

Fern in Focus—New York Fern

Thelypteris noveboracensis (L.) Nieuwl.
Marsh Fern Family (*Thelypteridaceae*)
Melanie Choukas-Bradley

As the first raindrops of tropical storm Irene penetrated the tall forest canopy, I wound my way along tea-colored Rock Creek. Crossing the Fenwick Branch footbridge and passing a small skunk cabbage wetland, I walked some low hanging witch-hazel boughs and began to switch-back into the upland woods. As Irene unleashed her first serious rain band, I noted signs of early autumn everywhere: the yellow axillary floral clusters of blue-stemmed goldenrod, the first ragged flower heads of white wood aster, some spiky jumpseed racemes, and many fallen tulip-tree leaves. Then a fresh pale green on the slope just above the creek caught my eye. Delicate, shiny-wet, and trembling under the tropical rainfall, a zig-zag cluster of New York fern fronds formed a striking spring-like contrast to the signs of impending autumn all around. Squinting through the rain, I checked more closely to verify my initial ID: Yes, these New Yorkers were “burning their candles at both ends,” their lowest *pinnae* tapering dramatically toward the base of each frond. This feature readily distinguished them from the somewhat similar-looking hay-scented ferns growing just a little farther up the trail. And as I had learned from naturalist Dwight Johnson during the Maryland Native Plant Society’s Year of the Fern, the New York

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fern *pinnae* were only “twice cut” while the hay-scented fern was “thrice cut.” [Dwight’s *Key to the Common Ferns of Maryland* is posted on the MNPS website (www.mdflora.org).] Although New York and hay-scented are two ferns that I had sometimes found difficult to distinguish from each other *before* the Year of the Fern due to their sometimes shared habitat, similar colors, textures and growth patterns, I would never confuse either of them with the third fern sharing this particular slope above Rock Creek. The dark evergreen Christmas fern fronds, an even darker green during the Irene drenching, were easily distinguishable, growing just above the New York and hay-scented ferns amidst twining American beech tree roots.

New York Fern Fronds: Thin, delicate, pale green, with lower *pinnae* tapering to the base and the lowest ones minute. The oft-repeated mnemonic—“New Yorkers burn their candles at both ends”—which refers to the frond’s tapered base as well as its apex, is helpful as a quick diagnostic. (See also **Habitat and Range**, below.) According to *The Peterson Field Guides’ Ferns*: “Fertile fronds are larger, narrower, and more upright than sterile fronds” but they are otherwise similar. Pinnules have smooth margins and they are arranged in a pinnate-pinnatifid pattern. Small round *sori* with kidney-shaped *indusia* are borne near the pinnule margins. MNPS board member Carole

Bergmann tells *Fern in Focus*: “From an artistic/sensory point of view, I love its color, its delicate form, and the characteristic ‘scent’ you can perceive when you are surrounded by a large colony of New York ferns. The story is that ‘hay scented fern’ has a great scent (and it does), but I personally find the New York fern colony scent to be very distinctive and wonderful! One of those sensory delights that is part of walking in a lush woods.” Indeed, and especially fragrant during Irene!

Rachis: Pale green, pubescent or glabrous.

Stipe: Pale green or yellowish, slightly pubescent or glabrous above; browner below, sometimes with a few scales.

Rhizome: Slender, dark brown, widely creeping with a few scales.

Height and Growth Habit: 1-2 feet tall. As MNPS board president Kirsten Johnson notes: “New York ferns cover the ground in a zig-zag fashion rather than in clumps like many other ferns.”

Habitat and Range: Mixed woods and moist but not wet margins of seeps and streams, southeastern Canada and eastern U.S. MNPS board member Cris Fleming remarks: “One thing I always notice about New York fern is its close association with its habitat...if I am walking along a stream valley and I see a mass of pale green ferns on a slope, I usually ‘guess’ that it is NY fern and it almost always is. It grows in such thick profusion in this type of habitat that I can ‘call’ the ID before I really see the individual ferns.” In his July 2011 article, *Annals of the City of Alexandria Herbarium: Small Stream Forests of the Fall Line and Coastal Plain*, MNPS board member Rod Simmons describes the typical habitat of regional small stream communities: “The herbaceous layer is diverse,” he writes, “though large expanses of the forest floor are typically carpeted in lush colonies of New York Fern (*Thelypteris noveboracensis*).”

Locations in Maryland: According to Wesley M. Knapp, Eastern Region Heritage Ecologist and Botanist with Maryland DNR’s Wildlife and Heritage Service: “This fern is found throughout Maryland and is common.” MNPS board member Karyn Molines reports: “New York fern is one of the common ferns on the hillsides just above the freshwater wetlands at Jug Bay Wetlands Sanctuary.” And Carole Bergmann observes: “I would say that New York fern is far and away the most common fern in Montgomery County parks. I have found it in every Regional, Conservation, and Stream Valley Park I’ve surveyed in the county... It is a fern that loves moist woods, and our Montgomery County Park system is built around the stream valleys, since we received much of our current parkland in ‘dedication’ because it was not able to be built on (wetland, stream valleys, floodplains). Most of our Montgomery County park land is perfect habitat for New York ferns.” She notes that Christmas fern is extremely common in the parks as well and Kirsten Johnson adds: “Dwight has the impression that Christmas fern, rather than New York, is the most common fern in Baltimore County.”

Carole Bergmann, Tina Thieme Brown, Marney Bruce, Cris Fleming, Kirsten and Dwight Johnson, Wesley M. Knapp, Karyn Molines, and Rod Simmons contributed to this article.