

CONTRIBUTIONS TO THE  
FLORA OF NAGS HEAD WOODS, II:  
KEY TO THE VINES

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ABSTRACT

A key to the herbaceous and woody vines vouchered and reported from the Nags Head Wood Ecological Preserve (Kill Devil Hills, Dare Co., North Carolina) is presented. The key was developed as part of a larger effort to develop a flora of the preserve.

The Nags Head Woods Ecological Preserve (Kill Devil Hills, Dare Co.) comprises one of the best remaining examples of mid-Atlantic maritime deciduous forest (Schafale & Weakley 1990). The preserve spans 1,092 acres, including an extensive system of dunes, interdunal ponds, and wetlands. Although Nags Head Woods was referenced in their checklist of the flora of the Outer Banks, Stalter and Lamont (1997) unfortunately did not cite voucher specimens. Recent work by the author has resulted in vouchered checklists of both the Nags Head Woods collections at the National Park Service Cape Hatteras National Seashore Unit Herbarium (CAHA) (Krings 2002a) and additions to the flora of the preserve (Krings 2002b). As a preliminary component of a larger flora and to facilitate the identification of plants by researchers, staff, and visitors, this paper provides a key to the herbaceous and woody vines vouchered or reported from the preserve.

METHODS

The key was developed based on critical study of plants in the field, as well as numerous herbarium specimens held at CAHA and NCSC.

RESULTS

The presented key includes both taxa vouchered from or reported for the preserve. See Krings (2002a, 2002b) for vouchered taxa.

*Key to the herbaceous and woody vines*

1. Leaves opposite.....2.
- 1.' Leaves alternate .....9.
2. Leaves compound [**Bignoniaceae**].....3.
- 2.' Leaves simple .....4.
3. Tendrils many-branched, disk-tipped, arising between the leaflets, leaves bi- or tri-foliolate; capsule distinctly flattened in cross-section .....*Bignonia capreolata*
- 3.' Tendrils lacking; leaves pinnately compound, leaflets 7-15; capsule not flattened in cross-section.....*Campsis radicans*
4. Plant climbing with adventitious roots; leaf margins entire to coarsely serrate.....*Decumaria barbara*
- 4.' Plant twining, adventitious roots absent .....5.
5. Plant with milky juice when cut; leaves narrowly linear to linear-lanceolate .....*Cynanchum angustifolium*
- 5.' Plant lacking milky juice; leaves not linear, broader.....6.
6. Leaf bases cordate to truncate; leaf margins coarsely serrate to dentate .....*Mikania scandens*
- 6.' Leaf bases rounded to cuneate, not cordate; leaf margins entire7.
7. Stipules or stipular scar present; corollas yellow, actinomorphic; fruits capsules.....*Gelsemium sempervirens*
- 7.' Stipules absent; corollas white, yellow, red, or orangish-red, zygomorphic (or approaching actinomorphic if red or orangish-red); fruits fleshy berries [*Lonicera*] .....8.

8. Leaf abaxial surface not glaucous; inflorescence axillary, subtending leaves not perfoliolate; corolla white or yellow; ovaries connate; berries black ..... *Lonicera japonica*  
 8.' Leaf abaxial surface glaucous; inflorescence terminal, subtending leaves perfoliolate; corolla red, frequently yellow inside the tube; ovaries not connate; berries red ..... *Lonicera sempervirens*
9. Leaves compound ..... 10.  
 9.' Leaves simple ..... 23.
10. Plant climbing with adventitious roots; swollen pulvini absent ..... *Toxicodendron radicans*  
 10.' Plant lacking adventitious roots, climbing by twining or with tendrils; swollen pulvini present [**Fabaceae**] ..... 11.
11. Tendrils terminating the rachis... *Vicia sativa* ssp. *nigra*  
 11.' Tendrils absent ..... 12.
12. Leaves imparipinnately compound [*Wisteria*] ..... 13.  
 12.' Leaves pinnately trifoliolate ..... 15.
13. Pedicels 5-10 (rarely to 15) mm long; ovary glabrous; legume glabrous; native of SE swamps, bottomlands, and thickets .....  
 ..... *Wisteria frutescens*  
 13.' Pedicels = 15 mm long; ovary pubescent to tomentose; escaped exotic species ..... 14.
14. Leaves of 7-13 leaflets; racemes 10-20 (rarely up to 35) cm long; corollas = 2 cm long ..... *Wisteria sinensis*  
 14.' Leaves of 13-19 leaflets; racemes = 20 cm long; corollas 1.5-2 cm long ..... *Wisteria floribunda*
15. Vine woody ..... *Pueraria montana* var. *lobata*  
 15.' Vine herbaceous ..... 16.

16. Leaf abaxial surface glandular-punctate; corollas yellow .....  
 ..... *Rhynchosia difformis*  
 16.' Leaf abaxial surface not glandular-punctate; corollas various ...  
 ..... 17.
17. Style glabrous or essentially so ..... 18.  
 17.' Style bearded on inner margin or at apex ..... 20.
18. Stipules conspicuous, persistent ..... *Amphicarpaea bracteata*  
 18.' Stipules inconspicuous, caducous [*Galactia*] ..... 19.
19. Plant trailing; corolla 1.1-1.8 cm long... *Galactia regularis*  
 19.' Plant twining (rarely trailing); corolla 0.8-1.2 (-1.4) cm long  
 ..... *Galactia volubilis*
20. Vegetative parts lacking minute uncinata hairs .....  
 ..... *Strophostyles helvula*  
 20.' Vegetative parts with minute uncinata hairs ..... 21.
21. Corolla standard 0.9-1.1 cm long, not resupinate .....  
 ..... *Phaseolus polystachios*  
 21.' Corolla standard 2.5-5 cm long, resupinate ..... 22.
22. Plants twining or trailing; calyx lobes as long as or longer than the calyx tube; legume 3-5 mm diam ..... *Centrosema virginiana*  
 22.' Plants ascending or sprawling; calyx lobes shorter than the calyx tube; legume 5-8 mm diam ..... *Clitoria mariana*
23. Vines tendrillate ..... 24.  
 23.' Vines lacking tendrils ..... 36.
24. Tendrils borne immediately opposite the leaf at a node [**Vitaceae**] ..... 25.  
 24.' Tendrils not borne opposite the leaves ..... 29.

25. Tendrils typically disk-tipped; leaves palmately compound ..... *Parthenocissus quinquefolia*  
 25.' Tendrils not disk-tipped; leaves simple, bi-pinnately, or bi-ternately compound .....26.
26. Bark various, but not shredding; piths white; leaves simple, bi-pinnately, or bi-ternately compound; inflorescence cymose .....  
 .....*Ampelopsis arborea*  
 26.' Bark brownish, shredding (except gray and tight in *V. rotundifolia*); piths brown; leaves simple; inflorescence paniculate [*Vitis*] .....27.
27. Bark of mature stems smooth, gray, adherent, not shredding; piths continuous through the nodes; tendrils simple .....  
 .....*Vitis rotundifolia*  
 27.' Bark of mature stems shredding, brown; piths interrupted at nodes; tendrils branched .....28.
28. Tendrils or inflorescences emerging at three or more successive nodes ..... *Vitis labrusca*  
 28.' Tendrils or inflorescences lacking every third node .....  
 .....*Vitis aestivalis*
29. Tendrils stipular, paired [**Smilacaceae**] .....30.  
 29.' Tendrils not stipular, not paired .....34.
30. Abaxial leaf surface strongly and conspicuously glaucous .....  
 .....*Smilax glauca*  
 30.' Abaxial leaf surface not, or rarely only slightly, glaucous...31.
31. Leaves evergreen, thick, coriaceous, the midvein conspicuously pronounced, the lateral veins scarcely raised .....*Smilax laurifolia*  
 31.' Leaves evergreen or deciduous, typically thin, subcoriaceous, the midvein scarcely, if any, more pronounced than the lateral veins

- .....32.
32. Leaves lanceolate, the bases cuneate, the apices acute to acuminate .....*Smilax smallii*  
 32.' Leaves ovate, oblong, to hastate, the bases cuneate or not, the apices rounded to acute .....33.
33. Lamina with a prominently thickened marginal vein, lamina margins lacking minute denticuloid projections .... *Smilax bona-nox*  
 33.' Lamina lacking a thickened marginal vein, though margins sometimes revolute, lamina margins bearing minute, denticuloid projections near the base .....*Smilax rotundifolia*
34. Tendrils borne at right angles to the petiole.....  
 .....*Melothria pendula*  
 34.' Tendrils simply axillary, not borne at right angles to the petiole [**Passifloraceae**].....35.
35. Petioles glandular near apex; leaf margins toothed .....  
 .....*Passiflora incarnata*  
 35.' Petioles eglandular; leaf margins entire..... *Passiflora lutea*
36. Plant climbing with adventitious roots; at least some leaves lobed.....*Hedera helix*  
 36.' Plant twining, adventitious roots lacking; leaves unlobed...37.
37. Plant a woody vine; leaves obovate to suborbicular, the margins distinctly crenate; fruit a capsule ..... *Celastrus orbiculatus*  
 37.' Plant a woody vine or note; leaves not obovate or suborbicular, the margins entire or only somewhat undulate-crenate; fruit a drupe or a capsule .....38.
38. Plant a woody vine; secondary leaf veins strictly parallel and straight; leaf bases not cordate .....*Berchemia scandens*  
 38.' Plant an herbaceous vine; secondary leaf veins arching, not par-

allel and straight, leaf bases cordate [**Convolvulaceae**].....39.

39. Stigmas 2, subulate to oblong or linear, twice as long as wide or nearly so .....*Calystegia sepium*

39.' Stigma 1, capitate or bi-lobed, the lobes globose [*Ipomoea*] .....  
.....40.

40. Leaves narrowly sagittate; sepals ovate, ca. 0.8 cm long; corolla reddish-purple or pinkish-purple .....*Ipomoea sagittata*

40.' Leaves cordate; sepals oblong-elliptic, 1.2-1.5 cm long; corolla mostly white, the tube white on the outer surface, lavender to purplish on the inner surface .....*Ipomoea pandurata*

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