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NEW RECORDS FOR THE ARKANSAS FLORA. IV

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During the past months further study of the Arkansas Flora has yielded some interesting new records for the state, and some new distribution and size records for ligneous species. These will be presented in the usual taxonomic order.

PTERIDOPHYTES

1. Ophioglossum crotalophoroides Walt., which was first found in Arkansas at Prescott in 1945, (3), then in Faulkner County by Misses Jewel Moore and Inez Hartsoe, (7), and later by the author in several other southern counties, (4, 6), has more recently been found in Ashley, Bradley, and Drew Counties. This strengthens the conviction of the writer that with further close observation, this tiny Ad-dertongue Fern may be found in nearly all the counties of the Coastal Plain region.

SPERMATOPHYTES

GRAMINEAE

2. Aira elegans Willd. ex. Gaud., has been found with A. caryophyllea L. in nearly all counties. The latter was reported in a previous paper, (4), but both species, which had not been included in the Check list (2), should have been included at that time.

3. Aristida virgata Trin., previously reported from Independence County, was found September 23, 1957, in a forest area three miles southwest of Monticello, Drew County, (DMM # 57.411).

4. Erianthus brevibarbis Michx., which is reported in Hitchcock and Chase, (1) as on "Dry hills, southern Ills. (type) and Ark. (Pulaski Co.,) rare." has now been found in nearly all the southern counties with collections made in Drew, Hempstead, Logan and Polk.

5. Gymnopogon brevifolius Trin., which is much

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more rare than G. ambiguus (Michx.) B.S.P., has been found in the Ouachita National Forest about fifteen miles northwest of Mount Ida, Montgomery County, October, 1957, (DMM # 57.490), in addition to Garland County.

LEMNACEAE

6. Lemna minor L., which is almost never seen in the flowering state, was found in late October, 1957, on small pools below the Mississippi River levee at Arkansas City, in an area that was heavily pastured. These plants were in "full bloom," and this was the first time the writer had ever collected them in this stage. This raises the question: Do these plants seldom flower, or do collectors seldom get to them at the right time? As is noted above, this was late in the season, when collectors are not commonly looking for such plants. Further study may help to answer this question.

LILIACEAE

7. Oxytria texana (Scheele) Pollard, was found April 17, 1958, about eleven miles southwest of Monticello, Drew County, on what is locally known as "Warren Prairie," (DMM # 58.88). Another specimen had been collected there a year before and included in a student collection in Botany at Arkansas A. & M. College, but it had been erroneously identified as Ornithogallum umbellatum.

IRIDACEAE

8. In a previous paper, (5), the writer has, without specific identification, referred to an interesting species of Sisyrinchium appearing white, but having lavender veining. Recently, through the help of Dr. Lloyd H. Shinnars of Southern Methodist University, this has been identified as S. laxum Otto. It is now reported from Ashley, Bradley, and Drew Counties, in addition to Union County where it was first found.

9. Another species of this genus having tiny yellow flowers with brown markings in the center, was reported from Union County as S. Brownei Small, (4). Shinnars has pointed out, (9), that this should be designated as S. micranthum Cavanilles. It is now

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reported also from Bradley and Drew Counties.

ORCHIDACEAE

10. Listera australis Lindl., Southern Twayblade, was found at the edge of a small cypress swamp in southeastern Bradley County, April 17, 1958, (DMM #58.92). This curious little orchid is a resident of the coastal plain from New England to Louisiana, so it is not surprising to find it on this part of this plain.

FAGACEAE

11. Quercus arkansana Sarg., which has previously been reported from only Hempstead and central Nevada Counties, has been found in some quantity in northeastern Nevada County and adjacent Ouachita County, in and near Chidester. Here was found one specimen which is a new size record: dbh, 31.9 inches, circumference, 8.35 feet; spread, 45 feet; and height, 45 feet.

12. Quercus incana Bartram, (Q. cinerea Michx.), the Bluejack Oak, which has been known on sandy ridges in Alabama and adjacent territory, was reported in Arkansas for the first time October, 1957, (DMM #57.383), in northwestern Ouachita County about eleven miles from Camden, growing on similar sandy hills. At Chidester, one tree, which is the largest observed to date and may be a record, measured: dbh, 24.7 inches; circumference, 6.47 feet; spread, 25 feet; and height, 30 feet.

13. ^X Quercus capesii W. Wolf, often called Capesius Oak, and supposed to be a hybrid between Q. nigra and Q. phellos, was found in October, 1957, (DMM #57.541), about one-half mile southeast of the A. & M. campus in a wood along a small creek with numerous trees of both putative parents. Several specimens of this supposed hybrid were found here.

14. Quercus Nuttallii Palmer, the Nuttall Oak, has been reported from much of the lower Mississippi River Valley, but in October, 1957, it was found in some quantity in a forested flat, one mile south of Arkadelphia, Clark County, on the north side of U. S. Highway #67. This is considered a westward extension of its known range. At this place some large specimens were measured, and a new size record

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obtained: dbh, 40.5 inches; circumference, 10.6 feet; spread, 75 feet; and height, 80 feet.

CARYOPHYLLACEAE (AIZOACEAE)

15. One of the most important and surprising discoveries, however, was Geocarpon minimum Mackenzie. Until 1957 this had been found in only a single small place in Jasper County, Missouri. In 1957, Steyermark found it in St. Clair County, (10). On April 11, 1958, on a flat, sandy-clay "prairie" area about five miles southeast of Warren, Bradley County, Arkansas, some were found, which have been identified as this species, (DMM #58.31). The following day further search revealed it in considerable quantity in the adjacent area of Drew County as well, (DMM #58.32). Thus it occurs in an area of a half-mile diameter, and there is probably more of it here than has been found in Missouri, where it has been supposed to be strictly endemic.

GENTIANACEAE

16. Gentiana clausa Raf., one of the Closed Gentians, has recently been shown to be distinct from G. Andrewsii Griseb, with which it has long been confused. In October, 1957, some good specimens of this species were found in a wet depression in a wooded area in the southwestern part of Yell County, (DMM #57.479). Examination of the material of this genus in the University of Arkansas Herbarium disclosed that other collections, some identified as G. Andrewsii, were really G. clausa. The following collections should be thus designated: Conway County, Petit Jean Mountain, Alcorn place, (DMM #51.821); Logan County, Magazine Mountain, (DMM #480320); Saline County, Alexander, (10 mi. SW of Little Rock), (DMM #410436).

RUBIACEAE

17. Hedyotis crassifolia var. micrantha Shinnery (Houstonia). This tiny form bearing white or creamy-white flowers was reported without name in an earlier paper, (5), and has since been found in most of the counties of southern Arkansas. Shinnery, (8), has designated it as a variety of H. crassifolia (Houstonia minima Beck). I would like to suggest that it be raised to specific rank, possibly as Hedyotis micrantha (or Houstonia). My primary reasons for

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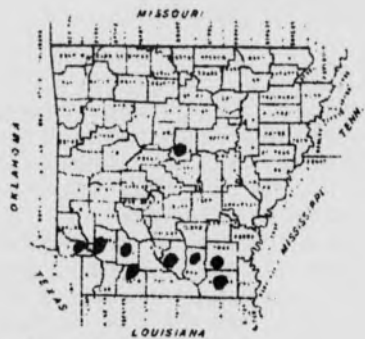
this are: H. crassifolia has leaves which are finely scabrous, at least on the margins, while the other is entirely glabrous. The former has a corolla tube which is narrowly funnel-shaped 1mm. or less in diameter at the bottom, and abruptly widened about half-way up to twice this figure, and the whole tube about twice the length of the calyx. The latter has a short tube, 2 mm., which is about 1 mm. in diameter for its full length, and hardly as long as the calyx. The former may grow as isolated plants or in groups, while the latter commonly grows in large crowded mats. With these as distinct differences, and others which could be listed, I am strongly of the belief that this should be considered a separate species.

18. Hedyotis rosea Raf. (Houstonia pygmaea Mueller & Mueller), the small but striking species with large (1 cm. diam.) pink flowers with hairy yellow centers, which has been reported from a few places in southwestern Arkansas (as well as in Oklahoma and Texas)(11,8), has been found in Ashley, Bradley and Drew Counties.

COMPOSITAE

19. Facelis retusa (Lamarck) Schultz-Bipontinus, which was reported from much of the southern part of the state, (5, 6), under the synonym F. apiculata Cassini, was found May 17, 1957, at the foot of a cliff along the Mulberry River near Yale in the northwestern part of Johnson County. This appears to be a considerable northern extension of its previously known range.

The accompanying maps will help interpret these reports.



1. *Ophioglossum crotalophoroides*



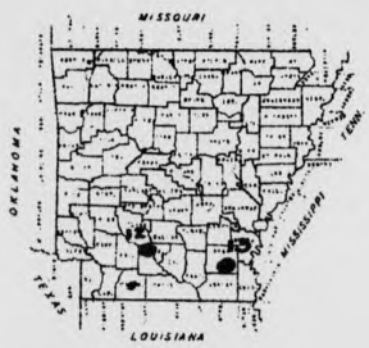
5. *Gymnopogon brevifolius*



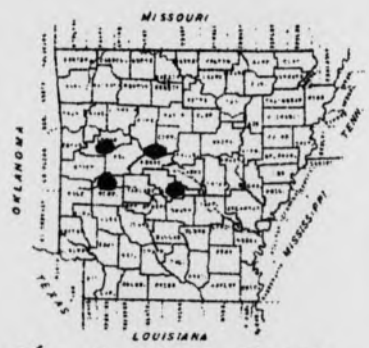
7. *Oxyria texana* and
10. *Listera australis*



8 and 9. *Sisyrinchium* sp.



12. *Q. incana*
13. *Q. capesii*



16. *Gentiana clausii*

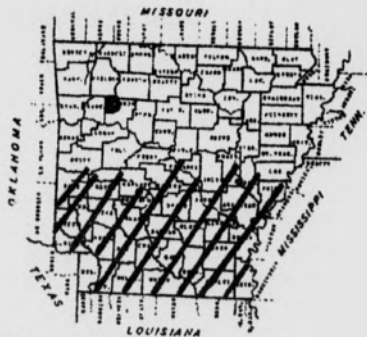
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15. *Geocarpon minimum*



15. *Geocarpon minimum*



19. *Facelis retusa*

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