

BERBERIS REPENS (BERBERIDACEAE) NEW AGAIN TO THE FLORA OF PENNSYLVANIA

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ABSTRACT

Berberis repens, a previously documented species from Pennsylvania, though most recently an excluded species from the state record, is reported to occur in a naturalized population. This species was collected from the margins of a woodlot in Butler County in western Pennsylvania.

RESUMEN

Berberis repens, una especie previamente documentada de Pennsylvania, más recientemente se creyó una especie excluida del estado, se cita de una población naturalizada. Esta especie se colectó en los márgenes de un bosque en el condado de Butler en el oeste de Pennsylvania.

Berberis repens Lindl. creeping barberry, is a native, evergreen, low growing, perennial shrub of western North America that is commonly cultivated, though has become naturalized in parts of eastern North America. Typically upright to decumbent, the solitary stems which arise from rhizomes form colonies that are less than 40 cm tall. The inner bark is distinctly yellow. The alternate, holly-like leaves are petiolate and pinnately compound with 3–7 oval, spiny-toothed (6–14 on each side), bluish-green, leathery, leaflets which are minutely papillose on the underside. These turn purplish in winter. Deep yellow, fragrant flowers occur in terminal, drooping racemes from May–June. These in turn are followed by grape-like, 1–4 seeded, dark bluish-purple berries which ripen from June–July (Bailey 1949; Whittemore 1997; Harris 2009; USDA Forest Service 2009). *Berberis repens* differs from *Berberis aquifolium* Pursh, with which it hybridizes when the two grow in proximity to each other, by the latter's greater height (to 2+ m), smooth underside of leaflets, number of leaflets (5–9) per compound leaf, and the number of teeth (10+ on each side) on leaflets (Bailey 1949; Whittemore 1997).

The native range of *B. repens* is the western U.S. east to Texas and Minnesota and British Columbia and Alberta in western Canada (Whittemore 1997). Further, the species has purportedly become naturalized in Ontario, Indiana, and Pennsylvania in eastern North America (USDA, NRCS 2009). Although commonly cited from a site in Northampton Co., PA based on a 1946 collection (Wherry et al. 1973; Rhoads & Klein 1993) this specimen likely represents a planting that persisted for a period of time after being cultivated, but never truly became established as part of the Pennsylvania flora (Grund, pers. comm.). For this reason the species was excluded (Block pers. comm.) from the most recent publication of the Pennsylvania flora (Rhoads and Block 2000).

A naturalized population of *B. repens* was observed in a woodlot adjacent to the water tower on the grounds of the Slippery Rock University campus during the summer of 2008. The population consists of four clustered, relatively young shoots, two of which were in flower, the others vegetative only. No fruits were observed later in the growing season. This said, immature fruits were present in mid-June of the current year. Based on the number of leaves alone the plants are presumed to be about 5–6 years old. Although I am unaware of a nearby cultivated seed source, presumably these shoots are a consequence of a bird introduction from a more or less locally cultivated specimen. The most commonly associated taxa included *Impatiens capensis* Meerb., *Liriodendron tulipifera* L., *Pilea pumila* (L.) A. Gray, *Rubus allegheniensis* Porter, and

Toxicodendron radicans (L.) Kuntze. Because the plants are still small only a single leaf was harvested in late winter.

Voucher specimen: **PENNSYLVANIA. Butler Co.:** Slippery Rock University campus, woodlot adjacent to water tower, 3 Mar 2009, Chmielewski 3205 (SLRO).

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