NOTEWORTHY COLLECTIONS

LESPEDEZA VIOLACEA (L.) PERS. (FABACEAE), A NEW SPECIES FOR WISCONSIN, U.S.A.

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Significance of the Report. No previous specimen of this species from Wisconsin was found.

Previous Knowledge. *Lespedeza violacea* (L.) Pers. (Fabaceae) (violet lespedeza), long known under the synonym *L. intermedia* (S. Watson) Britton, is a perennial herb native to eastern North America, ranging from Florida to Louisiana, north to southwestern Maine, Vermont, and southern Ontario, west to Michigan, northwestern Indiana, eastern Oklahoma, and Missouri (reports for Kansas were disallowed by McGregor 1986). Fernald (1950) stated that the range of this species includes Wisconsin, but no specimen of this species from Wisconsin was found when searching collections on Harvard University Herbaria databases (HUH-Databases 2023). Gleason and Cronquist (1991) seemingly excluded Wisconsin when giving the western limit of the range as "Mich. and Okla....to Tex." Neither was it attributed to Wisconsin by Fassett (1939), Clewell (1966), Isely (1955, 1998), or Wetter et al. (2001), but Clewell did report disjunctions as far west as southeastern Minnesota, northwestern Illinois, and northeastern-central Texas. Searches under the Online Virtual Flora of Wisconsin (Wisconsin State Herbarium 2023) and Consortium of Midwest Herbaria (2024) failed to locate any specimens from Wisconsin.

Lespedeza violacea is also attributed to Wisconsin by Ohashi (2023). Thus, the specimens cited below would seem merely to represent no more than the second record for the state; however, his account likely misrepresents the real situation. In correspondence Dr. Ohashi (pers. comm.) writes that specimens of *Lespedeza* examined by him are mostly in HUH and TUS and that when preparing the manuscript on the genus for FNA, he referred mainly to works by Clewell (1966) and Isely (1990), as well as Fernald (1950). He goes on to say that "actually, the data on range statements in my parts [seven generic treatments] were probably supplied by the editors [and reviewers] of FNA." A subsequent search at TUS has failed to find any specimen from Wisconsin named either *L. violacea* or its synonym *L. intermedia*. In the absence of a verifiable specimen, I am con-

fident that the inclusion of Wisconsin in the FNA volume is based on the range given in *Gray's Manual*.

The state and county data mapped on POWO (2024), GBIF (2023), the PLANTS Database (USDA NRCS 2023), and the North American Plant Atlas (Kartesz 2015) for Michigan, Wisconsin, Iowa, Kansas, Oklahoma, and doubtless other states clearly pertains to a different species, the one formerly called *Lespedeza violacea* and to which the name *L. frutescens* (L.) Hornem. is now applied (see Reveal and Barrie 1991 for clarification of the nomenclature). It is discouraging to contemplate the amount of confusion, published and unpublished (e.g., citizen science projects), that exists, depending on the nomenclature being followed.

Discussion. This small but expanding population was discovered by Sue Steinmann while compulsively pulling spotted knapweed in the summer of 2017. She recognized it as being a bush-clover (a common name for many species of *Lespedeza*) and decided to wait for it to flower before sending a specimen to the Wisconsin DNR for determination. The following year, I was shown the plants on the occasion of a tour of the nearby black oak barrens, decided it might be a species new to the flora, and took a sterile specimen that I soon determined to be *Lespedeza violacea*. Told on September 10 that the plants were starting to bloom, I returned the next day to contend with the Japanese beetles over the least damaged flowers.

Historically, the land was part of a farm, all of which was grazed by cattle through the 1970s, including the wooded hillsides, and corn cribs stood about 30 meters away from the spot occupied by the bush-clover at the time the land was subdivided in 1984 (Steinmann, pers. comm.). The site is the narrow, lower end of a recovering old field, hemmed in on three sides by a private easement road and a strip of young woodland and separated in part from the latter community by a low, artificial berm that must have been pushed or piled up when the nearest house or the road was built. The soil is light-colored, loose, fine sand with a definite but extremely thin zone of organic matter in the surface, a zone entirely missing barely upslope (some 7 m) where the same sand is uniform throughout its occurrence, implying that there, subsoil has been exposed and/or, like the aforementioned oak barrens, the immediate area is developed on old dune sand rather than sandy loam.

The lespedeza stems were solitary or up to 75 together in loose clumps and mostly 0.3–0.6 m tall; only the tallest ones were producing inflorescences. The clumps tended to grow into one another, forming five small patches that collectively occupied an area of about 26 m^2 spread over a shallowly deltate-shaped area 8.4 × 9.1 m.

The habitat is dominated by grasses characteristic of sand barrens and dry prairies, especially *Poa compressa* L. and *Schizachyrium scoparium* (Michx.) Nash, along with *Aristida tuberculosa* Nutt., *Dichanthelium oligosanthes* (Schult.) Gould, *Digitaria cognata* (Schult.) Pilg., *Elymus repens* (L.) Gould, *Paspalum setaceum* Michx., and *Sporobolus cryptandrus* (Torr.) A. Gray. The prominent co-occurring herbs are *Ambrosia psilostachya* DC., *Berteroa incana* (L.) DC., *Conyza canadensis* (L.) Cronquist, *Monarda punctata* L. subsp. *villicaulis* Pennell, *Lespedeza capitata* Michx., *Mirabilis nyctaginea* (Michx.)

MacMill., and *Verbena stricta* Vent. The only woody associate is low-growing *Rhus glabra* L.

I suspect that *Lespedeza violacea* is not native to the site but originated as an accidental introduction. The Wisconsin Land Economic Inventory's land cover map (1935), the Wisconsin Historic Aerial Image of 1937 (USDA 2023), and the U.S. Geological Survey's Arena Quadrangle (7.5-minute series, 1962) all show the site lying within cleared crop land extending to the very base of the bluffs. We have no good idea how long the population may have been present or whether plants might have arrived from elsewhere in the area, but they occupy ground that was disturbed all the years the land was farmed and probably again when easement driveways were installed or paved or the nearest house built. Furthermore, because the plant is actively spreading, this population would be expected to be larger had it been present much earlier than when it was discovered.

Diagnostic Characters. The foliage of *Lespedeza violacea* appears rather like that of *L. frutescens*, but the stems are stiffly erect to ascending, usually wand-like, and branch only above the middle, whereas in *L. frutescens* they are slender, strongly spreading or forking, then commonly become sprawling, and they branch much of their length. The chasmogamous inflorescences of *L. violacea* are compactly flowered, crowded among the upper leaves, and about as long as or only slightly protruding beyond the leaves, but in *L. frutescens*, the inflorescences are open, not clustered among the upper leaves, and on very slender peduncles generally well exserted beyond the subtending leaves. When growing in the open, *L. violacea* tends to have congested, small leaves, but in shade it presents a different appearance, being more sparsely foliose and having larger leaves. Such plants may be confused with depauperate or non-flowering *L. frutescens*. Other important differences are in the corollas (keel shorter than the wings in *L. violacea*, longer than the wings in *L. frutescens*) and calyces of cleistogamous fruits (ca. 1/4–1/3 as long as the pod in *L. violacea*, up to 1/5 [rarely 1/4] as long as the pod in *L. frutescens*).

Specimen Citations. Wisconsin. Iowa County. E side of easement driveway opposite 7060 Reimann Rd., 17–20 yds S of the point where that driveway diverges from the one going up to 7046 Reimann Rd., 0.5 mi. due S of U.S. Hwy. 14 in the Village of Arena (N43.154256, W89.907356; elev. 236 m). Ca. 20 loose clumps of erect, crowded stems growing into one another to form an irregularly shaped, triangular stand 3.7 × 4.6 m. August 4, 2018, *T. S. Cochrane, B. A. Cochrane, S. A. Steinmann, & J. Ketelle 16025* (WIS); ibid., stems single or in clumps of 4, 10, 13, 30, etc., up to 75 . . . forming 5 small patches spread over an area deltate in outline, 8.4 × 9.1 m . . . September 11, 2018, *T. S. Cochrane 16035* (GH, MIL, NY, WIS-2 sheets).

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TUS for Wisconsin specimens of *L. violacea*. I am particularly grateful to Dr. Ohashi for his prompt and gracious attention to my various questions.

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