

A Report of Fall-fruited Plants of *Ophioglossum engelmannii* Prantl in Eastern Kansas

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The fruiting time of *Ophioglossum engelmannii* Prantl, Engelmann's Adder's-tongue, has been reported in various manuals as occurring during mid-April to early June. Although Palmer (1932) stated that in the Ozarks in a wet autumn a second vegetative growth occurs, he made no mention of fruiting structures. In eastern Kansas, we have found that *O. engelmannii* commonly produces both vegetative and fertile fronds not only during the spring and early summer, but also in the fall season from late August to early November. Table 1 summarizes the data obtained from one to several quadrats, each one m², taken at each site from the colonies indicated, both in the fall of 1970 and the spring of 1971.

TABLE 1. PERCENTAGES OF FERTILE FRONDS

Location	Fall, 1970		Spring, 1971	
	No. of plants	No. fertile	No. of plants	No. fertile
<i>Anderson County</i>				
North Garnett City Park	209	9	82	14
3.5 mi SW of Garnett	153	53	192	25
4 mi S of Garnett	132	4	—	—
<i>Allen County</i>				
0.8 mi N of Neosho-Allen County line on US 169	143	22	384	101
<i>Bourbon County</i>				
Bourbon County State Park, 4.4 mi E of Elsmore	43	3	107	15
2.5 mi E, 1.4 mi S of Hiattville	10	3	72	41
<i>Miami County</i>				
Miami County State Park	19	6	—	—
<i>Elk County</i>				
3 mi W of Elk Falls	108	14	—	—
Totals	817	114	837	196
		(13.9%)		(23.4%)

The following list of representative specimens (all in KANU) indicates that fall-fruited in *O. engelmannii* is relatively common within the range of the species in Kansas.

Allen County: 0.8 mi N of Neosho-Allen County line on US-169, prairie hay meadow, dry loam soil over limestone, 28 Sept 1969, *Magrath* 4977; 5 Oct 1969, *Stephens* 37149; 20 Oct 1970, *Weedon* 6908; 25 Oct 1970, *Magrath & Weedon* 6649.

Anderson County: Garnett, North Garnett City Park, in mowed area, thin clay soil with limestone at the surface, 25 Oct 1970, *Magrath & Weedon* 6648; 3.5 mi SW of Garnett, burned over cedar barren, thin clay loam soil with limestone at the surface, 25 Oct 1970, *Weedon & Magrath* 6910; 4 mi S of Garnett, weedy prairie roadside right-of-way, soil with limestone at the surface, 29 Oct 1970, *Stephens* 46705.

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Bourbon County: Bourbon County State Park, 4.4 mi E of Elsmore, edge of woods along mowed prairie roadside near W-side of lake, clay soil over limestone, 25 Oct 1970, *Weedon & Magrath* 6912; 2.5 mi E of Hiattville on K-39, 1.4 mi S on K-7, prairie hay meadow, clay loam soil over limestone, 25 Oct 1970, *Magrath & Weedon* 6653.

Coffey County: 7 mi N, 2.2 mi W of Westphalia, upland prairie pasture, limestone soil, 8 Nov 1970, *Magrath* 6645.

Douglas County: 1.5 mi W of University of Kansas campus, seepy place in blue-grass pasture, 20 Aug 1930, *Horr*.

Elk County: 3 mi W of Elk Falls, weedy prairie pasture, soil with limestone at the surface, 29 Oct 1970, *Stephens* 46704.

Lyon County: Reading Woods area, 0.5 mi W on K-170, 1 mi N, 0.5 mi W of Reading, prairie pasture, limestone soil, 8 Nov 1970, *Magrath* 6641.

Miami County: Miami County State Park, 2.5 mi E of Fontana, open woods hilltop, soil with limestone at the surface, 29 Oct 1970, *Stephens* 46707.

Wilson County: Hands Hill, 3 mi W of Neodesha, rocky brushy prairie pasture, dry limestone soil, 29 Oct 1970, *Stephens* 46703.

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LITERATURE CITED

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PETRIK, ALETA J. 1969. Ferns and Fern Allies of Kansas, Nebraska, South and North Dakota. Unpublished Ph.D. Thesis, University of Kansas, Lawrence.

NOTES AND NEWS

ALEXANDRE CURT BRADE, the distinguished pteridologist of Rio de Janeiro, died on July 17, 1971, about a month after celebrating his ninetieth birthday. Dr. Brade specialized in Brazilian ferns, orchids, and melastomes. In recent years he worked exclusively on ferns from the New World tropics, especially those of Brazil. He founded the Herbarium Bradeanum, which contains the originals of his collections, most notably a large number of Costa Rican ferns collected in 1908-1910 and many collected in São Paulo and Minas Gerais. On the occasion of his eighty-fifth birthday, his colleague Dr. G. F. J. Pabst published a resumé of Dr. Brade's interesting life (*Taxon* **16**: 161-167, 1967). Included there is a bibliography through 1965. A supplement to this has recently been published by Dr. Pabst (*Bradea* **10**: 69-72, 1971).—*D.B.L.*



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