

ADDITIONS TO THE HERBACEOUS FLORA OF
THE MIDDLE TENNESSEE CEDAR GLADES

CAROL C. BARKIN AND TERRY M. BARKIN

UNIVERSITY OF KENTUCKY
LEXINGTON, KENTUCKY 40506

ABSTRACT

Sixty-four species of herbaceous, vascular plants are reported from the Middle Tennessee cedar glades. These species were not included on a preliminary check list published in 1968. Most of the 64 additional species were collected from disturbed cedar glades and are weeds of disturbed habitats.

INTRODUCTION

In 1968 a preliminary check list of the herbaceous, vascular plants of cedar glades of Middle Tennessee, Northern Alabama and Northern Georgia was published (Baskin, Quarterman and Cauthe, 1968). Since the publication of this list the authors have continued botanical studies in the Middle Tennessee cedar glades and have made many visits to numerous glades in Middle Tennessee. During these studies we have found a number of species growing on the glades that were not included on the preliminary check list. The following is a list of the herbaceous, vascular species that occur on open cedar glades of Middle Tennessee but were not reported in the 1968 check list. Many of the species are woody and have invaded disturbed glade sites from nearby fields, roadsides and waste places. None of them are restricted solely to cedar glades.

Nomenclature follows mainly that of Fernald (1950) and Gleason (1952). The organization of families essentially follows Fernald (1950). Species listed under each family are in alphabetical order. Voucher specimens of the species listed below are on deposit with us at the University of Kentucky.

Travel funds were provided in part by the University of Kentucky Research Committee, and this support is gratefully acknowledged. Some of the plants were identified by Dr. Willem Meijer and some by Mr. Jim Conrad.

POLYPODIACEAE

Cheilanthes lanosa (Michx.) D. C. Eaton Infrequent; at edges of glades near shrubs

GRAMINEAE

Aegilops cylindrica Host Infrequent; highly disturbed areas
Arizida oligantha Michx. Occasional especially on glades in the Cedars of Lebanon State Park and north of Lavergne
Bromus serotus L. Rare; in highly disturbed areas
Echinochloa colozum (L.) Link Infrequent; may be locally abundant in seasonally wet ditches
Eragrostis capillaris (L.) Nees Infrequent; seasonally wet ditches
Hordeum pusillum Nutt. Rare; lightly disturbed glades and rocky roadsides
Panicum dichotomiflorum Michx. Rare; in seasonally wet ditches

Sporobolus chlorocoma (Bickel) Hitchc. Infrequent; in Cedars of Lebanon State Park at edges of glades and area north of Lavergne

Styphodon nutans (L.) Nash Infrequent; near edges of thickets in Cedars of Lebanon State Park

CYPERACEAE

Carex granularis Muhl. Infrequent; in seasonally wet ditches

Carex vulpinoidea Michx. Infrequent; seasonally wet ditches

Cyperus cyathus (Michx.) Torr. Infrequent; disturbed areas that are seasonally wet

Scripus linearis Michx. Rare; in and around permanent drainage ditches

JUNCAEAE

Juncus marginatus Rostk. Occasional; edges of seasonally wet pools and ditches

LILIACEAE

Allium vineale L. Occasional; disturbed glades

Yucca filamentosa L. Rare; deeper soil at edges of disturbed glades developed on thick bedded limestone

AIZOACEAE

Mollugo verticillata L. Rare; only location in glades that we have found it is on a small cinder pile in a disturbed glade near Murfreesboro. According to Sharp *et al.* (1960) this species is all over Tennessee except for the Cumberland Plateau and the Central Basin.

CARYOPHYLLACEAE

Arenaria serpyllifolia L. Common; rocky roadsides and disturbed glades

Dianthus armeria L. Rare; lightly disturbed glades

Halostemum umbellatum L. Common; glade roadsides, lightly disturbed glades and occasionally on undisturbed glades

Silene antirrhina L. forma *apetala* Farw. Occasional; disturbed glades

Stellaria media (L.) Cyrillo. Common; rocky roadsides and disturbed glades

RANUNCULACEAE

Ranunculus sardous Crantz Infrequent; in and around seasonally wet ditches and other places on glades subject to flooding in winter and spring

CRUCIFERAE

Arabidopsis thaliana (L.) Hexnold. Occasional; disturbed glades

Cardamine hirsuta L. Common; on undisturbed glades near thickets where shallow soil over limestone is covered with moss, also on deeper soil of disturbed glades

Thlaspi perfoliatum L. Infrequent; locally abundant, lightly disturbed glades and rocky roadsides

ROSACEAE

Rosa virginiana Duchesne. Infrequent; edges of glades in partial shade

LEGUMINOSAE

Lespedeza cuneata (Dumort) G. Don Frequent; disturbed glades and rocky roadsides

LINACEAE

Linum sulcatum Riddell Occasional; lightly disturbed and undisturbed glades

MALVACEAE

Sida spinosa L. Rare; disturbed glades

PASSIFLORACEAE

Passiflora incarnata L. Occasional; in relatively undisturbed glades
Passiflora lutea L. Infrequent; edges of relatively undisturbed glades, often in shade of shrubs and trees

LYTHRACEAE

Lythrum alatum Pursh Rare; cracks in limestone in seasonally wet ditches

ONAGRACEAE

Gaura filipes Spach Infrequent; relatively undisturbed glades in Cedars of Lebanon State Park

UMBELLIFERAE

Spermodopis divaricata (Walter) Raf. Common; lightly disturbed glades

ASCLEPIADACEAE

Asclepias tuberosa L. Rare; relatively undisturbed glades

BORAGINACEAE

Lithospermum arvense L. Common; glade roadsides especially on rocky banks
Myosotis verna Nutt. Rare; disturbed glades

LABIATAE

Medicago lupida Pursh Occasional; often locally abundant in shallow soil around rock outcroppings on glades that have been disturbed by pasturing
Lamium amplexicaule L. Infrequent; mostly along rocky roadsides

SCROPHULARIACEAE

Leucospora multifida (Michx.) Nutt. Occasional; shallow soil of relatively undisturbed glades
Mecardonia acuminata (Walt.) Small Occasional; in seasonally wet ditches
Pentstemon canescens Britt. Rare; edges of glades in partial shade

PLANTAGINACEAE

Plantago pusilla Nutt. Rare; on glades lightly disturbed by pasturing

RUBIACEAE

Galium aparine L. Occasional; lightly disturbed glades
Galium crucians (L.) Scop. Rare; lightly disturbed glades
Houstonia canadensis Wild. Occasional; on relatively undisturbed glades in Lavergne area
Houstonia nigricans (Lam.) Fern. Common; undisturbed glades in Cedars of Lebanon State Park

Ambrosia trifida L. Rare; in highly disturbed areas
Artemisia annua L. Occasional; mostly in disturbed glades
Aster undulatus L. Occasional; edges of glades in partial shade
Cacalia tuberosa Nutt. Rare; prairie-like areas of glades in soil 15 to 25 cm deep over solid limestone
Eupatorium serotinum Michx. Rare; edges of glades in deep soil in full sun
Helenium autumnale L. Infrequent; near ditches and in seepage areas
Helianthus hirsutus Raf. Occasional; edges of glades
Helianthus mollis Lam. Rare; more abundant on deeper soils in badly eroded old fields dominated by *Juniperus virginiana* L. and *Andropogon* spp.
Helianthus occidentalis Riddell Occasional; edge of relatively undisturbed glades
Parthenium integrifolium L. Rare; in eroded glade area in Cedars of Lebanon State Park
Polymnia canadensis L. Occasional; locally abundant in Cedars of Lebanon State Park, at edge of glades and continuing into glade woods
Silphium terebinthinaceum Jacq. var. *pinnatifidum* (Eil.) Gray Rare; we have found it only on glades in Cedars of Lebanon State Park
Solidago altissima L. Rare; at edges of highly disturbed glades
Solidago nemoralis Ait. Occasional; deeper soil at edges of glades, more abundant in eroded old fields
Vernonia altissima Nutt. Infrequent; mostly on disturbed glades

The following species were reported in the 1968 check list, but the variety (-ies) of these species (of which there may be several) was not given.

Arenaria patula Michx. var. *patula* All specimens of this species that we have examined from the Middle Tennessee cedar glades are variety *patula*.

Physalis heterophylla Nees var. *heterophylla*
Physalis heterophylla Nees var. *ambigua* (Gray) Rydb.
Phacelia dubia (L.) Trel. var. *dubia*

In addition to the species listed above several other taxa have been reported from the Middle Tennessee cedar glades since the publication of the preliminary check list in 1968. These taxa include *Satureja arkansana* (Nutt.) Britt. (Rogers and Bowers, 1969), *Salvia reflexa* Hornem. (Baskin and Baskin, 1971), *Leavenworthia exigua* var. *lutea* Rollins (Baskin and Baskin, 1973), *Medicago minima* (L.) Desr. *M. orbicularis* (L.) Bart. and *Gutierrezia dracunculoides* (DC.) Blake (Kral, 1973).

One more note should be added. In the 1968 check list *Rumex* spp. is listed, indicating that there are several species of *Rumex* on the glades. In our studies we have collected only *Rumex crispus* L.

LITERATURE CITED

- Baskin, J. M. and C. C. Baskin. 1971. *Salvia reflexa* new to Tennessee. *Castanea* 36:77-79.
_____. 1973. *Leavenworthia exigua* var. *lutea* Rollins in Tennessee cedar glades. *Castanea* 38:195-196.
Baskin, J. M., E. Quarterman and C. Caddle. 1968. Preliminary check list of the herbaceous vascular plants of cedar glades. *Jour. Tenn. Acad. Sci.* 43:65-71.
Fernald, M. L. 1950. 8th Ed. Gray's manual of botany. Amer. Book Co., New York.
Gleason, H. A. 1952. The new Britton and Brown illustrated flora of the Northeastern United States and Adjacent Canada. The New York Botanical Garden. Lancaster Press, Inc. Lancaster, Penn.
Kral, R. 1973. Some notes on the flora of the Southern States, particularly Alabama and Middle Tennessee. *Rhodora* 75: 366-410.
Rogers, K. E. and F. D. Bowers. 1969. Notes on Tennessee plants. *Castanea* 34:394-397.
Sharp, A. J., R. E. Shanks, H. L. Sherman and D. H. Norris. 1960. A preliminary checklist of dicots in Tennessee. Unpublished manuscript.