower.

For those reasons and more, data indicate that most Maryland orchid species are in serious trouble.

Of the 48 orchid species found in the state, 30 are currently listed by DNR on the Rare, Threatened and Endangered Plants of Maryland list; including 9 listed as extirpated, or totally eliminated; 10 species listed as endangered; 4 that are considered threatened; and 7 considered in serious trouble.

EVIDENCE FROM THE FIELD
A long-term orchid survey in Frederick County’s Catoctin Mountains provides a case study of the rapid decline in orchid populations since the early 1970s. Eighteen species of native orchid, including all the most common ones, were tracked at more than 200 sites. Researchers found dramatic declines in populations of 17 of the 18 species. Nearly one in five sites that had supported viable orchid populations for many years were barren in 2007.

The yellow lady’s slipper, among the most striking of our native orchids, was once widely dispersed throughout Frederick County. Today, the flower has almost disappeared. Evidence in the field indicates poaching is the major cause for decline of this species.

The round-leaved orchid has experienced a similar decline. Since 2004, no specimens have been observed in the field, and it is possible this orchid has been extirpated. Again, poaching is indicated as a major cause for loss of this species in Frederick County.

Declining orchid populations at various Catoctin Mountain sites cannot always...
be ascribed to specific causes, though it is apparent that lumbering and commercial and residential development destroy or degrade orchid habitat. The case of the showy orchid highlights the uncertainty of some of our knowledge about verifiable reasons for diminishing orchid populations. At confirmed sites for this flower in the Catoctins, there is little evidence of poaching. Residential development has only impacted two of these sites, and obvious encroachment by invasive non-native weeds and deer browse have been minimal. Reasons for its steep decline remain a mystery.

COMING BACK

The orchid news out of Maryland isn’t totally negative. Long thought extirpated in Maryland, a nodding pogonia site was confirmed at Great Falls in Montgomery County after a lapse of 50 years, and a significant population of this plant was reported recently at a site in Queen Anne’s County.

A new, viable population of the rare pale green orchid was documented in Charles County during the 2004 field season. Not reported during the past 20 years, the state endangered spreading pogonia was relocated in 2003 in Wicomico County. The long-bracted orchid, a state endangered species, was recently rediscovered in Garrett County for the first time in 40 years. The state-threatened yellow fringed orchid continues to increase in numbers at a managed site in Frederick County, despite a limited amount of suitable habitat in the immediate vicinity. Those sightings suggest the decline in Maryland orchids is not irreversible. But we need to act decisively.

HOW YOU CAN HELP

Marylanders can help assure the continued existence of our native orchids. We can protect areas where orchids grow, especially forested and wetland habitats. We should be vigilant when hiking and refrain from picking or digging up native orchids. We can form groups of local citizens to preserve large tracts of orchid habitat in our local area.

No one should have a keener interest in wild areas near your home than you do. Report all rare, threatened and endangered orchid populations that you find, so the Maryland Wildlife and Heritage Service can help protect the site. In final analysis, the health of the natural world depends on our care and stewardship.

To learn more visit DNR’s Web site at www.dnr.maryland.gov

Richard Wiegand has been a Regional Ecologist with the Maryland Wildlife and Heritage Service since 1988. All accompanying photos are his.