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ATLAS OF THE VASCULAR PLANTS OF TENNESSEE. I. PTERIDOPHYTES AND GYMNOSPERMS [1]

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ABSTRACT

Distribution maps of the vascular plants of the State are based on the herbarium collections of The University of Tennessee, Knoxville, Vanderbilt University and pertinent references from the literature. This first paper of the series includes the pteridophytes (ferns and fern allies) and gymnosperms (80 and 14 taxa, respectively).

INTRODUCTION

This is the first in a series of papers illustrating the geographic distribution of the ferns, fern allies, gymnosperms, and angiosperms of Tennessee. A work of this nature is long overdue and the data included here will be of value to the botanical community, naturalists, environmentalists, conservationists, and those involved with the preparation of impact statements. County distributions are based on specimens examined in The University of Tennessee Herbarium, Knoxville, (TENN) and/or the Herbarium of Vanderbilt University (VDB). Pertinent floristic, monographic, and taxonomic papers with county citations were also consulted.

The only comprehensive treatments of the vascular plants of Tennessee are the works of Gattinger (1901), Sharp *et al.* (1956, 1960), and for the ferns, Shaver (1950). Gattinger's *Flora of Tennessee* is extremely valuable from a historical standpoint; however, it was based (in modern terms) on relatively few collections and does not provide a true conspectus of the present-day vascular plants of Tennessee. Also, it is impossible to document many of the taxa reported by Gattinger since the major portion of his personal collection was destroyed by fire at the University of Tennessee in 1934. Shaver's exhaustive treatment of the ferns provides a detailed account of this group up to that time. The unpublished checklists of the monocots (Sharp *et al.*, 1956) and the dicots (Sharp *et al.*, 1960) of Tennessee are the most recent treatments of Tennessee flowering plants. These lists are based almost solely on specimens at TENN and contain broad distributional data for most taxa with specific counties given only for those species that had been infrequently collected. Since these checklists were prepared, approximately 15,000 Tennessee specimens have been added to TENN and Dr. Robert Kral, Vanderbilt University, has recently added approximately 30,000 primarily Middle Tennessee specimens to the VDB collection of Tennessee plants. In addition, several publications dealing with new county and/or state records have appeared in recent years (Baskin & Baskin, 1973; Chester, 1975; Ellis, Wofford, & Chester, 1971; Gonsoulin, 1975; Kral, 1973, 1976; Mahler, 1970; Piehl & Piehl, 1973; Rogers & Bowers, 1969, 1971, 1973; Rogers & Underwood, 1966, 1968; Sharp & Baker, 1964; Small & Barclay, 1973; Smith & Pearman, 1971; Thomas & Chester, 1967; Watson & Rogers, 1972; Wofford & Dennis, 1976; and Wofford, Webb, & Dennis (in press). Also, new species, obviously not included in the checklists, have recently been described by Kral (in press), Pringle & Sharp (1964), Rogers (1970), and Ware (1967). Furthermore, numerous taxonomic and nomenclatural revisions have occurred in the past 20 years; these further warrant a modern treatment of the State's vascular plants.

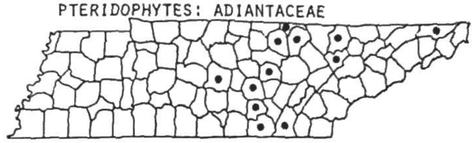
It will be obvious to those familiar with the flora of Tennessee that geographic distributions are occasionally incomplete for certain taxa especially where their natural range includes the western portion of the State. This area has not received adequate floristic attention and it is anticipated that these omissions will encourage collecting in West Tennessee as well as general collecting throughout the State and that specimens will be exchanged or donated to the University of Tennessee Herbarium. Especially in the case of woody plants, present distribution includes local introductions by man, and sometimes secondary spread from such introductions. Although plants in cultivation are not listed, naturalized populations are included where known.

This initial paper gives the geographic distribution by county of the pteridophytes (ferns and fern allies) and gymnosperms known to occur in Tennessee. Hybrids are not included. The taxa are arranged alphabetically by family within these two major plant groups. This arrangement is for the sake of convenience and no attempts are made to reflect phylogenetic relationships at any taxonomic level.

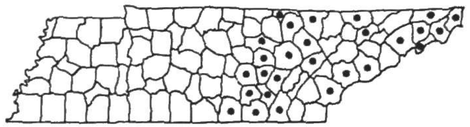
This atlas, however, is intended to be in lieu of a complete manual of the state flora. Therefore, taxonomic decisions have been made which rest with the authors. It is anticipated that this atlas, used in conjunction with regional manuals, will better reflect overall floristic knowledge abrogating the necessity of undertaking another "state flora" of an area as floristically diverse as Tennessee.

[1] Contributions from the Botanical Laboratory, University of Tennessee, N.S. No. 490.

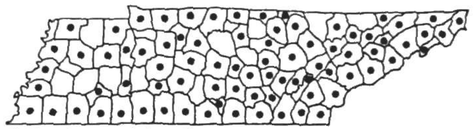
PTERIDOPHYTES: ADIANTACEAE



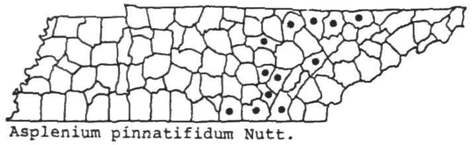
Adiantum capillus-veneris L.



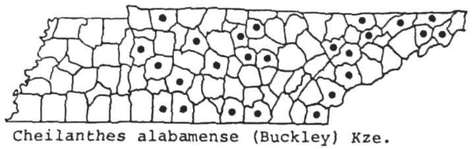
Asplenium montanum Willd.



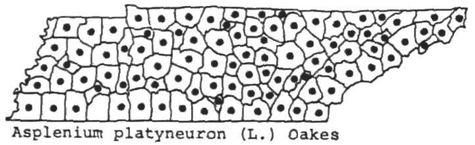
Adiantum pedatum L.



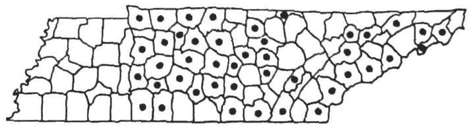
Asplenium pinnatifidum Nutt.



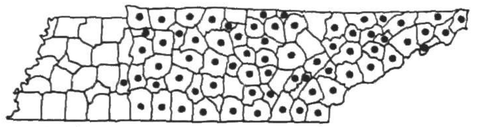
Cheilanthes alabamense (Buckley) Kze.



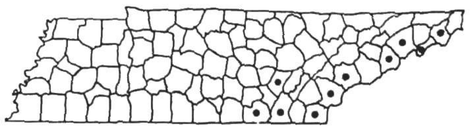
Asplenium platyneuron (L.) Oakes



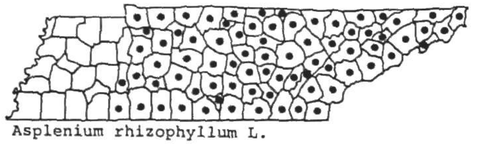
Cheilanthes lanosa (Michx.) D. C. Eaton



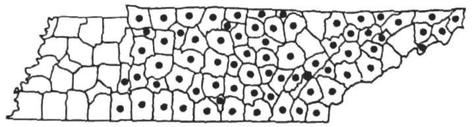
Asplenium resiliens Kunze



Cheilanthes tomentosa Link



Asplenium rhizophyllum L.



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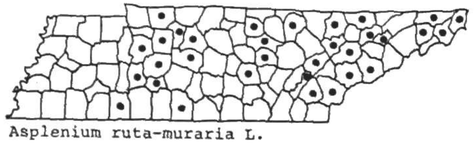
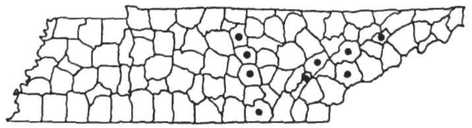
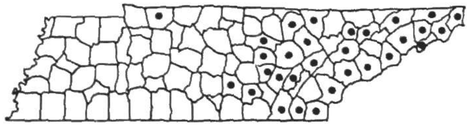


Asplenium ruta-muraria L.

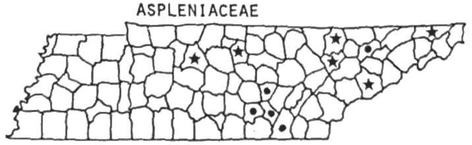


Pellaea glabella Mett.

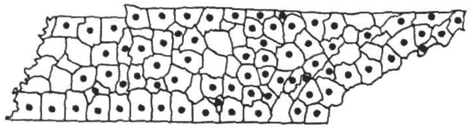


Asplenium trichomanes L.

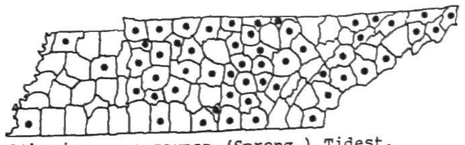
ASPLENIACEAE

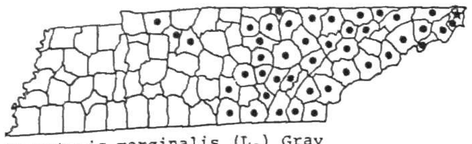


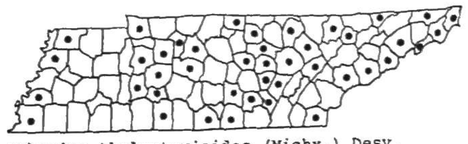
Asplenium bradleyi D. C. Eat.
★ Asplenium ebenoides R. R. Scott

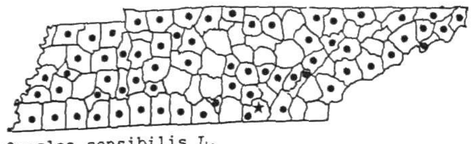


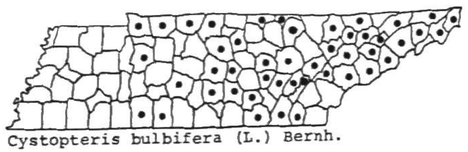
Athyrium asplenioides (Michx.) A. A. Eat.

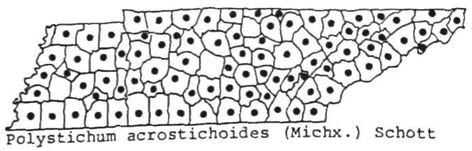

Athyrium pycnocarpon (Spreng.) Tidest.

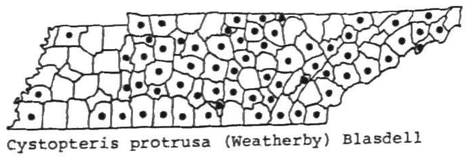

Dryopteris marginalis (L.) Gray
Dryopteris spinulosa (Muell.) Watt

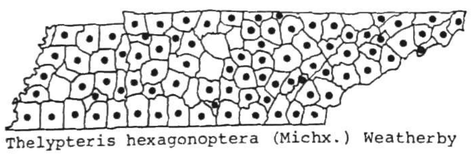

Athyrium thelypterioides (Michx.) Desv.

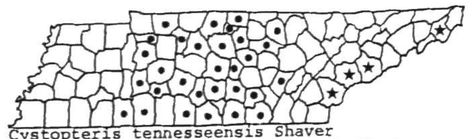

Onoclea sensibilis L.
★ Phyllitis scolopendrium (L.) Newm.

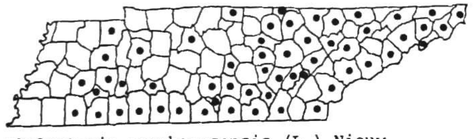

Cystopteris bulbifera (L.) Bernh.

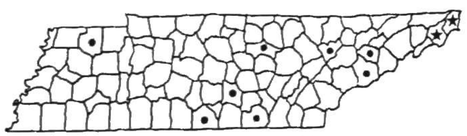

Polystichum acrostichoides (Michx.) Schott

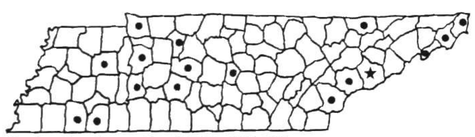

Cystopteris protrusa (Weatherby) Blasdell

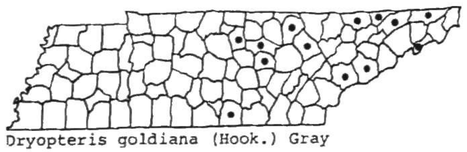

Thelypteris hexagonoptera (Michx.) Weatherby

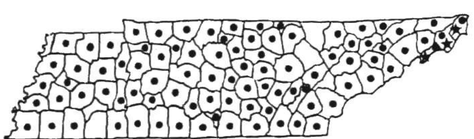

Cystopteris tennesseensis Shaver
★ Dryopteris campyloptera (Kze.) Clarkson

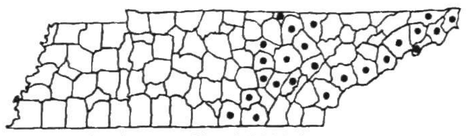

Thelypteris novaboracensis (L.) Nieuw.


Dryopteris celsa (Palmer) Small
★ Dryopteris cristata (L.) Gray

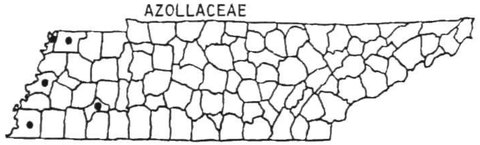

Thelypteris palustris Schott
★ Thelypteris phegopteris (L.) Slosson


Dryopteris goldiana (Hook.) Gray


Woodsia obtusa (Spreng.) Torr.
★ Woodsia scopulina D. C. Eat.


Dryopteris intermedia (Willd.) Gray

AZOLLACEAE


Azolla caroliniana Willd.

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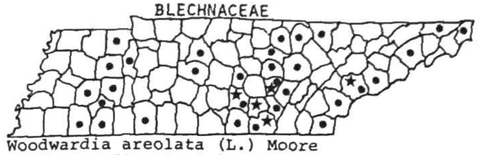
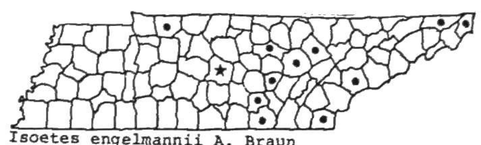

Woodwardia areolata (L.) Moore
★ Woodwardia virginica (L.) Sm.


Isoetes engelmannii A. Braun
★ Isoetes melanopoda Gay & Durieu

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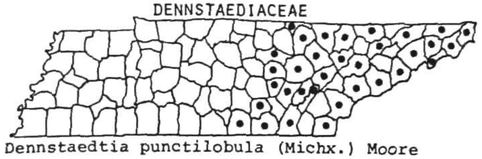
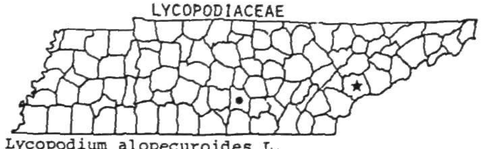
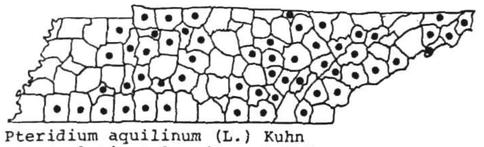
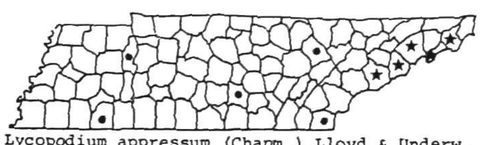
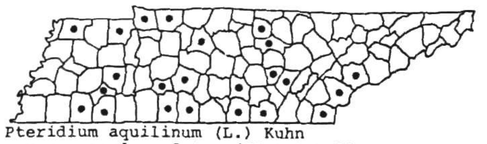

Dennstaedtia punctilobula (Michx.) Moore

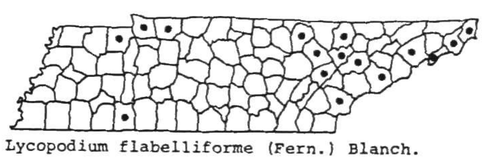
LYCOPODIACEAE


Lycopodium alopecuroides L.
★ Lycopodium annotinum L.

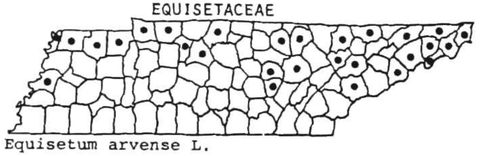

Pteridium aquilinum (L.) Kuhn
var. latiusculum (Desv.) Underw.

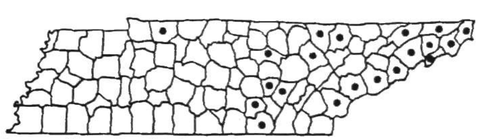

Lycopodium appressum (Chapm.) Lloyd & Underw.
★ Lycopodium clavatum L.

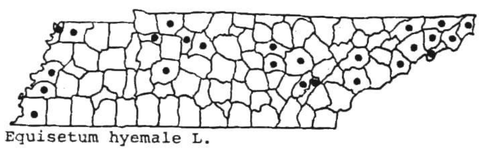

Pteridium aquilinum (L.) Kuhn
var. pseudocaudatum (Clute) Heller

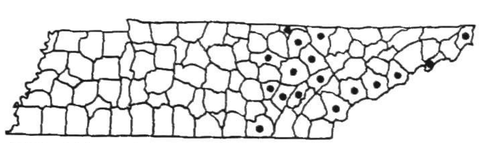

Lycopodium flabelliforme (Fern.) Blanch.

EQUISETACEAE

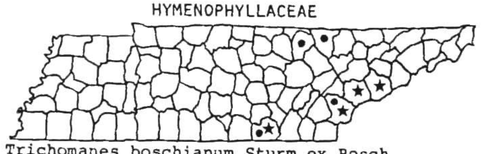

Equisetum arvense L.

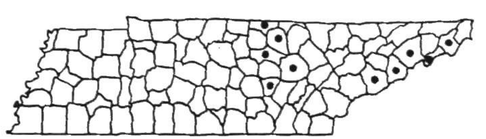

Lycopodium lucidulum Michx.


Equisetum hyemale L.

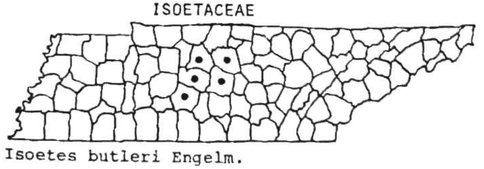

Lycopodium obscurum L. var. obscurum

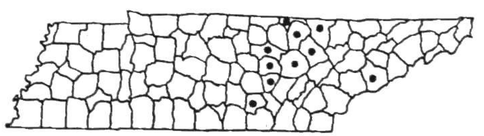
HYMENOPHYLLACEAE


Trichomanes boschianum Sturm ex Bosch
★ Trichomanes petersii Gray

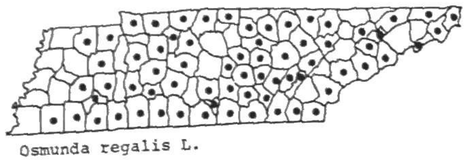

Lycopodium obscurum L. var. dendroideum
(Michx.) D. C. Eaton

ISOETACEAE


Isoetes butleri Engelm.

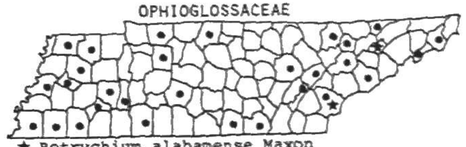

Lycopodium porophilum Lloyd & Underw.

★ Lycopodium selago L.
Lycopodium tristachyum Pursh



Osmunda regalis L.

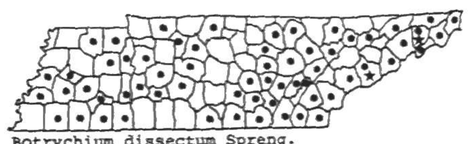
OPHIOGLOSSACEAE



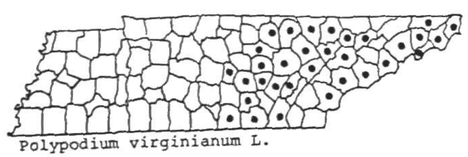
★ Botrychium alabamense Maxon
Botrychium biternatum (Sav.) Underw.

POLYPODIACEAE

Polypodium polypodioides (L.) Watt

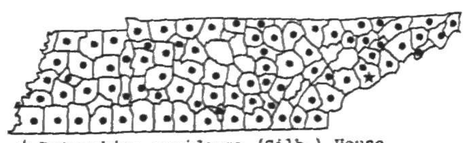


Botrychium dissectum Spreng.
★ Botrychium matricariaefolium A. Br.



Polypodium virginianum L.

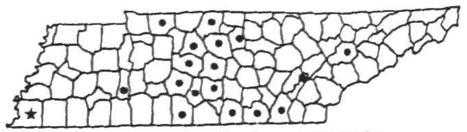
SCHIZAEACEAE



★ Botrychium oneidense (Gilb.) House
Botrychium virginianum (L.) Sw.

Lygodium palmatum (Bernh.) Sw.

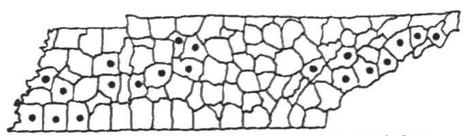
SELAGINELLACEAE



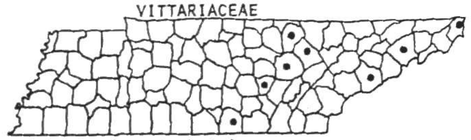
★ Ophioglossum crotalophoroides Walt.
Ophioglossum engelmanii Prantl.

Selaginella apoda (L.) Spring
★ Selaginella rupestris (L.) Spring

VITTARIACEAE

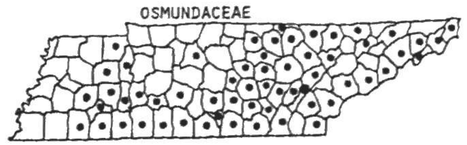


Ophioglossum vulgatum L. var. pycnostichum Fern.

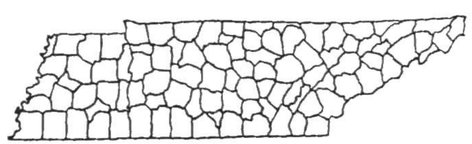


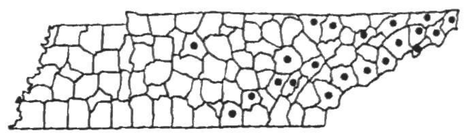
Vittaria (gametophyte)

OSMUNDACEAE

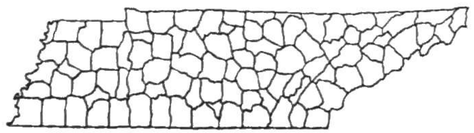


Osmunda cinnamomea L.

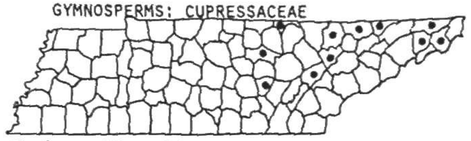




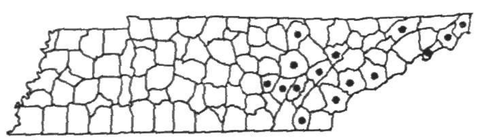
Osmunda claytoniana L.



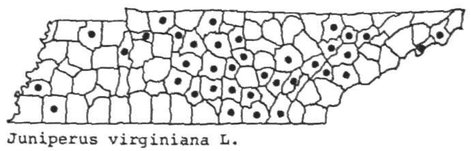
GYMNOSPERMS: CUPRESSACEAE



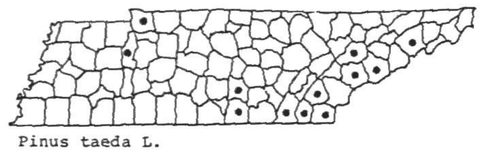
Thuja occidentalis L.



Pinus strobus L.

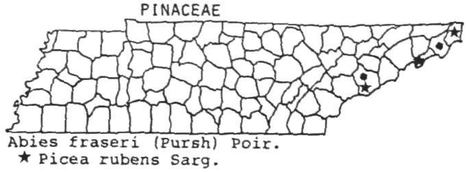


Juniperus virginiana L.

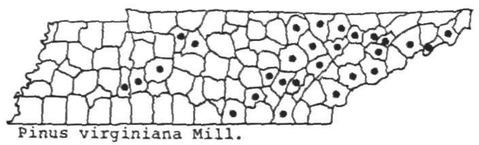


Pinus taeda L.

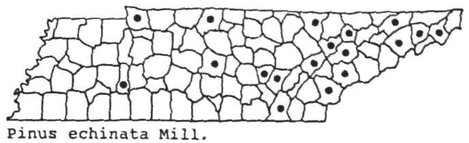
PINACEAE



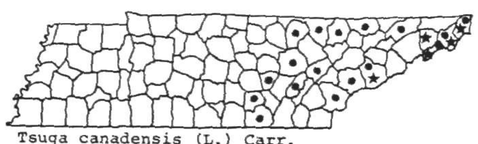
Abies fraseri (Pursh) Poir.
★ Picea rubens Sarg.



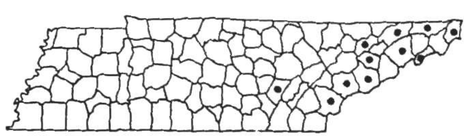
Pinus virginiana Mill.



Pinus echinata Mill.



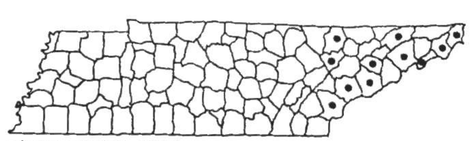
Tsuga canadensis (L.) Carr.
★ Tsuga caroliniana Engelm.



Pinus pungens Lambert

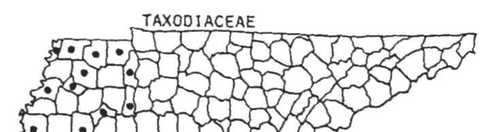
TAXACEAE

Taxus canadensis Marsh.



Pinus rigida Mill.

TAXODIACEAE



Taxodium distichum (L.) Rich.

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