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FIRST REPORT OF THE GLOBALLY VULNERABLE *MYRIOPHYLLUM LAXUM* (HALORAGACEAE) IN LOUISIANA

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ABSTRACT

A collection of *Myriophyllum laxum* in 2015 is the first record of this taxon from Louisiana, extending its range slightly westward. The species has a global conservation status rank of G3, indicating range-wide vulnerability.

Myriophyllum laxum Shuttlew. ex Chapm. is a rare (G3) submersed aquatic with a narrow range that is mostly restricted to the southeastern USA (Noss et al. 2015; NatureServe 2020). Godfrey and Wooten (1981) reported this species to occur in ponds, lakes, streams, backwaters, sloughs, ditches, and canals. Weakley (2020) implies greater habitat specificity, reporting *M. laxum* to occur in limesink depressions, spring runs, and "rarely also in lakes."

In May 2015, we discovered *Myriophyllum laxum* in the northeastern corner of Washington Parish, just southwest of Lamar Co., Mississippi, which was the previously known western limit of this species (Kartesz 2015; USDA, NRCS 2020). The plants were growing in the channel of Ards Creek at Ford's Mill Pond (Figures 2 and 3). Ards Creek is a spring-fed stream with a lush aquatic flora. The Ards Creek corridor generally supports deep bayhead swamp with *Taxodium ascendens*, *Nyssa biflora*, and *Cyrilla racemiflora*. as canopy dominants. Principal emergent herbs included *Orontium aquaticum* and *Peltandra virginica*. *Myriophyllum laxum* was locally abundant near the Ford's Mill Pond control structure where the canopy opened and the current slowed (Figure 4). This control structure was built in the early 1800s by the Ford family and was operated as a sawmill and gristmill possibly into the early 1900s. Close associates of *M. laxum* included floating-leaved aquatics *Nymphaea odorata* and *Nuphar lutea*, and the submersed species *Cabomba caroliniana*. Also present were *Potamogeton pulcher*, which has both submersed and floating leaves, and *Mayaca fluviatilis*.

Voucher specimens. **Louisiana.** Washington Par.: Ford's Mill Pond on Ards Creek, W of Old Columbia Road, ca. 0.25 mi N of jct. with LA Hwy 438, ca. 2.2 air mi NE of Angie, 30.981748, -89.777583, abundant aquatic in channel of Ards Creek, with *Potamogeton pulcher*, *Cabomba caroliniana*, and *Nuphar lutea*, 16 May 2015, *Reid 9215* (LSU, Fig. 1); Same locality, 19 Jun 2015, *Reid 9379* (LSU).

Shortly after discovery, the senior author, who worked for Louisiana's Natural Heritage Program at the time (now the Wildlife Diversity Program), added *Myriophyllum laxum* to the rare plant tracking list with a state rank of S1. Our fieldwork along Ards Creek resulted in the discovery of several

other rare plant species, including *Dulichium arundinaceum* (S2 G5), *Ilex amelanchier* (S2 G4), *Mayaca fluviatilis* (S2 G5), and *Schoenoplectus etuberculatus* (S3 G3G4) (Louisiana Wildlife Diversity Program 2020). *Dulichium arundinaceum* was first discovered at Ford's Mill Pond by the late Dr. John Thieret in October 1967 (*Thieret 28327*, LAF) and it was this record that first drew our attention to this site. We suspect that the Ards Creek corridor harbors other interesting plants yet to be discovered.

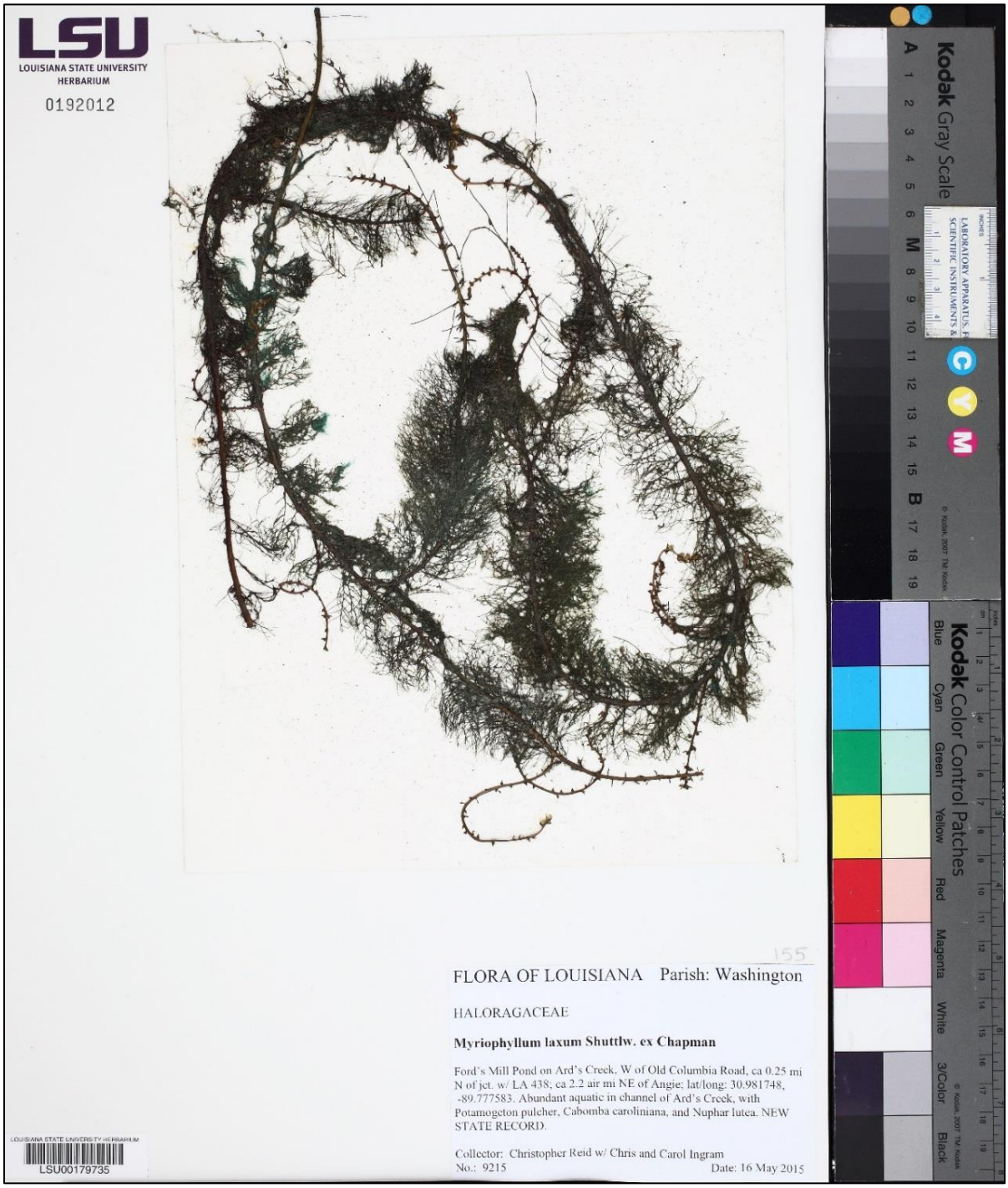

Figure 1. Specimen documenting *Myriophyllum laxum* in Louisiana for the first time. Image courtesy of Shirley C. Tucker Herbarium (LSU).

Figure 2. Numerous aerial inflorescences of *Myriophyllum laxum* in Ards Creek, Washington Par., Louisiana. Photo by Sairah Javed.

Figure 3. Close-up of *Myriophyllum laxum* from Ards Creek in Washington Par., Louisiana. Aerial inflorescences and reddish stems are apparent. Leaf material in lower right of the image is of *Potamogeton pulcher*. Photo by Sairah Javed.

Figure 4. *Myriophyllum laxum* habitat in the channel of Ards Creek, Washington Par., Louisiana. This area is near the Ford's Mill Pond control structure, where the *Taxodium ascendens* canopy gives way to an emergent marsh of *Zizaniopsis miliacea*. The current is reduced here, affording an eddy where numerous aquatic plants occur. Photo by Sairah Javed.

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