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THE GRASS FLORA OF SHELBY COUNTY, TENNESSEE[1]

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Up to this time no thorough study of the grasses of western Tennessee has been made. A limited number of publications have dealt with the grass flora of the state, but most of these appeared before 1902 (Gattinger 1901, Killebrew 1878, and Scribner 1892, 1894). The purpose of the present study is to determine the species making up the grass flora of the Memphis area.

The species listed in this publication were collected in Shelby County, Tennessee, between June, 1960, and July, 1962. A total of more than 1,000 plants were collected from the various habitats of the county, which include the Mississippi and Wolf River bottoms, hilly and wooded areas, lowland and upland meadows, swamps, lawns, vacant lots, streetsides, and railroad right of ways. Field work was planned so that the various habitats were visited at least once every two weeks during the growing season to secure flowering and fruiting specimens of every taxon.

The list has been annotated to include some information on relative abundance and ecological distribution of many of the species. The names used are those of Hitchcock (1950). A representative of each taxon has been deposited in the herbarium of Memphis State University and in my personal collection. Also many plants collected in this study have been placed in the herbarium of Iowa State University.

Arundinaria gigantea (Walt.) Muhl.—Common in low, moist woods.

Bromus
- *catharticus* Vahl.—Somewhat common, both cultivated and escaped.
- *secalinus* L.—Very rare.
- *commutatus* Schrad.—Very abundant in open and partly shaded areas.
- *japonicus* Thunb.—Abundant weed in open and partly shaded areas.
- *tectorum* L.—Very rare, found along a railroad right of way.

Festuca
- *octoflora* Walt.—Very abundant during May in open meadows.
- *arundinacea* Schreb.—Abundant, both cultivated and escaped.
- *obtusa* Bieler.—Somewhat sparse, found in wooded areas.

Glyceria striata (Lam.) Hitchc.—Common in shaded, moist places.

Poa
- *chapmaniana* Scribn.—Very abundant, an early weed of open areas.
- *annua* L.—Abundant in the spring and early summer.
- *compressa* L.—Somewhat sparse, found on well drained hillsides.
- *pratensis* L.—Very abundant in many habitats.
- *sylvestris* A. Gray—Rare, growing on shaded, moist ground.
- *autumnalis* Muhl. ex. Ell.—Somewhat sparse, growing in moist woods.

Eragrostis
- *glomerata* (Walt.) L. H. Dewey—Rare, growing in wet areas.
- *hypnoides* (Lam.) B.S.P.—Rare.
- *capillaris* (L.) Nees.—Somewhat sparse.
- *pilosa* (L.) Beauv.—Somewhat sparse.
- *pectinacea* (Michx.) Nees.—Abundant in open, moist areas.
- *cilianensis* (All.) Lutati.—Somewhat sparse.
- *poaeoides* Beauv. ex Roem. and Schult.—Rare.
- *hirsuta* var. *laevivaginata* Fern.—Somewhat sparse, growing in the open.
- *intermedia* Hitchc.—Rare.
- *spectabilis* (Pursh) Steud.—Common.

Uniola
- *latifolia* Michx.—Somewhat rare, growing in low, moist, wooded areas.
- *sessiliflora* Poir.— Somewhat rare, growing in moist shaded areas.
- *laxa* (L.) B.S.P.—Somewhat rare in scattered wooded areas.

Dactylis glomerata L.—Common in meadows and partly shaded places.

Melica mutica Walt.—Sparse, growing in well drained wooded areas.

Tridens flavus (L.) Hitchc.—Growing abundantly in open waste areas.

Triticum aestivum L.—Commonly cultivated, some escaping.

Secale cereale L.—Commonly cultivated.

Elymus
- *virginicus* L.—
- *virginicus* var. *glabriflorus* (Vasey) Bush.—
- *virginicus* var. *australis* (Scribn. and Ball) Hitchc.—Each of the three *Elymus* species are very abundant, both in the open and in partly shaded areas.

Hordeum
- *pusillum* Nutt.—One of the most abundant native grasses, found growing in the open.
- *vulgare* L.—Occasionally used for an early ground cover.

Lolium
- *perenne* L.—Common in open areas.
- *multiflorum* Lam.—Common in open areas.

Sphenopholis
- *obtusata* (Michx.) Scribn.—Rare, found in moist shaded areas.
- *intermedia* (Rydb.) Rydb.—Rare, found in moist shaded areas.
- *nitida* (Bieler) Scribn.—Rare, found in moist shaded areas.

Aira elegans Willd. ex Gaudin.—Rare, growing in shaded areas.

Avena sativa L.—Widely cultivated.

Holcus lanatus L.—Very rare.

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Agrostis
- *alba* L.—Abundant, both cultivated and native, growing in open areas.
- *hiemalis* (Walt.) B.S.P.—Abundant, growing in many habitats.
- *perennans* (Walt.) Tuckerm.—Somewhat sparse in open and shaded habitats.

Cinna arundinacea L.—Somewhat sparse, growing along shady streams and in low woods.

Alopecurus carolinianus Walt.—Rare, found growing in the open.

Phleum pratense L.—Very abundant.

Muhlenbergia schreberi Gmel.—Rare.

Brachyelytrum erectum (Schreb.) Beauv.—Very rare.

Aristida
- *oligantha* Michx.—Common, found in dry meadows.
- *longespica* Poir.—Abundant in dry meadows.

Zoysia sp. Willd.—Used occasionally for lawns.

Leptochloa
- *filiformis* (Lam.) Beauv.—Common in the sandy soil along the Mississippi River.
- *fascicularis* (Lam.) A. Gray—Somewhat sparse, growing in the Mississippi River bottom.
- *panicoides* (Presl) Hitchc.—Rare.

Eleusine indica (L.) Gaertn.—A very abundant weed.

Cynodon dactylon (L). Pers.—One of the most abundant grasses, both cultivated and wild, growing in many habitats.

Phalaris caroliniana Walt.—Very rare, found growing in a new seeding.

Digitaria
- *sanguinalis* (L.) Scop.—Very abundant weed, found in many habitats.
- *ischaemum* (Schreb.) Schreb. ex Muhl.—Very rare, growing in low, sandy, open, Mississippi River bottom soil.

Brachiaria platyphylla (Griseb.) Nash.—Very rare.

Paspalum
- *distichum* L.—Somewhat rare, growing in low, moist areas.
- *pubiflorum* var. *glabrum* Vasey ex Scribn.—Somewhat rare, found growing in sandy, river soil.
- *lividum* Trin.—Rare, growing in an open well drained area.
- *pubescens* Muhl.—Rare.
- *dilatatum* Poir.—Abundant, widely used for pastures and meadows, becoming a weed in lawns.
- *laeve* Michx.—Very rare.
- *floridanum* Michx.—Somewhat sparse, scattered over the county on wet to moist soils.

Panicum
- *xalapense* H.B.K.—Somewhat sparse.
- *xalapense* var. *strictirameum* Hitchc. and Chase—Somewhat sparse.
- *Microcarpon* Muhl. ex Ell.—Fairly common, growing in moist to wet woods.
- *leucothrix* Nash.—Rare.
- *longiligulatum* Nash.—Rare.
- *implicatum* Scribn.; Shinners and Pohl—Somewhat common.
- *albomarginatum* Nash.—Rare.
- *commutatum* Schult.—Abundant.
- *clandestinum* L.—Somewhat sparse.
- *dichotomiflorum* Michx.—Somewhat sparse.
- *capillare* L.—Somewhat sparse.
- *agrostoides* Spreng.—Somewhat sparse.
- *anceps* Michx.—Somewhat sparse.

Echinochloa
- *colonum* (L.) Link.—Found occasionally in low, sandy, open Mississippi River bottom soil.
- *crusgalli* (L.) Beauv.—Abundant in moist to wet open areas.
- *crusgalli* var. *mitis* (Pursh.) Peterm.—Almost as abundant as the species and found in the same habitats.

Setaria
- *geniculata* (Lam.) Beauv.—Very abundant in open areas.
- *faberii* Herrm.—Rare.

Erianthus giganteus (Walt.) Muhl.—Abundant in high, waste meadows, flowering about the last of August.

Andropogon
- *scoparius* Michx.—Common, growing in open areas.
- *virginicus* L.—Abundant in sterile, well drained meadows.

Sorghum halepense (L.) Pers.—Abundant weeds in open places.

Tripsacum dactyloides (L.) L.—Rare, growing in wet places.

Zea mays L.—Commonly cultivated.

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NEWS OF TENNESSEE SCIENCE

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The University of Tennessee has received a supplemental grant of $30,074 from the National Aeronautics and Space Administration for theoretical and experimental studies of visco-type shaft seals in the Department of Mechanical and Aerospace Engineering. William K. Stair, professor of mechanical and aero engineering and director of the research project, said the grant is an addition to a grant of $27,096 received last year from NASA to assist the study.

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