

VI GRASSES OF OKLAHOMA

H. I. Featherly, Oklahoma Agricultural and Mechanical College

This paper is a summary of the work that has been done by the writer on the grasses of Oklahoma since the fall of 1925.

Before proceeding it is well to mention the work done by others on the grasses of the state. The most outstanding work is that done by Mr. G. W. Stevens, who in 1913 collected plants in general over the entire state and later wrote a flora of Oklahoma, but it has not been published. Mr. Stevens perhaps knows more about the plants of the state than any other man. Another good piece of work was done by the late C. W. Prier who collected a great many grasses in Cleveland County and in the vicinity of Tahlequah. Mr. Prier worked on the grasses of the state up to the time of his death about a year ago. Messrs T. R. Stemen and W. S. Myers have made quite a complete collection of the grasses from the vicinity of Oklahoma City and some from the Wichita Mountains.

In collecting data for the grass publication the author has done field work, examined specimens from different herbaria and received lists of grasses from different competent botanists. The most important among these papers on grasses is an unpublished manuscript on the grasses of Oklahoma. This was prepared by Mrs. Agnes Chase of the Smithsonian Institution and is based chiefly on the Stevens collection. The manuscript describes about 175 different species and has ample keys for their identification.

At present the distribution record is very incomplete. It has been taken largely from the different herbaria of the state, viz: Oklahoma University, Northwestern State Teachers' College, Northeastern State Teachers' College, Central High School of Oklahoma City, and Oklahoma Agricultural and Mechanical College with which the writer is connected.

It can be seen that the survey is largely a compilation of what has been done by other workers and the organization of their work into a single publication. There are some species, however, for which no previous record has been found, viz:

Sorobolus clandestinus (Spreng.) Hitchc.

Sporobolus mairus (Trin.) Hitchc.

Sporobolus Drummondii (Trin.) Vasey.

Echinochloa Crus-galli mitis (Pursh.) Peterm.

Muhlenbergia cuspidata (Torr.) Rydb.

Syntherisma filiformis (L.) Nash.

Trisetum interrupta Buckl.

There are in all probability many grasses which have not yet been reported and perhaps species which have not been named.

Up to the present time there have been collected, or an authentic record found of 243 species, and 21 varieties representing 66 different genera. These represent both native and exotic species. The recognized agricultural varieties have been included to make the publication more valuable to the agronomist.

The author wishes here to acknowledge the valuable help which he has received from Dr. A. S. Hitchcock in identifying doubtful species, and from Mrs. Chas. Chase for the use of her manuscript and

for valuable suggestions. He also wishes to express his appreciation for helpful suggestions from the Agronomy Department and from members of the Department of Botany and Plant Pathology in the Oklahoma Agricultural and Mechanical College.

In preparing the final report of the survey the author has followed "The Genera of Grasses of the United States" by Hitchcock. Hence there are not as many genera as Britton and Brown, or Small would list for the same grasses, but sufficient synonymy has been added to each species to enable one to locate the species in any key in which it is listed.

The following list contains the names of the genera and species of grasses found in Oklahoma.

Grasses of Oklahoma

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|---------------------------------------|-------------------------------------|
| Agropyron | Listichlis Raf. |
| repens (L.) Beauv. | spicata (L.) Green. |
| Smithii Rydb. | Echinochloa Beauv. |
| tenerum Vasey. | colona (L.) Link. |
| Agrostis L. | crus-galli (L.) Beauv. |
| alba L. | Eleusine Gaertn. |
| Elliottiana Schult. | indica (L.) Gaertn. |
| hemalis (Walt.) B. S. P. | Elymus L. |
| perennans (Walt.) Tuckerm. | brachystachys Scrib. & Ball. |
| Alopecurus L. | candensis L. |
| geniculatus L. | glabriflorus (Vasey) Scrib. & Ball. |
| Andropogon. | jejunus (Ramaley) Rydb. |
| chrysocomus Nash. | robustus Scribn & Sm. |
| furcatus Muhl. | striatus Willd. |
| glomeratus (Walt.) B. S. P. | virginicus L. |
| Hallii Hack. | Eragrostis Beauv. |
| saccharoides laguroides (D. C.) Hack. | capillaris (L.) Nees. |
| scoparius Michx. | caroliniana (Spreng.) Scribn. |
| ternarius Michx. | cilianensis (All.) Link. |
| virginicus L. | curtipedicellata Buckl. |
| Aristida L. | Frankii Steud. |
| basiramea Engelm. | hirsuta (Michx.) Nees. |
| Curtissii (A. Gray) Nash. | hypnoides (Lam.) B. S. P. |
| desmantha Trin and Rupr. | lugens Nees. |
| dichotoma Michx. | pectinacea (Michx.) Nees. |
| fasciculata Torr. | pilosa (L.) Beauv. |
| Fendleriana Steud. | refracta (Muhl.) Scribn. |
| g'auca Nees. | reptans (Michx.) Nees. |
| intermedia Scribn. & Ball. | secundiflora Presl. |
| lanosa Muhl. | sessilispica Buckl. |
| longiseta Steud. | trichodes (Nutt.) Wood. |
| longispica Poir. | Erianthus Michx. |
| micrantha (Vasey) Nash. | contortus Ell. |
| oligantha Michx. | divaricatus (L.) Hitchc. |
| purpurascens Poir. | Ravennae (L.) Beauv. |
| purpurea Nutt. | Eriochloa H. B. K. |
| ramosissima Engelm. | acuminata (Presl.) Kunth. |
| arundinacea L. | punctata (L.) W. Hamilt. |
| latifolia (Trev.) Griseb. | sericea Munro. |
| Dactylis L. | Festuca L. |
| glomerata L. | elatiior L. |
| Danthonia D. C. | obtusa Spreng. |
| spicata (L.) Beauv. | octoflora Walt. |
| Diarina Raf. | sciurea Nutt. |
| festucoides Raf. | Shortii Kunth. |
| | versuta Beal. |

- Gymnopogon* Beauv.
ambiguus (Michx.) B. S. P.
Holcus L.
halepensis L.
sorghum L.
Homalocenchrus Mieg.
oryzoides (L.) Poll.
virginicus (Willd.) Britton.
Hordeum L.
jubatum L.
pusillum Nutt.
vulgare L.
Hystrix Moench.
Hystrix (L.) Millsp.
Koeleria Pers.
cristata (L.) Pers.
Leptochloa Beauv.
attenuata Nutt.
fascicularis (Lam.) A. Gray.
filiformis (Lam.) Beauv.
Leptoloma Chase.
cognatum (Schultes) Chase.
Lolium L.
perenne L.
temulentum L.
Lycurus H. B. K.
phleoides H. B. K.
Manisuris L.
cylindrica (Michx.) Kuntze.
Melica L.
mutica Walt.
nitens Nutt.
Muhlenbergia Schreb.
arenicola Buckl.
capillaris (Lam.) Trin.
cuspidata (Torr.) Nash.
gracillima Torr.
mexicana (L.) Trin.
racemosa (Michx.) B. S. P.
Schreberi Gamel.
sobilifera (Muhl.) Trin.
sylvatica Torr.
tenuiflora (Willd.) B. S. P.
Munroa Torr.
squarrosa (Nutt.) Torr.
Panicularia Heister.
nervata (Willd.) Kuntze.
Panicum L.
aciculare Desv.
agrostoides Spreng.
anceps Michx.
angustifolium Ell.
Ashei Pearson.
barbipulvinatum Nash.
barbulatum Michx.
Boscii Poir.
brachyanthum Steud.
capillare L.
clandestinum L.
condensum Nash.
commutatum Schultes.
dichotomum L.
dichotomiflorum Michx.
flexile (Gattinger) Scribn.
Wrightii Nash.
Arundinaria Michx.
macrosperma Michx.
tecta (Walt.) Muhl.
Avena L.
fatua L.
sativa L.
sterilis L.
Bouteloua Lag.
curtipendula (Michx.) Torr.
gracilis Lag.
hirsuta Lag.
texana S. Wats.
Brachyelytrum Beauv.
erectum (Schreb.) Beauv.
Bromus L.
ciliatus L.
commutatus Schrad.
inermis Leys.
purgans L.
secalinus L.
tecorum L.
unioloides (Willd.) H. B. K.
Calamovilfa Hack.
gigantea (Nutt.) Scribn. & Merr.
longifolia (Hook.) Hack.
Capriola Adams.
dactylon (L.) Kuntze.
Cenchrus L.
pauciflorus Benth.
Chaetochloa Scribn.
geniculata (Lam.) Millsp. & Chase.
italica (L.) Scribn.
lutescens (Weig.) Stuntz.
viridis (L.) Scribn.
Chloris Sw.
verticillata Nutt.
Cinna L.
Gattingeri Nash.
huachucae Ashe.
Helleri Nash.
hians Ell.
Hillmani Chase.
lanuginosum Ell.
Lindheimeri Nash.
linearifolium Scribn.
malacophyllum Nash.
microcarpon Muhl.
miliaceum L.
mutabile Scribn. & Smith.
obtusum H. B. K.
oligosanthes Schult.
perlongum Nash.
philadelphicum Bernh.
polyanthes Schultes.
praecocius Hitchc. & Chase.
scoparium Lam.
Scribnerianum Nash.
sphaerocarpon Ell.
tennesseense Ashe.

- villosissimum Nash.
 virgatum L.
 Wilcoxianum Vasey.
 xalapense H. B. K.
 Pappophorum Schreb.
 apertum Munro.
 Paspalum L.
 angustifolium Le Conte.
 Bushii Nash.
 circulare Nash.
 distichum L.
 floridanum Michx.
 laeve Michx.
 mucronatum Muhl.
 Muhlenbergii Nash.
 pubiflorum glabrum Vasey.
 setaceum Michx.
 stramineum Nash.
 Phalaris L.
 angusta Nees.
 canariensis L.
 caroliniana Walt.
 Phleum L.
 pratense L.
 Phragmites
 Phragmites (L.) Karst.
 Poa L.
 annua L.
 arachnifera Torr.
 arida Vasey.
 Bigelovii Vasey & Scribn.
 Chapmaniana Scribn.
 compressa L.
 pratensis L.
 sylvestris A. Gray.
 Redfieldia Vasey.
 flexuosa (Thurb.) Vasey.
 Sacciolepis Nash.
 striata (L.) Nash.
 Schedonnardus
 paniculatus (Nutt.) Trel.
 Sitanion Raf.
 elymoides Raf.
 Sorghastrum Nash.
 nutans (L.) Nash.
 Spartina Schreb.
 Michauxiana Hitchc.
 Spenopholis Scribn.
 obtusata (Michx.) Scrib.
 pallens (Spreng.) Scribn.
 Sporobolus R. Br.
 airoides Torr.
 angustus Buckley.
 asper (Michx.) Kunth.
 asperifolius (Nees & Meyer)
 Thurber.
 argutus (Nees.) Kunth.
 canovirens Nash.
 clandestinus (Spreng.) Hitchc.
 cryptandrus (Torr.) A. Gray.
 Drummondii (Trin.) Vasey.
 heterolepis A. Gray.
 mairus (Trin.) Hitchc.
 neglectus Nash.
 texanus Vasey.
 vaginaeflorus (Torr.) Wood.
 Stipa L.
 leucotricha Trin.
 Syntherisma Walt.
 filiforme (L.) Nash.
 marginatum (Link.) Nash.
 sanguinale (L.) Dulac.
 villosum Walt.
 Triodia R. Br.
 albescens Vasey.
 elongata (Buckley.) Nash.
 flava (L.) Hitchc.
 pilosa (Buckl.) Merr.
 stricta (Nutt.) Vasey.
 texana (Thurb.) Nash.
 Tripsacum L.
 dactyloides L.
 Trisetum Pers.
 interruptum Buckl.
 Triticum L.
 aestivum L.
 cylindricum (Host.) Ces.
 Uniola L.
 latifolia Michx.
 laxa (L.) B. S. P.
 longifolia Scribn.
 Zea L.
 mays L.
 Zizaniopsis
 miliacea (Michx.) Doell & Aschers.