

THE VASCULAR FLORA OF CHILHOWEE MOUNTAIN, BLOUNT AND SEVIER COUNTIES, TENNESSEE

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ABSTRACT

The vascular plants of Chilhowee Mountain were collected from 1962 to 1973. A checklist of the known vascular flora, which includes 116 families, 433 genera, and 953 species, subspecies, varieties, forms, or hybrids, is presented.

INTRODUCTION

An investigation of the plants of Chilhowee Mountain was undertaken to increase our knowledge of the flora and vegetation of the mountains between the Great Smoky Mountains and the Ridge and Valley Province. This paper is based on an investigation which included three years of intensive field work and annual collecting

trips from 1967 to 1973. Specimens in the University of Tennessee Herbarium from the study area were checked in July, 1973.

The aims of this research were to determine the nature of the vascular flora, to make a checklist of the vascular plants of the area, and to describe the vegetation of the fifteen cover types on the mountain. The results of this study were presented to the Graduate School of the University of Tennessee as a thesis entitled, "The Vegetation and Flora of Chilhowee Mountain" (Thomas, 1966). The thesis includes detailed analysis of the canopy, shrub, herb, and seedling strata of each of the cover types. The names of the cover-types were established by the author based on vegetation analysis. The current paper presents a list of the vascular plants of Chilhowee Mountain.

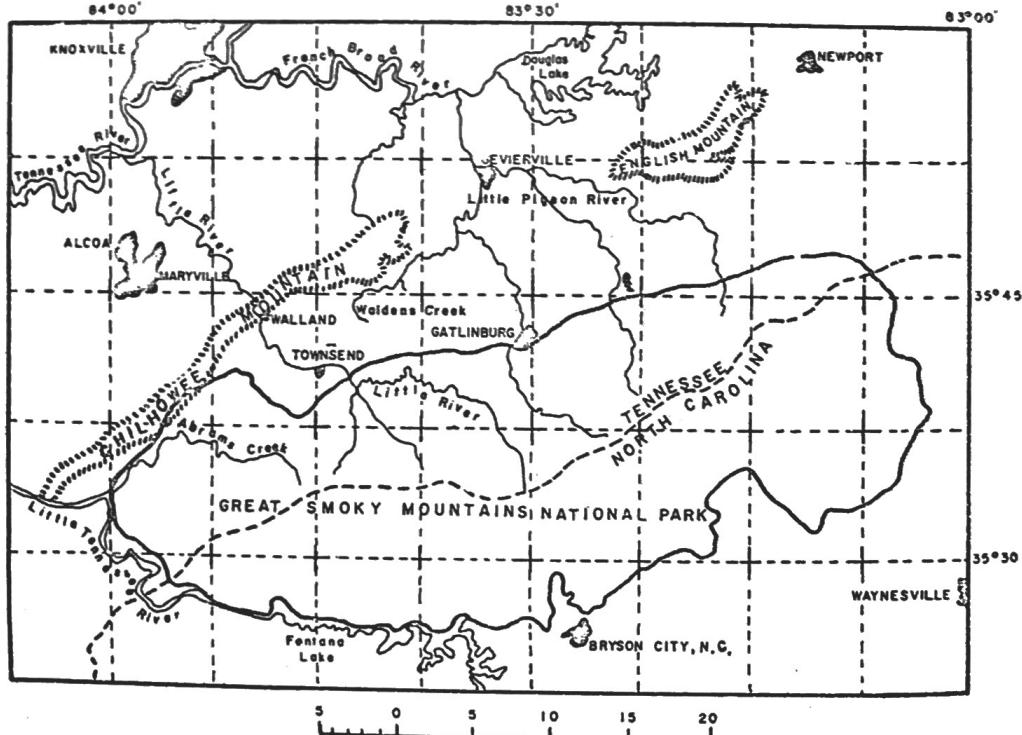


Fig. 1: Chilhowee Mountain: its position in relation to the Smokies and the surrounding area.

Chilhowee Mountain is located in Blount and Sevier Counties in the middle of easternmost Tennessee. This range of mountains runs northeast to southwest. It adjoins the Great Smoky Mountains National Park (hereafter referred to as the Smokies) on the southwest end and is about eight miles northwest of it at the northeast end. Location with respect to the surrounding area is shown in Figure 1.

Chilhowee Mountain is a narrow range of mountains that is two to six miles wide and approximately thirty-two miles long. The area is approximately 64,000 acres; elevations vary from 823 feet above sea level at Tallassee to 3,069 feet at the state fire tower on Greentop in Sevier County.

A wide array of geological formations and soils occur on Chilhowee Mountain. Although near the Smokies, it differs from them geologically (King, 1964). The vegetation is second-growth and quite different from that described by Whittaker (1956) from the Smokies. A detailed analysis of the vegetation is in the thesis (Thomas, 1966). About thirty per cent of the plants known to occur on Chilhowee Mountain have never been collected in the Smokies (Hoffman, 1964; and University of Tennessee Herbarium) although the Smokies flora is one of the best known of the entire area.

The alphabetical checklist of vascular plants follows and includes 116 families, 433 genera, and 953 species, varieties, subspecies, forms, or hybrids. Fernald (1950) and Radford, Ahles, and Bell (1964) were primary sources used in the nomenclature and identification of the specimens. Voucher specimens are on deposit in the Herbaria of the University of Tennessee and Northeast Louisiana University.

ALPHABETICAL LIST OF TAXA

ACANTHACEAE

- Justicia americana* (L.) Vahl.
Ruellia carolinensis (Walt.) Steud.

ACERACEAE

- Acer negundo* L.
A. pensylvanicum L.
A. rubrum L.
A. rubrum var. *trilobum* K. Koch.
A. saccharinum L.
A. saccharum Marsh.

AMARYLLIDACEAE

- Hypoxis hirsuta* (L.) Coville
Narcissus pseudo-narcissus L.

ANACARDIACEAE

- Rhus copallina* L.
R. glabra L.
R. radicans L.
R. typhina L.

ANNONACEAE

- Asimina triloba* (L.) Dunal.

APIACEAE

- Angelica venenosa* (Greenway) Fern.
Chaerophyllum tainturieri Hook.
Cicuta maculata L.
Cryptotaenia canadensis (L.) DC.
Daucus carota L.
Ligusticum canadense (L.) Britt.

ALISMATACEAE

- Aisma subcordatum* Raf.
Sagittaria engelmanniana ssp. *longirostrata* (Micheli) Bogin
S. latifolia var. *pubescens* (Muhl.) J. G. Smith

AMARANTHACEAE

- Amaranthus hybridus* L.
A. spinosus L.

ASTERACEAE

- S. trifoliata* Bickn.
Taenidia integrerrima (L.) Drude
Thaspium barbinode (Michx.) Nutt.
T. trifoliatum (L.) Gray

APOCYNACEAE

- Apocynum androsaemifolium* L.
A. cannabinum L.
Vinca minor L.

AQUIPOLIACEAE

- Ilex montana* T. & G.
Ilex montana var. *mollis* (Gray) Britt.
Ilex opaca Ait.

ARACEAE

- Arisaema triphyllum* (L.) Schott

ARALIACEAE

- Aralia nudicaulis* L.
A. racemosa L.
A. spinosa L.
Hedera helix L.
Panax quinquefolia L.

ARISTOLOCHIACEAE

- Aristolochia macrophylla* Lam.
A. serpentaria L.
Hexastylis arifolia var. *ruthii* (Ash) Blomquist
H. shuttleworthii (Brit. & Baker) Small

ASCLEPIADACEAE

- Ampelaster albida* (Nutt.) Britt.
Asclepias aplexicaulis Sm.

- A. exaltata* L.
A. incarnata L.
A. quadrifolia Jacq.
A. syriaca L.
A. tuberosa L.
A. variegata L.

- Gonolobus gonocephalus* (Walt.) Perry

ASPIDIACEAE

- Athyrium filix-femina* var. *asplenoides* (Michx.) Liew.

- A. pycnocarpon* (Spreng.) Tidestrom

- A. thelypteroides* (Michx.) Desv.

- Dryopteris intermedia* (Muhl.) Gray

- D. marginalis* (L.) Gray

- Oncoclea sensibilis* L.

- Polystichum acrostichoides* (Michx.) Schott

- Thelypteris hexagonoptera* (Michx.) Weatherby

- T. noveboracensis* (L.) Nieuw.

ASPLENIACEAE

- Asplenium montanum* Willd.

- A. platyneuron* (L.) Oakes

- A. resiliens* Kuntz

- A. trichomanes* L.

- Campsisodoris rhizophyllus* (L.) Link

ASTERACEAE

- Achillea millefolium* L.

- Ambrosia artemisiifolia* L.

- A. bidentata* Michx.

- A. trifida* L.

- Anthemis cotula* L.

- Antennaria fallax* Greene

- A. neglecta* Greene

- A. plantaginifolia* (L.) Hook.

- A. solitaria* Rydb.

- A. cordifolia* L.

- A. curtissii* T. & G.

- A. divaricatus* L.

- A. dumosus* L.

- A. inermis* Michx.

- A. laevis* L.

- A. lateriflora* (L.) Britt.

- A. linearifolia* L.

- A. lowrieana* Porter

- A. macrophylla* L.

- A. oblongifolium* Nutt.

- A. patens* Ait.

- A. patens* var. *philoxerifolius* (Muhl.) Nees.

- A. pilosus* Willd.

- A. prenanthoides* Muhl.

- A. punicea* L.

- A. scutellata* Michx.

- A. undulata* L.

- Bidens bipinnata* L.

- B. connexa* (Gray) Wieg.

- B. frondosa* L.

- B. polylepis* Blake

- Cacalia amplexicarpa* L.

- C. millefolium* (Sch. Bip.) Fern.

- Chrysanthemum leucanthemum* L.

- Chrysopsis mariana* (L.) Ell.

- C. nervosa* (Willd.) Fern.

- Cirsium carolinianum* (Walt.) Fern. & Schubert

- C. vulgaris* (Savt.) Tenore

- Coreopsis auriculata* L.

- C. major* Walt.

- Elephantopus carolinianus* Willd.

- E. tenerrimus* L.

- Erechtites hieracifolia* (L.) Raf.

- Erigeron annuum* (L.) Pers.

- E. canadensis* L.

- E. philadelphicus* L.

- E. pulchellus* Michx.

- E. strigosus* Muhl.

- Eupatorium album* L.

- E. aromaticum* L.

- E. coelestinum* L.

- E. fistulosum* Barratt

- E. incarnatum* Walt.

- E. maculatum* L.

- E. perfoliatum* L.

- E. purpureum* L.

- E. rugosum* Houtt.

- E. rugosum* forma *villicula* Fern.

- E. serotinum* Michx.

- E. sessilifolium* L.

- Gnaphalium obtusifolium* L.

- G. purpureum* L.

- Helenium amarum* (Raf.) H. F. L. Rock

- H. autumnale* L.

- Helianthus atrorubens* L.

H. divergens L.
H. hirsutus Raf.
H. macrocalyx Schrad.
H. microcephalus T. & G.
H. sulphurea Nutt.
H. uramomia L.
H. tuberosa L.
Heuchera hispida (L.) Sweet
Heracleum groenii L.
H. macrorhizum L.
H. venosum L.
Krigia diffusa (Walt.) Raf.
K. virginica (L.) Willd.
Kunzea ericoides L.
Lactuca canadensis L.
L. sativa L. Gaertn.
L. saligna L.
L. varia L.
Lettuce (Gmel.) K. Koch
K. leucophaea
L. aquatica L. Michx.
P. canescens L.
P. nemoralis L.
P. paniculata L.
P. rotundifolia L.
P. scutellata Pers.
P. triloba (L.) Desv.
P. virginiana (Mill.) K. Koch

BALSAMINACEAE
Impatiens capensis Muell.
I. pallida Nutt.

BERBERIDACEAE
Auriparus thalictroides (L.) Muhl.
P. pedicularia (L.) Wood

BETULACEAE

Ailanthus altissima (Ait.) Willd.
Betula alleghaniensis Britt.

B. lutea L.

B. nigra L.

Carpinus caroliniana Willd.

C. americana L.

C. lutea Michx.

C. virginiana (Mill.) K. Koch

BIGNONIACEAE

Bignonia capreolata L.

C. amara L.

CISTACEAE

Hedysarum occidentale Fenzl.

H. occidentale (Mill.) Muhl.

Magnolia acuminata L.
M. fraseri Walt.
M. tripetala L.

MALVACEAE

Hibiscus syriacus L.
Sida spinosa L.

MELASTOMATACEAE
Rhexia mariana L.
R. virginica L.

MENISPERMACEAE
Cocculus carolinus (L.) DC.

MORACEAE
Macrlura pomifera (Raf.) Schneid.
Morus rubra L.

NYSSACEAE
Nyssa sylvatica Marsh.

OLEACEAE
Fraxinus americana L.
F. americana var. *baltimoreana* (Beadle) J. Wright
F. pensylvanica Marsh.
F. pensylvanica var. *subintegerrima* (Vahl.) Fern.
Chionanthus virginicus L.
Ligustrum vulgare L.

ONAGRACEAE
Circaea lutetiana ssp. *canadensis* (L.) Raven

Epilobium coloratum Biebler
Gaura biennis L.

Ludwigia alternifolia L.
L. palustris (L.) Ell.
Oenothera biennis L.

O. laciniata Hill

O. speciosa Nutt.

OPHIOGLOSSACEAE
Botrychium dissectum Spreng.
B. virginianum (L.) Sw.
Ophioglossum vulgatum L.

ORCHIDACEAE

Aplectrum hyemale (Muhl.) Torr.

Cleistes divaricata (L.) Ames
Corallorrhiza odontorhiza (Willd.) Nutt.

C. wisteriana Conrad
Cypripedium acaule Ait.

C. calceolus var. *pubescens* (Willd.) Correll

Goodyera pubescens (Willd.) R. Br.

Habenaria ciliaris (L.) R. Br.
H. clavellata (Michx.) Spreng.

H. lacera (Michx.) Lodd.
Liparis liliifolia (L.) Richard

Malaxis unifolia Michx.
Orchis spectabilis L.

Spiranthes cernua (L.) Richard
S. gracilis (Bigel.) Beck.

S. grayi (Ames) Fern.

OROBANCHACEAE

Conopholis americana (L.) Weller.

Epifagus virginiana (L.) Bart.
Orobanche uniflora L.

OSMUNDACEAE

Osmunda cinnamomea L.
O. claytonia L.
O. regalis L.

OXALIDACEAE

Oxalis grandis Small
O. stricta L.
O. violacea L.

PAPAVERACEAE

Corydalis sempervirens (L.) Pers.
Sanguinaria canadensis L.

PASSIFLORACEAE

Passiflora incarnata L.
P. lutea L.

PHRYMACEAE

Phryma leptostachya L.

PHYTOLACCACEAE

Phytolacca americana L.

PINACEAE

Pinus echinata Mill.
P. pungens Lamb.
P. rigida Mill.

P. strobus L.

P. taeda L.

P. virginiana Mill.

PLANTAGINACEAE

Plantago aristata Michx.

P. lanceolata L.

P. rugelii Dene.

P. virginica L.

PLATANACEAE

Platanus occidentalis L.

POACEAE

Agropyron repens (L.) Beauv.

A. rusticum L.

A. altilissima (Walt.) Tuckerman

A. perennans (Walt.) Tuckerman

A. scabra Willd.

Andropogon ellipticus Chapm.

A. gerardii Vitman

A. scoparius Michx.

A. ternarius Michx.

A. virginicus L.

Anthonoxanthum odoratum L.

Aristida dichotoma Michx.

A. purpurascens Poir.

Arthraxon hispidus var. *cryptatherus* (Hack.) Houda

Arundinaria gigantea (Walt.) Chapm.

Brachyelytrum erectum (Schreb.) Beauv.

Bromus commutatus Schrad.

B. japonicus Thunb.

B. secalinus L.

Calamagrostis cinnoides (Muhl.) Bart.

Chasmanthium latifolium (Michx.) Yates

C. laxum (L.) Yates

Cinna arundinacea L.

Coix lacryma-jobi L.
Cynodon dactylon (L.) Pers.
Dactylis glomerata L.
Danthonia compressa Austin

D. spicata (L.) Beauv.

D. spicata var. *longipila* Scribn. & Merr.

Digitaria filiformis (L.) Koel.

D. ischaemum (Schreb.) Muhl.

D. sanguinalis (L.) Scop.

D. violaceus Link.

Echinocloa crusgalli (L.) Beauv.

E. muricata (Beauv.) Fern.

Eleusine indica (L.) Gaertn.

Elymus virginicus L.

E. virginicus var. *glabriflorus* (Vasey) Bush.

Eragrostis capillaris (L.) Nees

E. hypnoides (L.) BSP.

E. spectabilis (Pursh) Steud.

Erianthus alopecuroides (L.) Ell.

Festuca arundinacea Schreb.

F. elatior L.

F. myuros L.

F. obtusa Biebler

F. octoflora Walt.

Glyceria melicaria (Michx.) F. T. Hubbard

G. striata (Lam.) Hitch.

Holcus lanatus L.

Hordeum pusillum Nutt.

H. vulgare L.

Leersia oryzoides (L.) Sw.

L. virginica Willd.

Leptochloa filiformis (Lam.) Beauv.

Lolium multiflorum Lam.

L. perenne L.

Melica mutica Walt.

Microstegium vimineum (Trin.) A. Camus

Miscanthus sinensis Anderss.

Muhlenbergia capillaris (Lam.) Trin.

M. schreberi F. Gmel.

M. sobolifera var. *setigera* Scribn.

M. sylvatica Torr.

Panicum anceps Michx.

P. boscii Poir.

P. clandestinum L.

P. commutatum Schultes.

P. depauperatum Muhl.

P. dichotomiflorum Michx.

P. dichotomum L.

P. flexilis (Gattinger) Scribn.

P. gattingeri Nash.

P. lanuginosum Ell.

P. laxiflorum Lam.

P. linearifolium Scribn.

P. microcarpon Muhl.

Panicum philadelphicum Bernh.

P. sphaceliferum Ell.

P. stipitatum Nash.

P. villosissimum Nash.

Paspalum dilatatum Poir.

P. pubiflorum Rupr.

P. pubiflorum var. *glabrum* Vasey

Phleum pratense L.

Poa annua L.

P. autumnalis Muhl.

P. compressa L.

P. cuspidata Nutt.
P. saltuensis Fern. & Wieg.

Setaria faberii Herm.

S. geniculata (Lam.) Beauv.

S. glauca (L.) Beauv.

S. viridis (L.) Beauv.

S. viridis var. *major* (Gaudin) Posichal

Sorghastrum ellottii (Mohr.) Nash

S. nutans (L.) Nash

Sorghum halapense (L.) Pers.

Sphenopholis nitida (Biebler) Scribn.

Sporobolus poiretii (R. & S.) Hitch

S. tatiniflorus (Torr.) Wood.

Tridia flava (L.) Smyth

Triticum aestivum L.

PODOSTEMACEAE

Podostemum ceratophyllum Michx.

POLEMONIACEAE

Phlox amonea Sims

P. amplifolia Britt.

P. carolina ssp. *alata* Wherry

P. maculata L.

P. stolonifera Sims.

POLYGALACEAE

Polygala curtissii Gray

P. pauciflora Willd.

P. polystigma Walt.

P. sanguinea L.

POLYGONACEAE

Fagopyrum esculentum Moench

Polygonum aviculare L.

P. cespitosum var. *longisetum* (DeBruyn) Stewart

P. convolvulus L.

P. erectum L.

P. hydropiperoides Michx.

P. persicaria L.

P. punctatum Ell.

P. sagittatum L.

P. scandens L.

P. setaceum Baldw.

Rumex acetosella L.

R. crispus L.

R. pulcher L.

Tovaria virginiana (L.) Raf.

POLYPODIACEAE

Polypodium polypodioides (L.) Watt.

P. vulgare L.

P. virginianum L.

P. pectinatum (L.) Benth.

P. pedicularis L.

P. purpurea L.

P. setacea (Walt.) J. F. Gmel.

P. tenuifolia Vahl.

G. virginica (L.) BSP.

Gratiola neglecta Torr.

G. virginiana L.

Mimulus alatus Ait.

M. ringens L.

Paulownia tomentosa (Thunb.) Steud.

Pedicularis canadensis L.

Penstemon canescens Britt.

P. laevigatus L.

Scrophularia marilandica L.

V. basiscum Blattaria L.

V. thaspoides L.

Veronica arvensis L.

V. peregrina L.

V. serpyllifolia L.

PORTULACACEAE

Claytonia virginica L.

Portulaca oleracea L.

PRIMULACEAE

Lysimachia lanceolata Walt.

L. nummularia L.

L. quadrifolia L.

L. tonsa Wood.

Samolus parviflorus Raf.

PYROLACEAE

Poa annua L.

P. autumnalis Muhl.

P. compressa L.

RUBIACEAE

Cephalanthus occidentalis L.