

COMPTONIA PEREGRINA (L.) Coult.
Sweet-fern

FAMILY: Myricaceae.

SYNONYM: *Myrica asplenifolia* L. var. *tomentosa* (Chev.) Gleason

HABIT: Woody shrub with fragrant foliage, to 1.5 m.; flowering April, May; fruiting June, July.

SIMILAR SPECIES: Seedlings of *Comptonia peregrina* could be confused with those of *Myrica pensylvanica*. Otherwise, this shrub is distinctive.

TOTAL RANGE: NY to NC, w. SC, and n. GA, w. to Sask., MN, IL, and TN.

STATE RANGE (as of 2008): There are post-1980 records from Fulton, Henry, Holmes, and Lucas counties. Pre-1980 records are from Ashland, Ashtabula, Erie, Knox, Lake, Licking, Portage, Wayne, and Wood counties.

HABITAT: Dry, sterile, often sandy soil of open woodlands, pastures, old fields, and clearings; usually in full sun.

HAZARDS: Roadside mowing, clearing of fencerow thickets, insect predators (Wilson, 1970), overshadowing by woody species as a result of succession (see Comments).

RECOVERY POTENTIAL: Unknown, but possibly good (see Comments).

INVENTORY GUIDELINES: Vegetative material can be accurately identified. Roots should not be disturbed.

COMMENTS: *Comptonia peregrina* is an aggressive plant in some parts of its range (Hall et al., 1976). It sprouts readily from its widespread horizontal roots and can spread quickly and easily over a large area (Del Tredici and Torrey, 1976). It possesses nitrogen-fixing root nodules and is considered a good source of soil protection (Lalonde, 1978). The shrub is apparently weakened by shading or 2 to 3 years of close mowing, but is favored by burning (Hall et al., 1976). The seeds contain a powerful germination inhibitor and can remain dormant but viable in the soil for as long as 70 years (Del Tredici, 1977). However, seed germination in nature is seldom observed. Del Tredici and Torrey (1976) theorize that this is due to *Comptonia's* ecological niche as an early successional species that thrives best in disturbed areas with sandy soil and full sunlight. Because sweet-fern does not remain in any given site very long, and because any established individual relies almost completely on root sprouts for extending its range, its fruits function more as an insurance of survival than as the unit of annual reproduction; that is, the type of dormancy seen in *Comptonia* may not have evolved so much to protect the embryo from the severity of its first winter as to ensure the establishment of new plants at some point in the more distant future when a major disturbance has eliminated the parental population. Thus, *Comptonia* fruits deposited in the soil during early succession are apparently capable of surviving a very long time, awaiting some disaster to destroy the late successional vegetation that had replaced the original sweet-fern population. This implies for

our purposes that *Comptonia peregrina* may spring up unexpectedly in areas where it was presumed extirpated. It should be sought in open areas with sandy soil throughout northern Ohio, especially on old Lake Erie beach ridges.

Some authors include this species within the genus *Myrica*, and divide the species into two varieties. Under this concept, our plants are the var. *tomentosa* (see Synonym). The typical variety occurs to the southeast of Ohio.

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