

Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

Vol. 48

November, 1946.

No. 575.

VEGETATION OF ARTIFICIAL LAKES IN NORTHWESTERN ARKANSAS

J. B. MOYLE, E. L. NIELSEN AND O. R. YOUNGE¹

During recent years several artificial lakes or water reservoirs have been created in northwestern Arkansas. Aquatic and marsh vegetation has rapidly invaded these newly flooded areas which were formerly farm and forest land. In 1939, extensive collecting was done at four of these reservoirs to determine the nature and extent of natural revegetation. The reservoirs considered include Lake Wedington, near Fayetteville in Washington County; Lake Atalanta, near Rogers in Benton County; the reservoir at Cave Springs in Benton County and that in Devil's Den State Park, Washington County. Lake Wedington and Lake Atalanta each cover about 80 acres and have a maximum depth of about 40 feet. The reservoirs at Cave Springs and Devil's Den have areas of about 3 and 5 acres, respectively, and a depth of about 15 feet.

Two years after Lake Wedington began to fill, 39 species of aquatic and wet soil plants had established themselves. The commonest submerged species were *Chara Braunii* Gmel., *Najas guadalupensis* (Spreng.) Morong and *Potamogeton Berchtoldi* Fieber var. *tenuissimus* (Mert. & Koch) Fern. The most com-

¹ Aquatic Biologist, Bureau Fisheries Research, Minnesota Department of Conservation, St. Paul; Associate Agronomist, Division of Forage Crops and Diseases, U. S. Department of Agriculture, Soils and Agricultural Engineering, Madison, Wis. and Lancaster, Ky., respectively. The collections were made by Nielsen and Younge and the specific determinations by Moyle. Specimens are deposited in the Herbarium of the University of Minnesota.

mon shoreline species was *Eleocharis obtusa* (Willd.) Schult. Other species collected include *Typha latifolia* L., *Potamogeton nodosus* Poiret, *P. natans* L., *Alisma Plantago-aquatica* L., *Lophotocarpus calycinus* (Engelm.) J. G. Smith, *Sagittaria ambigua* J. G. Smith, *S. graminea* Michx., *S. latifolia* Willd., *S. rigida* Pursh, *Anacharis occidentalis* (Pursh) Victorin, *Eragrostis hypnoides* (Lam.) BSP., *Echinochloa pungens* (Poiret) Rydberg, *E. colonum* (L.) Link, *Leersia oryzoides* (L.) Swartz, *Carex gynandra* Schwein., *Cyperus acuminatus* Torr. & Hook., *C. esculentus* L., *C. ovularis* (Michx.) Torr., *C. odoratus* L., *Commelina hirtella* Vahl, *Juncus diffusissimus* Buckley, *J. effusus* L., *J. interior* Wiegand, *J. nodatus* Coville, *Polygonum coccineum* Muhl., *P. Persicaria* L., *P. punctatum* Ell., *Ceratophyllum demersum* L., *Nelumbo pentapetala* Walt., *Ludwigia alternifolia* L., *Nymphoides peltatum* (Gmel.) Britten & Rendle, *Heliotropium indicum* L., *Lindernia anagallidea* (Michx.) Pennell, *Utricularia biflora* Lam. and *Bidens frondosa* L.

A year after the filling of Lake Atalanta the following six species of aquatic and shoreline plants were present: *Potamogeton foliosus* Raf. var. *genuinus* Fern., *Kyllinga pumila* Michx., *Cyperus esculentus* L., *C. strigosus* L. *Leersia oryzoides* (L.) Swartz and *Nasturtium officinale* R. Br. The Devil's Den reservoir, two years after filling, had a sparse flora of *Chara* sp. and *Juncus effusus* L. The exact age of the reservoir at Cave Springs, which is somewhat older, was not ascertained. Eight species were collected here. These included *Chara fragilis* Desvaux, *Typha latifolia* L., *Potamogeton foliosus* Raf. var. *genuinus* Fern., *Leersia oryzoides* (L.) Swartz, *Cyperus strigosus* L., *Scirpus pallidus* (Britton) Fern., *Lycopus rubellus* Moench and *Mentha canadensis* L.

SENECIO TOMENTOSUS Michx., forma **alabamensis** (Britton) stat. nov. *S. alabamensis* Britton ex Small, Fl. Se. U. S. 1305 (1903).

Several collections from eastern Virginia, such as Grimes, no. 3552 from James City County, Heller, no. 850 from Isle of Wight County, and Fernald & Moore, nos. 15,162 and 15,163 from Nansemond County, show that *S. alabamensis* is at best an extreme glabrous or glabrescent form of the generally tomentose



Moyle, J B, Nielsen, E L , and Younge, O. R. 1946. "VEGETATION OF ARTIFICIAL LAKES IN NORTHWESTERN ARKANSAS." *Rhodora* 48, 329–330.

View This Item Online: <https://www.biodiversitylibrary.org/item/14518>

Permalink: <https://www.biodiversitylibrary.org/partpdf/189054>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.