Journal of the Arkansas Academy of Science

Volume 33 Article 41

1979

Additions, Deletions, and Corrections for the Atlas and Annotated List of the Vascular Plants of Arkansas

Edwin B. Smith
University of Arkansas, Fayetteville

M. Gwen Barber
University of Arkansas, Fayetteville

General Notes

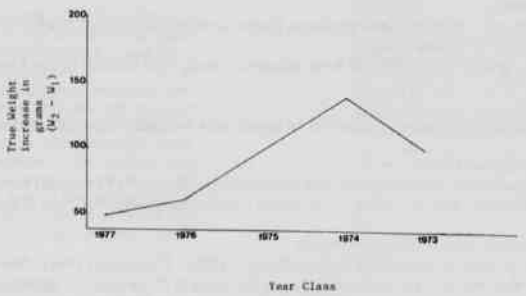

Figure 1: True weight gain ($W_2 - W_1$) white crappie collected from Butterfly Hole by year class (Ricker, 1975).

Table 1. Average coefficient of condition (K_{TL}) for year classes 1972 through 1977.

Year Class	Average K_{TL}	Number of Fish
1972	1.59	1
1973	1.55	3
1974	1.51	6
1975	1.75	31
1976	1.58	11
1978	1.93	2

Table 2. The average calculated total lengths (mm) of white crappie from Butterfly Hole.

Year Class	1	2	3	4	5
1972	124	187	250	313	342
1973	104	165	223	265	296
1974	117	172	226	263	-
1975	107	156	200	-	-
1976	106	149	-	-	-
1977	95	-	-	-	-
Average	109	166	215	280	324
Number of fish	2	11	31	6	3

LITERATURE CITED

BALL, R. L. 1972. The feeding ecology of black and white crappie in Beaver Reservoir. Unpbl. MS Thesis, U. of Arkansas, Fayetteville, Ark. 181 p.

BUCHANAN, T. M., 1973. Handbook of freshwater fisheries biology, Vol. II. Iowa State Univ. Press, Ames, Iowa. 431 p.

FERGUSON, D. V. and I. L. GRAY. 1971. Soil survey of Mississippi County, Arkansas, U. S. Gov't Printing Office, Washington, D. C. 76 p.

HALL, G. E., R. M. JENKINS and J. C. FINNELL. 1954. The influence of environmental factors on the growth of crappie in Oklahoma waters. Okla. Fish. Res. Lab. Rpt. 40:1-56.

MORAIS, D. I. 1975. Estimates of sportfisherman use and harvest, Bull Shoals Lake, 1971-1974. Unpbl. Report, USFWS. 23 p.

RICKER, W. E. 1975. Computation and interpretation of biological statistics for fish populations. Fish. Res. Brd. Canada Bull. #191: 203-233.

WHITACRE, M. A. 1952. The fishes of Crab Orchard Lake, Illinois. Midwest Wildl. Conf. 14:1-41.

WITT. A. J. 1952. Age and growth of the white crappie in Missouri. Doct. Dissert. U. of Missouri, Columbia, MO. 213 p.

STEPHEN A. SEWELL, Dept. of Biology, Arkansas State University, State University 72467. (Present address: Soil Conservation Service, P.O. Box 276, Melbourne, Arkansas 72556).

ADDITIONS, DELETIONS, AND CORRECTIONS FOR THE ATLAS AND ANNOTATED LIST OF THE VASCULAR PLANTS OF ARKANSAS

Since the publication of the Atlas and Annotated List of the Vascular Plants of Arkansas (Smith, 1978, Student Union Bookstore, U. of Ark. at Fayetteville, Fayetteville, Ark., 592 pp.), a large number of new county records and new reports and several new state records and deletions have come to our attention. Over 800 new county records, several new reports, and several deletions are covered in a "Quick Copy" list available from the senior author. Approximately half of the new county records in the "Quick Copy" list have been found by Gwen Barber in her study of the flora of Franklin County. The new state records are presented in the following list. Voucher specimens are on deposit in the herbarium at Fayetteville.

1. COMPOSITAE *Anthemis tinctoria* L.
   This naturalized European species was recently found by Gwen Barber in Franklin County. Barber 165.
2. LABIATAE *Glechoma hederacea* L. var. *hederacea*
   The large-flowered variety of this species was collected from Monroe County by a student in the Plant Taxonomy class, Kim Anderson. Anderson 18.
3. MORACEAE *Cannabis sativa* L.
   This expected species (p. 517 of Atlas) was recently found in an apparently naturalized population in Franklin County by Gwen Barber. Barber 835.
4. PLANTAGINACEAE *Plantago cordata* Lam.
   Our thanks to Dr. Tom Clark for sending a specimen of this expected species (p. 517 of Atlas) to the Fayetteville herbarium, collected by David M. Johnson in Randolph County. The specimen lacks leaves and has immature fruit, but is apparently correctly determined. Johnson 484.
5. POLEMONIACEAE *Phlox carolina* L. subsp. *angusta* Wherry
   A restudy of our Arkansas *Phlox* in light of the monograph by Wherry (1955, The Genus *Phlox*, Morris Arb. Monog. III, Phila., Penn., 174 pp.) indicates that most of what was treated as *P. glaberrima* L. in the Atlas is *P. carolina* L. subsp. *augusta* Wherry. The senior author seriously doubts that this entity should be maintained as distinct from *P. glaberrima*. McCoy 134.
6. POLEMONIACEAE *Phlox carolina* L. subsp. *carolina*
   Some of our material (Craighead, Hot Spring, and Polk Counties) of what was treated as *P. glaberrima* L. in the Atlas is this entity. Demaree 3397.
7. POLEMONIACEAE *Phlox pilosa* L. subsp. *pulcherrima* Lundell
   The dot shown for subsp. *fulgida* in Miller County in the Atlas is actually material of subsp. *pulcherrima*. Wherry's monograph shows it for several other southwestern Arkansas counties. Moore 490067.
8. ROSACEAE *Rosa canina* L.
   Material collected by Richard Davis from Franklin County may represent a local escape from cultivation. Davis 449.
9. ROSACEAE *Spiraea prunifolia* Sieb. & Zucc.
   This cultivated species was collected by Gwen Barber in Franklin County where it is spreading from cultivation to form dense thickets locally by streams, river banks, and old home sites. Barber 503.
10. RUBIACEAE *Galium arkansanum* Gray var. *pubiflorum* E. B. Smith
    A new variety of this species, endemic to Montgomery County, has recently been discovered by the senior author and will be described in a coming issue of Brittonia. Smith 3358.
11. SCROPHULARIACEAE *Parentucellia viscosa* (L.) Caruel.
    This Eurasian species was first found in Arkansas by Gwen Barber in Franklin County. Barber 886.
12. VERBENACEAE *Phyla incisa* Small
    This species was collected recently in Little River County, later in Perry and Franklin Counties. It is so similar to *P. nodiflora* that we suspect much of our "P. nodiflora" is probably *P. incisa*. This problem deserves additional study. Smith 3378.
13. GRAMINEAE *Bouteloua hirsuta* Lag.
    This Great Plains species was recently collected in Miller County by Jerry L. Roberts. Roberts 895.
14. LEMNACEAE *Spirodela oligorhiza* (Kurtz) Hegelm
    First collected in Arkansas by Marie P. Locke and known from her collections now in Arkansas, Clark, and Jefferson Counties. Locke 2677.
15. ORCHIDACEAE *Spiranthes lucida* (H. H. Eat.) Ames
    This expected species (p. 523 of Atlas) was recently collected in Stone County by Paul Redfearn. Redfearn 31747.

EDWIN B. SMITH and M. GWEN BARBER, Department of Botany & Bacteriology, University of Arkansas at Fayetteville, Fayetteville, Arkansas, 72701.

UNUSUAL CONCENTRATION OF SCARLET SNAKES *(Cemophora coccinea)* IN VILLAGE CREEK STATE PARK, ARKANSAS

In Arkansas, the Scarlet Snake *(Cemophora coccinea)* is not considered abundant at any locality where it has been found. Because of the secretive habits of this species, most no doubt escape the attention of collectors.

One specimen was collected by Dellinger and Black Occas. Pap. Univ. Ark. Mus. No. 611, 1938) in the Ft. Smith area and placed in the Univ. of Arkansas at Fayetteville collection, and several others were reported from the Ft. Smith area. Parker (Proc. Ark. Acad. Sci. 2:15-30, 1947) deposited a single specimen from Greene County in the Univ. of Michigan collection. Dowling (Occas. Pap. Univ. Ark. Mus. No. 3, p. 31 1957) reported two specimens, UADZ 739 and UADZ 94, from Pike and Washington Counties and mentioned that there were few records of this species listed for Arkansas. Recent reports from central Arkansas were mentioned by Reagan (Ark. Natural Plan Publ. pp. 101-105, 1074). Byrd and Hanebrink (Herp. Review 7:123, 1976) reported two specimens, one from Izard County and one from Sharp County. No more than one specimen has been reported from any one county other than the reports by Dellinger and Black for the Ft. Smith area.

Since 1975, nine additional specimens have been found in Village Creek State Park located in Cross and St. Francis Counties in eastern Arkansas. The first specimen was collected as it crossed a gravel driveway in early July 1975. A second specimen was dug up in about two inches of humus on a ridge top during trail construction in late July of the same year. Two additional specimens were collected during trail construction in midsummer of 1976. In 1977, Scarlet Snakes were collected as they crossed park roads on the nights of 31 May and 1 July. Three more specimens were collected during the summer of 1978. ON the evening of 24 June, a Scarlet Snake was found on the road near the park entrance. Another was found dead on the road on 4 July and measured 48.6 centimeters in total length. A final 42.3 centimeter specimen was found dead on the road on 9 July.

Village Creek State Park covers 7000 acres within the Natural Division of Arkansas known as Crowley's Ridge. The dominant tree species are White Oak *Quercus alba)* and Beech *(Fagus grandifolia)*. Other common species include various oaks, Sweetgum *(Liquidambar styraciflua)*, Tulip Poplar *(Liriodendron tulipifera)*, Sugar Maple *(Acer saccharum)*, Mockernut Hickory *(Carya tomentosa)*, and Sycamore *(Platanus occidentalis)*.

Despite their striking markings, Scarlet Snakes elude collectors due to their burrowing habits. Nine Scarlet Snakes were collected at Village Creek State Park during the years 1975-1978. This represents the largest number collected in a single locality in Arkansas. All were found on roads during or after rain or were uncovered from forest humus during trail construction.

KEITH B. SUTTON, Seasonal Naturalist, Village Creek State Park, Rt. 3 Box 49B, Wynne, AR 72396. V. R. McDANIEL, Dept. of Biol. Sci., Arkansas State University, State University, AR 72467.