

THE BOG CLEARWEED, *ADICEA FONTANA* LUNELL,  
IN INDIANA.

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At one place in the quaking bog at Mineral Springs,<sup>1</sup> Porter County, numerous small plants of the genus *Adicea* are found growing in great abundance for an area of many square meters. They grow amid bull-rushes (*Scirpus validus*), and are so thick as to form almost a carpet. These plants stand from five to seven centimeters in height. At first glance they look as if they were seedlings or depauperate forms. Careful examination, however, shows that they are perfect plants bearing seeds in abundance. Comparison of specimens of these plants with the description of Lunell's *Adicea fontana*<sup>2</sup> leaves little doubt that they are identical with that species. Both surfaces of the leaves of these small plants have scattered, small, rather stiff, slightly curved blackish hairs. Seeds, blackish, 1.50-1.75x1.25-1.50 mm.

In the Nieuwland Herbarium, University of Notre Dame, are the paratypes of Lunell's *Adicea Deamii*,<sup>3</sup> collected in the Mineral Springs subdunal woods. A specimen of *Adicea* in my own herbarium collected in the subdunal woods at Tamarack agrees for the most part with the same species. That specimen measures 35 centimeters in height, is unbranched, has small, narrow green seeds, 1.25-1.37x0.75-0.87 mm. Both surfaces of the leaves of this plant have scattered whitish hairs.

The relationship of the dwarf plants to the larger, more usually seen forms is not clear, as here and there in the quaking bog a few plants of intermediate size are found, some attaining a height of 20 centimeters. Unfortunately, none of my intermediate sized specimens collected have mature seeds. Both surfaces of the leaves, however, have the blackish hairs characteristic of the dwarf plants. These two forms of *Adicea* show such differences in color, form, and size of the seeds that if they do not represent distinct species, they are exceedingly well-marked ecological forms. The differences in size and shape of the seeds of the two forms are shown by camera lucida drawings in fig. 1, the upper row being the green seeds of the woodland plant, *A. Deamii*, and the lower row the blackish seeds of the bog plant, *A. fontana*. The specimen of *A. Deamii* was collected September 20, 1927. Specimens of *A. fontana* were collected September 11 and 25, 1927.

In the Deam Herbarium are three sheets of small plants of *Adicea* of marsh habitat: 1, Kosciusko County, Big Chapman Lake; 2, Wabash County, Long Lake; 3, Jay County, four miles northeast of Penwell, on an old log in a swamp. All these have the large seeds of *A. fontana*.

<sup>1</sup> Lyon, M. W. Jr. Amer. Midland Naturalist. 10:249, May, 1927.

<sup>2</sup> Lunell, J. Amer. Midland Naturalist. 3:7. January, 1913.

<sup>3</sup> Tom. cit., p. 10.

In the same herbarium from LaGrange County, from a big swamp, shore of Pigeon River, is a sheet of specimens of apparently this species, measuring 27 centimeters tall but having the same type of seeds.

My thanks are due Dr. J. A. Nieuwland for calling attention to Lunell's paper, and to Mr. C. C. Deam for the opportunity of examining his specimens.

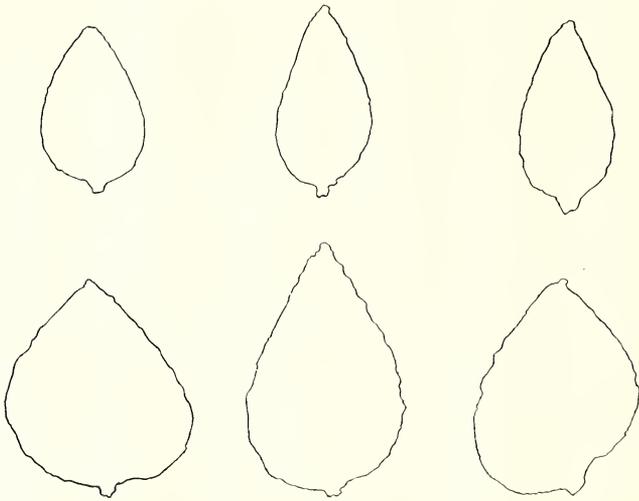


Fig. 1—Seeds of *Adicca Deamii*, upper row, and of *Adicca fontana*, lower row.