

ORCHIDS IN WINTER?

By Stevens Heckscher

No, I don't mean orchids found in the tropics, or hothouse or florists' orchids. I am talking about an orchid native to New Jersey that can be found in active growth in the middle of the winter. Granted, you won't see it in bloom until July, but it puts out a green leaf in the fall that is photosynthetically active during the winter, at least on warmer days.

Many readers will know that I am talking about the Cranefly Orchid, *Tipularia discolor*, which has a mainly southern distribution, ranging as it does from southeastern Massachusetts to Florida and westward.

It is appropriate that this, my first installment of a column that I hope to present regularly on this website, should be about the plant that first aroused my interest in botany. Years ago, I was on a midwinter field trip looking for birds with the late Dr. Ralph Sargent, a renowned amateur botanist and a professor of English at Haverford College. We were roaming a rich oak wood near the Bombay Hook Refuge in Delaware when Ralph stopped, and pointed down to a green leaf an inch or two in diameter on the floor of the forest. To my uneducated eye it looked just like the leaf of a greenbrier. But when Ralph turned it over, the difference was apparent. The underside of the leaf was purple. "This is the winter leaf of the Cranefly Orchid," Ralph explained. "It puts out its only green leaf at this time of the year, when the canopy of the forest is bare and plenty of light reaches the ground. That is when the leaf does its job of manufacturing food. Then in spring the leaf withers, and in summer the orchid puts up a flowering stem, with small flowers that look a bit like craneflies, hence its name. This stalk has no chlorophyll. Photosynthesis is over until the new leaf appears late in the following autumn." The specific Latin epithet *discolor*, Ralph explained, refers to the fact that the upper and lower sides of the leaf are of two different colors, while *Tipularia* comes from the Latin for "cranefly".

As a very young man I was in awe of Ralph's store of knowledge and of his powers of observation that had enabled him to spot this leaf among all the leaves of many colors littering the ground under the oaks and

hickories surrounding us. I was also in awe of the unusual strategy adopted by this strange orchid, a member of a family that to my untrained mind appeared to be exotic and mysterious. My interest in botany first began to stir as a result of this experience.

I have two pictures to show you. The first is of a flowering stem of the Crane-fly Orchid, taken at Cape May, New Jersey, in July, 1987 (*right*). The second is of a group of winter leaves from several individual plants, taken at Kitty Hawk Woods on North Carolina's Outer Banks in March, 2009, at a site where this orchid is locally abundant (*below*).

You may be interested to know that, worldwide, the genus *Tipularia* has three species¹, occurring in North America and Asia. You may also enjoy knowing that there is at least one other genus of orchids that possesses the same winter-leaf habit. This is *Aplectrum*, the Putty-root, with a single species², *A. hyemale* of eastern North America.

You may find the winter leaf or the summer flowers of the Crane-fly Orchid if you look carefully in rich woods on the Coastal Plain in New Jersey. Southward, the species becomes more common.



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1. D.J. Mabberley, *The Plant-Book, a Portable Dictionary of the Vascular Plants*, 2nd ed. Cambridge University Press, 1997.
 2. Mabberley, *ibid.* However, Gleason and Cronquist state that there are two species, the second one Japanese. H.A. Gleason & Arthur Cronquist, *Manual*

of Vascular Plants of Northeastern United States and Adjacent Canada, 2nd ed. New York Botanical Garden, 1991. But the *Encyclopedia of Life* agrees with Mabberley. See <http://www.eol.org/>