

Camponotus (C.) laevigatus (F. Smith). This species, which has heretofore been recorded only from the Pacific coast to the Rocky Mountains, was found at three stations in the state, namely Cimarron Canyon, 7,450 ft.; 13 mi. N. of Eagle Nest, 9,500 ft.; Bandelier Nat. Monument, 6,050 ft. All nests were in large, rather dry, rotting pine logs in densely shaded wooded areas.

Camponotus (Tanaemyrmex) acutirostris Wheeler. A single colony was found nesting beneath a stone on a very dry, rocky slope with yucca and cacti in Carlsbad Canyon National Forest, Carlsbad Caverns National Park, 4,250 ft.

Camponotus (T.) ocreatus Emery. Nests were under stones in dry areas. At the higher elevations the ant was taken in stands of pine or pinyon-juniper and at the lower elevations in semidesert shrub communities. Collections were made at the following localities: near Raton Pass, 7,100 ft.; 20 mi. N. of Bernardo, 6,550 ft.; 25 mi. E. of Bernardo, 5,950 ft.; 15 mi. W. of Mountainair, 5,750 ft.; Beaverhead; 7 mi. E. of Tularosa, 5,300 ft.; Kit Carson Cave Road, near Gallup; 12 mi. W. of Hope, 5,200 ft.

Camponotus (T.) sansabeanus bulimosus Wheeler. One nest was under a large stone in a very dry, level, pinyon-juniper area 20 mi. N. of Bernardo, 6,550 ft.

Camponotus (T.) vicinus Mayr. This species, which is by far the most common member of its genus in the state, nests generally under stones but occasionally at the base of roots of shrubs. It has a wide range in the state and although prominently a representative of communities at the higher and more moist elevations, it was taken at 3,800 ft. in an arid habitat. Collections were made at the following places: 10 mi. E. of Taos, 7,000 ft.; 18 mi. E. of Taos, 6,000 ft.; Ute Park, 7,400-7,600 ft.; Cimarron Canyon, 6,500-7,100 ft.; Raton Pass, 6,400-7,700 ft.; Capulin Mt. Natl. Monument, 7,100 ft.; 10 mi. S. of Santa Fe, 6,500 ft.; Juan Tabo area, Sandia Mts., 6,025 ft.; Gallup, 6,700 ft.; 25 mi. E. of Gallup, 7,200 ft.; Kit Carson Cave road, near Gallup; 25 mi. N. of Beaverhead, 7,250 ft.; 80 mi. N. of Silver City, in Wilderness Area, 7,250 ft.; Sapello Canyon, near Beulah, 7,500 ft.; 4 mi. W. of Horse Springs, 7,300 ft.; 4 mi. N. of Magdalena, 6,600 ft.; Bandelier Natl. Monument, 6,350 ft.; White Sands Natl. Monument, 3,800 ft.

Genus PRENOLEPIS Mayr

Prenolepis imparis (Say). Mr. E. O. Wilson has assured me that his studies of the genus show that my New Mexico collections are all referable to the typical species. The present status of *arizonicus* Wheeler and *coloradensis* Wheeler as subspecies of *imparis* would seem to be, at the least, doubtful. My specimens are dark in color and for the most part have the type of petiolar emargination which has been used in part to segregate the subspecies *arizonicus*. Apparently, however, *P. imparis* is an extremely variable population. Collections were made beneath stones in moist, shaded areas at the following localities: Sandia Mts., near Albuquerque, 6,900 ft.; 4 mi. S. of Mescalero, 6,800 ft.; Cimarron Canyon, 6,700 ft., 7,100 ft.; Bandelier Natl. Monument, 6,050 ft.

SOME STUDIES OF TENNESSEE FERNS

JESSE M. SHAVER

George Peabody College for Teachers, Nashville, Tennessee

FERN DISTRIBUTION IN TENNESSEE

LOWLAND BRITTLE BLADDERFERN

Cystopteris fragilis (L.) Bernh., var. *protrusa* Weatherby

(Continued from the July number)

from Watertown to Statesville. Collections from counties preceded by an asterisk (not seen by the author) are assumed to be of this variety.

BERRY BLADDERFERN
Cystopteris bulbifera (L.) Bernh.

ANDERSON Co.: Bull Run and Clinch River, no. 10566; BEDFORD Co.: E. of Shelbyville, U.S. 241, no. 8160; BLEDSOE Co.: W. side of Waldens Ridge, Low Gap, no. 9686; BLOUNT Co.: bluffs, upper end of Jones Bend, Tenn. River, no. 10639; BRADLEY Co.: Henegars bluff, E. of Charleston, no. 10146; CAMPBELL Co.: bluff by Cedar Cr., NE. of LaFollette, no. 10674; CANNON Co.: 7 mi. NE. of Woodbury by bluff near sprg., Short Mtn. rd., no. 10218; CARTER Co.: by Watauga River where flood washed out R.R. bridge, rd. 67, no. 3011; CHEATHAM Co.: bluff at Turnbull Cr., W. of Kingston Sprgs., no. 417; CLAIBORNE Co.: bluff, W. side of Clinch River, U.S. 25E, no. 10649; CLAY Co.: S. across field from rd. 52, W. of river and Celina, no. 10552; COCKE Co.: near bridge, French Broad River, U.S. 70, 16 mi. E. of Newport, no. 380; COFFEE Co.: Old Stone Fort, Manchester, no. 4178; CUMBERLAND Co.: near head of Sequatchie Valley, rd. 28, no. 8277; DAVIDSON Co.: Richland Cr., near Bosley Sprgs., Nashville, no. 377; *DECATUR Co.: 4 mi. N. of Parsons, sprg. by cave off of rd. 69, *J. R. Endsley*, May 25, 1936 (Freed-Hardeman Col.); DEKALB Co.: bluff by old bridge over Caney Fork River, rd. 56, no. 9640; DICKSON Co.: Jones Cr., rd. 47, no. 8051; FENTRESS Co.: just S. of Pickett Co., rd. 28, no. 5510; FRANKLIN Co.: down branch SE. of Morgan Steep, ft. of mtn., Sewanee, no. 384; GILES Co.: Richland Cr., U.S. 31, no. 8211; GRAINGER Co.: near Clinch River bridge, E. side, U.S. 25E, no. 9702; GREENE Co.: Caney, Nolichucky River, no. 10693; GRUNDY Co.: near Beersheba Sprgs., no. 7879; HAMBLÉN Co.: bluffs, Holston River, U.S. 25E, no. 10688; HAMILTON Co.: Falling Water Cr., Waldens Ridge, no. 10630; HANCOCK Co.: bluffs by Clinch River, E. of Sneedville, no. 9725; HAWKINS Co.: E. of Hancock Co. and Kyles Ford, no. 10112; HARDIN Co.: bluffs by Indian Cr., E. of Olive Hill, U.S. 64, no. 10533; HICKMAN Co.: E. of rd. 100, not far from Williamson Co., no. 9161; HOUSTON Co.: Yellow Cr. bluffs, rd. 49, no. 9974; HUMPHREYS Co.: Big Hurricane Cr., 6 mi. N. of Waverly, rd. 13, no. 10538; JACKSON Co.: Cummins Falls, off of rd. 56, no. 8102; JEFFERSON Co.: Holston River, S. of rd. 92, no. 10684; JOHNSON Co.: Laurel Boomery, 8 mi. N. of Mountain City, no. 10381; KNOX Co.: bluffs, Clinch River, near Loudon Co., no. 10491; LAWRENCE Co.: bluff, Shoal Cr., Lawrenceburg, no. 7993; LEWIS Co.: Napier rd., off of rd. 20, no. 8005; LINCOLN Co.: specimens lost; LOUDON Co.: 1 mi. W. of Loudon, rd. 72, no. 10129; McMINN Co.: 8 mi. W. of Athens, rd. 30, no. 10600; MACON Co.: 5.9 mi. E. of Lafayette, rd. 52, no. 10478; MARION Co.: Martin Sprgs., Sequatchie Valley, U.S. 41, no. 422; MARSHALL Co.: specimen misplaced; MAURY Co.: Carters Cr., near Spring Hill, no. 10521; MEIGS Co.: Breedenton, near Decatur, no. 10606; MONROE Co.: Sinkhole Cr., near Tellico Plains, no. 391; MONTGOMERY Co.: Sheltons Branch, U.S. 41A, E. Clarksville, no. 8153; OVERTON Co.: 7.3 mi. W. of Livingston, rd. 52, no. 10553; PERRY Co.: 3 mi. E. of Tenn. River, rd. 100, no. 9966; PICKETT Co.: 2 mi. NW. of Forbus, rd. 52, no. 10510; PUTNAM Co.: pigeon roost, rd. 42, Cookeville, no. 425; RHEA Co.: Clear Cr., near Tenn. River, no. 10590; ROANE Co.: Clinch River, S. of South Clinton, no. 10565; ROBERTSON Co.: Paines Cave region, Cross Plains, no. 7974; RUTHERFORD Co.: Snailshell Cave, near Rockvale, no. 7869; SEQUATCHIE Co.: specimen lost; SEVIER Co.: Cherokee Orchards, Mt. LeConte, *Ruby Rice* no. 411; SMITH Co.: bluff by Cumberland River, N. of Chestnut Mound, no. 10138; STEWART Co.: Carlisle Sprgs., rd. 49, no. 10542; SULLIVAN Co.: bluff by Holston River, old bridge, U.S. 421, no. 9753; SUMNER Co.: 4.6 mi. S. of Westmoreland, U.S. 31E, no. 10483; TROUSDALE Co.: sinkhole near Tenn. River, rd. 10, no. 5520; VAN BUREN Co.: Rockey River, rd. 30, near Warren Co., no. 4275; UNION Co.: bluffs, Bull Run Cr., rd. 33, 1 mi. N. of Knox Co., no. 10669; WARREN Co.: near Rockey River, 1 mi. from rd. 30, no. 4354; WASHINGTON Co.: Nolichucky River, NW. of Philadelphia, no. 10653; WAYNE Co.: Green Cr., Waynesboro, no. 9952; WHITE Co.: near the gulf of Caney Fork River,

Dodson, no. 381; WILLIAMSON Co.: near Fernvale, E. of rd. 100, no. 8179; WILSON Co.: Smith Fork Cr., near rd. 96, no. 10517.

TENNESSEE BLADDERFERN

Cystopteris tennesseensis Shaver

DEKALB Co.: roadside, Highland Rim, between Dowelltown and Smithville, no. 10515; GILES Co.: Big Cr., near Milky Way Farm, rd. 26, no. 10470; HARDIN Co.: bluffs, Indian Cr., near Olive Hill, U.S. 64; HICKMAN Co.: bluffs, N. across Duck River from Centerville, no. 411; MARSHALL Co.: bluff by cr., off of rd. from Cornersville to Diana, no. 10460; SMITH Co.: bluff, below quarry, Round Lick Cr., Rome, no. 10427; TROUSDALE Co.: Goose Cr., new rd. 10, no. 10523; WILSON Co.: bluff by cr., Cottage Grove, near Liberty, no. 10525.

COMMON WOODSIA

Woodsia obtusa (Spreng.) Torr.

ANDERSON Co.: specimens misplaced; BEDFORD Co.: NE. of Shelbyville, old field by river, Wartrace rd., no. 4328; BENTON Co.: by country rd, down Tenn. River from U.S. 70; BLEDSOE Co.: W. side of Waldens Ridge, Low Gap rd., no. 10313; BLOUNT Co.: bluff, upper end of Jones Bend, Tenn. River, no. 10641; BRADLEY Co.: Lauderback Mtn., near old Lauderback Hotel, no. 9928; CAMPBELL Co.: Cedar Cr., NE. of LaFollette, no. 10675; CANNON Co.: 7.6 mi. N. of Woodbury on Short Mtn. rd., no. 10276; CARROLL Co.: 3.3 mi. W. of Huntingdon, U.S. 70, no. 10437; CARTER Co.: by Watauga River, 9.2 mi. N. of Hampton, rd. 67, no. 10378; CHEATHAM Co.: near junction of Turnbull Cr. and Harpeth River, no. 346; *CHESTER Co.: Henderson, *Bain*, June, 1892 (Anderson, 1930); CLAIBORNE Co.: W. side of Clinch River, U.S. 25E, no. 10648; CLAY Co.: S. across pasture from rd. 52, W. side of river from Celina, no. 10551; COCKE Co.: Wolf Cr., near French Broad River, U.S. 70, no. 9796; COFFEE Co.: Old Stone Fort, Manchester, no. 4182; CROCKETT Co.: 1.3 mi. E. of Lauderdale Co., rd. 88, no. 4524; CUMBERLAND Co.: Sequatchie Valley, N. of Bledsoe Co., rd. 28, no. 8275; DAVIDSON Co.: dripping sprgs., Percy Warner Park, no. 326; DECATUR Co.: W. part of Parsons, rd. 20, no. 4535; DEKALB Co.: bluff by cr. by rd. 26, no. 333; DICKSON Co.: Beaverdam Cr., SE. of White Bluff, no. 4479; DYER Co.: 6.3 mi. S. of Obion Co., rd. 78, no. 9119; FAYETTE Co.: 10.2 mi. E. of Shelby Co., U.S. 64, no. 4513; FENTRESS Co.: 7.1 mi. SE. of Pickett Co., rd. 28, no. 5516; FRANKLIN Co.: bank of Elk River, W. of Winchester, no. 8021; GRIBSON Co.: 2 mi. S. of Greenfield, U.S. 45E, no. 10430; GILES Co.: E. of Bufords, brick church rd., no. 4336; *GRAINGER Co.: (Acad. Nat. Sci. of Philadelphia); GREENE Co.: near Nolichucky, old bridge, rd. 107, E. of Tusculum, no. 10364; GRUNDY Co.: by sprg., mtn. side, U.S. 41, W. of Monteagle, no. 10694; HAMBLLEN Co.: Needmore Boat Docks, W. of Whitesburg, Holston River, no. 10090; HAMILTON Co.: gap in ridge near Powell, no. 10697; HANCOCK Co.: Lawson School rd., E. of rd. 33, no. 10656; HAWKINS Co.: E. of Clinch Mtn., Flat Gap rd., no. 10861; HARDEMAN Co.: 7.7 mi. E. of Fayette Co., U.S. 64, no. 4547; HARDIN Co.: bluffs, Indian Cr. at Olive Hill, U.S. 64, no. 8296; HAYWOOD Co.: 6.2 mi. S. of Crockett Co., rd. 54, no. 4514; HENDERSON Co.: near Madison Co., rd. 20, no. 10443; HENRY Co.: 1 mi. on side rd., S. of Como, no. 10431; HICKMAN Co.: bluffs, N. of river at Centerville, no. 341; HOUSTON Co.: sprg., Erin, no. 8057; HUMPHREYS Co.: 5.8 mi. N. of Waverly, rd. 13, no. 10537; JACKSON Co.: 2 mi. E. of Gainesboro, sprg. by rd. 85, no. 5494; JEFFERSON Co.: side rd. up hill to E., Chestnut Hill, no. 10054; *JOHNSON Co.: *John Donnell Smith*, July 8, 1880 (Anderson, 1930); KNOX Co.: hills by Clinch River, near Loudon Co., no. 10492; LAUDERDALE Co.: 15.9 mi. N. of Tipton Co., U.S. 51, no. 10256; LAWRENCE Co.: Westpoint, no. 10263; LEWIS Co.: 7.7 mi. E. of Hohenwald, rd. 99, no. 4378; LINCOLN Co.: 1.3 mi. E. of Chestnut Ridge, U.S. 241, no. 8164; LOUDON Co.: Hickory Cr. at Clinch River, near Knox Co., no. 10503; McMINN Co.: near rock quarry, 1 mi. E. of Meigs Co., rd. 30, no. 10618; MCNAIRY Co.: specimen misplaced; MACON Co.: small cr., N. of Trousdale

Co., rd. 10, no. 8140; MADISON Co.: 7.9 mi. W. of Henderson Co., rd. 20, no. 10442; MARION Co.: Battle Cr., near Martin Sprgs., U.S. 41, no. 349; MARSHALL Co.: 9 mi. W. of Petersburg on country rd., no. 4336; MAURY Co.: NW. of rd. 99, near Lewis Co., no. 4381; MEIGS Co.: bank, Tenn. River, ferry, rd. 30, no. 310; MOORE Co.: near Bedford Co. and junction of rd. 55 and rd. 82, no. 10445; MONROE Co.: Sinkhole Cr., near Tellico Plains, no. 316; MONTGOMERY Co.: Sheltons Branch, U.S. 41A, E. Clarksville, no. 10548; OBION Co.: Gladly Cr., Reelfoot Lake, no. 345; OVERTON Co.: 9.9 mi. E. of Clay Co., rd. 52, no. 5543; PERRY Co.: 15 mi. S. of Humphreys Co., rd. 13, no. 4452; PICKETT Co.: 3.5 mi. N. of Overton Co., rd. 42, no. 5499; POLK Co.: 5 mi. E. of Parksville, U.S. 64, no. 321; PUTNAM Co.: pigeon roost, Cookeville, rd. 42, no. 362; RHEA Co.: Clear Cr., near Tenn. River, S. of rd. 68, no. 10587; ROANE Co.: Clacks Gap, no. 10561; ROBERTSON Co.: W. of Greenbrier, no. 4316; RUTHERFORD Co.: sinkhole, 6 mi. S. of Murfreesboro, no. 4333; SEQUATCHIE Co.: Stone Cave Sprg., Daus, Sequatchie Valley, no. 10622; SEVIER Co.: Rays Gap, French Broad River at Knox Co., no. 10643; SHELBY Co.: Hershing Drive, W. of Millington, no. 10258; SMITH Co.: 6.5 mi. S. of Jackson Co., rd. 85, no. 5486; STEWART Co.: Carlisle Sprgs., no. 7962; SULLIVAN Co.: bluff by Holston River, old bridge, U.S. 421, no. 10399; SUMNER Co.: 4 mi. N. of Davidson Co., U.S. 31W, no. 4305; TIPTON Co.: 1.7 mi. S. of Brighton, U.S. 51, no. 9124; TROUSDALE Co.: sinkhole, 2.5 mi. N. of Wilson Co., rd. 10, no. 5524; VAN BUREN Co.: E. side of Rocky River, rd. 30, no. 4375; UNICOI Co.: Unaka Sprgs., no. 10376; UNION Co.: quarry, 3.6 mi. NW. of Luttrell, rd. 61, no. 8414; WARREN Co.: W. side of Rocky River, rd. 30, no. 4372; WASHINGTON Co.: Nolichucky River, Embreeville, no. 9792; WAYNE Co.: Leatherwood School, 6.5 mi. W. of Waynesboro, U.S. 64, no. 7998; WEAKLEY Co.: N. Fork, Obion River, rd. 89, no. 10776; WHITE Co.: 6.5 mi. N. of Sparta, no. 7838; WILLIAMSON Co.: Brush Cr. region, NW. of rd. 100, no. 4466; WILSON Co.: Noneville, no. 10199.

ALLEGHENY CLIFF-FERN

Woodsia scopulina D. C. Eaton (variant)

JOHNSON Co.: bluff and quarry by rd. from Damascus, Va., to Shady Valley, S. of Backbone Recreational Area, no. 10360; UNICOI Co.: bluff by side road to Unaka Sprgs., no. 368.

HAYSCENTED FERN

Dennstaedtia punctilobula (Michx.) Moore

ANDERSON Co.: 3.4 mi. S. of Briceville, rd. 116, no. 10041; BLEDSOE Co.: marsh, W. of Rhea Co., rd. 30, no. 4043; BLOUNT Co.: Gregorys Bald trail, Cades Cove, no. 808; CAMPBELL Co.: 20 mi. N. of LaFollette, U.S. 25W, no. 10717; CARTER Co.: 5 mi. E. of Roan Mtn. (village) towards Burbank, no. 812; CLAIBORNE Co.: R.R. bank, S. of Fork Ridge P. O., no. 10708; COCKE Co.: 15 mi. S. of Newport, rd. 32, no. 10707; CUMBERLAND Co.: below falls, Ozone, U.S. 70, no. 818; FENTRESS Co.: marsh, 4.3 mi. S. of Jamestown, no. 837; FRANKLIN Co.: Morgan Steep, Sewanee, no. 4140; GRAINGER Co.: W. of Bean Station by U.S. 25E, no. 10108; GREENE Co.: mtn. side near N. C., rd. 70, no. 9779; GRUNDY Co.: Coalmont, rd. 56, no. 10714; HAMILTON Co.: Waldens Ridge, 0.8 mi. E. of Sequatchie Co., rd. 8, no. 10713; HAWKINS Co.: 9.4 mi. E. of Hancock Co., rd. 66, no. 10722; JOHNSON Co.: E. side, Holston Mtn., U.S. 421, no. 9759; KNOX Co.: mtn., W. of rd. from Knoxville to Rutledge, no. 10071; MARION Co.: Waldens Ridge, rd. 27, no. 855; MEIGS Co.: Breedenton, near Decatur, no. 10609; MONROE Co.: Tellico River in Nat. Forest, no. 824; MORGAN Co.: 8 mi. S. of Sunbright, U.S. 27, no. 4063; PICKETT Co.: Hazards Cave, Pickett State Forest, no. 9685; POLK Co.: Hiwassee Beach, rd. 30, no. 10030; PUTNAM Co.: Stamps Hollow, near Monterey, no. 865; RHEA Co.: 1.3 mi. E. of Bledsoe Co., rd. 30, no. 4045; ROANE Co.: E. of Piney River, U.S. 70, no. 4120; SCOTT Co.: by rd. to Norma, 2.6 mi. S. of rd. 63, no. 10711; SEQUATCHIE Co.: Waldens Ridge, W. side, rd. 8, no. 4147;

SEVIER Co.: Bear Pen Hollow trail up Mt. LeConte, no. 861; SULLIVAN Co.: W. side of Holston Mtns., near top, U.S. 421, no. 9743; VAN BUREN Co.: above falls, Fall Cr., Fall Cr. State Park, no. 4030; UNICOI Co.: Unaka Sprgs., no. 815; WASHINGTON Co.: near Embreeville, no. 9775; WHITE Co.: E. of De Rossett, Cumberland Plateau, U.S. 70S, no. 848.

SENSITIVEFERN
Onoclea sensibilis L.

ANDERSON Co.: marsh, SE. of Norris, rd. 71, 1.7 mi. SE. of rd. 61, no. 10401; *BEDFORD Co.: Wartrace, *Gattinger*, Sept., 1877 (Anderson, 1930); BENTON Co.: Lipes Switch, near Carroll Co., U.S. 70, no. 530; BLEDSOE Co.: W. of Rhea Co., rd. 30, Waldens Ridge, no. 10753; BLOUNT Co.: marsh, near Loudon Co. and McGhee, U.S. 411, no. 508; CAMPBELL Co.: pond by R.R. and rd. 63, 8.6 mi. NW. of Caryville, no. 10712; CANNON Co.: on rim near Coffee Co., rd. 53, no. 10829; CARROLL Co.: marsh on side rd. off rd. 22, 6 mi. S. of Huntingdon, no. 9881; CARTER Co.: edge of field by rd. 91, a few miles N. of Elizabethton, no. 10864; CHEATHAM Co.: pond by R.R., W. of Kingston Sprgs., no. 527; CHESTER Co.: Tull Bottom, Henderson, no. 536; *CLAIBORNE Co.: *T. A. Frick* (Lincoln Mem. Univ.); COCKE Co.: near bridge, U.S. 70, French Broad River, no. 9806; COFFEE Co.: 4 mi. SE. of Manchester, *Shanks, E. Clebsch and Sharp* no. 5245; CROCKETT Co.: S. of Humboldt, no. 10766; DAVIDSON Co.: ravine, Union Hill rd., Joelton, no. 520; DECATUR Co.: Beech Cr., rd. 100, N. of Decaturville, no. 9861; DICKSON Co.: bank of cr. N. of U.S. 70 and Montgomery Bell State Park, Oct. 15, 1950; FAYETTE Co.: 9.7 mi. E. of Shelby Co., U.S. 64, no. 539; *FRANKLIN Co.: near Sewanee (McGill, 1917); GIBSON Co.: 11.5 mi. S. of Trenton, rd. 54, no. 10340; GILES Co.: near Lawrence Co., U.S. 64, no. 10271; GREENE Co.: 1.5 mi. of Paint Mtn., by cr., no. 10723; GRUNDY Co.: Killians Chapel, near Altamont, *Shanks, E. Clebsch, and Sharp* no. 5415; HAMILTON Co.: specimen lost but see Chattanooga, *H. M. Jennison, Bonnie Hudson*, Apr. 11, 1930; HAWKINS Co.: foot of Clinch Mtn. by cr., W. of Mooresburg, no. 10709; HARDEMAN Co.: 6.5 mi. SE. of Bolivar, rd. 125, no. 10239; HARDIN Co.: marsh by Indian Cr., Olive Hill, U.S. 64, no. 8295; HAYWOOD Co.: bottoms, Forked Deer River, N. of Brownsville, *Sharp and E. Clebsch* no. 6767; HENDERSON Co.: 6.6 mi. SW. of Lexington, rd. 22, no. 9183; HENRY Co.: marsh, 11.5 mi. SE. of Paris, rd. 69, no. 9149; HICKMAN Co.: marsh by rd. 100, 1 mi. W. of Centerville, no. 10742; HUMPHREYS Co.: marsh by U.S. 70, 2 mi. W. of Waverly, no. 2932; JACKSON Co.: by cr., above Cummins Falls, E. of rd. 56, no. 8103; KNOX Co.: cr. in mtns. W. of rd. from Knoxville to Rutledge, no. 10072; LAUDERDALE Co.: 15.9 mi. N. of Tipton Co., U.S. 51, no. 10252; LAWRENCE Co.: Shoal Cr., S. of Westpoint, no. 10262; LEWIS Co.: by cr., 1 mi. S. of Napier Rd. from rd. 20, no. 9970; LINCOLN Co.: marsh near Kelso, no. 494; McMINN Co.: 5.3 mi. E. of Shiloh School, E. of rd. 58, no. 10620; MCNAIRY Co.: 8 mi. E. of Bolivar, by U.S. 64, no. 9892; MARION Co.: branch at foot of Cumberland Plateau, U.S. 41, no. 512; MEIGS Co.: Dakes Branch, Watts Bar region, rd. 30, no. 10592; MOORE Co.: E. of Bedford Co., rd. 16, no. 7859; MONROE Co.: near White Cliff Sprgs., Starr Mtn., no. 503; MONTGOMERY Co.: marsh by rd. 79, 9 mi. W. of Clarksville, Oct. 8, 1950; MORGAN Co.: marshy ravine by U.S. 27, 3.2 mi. S. of Scott Co., no. 8081; OBION Co.: Gladly Cr., Reelfoot Lake, no. 534; OVERTON Co.: Muddy Pond rd., Cumberland Plateau, no. 10876; PERRY Co.: 6.9 mi. W. of Linden, rd. 100, no. 10743; RHEA Co.: Clear Cr., E. of Concord Church, N. of Evensville, no. 10573; ROANE Co.: gap to E. of rd. 58, Shady Lawn Community, no. 10570; ROBERTSON Co.: swamp, U.S. 41, 8 mi. S. of Springfield, Oct. 7, 1950; SCOTT Co.: E. of Huntsville, rd. 63, no. 10721; SEVIER Co.: Dudley Cr., Gatlinburg, no. 496; SHELBY Co.: Shelby State Forest, no. 10734; STEWART Co.: 2.5 mi. S. of Dover, rd. 49, Oct. 8, 1950; SUMNER Co.: 3.4 mi. NW. of Portland, rd. 109, Oct. 7, 1950; TIPTON Co.: dredge ditch, Somervil farm, Mason, no. 8394; VAN BUREN Co.: marsh by rd. 30, 1.9 mi. E. of Spencer, no. 10754; UNICOI Co.: S. of Erwin by U.S. 19, no. 10838; WARREN Co.: by stream, 4.7 mi. W.

of McMinnville, U.S. 70S, no. 4363; WASHINGTON Co.: river bottom, Embreeville, no. 7897; WAYNE Co.: E. part of Co., marsh, U.S. 64, no. 4415; WEAKLEY Co.: by branch, rd. 89, 14.4 mi. NE. of Dresden, no. 9649; WILLIAMSON Co.: near Fernvale, E. of rd. 100, no. 8181.

Onoclea sensibilis L., forma obtusilobata (Schkuhr) Gilbert

WILLIAMSON Co.: *A. Gattinger* (1887, 1901).

HARTFORDFERN

***Lygodium palmatum* (Bernh.) Sw.**

BLEDSON Co.: 0.3 mi. W. of Rhea Co., rd. 30, no. 10752; BLOUNT Co.: White Oak Branch, 1400 ft., *Bill Ramsey* and *H. M. Jennison* no. 3534; CAMPBELL Co.: 20 mi. N. of LaFollette, U.S. 25W, no. 10716; CUMBERLAND Co.: Daddys Cr., E. of Crossville, U.S. 70, no. 1802; FENTRESS Co.: marsh, 10 mi. S. of Jamestown, rd. 28, no. 1807; *KNOX Co.: no record, report of its presence in error; *MONROE Co.: White Cliff Sprgs., *Scribner*, July 5, 1890; MORGAN Co.: W. bank of Clear Fork River, rd. 52, 0.5 mi. W. of Scott Co., no. 8439; OVERTON Co.: Muddy Pond rd., W. of Clarkrange and Fentress Co., no. 10831; PICKETT Co.: Natural Bridge, Pickett State Park, no. 10737; PUTNAM Co.: 1 mi. E. of Monterey, U.S. 70, no. 1814; RHEA Co.: lower part of Richland Cr. near Dayton, *Shanks, Sharp, and E. Clebsch* no. 4299; ROANE Co.: E. side of Piney River, U.S. 70, no. 9691; SCOTT Co.: marsh by stream, 14 mi. N. of Morgan Co., U.S. 27, no. 10053; SEVIER Co.: Whittle's place, Cherokee Orchards trail, Gatlinburg, no. 1800; VAN BUREN Co.: top of falls, Fall Cr., Fall Creek State Park, no. 4029; WHITE Co.: marsh, country rd., S. of De Rossett, no. 10741.

ROYALFERN

***Osmunda regalis L., var. spectabilis* (Willd.) A. Gray**

ANDERSON Co.: near rd. 116, SW. of Briceville, no. 10848; BEDFORD Co.: just W. of Moore Co., U.S. 41A, no. 9829; BENTON Co.: Lipes Switch, near Carroll Co., U.S. 70, no. 2911; BLEDSON Co.: marsh, mtn. top, W. of Pikeville, rd. 30, no. 4017; BLOUNT Co.: Rich Mtn., *A. J. Sharp* no. 1670; CAMPBELL Co.: roadside, U.S. 25W, 20 mi. N. of LaFollette, no. 10718; CANNON Co.: highland rim near Coffee Co., rd. 53, no. 10828; CARROLL Co.: side rd., 5.9 mi. S. of Huntingdon, no. 9882; CARTER Co.: marsh by Storey Cr., E. of Elizabethton, *Fairchild, E. Clebsch, and Sharp* no. 11743; CHEATHAM Co.: pond by R.R., W. of Kingston Sprgs., no. 2062; CHESTER Co.: near Jacks Cr., rd. 100, no. 2072; COFFEE Co.: bank of Duck River, Old Stone Fort, Manchester, no. 4171; CUMBERLAND Co.: Daddys Cr., E. of Crossville, no. 2086; DAVIDSON Co.: Little Marrowbone Cr. region, no. 2078; DECATUR Co.: 7.5 mi. W. of Decaturville, rd. 100, no. 9868; DEKALB Co.: by marsh, 1 mi. W. of rd. 26, about 3 mi. W. of Smithville; DICKSON Co.: low wet woods, 1 mi. E. of entrance, Montgomery Bell State Park, no. 10755; FAYETTE Co.: 2 mi. W. of Hardeman Co., no. 9134; FENTRESS Co.: E. of Clarkrange, no. 1996; FRANKLIN Co.: swamp by hospital, Sewanee, no. 4146; GILES Co.: 3.5 mi. W. of Campbellsville, no. 10174; GRAINGER Co.: E. side of Clinch Mtn., U.S. 25E, no. 9696; GRUNDY Co.: 2 mi. SE. of Coalmont, no. 2080; HAMILTON Co.: swamp E. of Sequatchie Co., Waldens Ridge, rd. 8; HAWKINS Co.: marsh, foot of Clinch Mtn., Flat Gap rd., W. of Mooresburg, no. 10856; HARDEMAN Co.: 2 mi. W. of Chester Co., rd. 100, no. 9176; HARDIN Co.: 22.6 mi. SE. of Savannah, rd. 69, no. 9912; HENDERSON Co.: 6.6 mi. SW. of Lexington, rd. 22, no. 9184; HENRY Co.: 11.4 mi. of Paris, rd. 69, no. 9661; HICKMAN Co.: ravine, rd. 100, 2 mi. W. of Williamson Co., no. 10771; HUMPHREYS Co.: marsh by U.S. 70, W. of Waverly, no. 10770; JACKSON Co.: swamp, rd. 56, W. of Putnam Co., no. 10879; JEFFERSON Co.: sprg. branch, mtn. side, E. of Chestnut Hill, no. 10060; JOHNSON Co.: Shady Valley, no. 10869; *KNOX Co.: Fountain City, *Kearney*, Aug. 29, 1891 (*Anderson*, 1931);

LAWRENCE Co.: Marcelle Falls, 4 mi. E. of Alexander Sprgs., no. 8331; LEWIS Co.: ravine by rd. 99, 6.2 mi. W. of Maury Co., no. 10237; LINCOLN Co.: marsh near Kelso, no. 2045; MCMINN Co.: McCorkle Sprg., SW. part of Co.; MCNAIRY Co.: W. of Selmer, no. 9919; MACON Co.: small pond, Enon rd., 1 mi. N. of rd. 52, near rd. 80; MADISON Co.: 1.8 mi. W. of Carroll Co., no. 2917; MARION Co.: cr. bank, S. of Martin Sprgs., U.S. 41, no. 8257; MAURY Co.: Rattlesnake Falls, no. 9220; MEIGS Co.: Dry Fork Cr. gap, No Pone Ridge, NE. of Decatur, no. 10164; MOORE Co.: near Coffee Co., rd. 55, no. 10832; *MONROE Co.: White Cliff Sprgs., *Scribner*, July 5, 1890 (Anderson, 1931); MONTGOMERY Co.: swamp by U.S. 79, 1 mi. E. of Stewart Co.; OVERTON Co.: swamp by rd. 42, SW. of Rickman; PERRY Co.: swamp by side rd. to NW., off of rd. 100 from hilltop, W. of Linden; POLK Co.: near top of Little Frog Mtn., Kemsie Highway, Sept. 21, 1935; PUTNAM Co.: E. of Monterey, U.S. 70, no. 2083; RHEA Co.: Waldens Ridge, rd. 30, W. of Dayton, no. 4125; ROANE Co.: swamp, mtn. top, NW. of Rockwood; ROBERTSON Co.: wet woods, just N. of Ridgetop, U.S. 41; SCOTT Co.: 14 mi. N. of Morgan Co., U.S. 27, no. 10051; SEQUATCHIE Co.: Waldens Ridge, rd. 8, no. 9773; SHELBY Co.: Shelby State Forest, *Ralph Sinclair*; STEWART Co.: near Houston Co., rd. 49, no. 10782; SULLIVAN Co.: W. side of Holston Mtns., U.S. 421, no. 10874; SUMNER Co.: marsh, rd. 109, near Mitchell, N. of Portland; VAN BUREN Co.: near top of Falls Cr., Fall Cr. State Park, no. 4025; UNICOI Co.: 14.2 mi. SE. of Erwin, U.S. 19, no. 10839; WARREN Co.: 4.7 mi. W. of McMinnville, U.S. 70S, no. 4366; WAYNE Co.: near Hardin Co., rd. 69, SW. corner of Co., no. 9905; WEAKLEY Co.: N. Fork of Obion River, rd. 89, no. 10780; WHITE Co.: marsh, 1 mi. W. of De Rossett, U.S. 70S, no. 4109; WILLIAMSON Co.: Brush Cr., N. of rd. 100, no. 4468.

CINNAMONFERN

Osmunda cinnamomea L.

ANDERSON Co.: sprg. by rd. 116, 1 mi. S. of Briceville, no. 10035; BEDFORD Co.: ravine near top of rim and Moore Co., U.S. 41A, no. 9827; BENTON Co.: Lipps Switch near Carroll Co., U.S. 70, no. 2910; BLEDSOE Co.: mtn. side, E. of Pikeville, Waldens Ridge, no. 8272; BLOUNT Co.: by rd. Kinzel Sprgs. to Rich Mtn., no. 2149; CAMPBELL Co.: 1.8 mi. E. of Scott Co., rd. 63, no. 10296; CANNON Co.: top of ridge, rd. from Woodbury to Gassaway, no. 9206; CARROLL Co.: E. of Clarksburg, no. 9849; CARTER Co.: mtn. side S. of Johnson Co., rd. 91, no. 9770; CHESTER Co.: Tull Bottom, Henderson, no. 2109; COFFEE Co.: W. of Fredonia Church, NW. of Duck River and U.S. 70S, no. 10824; CUMBERLAND Co.: Daddys Cr., U.S. 70, no. 2027; DAVIDSON Co.: Wilkinsons Hollow near Joelton, no. 2129; DECATUR Co.: 7.5 mi. W. of Decaturville, rd. 100, no. 9865; DEKALB Co.: mtn. side, W. of Caney Fork River, old rd. 26, no. 7829; FENTRESS Co.: marsh, 4 mi. S. of Jamestown, rd. 28, no. 2104; FRANKLIN Co.: marsh near hospital, Sewanee, no. 4141; GILES Co.: W. of Campbellsville, no. 10835; GRAINGER Co.: E. side of Clinch Mtn., U.S. 25E, no. 9694; GREENE Co.: mtn. near N. C., rd. 70, no. 9784; GRUNDY Co.: marsh, Meeks, no. 2115; HAMILTON Co.: N. side of Suck Cr., foot of Waldens Ridge, rd. 27, no. 10310; HAWKINS Co.: 8.2 mi. W. of Rogersville, rd. 66, no. 9714; HARDEMAN Co.: 2 mi. W. of Chester Co., rd. 100, no. 9179; HARDIN Co.: 22 mi. SE. of Savannah, rd. 69, no. 9909; HENDERSON Co.: marsh by rd. 20, no. 9186; HENRY Co.: marsh near Benton Co., rd. 69, no. 9660; JACKSON Co.: Cummins Falls, near Putnam Co., E. of rd. 56, no. 9709; JOHNSON Co.: W. side of Iron Mtn., E. of Shady Valley, U.S. 421, no. 2128; LAWRENCE Co.: marsh by cr., rd. from Henryville to U.S. 64, near Deerfield, no. 4421; LEWIS Co.: by Napier rd., 1 mi. S. of rd. 20, no. 10233; LINCOLN Co.: marsh near Kelso, no. 2132; MCMINN Co.: McCorkle Sprg., no. 10619; MCNAIRY Co.: W. of Selmer, U.S. 64, no. 9921; MADISON Co.: marsh, S. of Medon, rd. 18, no. 9671; MARION Co.: specimen misplaced but note **Gattinger*, July 7, 1867, Whiteside (Anderson, 1931); MAURY Co.: Rattlesnake Falls, no. 9218; MEIGS Co.: Dry Fork Cr., No Pone Ridge, NE. of Decatur, no. 10162; MOORE Co.: near Coffee Co., rd. 55, no. 10831;

MONROE Co.: White Cliff Sprgs., Starr Mtn., no. 2146; MORGAN Co.: 1 mi. S. of Scott Co., U.S. 27, no. 4065; OVERTON Co.: swamp by rd. 42, SW. of Rickman; PERRY Co.: swamp by side rd. to NW., off of rd. 100 from hilltop, W. of Linden; PICKETT Co.: Hazards Cave, Pickett State Park, no. 9682; POLK Co.: near top, Little Frog Mtn., Kemsie highway, no. 2102; PUTNAM Co.: near top of mtn., rd. 24, no. 2120; RHEA Co.: E. of Bledsoe Co., rd. 30, no. 4124; ROANE Co.: near bridge, Piney River, no. 9694; SCOTT Co.: marsh, U.S. 27, N. of Morgan Co., no. 10050; SEQUATCHIE Co.: marsh, W. of Dunlap, Cumberland Plateau, no. 8407; SEVIER Co.: marsh above Whittle's home, Gatlinburg, no. 2150; SHELBY Co.: Shelby State Forest, *Ralph Sinclair*; SULLIVAN Co.: W. side of Holston Mtns., U.S. 421, no. 10872; VAN BUREN Co.: 16 mi. S. of Spencer, rd. 111, no. 10744; UNICOI Co.: Unaka Mt., beyond Beauty Spot, no. 2136; WARREN Co.: about 4.5 mi. W. of McMinnville, U.S. 70S, no. 4361; WASHINGTON Co.: up Dry Cr. rd. from Nolichucky River at Embreeville, no. 9794; WAYNE Co.: near Hardin Co., U.S. 64, no. 9907; WHITE Co.: marsh, 1 mi. W. of De Rossett, no. 4110.

***Osmunda cinnamomea* L., forma *incisa* (Huntingdon) Gilbert**

FRANKLIN Co.: wooded swamp near hospital, Sewanee, no. 4141 (in part).

***Osmunda cinnamomea* L., forma *bipinnatifida* Clute**

CUMBERLAND Co.: near Daysville, *P. J. Adams*, June 11, 1928; ROANE Co.: marsh, top of mtn., NW. of Rockwood, no. 10762.

INTERRUPTED-FERN

***Osmunda Claytoniana* L.**

BLED SOE Co.: W. of Pikeville, Cumberland Plateau, rd. 30, no. 10727; *BLOUNT Co.: near top of Cades Cove Mtn. (2300 ft.), *Anderson and Hesler* no. 1196 (*Anderson*, 1931); CAMPBELL Co.: 20 mi. N. of LaFollette, U.S. 25W, no. 10715; CARTER Co.: by rd. 91, near Johnson Co., no. 10865; CLAIBORNE Co.: slope near Cumberland Gap, *T. A. Frick*, Sept. 13, 1943 (*Lincoln Mem. Univ.*); COCKE Co.: Burnett Gap, rd. 107, near Greene Co., no. 10725; CUMBERLAND Co.: hillside by U.S. 70, E. of Crab Orchard, no. 10416; DAVIDSON Co.: Little Marrowbone Cr. area, no. 2043; GREENE Co.: specimen lost but see *Stanley A. Cain and H. M. Jennison*, *Greystone*, June 24, 1928; HAWKINS Co.: mtn. slope, 4.5 mi. E. of Hancock Co., rd. 70, no. 10116; JOHNSON Co.: W. side of Iron Mtns., E. of Shady Valley, U.S. 421, no. 7890; MONROE Co.: Tellico gorge, Tellico Plains, *A. J. Sharp* no. 701; OBION Co.: Reelfoot Lake, *A. E. Jennings* no. 7604; RHEA Co.: Waldens Ridge, E. of Bledsoe Co., rd. 30, no. 10729; ROANE Co.: 5 mi. up mtn. back of iron furnace, NW. of Rockwood, no. 2016; ? SCOTT Co.: U. T. tract near Sunbright, *S. A. Cain and A. J. Sharp*, June 19, 1937; *SEVIER Co.: Roaring Fork, Gatlinburg, *Anderson* no. 938; SULLIVAN Co.: near top of Holston Mtns., U.S. 421, W. of Johnson Co., no. 10871; UNICOI Co.: Beauty Spot near Erwin, no. 10861; WASHINGTON Co.: near gap, up Dry Valley rd. from near Embreeville, no. 10840.

ENGELMANN ADDERSTONGUE

***Ophioglossum Engelmanni* Prantl**

BEDFORD Co.: N. of Shelbyville and 9.2 mi. S. of Eagleville, by U.S. 41A, no. 2630; DAVIDSON Co.: cedar glades, Charlton Lane and Old Hickory Blvd., about 5 mi. E. of U.S. 70S; DECATUR Co.: 4 mi. NW. of Clifton, *Endsley*, Apr. 18, 1938 (*Freed-Hardeman Col.*); FRANKLIN Co.: about 1500 ft., Talleytop, E. of Huntland, *H. K. Svenson* no. 10249; KNOX Co.: *J. K. Underwood*, May 10, 1936, cedar barrens near Mascot; MARION Co.: bluffs, bridge below Hales Bar, *A. J. Sharp, B. Adams, and C. J. Felix* no. 10612; MARSHALL Co.: about 2 mi. W. of Chapel Hill, rd. 99; MAURY Co.: 3.4 mi. S. of Columbia, no. 2631; MONTGOMERY Co.: Lynnwoods Landing, *A. and E. Clebsch*, May 11, 1946;

RUTHERFORD Co.: cedar glades, E. of Lavergne, no. 2805; SMITH Co.: cedar glades, Johnny Caplenor farm, Rome, U.S. 70, collected by Don Caplenor; WILLIAMSON Co.: cedar glades, SE. of Triune; WILSON Co.: side rd. to S. of U.S. 70, S. of Wilson Co. Nursery, no. 2873.

COMMON ADDERSTONGUE

Ophioglossum vulgatum L., var. *pyncostichum* Fern.

CARROLL Co.: about 8 mi. NE. of Madison Co., U.S. 70, no. 2921; CHEATHAM Co.: near Turnbull Cr., W. of Kingston Sprgs., no. 2942; COCKE Co.: near Del Rio, *A. J. Sharp and Herman Silva*, 1953; FAYETTE Co.: moist ravine on near Ames Plantation, NE. of La Grange, *A. J. Sharp, B. Adams, and C. J. Felix* no. 10345; HARDEMAN Co.: swamp, rd. 100, 0.5 mi. E. of rd. 18, no. 9167; *HAYWOOD Co.: Forked Deer bottoms, *Bain*, June 12, 1893 (Anderson, 1931); HENDERSON Co.: specimen mislaid; LAUDERDALE Co.: cr. bank, SW. of Ft. Pillow State Prison Farm, *A. J. Sharp, B. Adams and C. J. Felix* no. 12116; SHELBY Co.: 1.2 mi. W. of Fayette Co., U.S. 64, no. 191 (area now, 1953, a forest nursery). The * material—not seen—is assumed to be of this variety.

CUTLEAF GRAPEFERN

Botrychium dissectum Spreng., var. *typicum* Clausen

BLOUNT Co.: (Univ. of Tenn.); CARTER Co.: 1.9 mi. S. of Johnson Co., rd. 91, no. 10911; COCKE Co.: lower reaches, Low Gap trail, Cosby, no. 10373; GREENE Co.: near top of mtn. and N. C., rd. 70, no. 10916; HAWKINS Co.: ft. of Clinch Mtn. by cr., Low Gap rd. 5.2 mi. W. of Mooresburg, no. 10921; JOHNSON Co.: W. side of Iron Mtn., U.S. 421, E. of Shady Valley, no. 10914; SEVIER Co.: Jakes Cr., above Elkmont, no. 2165; SULLIVAN Co.: Fish Dam Cr., *Herman O'Dell*, Sept., 1938; UNICOI Co.: 4.5 mi. N. of Erwin, no. 2286; WASHINGTON Co.: cove in mtns., E. of rd. 107, no. 10924.

COMMON GRAPEFERN

Botrychium dissectum Spreng., forma *obliquum* (Muhl.) Fern.

BLED SOE Co.: mtn. top, W. of Sequatchie College (in valley), no. 9747; BLOUNT Co.: Gregory Bald trail, Cades Cove, no. 2200; CAMPBELL Co.: E. of Scott Co., rd. 63, no. 10294; CARROLL Co.: 4.5 mi. W. of Huntingdon, no. 9885; CHEATHAM Co.: W. of Kingston Sprgs., no. 2185; CHESTER Co.: specimens misplaced; COCKE Co.: lower reaches, Low Gap trail, Cosby, no. 2202; CROCKETT Co.: N. of Gadsden, no. 9998; DAVIDSON Co.: near Dripping Sprg., Percy Warner Park, no. 2211; DICKSON Co.: N. of White Bluff, no. 8237; FAYETTE Co.: 5 mi. W. of Somerville, no. 10889; FRANKLIN Co.: marsh between Tullahoma and Winchester, old rd., no. 188; GRAINGER Co.: E. side of Clinch Mtn., U.S. 25E, no. 10941; GREENE Co.: near mtn. top and N. C., rd. 70, no. 10405; GRUNDY Co.: specimens misplaced; HARDEMAN Co.: 5 mi. E. of Bolivar, U.S. 64, no. 9890; HENRY Co.: between Paris and Big Sandy, rd. 69, no. 9666; HICKMAN Co.: by rd. 48, near rd. 100, no. 8306; LEWIS Co.: by rd. 20, small stream, E. of Perry Co.; LINCOLN Co.: near Kelso, no. 2176; *LOUDON Co.: (Correll, 1939); McMINN Co.: 1.5 mi. W. of Athens, no. 9931; MONTGOMERY Co.: near Stewart Co., rd. 79, no. 10792; PUTNAM Co.: Stamps Hollow, near Monterey, no. 2189; RHEA Co.: near Grandview Academy, no. 2177; ROANE Co.: Shanty Cr., about 5 mi. E. of Rockwood, U.S. 70, no. 10392B; SCOTT Co.: 4 mi. N. of Morgan Co., U.S. 27, no. 8074; SEQUATCHIE Co.: mtn. top, W. of Dunlap, no. 8248; SEVIER Co.: Jakes Cr., above Elkmont, no. 2206; SHELBY Co.: Wolf River bottoms, E. of Memphis, no. 10888; SULLIVAN Co.: W. side of Holston Mtn., U.S. 421, no. 9747; SUMNER Co.: ravines in rim near Fountain Head, rd. 109, no. 9820; UNICOI Co.: N. of Erwin, no. 2284; WARREN Co.: W. side, Mt. Cardwell, no. 9728; WASHINGTON Co.: near Nolichucky River, N. of Erwin, rd. 81, no. 10094; WEAKLEY Co.: near Henry Co., rd. 54, no. 10899; WHITE Co.: cr., near flour mill, W. of Sparta, rd. 26, no. 2182.

SOUTHERN GRAPEFERN**Botrychium dissectum** Spreng., var. **tenuifolium** (Underwood) Farwell

ANDERSON Co.: Island Ford Baptist Church region, SW. of Norris Dam, no. 9711; BENTON Co.: down Tenn. River from U.S. 70, no. 10897; BLOUNT Co.: Dyer on Tenn. River, no. 10699; BRADLEY Co.: by Charleston rd., 4.4 mi. W. of Benton Sta., no. 10904; CAMPBELL Co.: 8.4 mi. NW. of U.S. 25W, on rd. 63, no. 10931; CARROLL Co.: 4 mi. E. of Madison Co., U.S. 70, no. 189; CARTER Co.: 1.9 mi. S. of Johnson Co., rd. 91, no. 10910; CHEATHAM Co.: W. of Kingston Sprgs., no. 2184; CHESTER Co.: by rd. 100, 2 mi. W. of U.S. 45, no. 10882; COCKE Co.: near bridge, French Broad River, 16 mi. E. of Newport, U.S. 70, no. 9809; COFFEE Co.: 4 mi. SE. of Manchester, *Shanks, E. Clebsch, and Sharp* no. 5251; CROCKETT Co.: 6.9 mi. N. of Bells, no. 9998; CUMBERLAND Co.: near Obed River, rd. 26, no. 2209; DAVIDSON Co.: near dripping sprgs., Warner Park, no. 2210; DECATUR Co.: Becon rd., near rd. 20, no. 10886; DYER Co.: roadside park, U.S. 51, 9.5 mi. N. of Newbern, no. 10892; FENTRESS Co.: 8.4 mi. N. of Jamestown, rd. 28, no. 10286; FRANKLIN Co.: near Sewanee, no. 2161; GIBSON Co.: 7 mi. S. of Weakley Co., U.S. 45E, no. 10901; GREENE Co.: near mtn. top and N. C., rd. 70, no. 9786; GRUNDY Co.: by cr. below Stone Door, Beersheba Sprgs., no. 10184; HAMILTON Co.: specimens lost; HANCOCK Co.: W. of Clinch Mtn., Flat Gap Rd., 14.8 mi. W. of Mooresburg, no. 10928; HAWKINS Co.: cr. at ft. of Clinch Mtn., Flat Gap Rd., 5.2 mi. W. of Mooresburg, no. 10922; HARDEMAN Co.: Chickasaw Forest, rd. 100, no. 9169; HARDIN Co.: Shiloh rd., just S. of U.S. 64, no. 10884; HAYWOOD Co.: NE. of Brownsville, U.S. 70, Sept. 15, 1952; HENDERSON Co.: 6.9 mi. W. of Lexington, rd. 20, no. 10887; HENRY Co.: between Paris and Big Sandy, rd. 69, no. 9658; HUMPHREYS Co.: rd. from Denver to Denver Boat Docks, no. 10790; JOHNSON Co.: W. mtn. side, E. of Shady Valley, U.S. 421, no. 10913; LAUDERDALE Co.: 4.9 mi. E. of Henning, no. 10896; LINCOLN Co.: near Kelso, no. 2175; MCNAIRY Co.: 4.6 mi. S. of Chester Co., U.S. 48, no. 10885; MADISON Co.: Pine Ridge rd., E. of Medon, no. 9674; MARION Co.: cr. near Martin Sprgs., Sequatchie Valley, U.S. 41, no. 8262; MAURY Co.: ravines, near Hampshire, no. 9213; MEIGS Co.: by Breedenton rd., NW. of Decatur, no. 1090; MONROE Co.: near entrance to Cherokee Nat. Forest, Tellico River, no. 10907; MONTGOMERY Co.: Sheltons Branch, E. of Clarksville, U.S. 41A, no. 10549; MORGAN Co.: 3.2 mi. S. of Scott Co., U.S. 27, no. 8079; OVERTON Co.: 2 mi. E. of Livingston, rd. 85, no. 4102; POLK Co.: Hiwassee Beach, rd. 30, no. 10903; SEVIER Co.: above Whittle's place, Gatlinburg, no. 2196; SHELBY Co.: Wolf River bottoms, Macon Rd., E. Memphis, no. 10888; TIPTON Co.: Hatchie River bottoms, U.S. 51, no. 10895; UNICOI Co.: Limestone Cove, no. 2185; UNION Co.: near Anderson Co., rd. 61, no. 10934; WARREN Co.: 4.7 mi. W. of McMinnville, U.S. 70, no. 4367; WASHINGTON Co.: cove to SE. of rd. 107, which turnoff is 14.1 mi. from Tusculum, no. 10925; WAYNE Co.: W. of Waynesboro, U.S. 64, no. 8283; WEAKLEY Co.: near Henry Co., rd. 54, no. 10898; WHITE Co.: cr. near flour mill, W. Sparta, no. 2183.

ALABAMA GRAPEFERN**Botrychium alabamense** Maxon

HAMBLEN Co.: S. of Cherokee Park near Holston River, no. 10920; MONROE Co.: by rd. up Tellico River, 16.2 mi. from entrance to Cherokee Nat. Forest.

RATTLESNAKEFERN**Botrychium virginianum** (L.) Sw.

ANDERSON Co.: near Island Ford Baptist Church, S. of Norris Dam, no. 9710; BEDFORD Co.: ravines near Moore Co., U.S. 41A, no. 9832; BENTON Co.: near Holladay, no. 9144; BLEDSOE Co.: W. side of Waldens Ridge, Low Gap rd., no. 10314; BLOUNT Co.: Kinzel Sprgs., no. 2236; BRADLEY Co.: near

Gilmer Branch, no. 10020; CAMPBELL Co.: N. of Pioneer, no. 10665; CARROLL Co.: SW. of Huntingdon, U.S. 70, no. 2918B; CHEATHAM Co.: W. of Kingston Sprgs., no. 2271; CLAIBORNE Co.: S. of New Tazewell, rd. 33, no. 10939; CLAY Co.: by rd. 52, no. 8278; COCKE Co.: near bridge over French Broad River, 16 mi. E. of Newport, U.S. 70, no. 2231; COFFEE Co.: near Rutherford Co., U.S. 70S, no. 4173; CROCKETT Co.: N. of Bells, no. 9999; CUMBERLAND Co.: E. of Crab Orchard, U.S. 70, no. 10415; DAVIDSON Co.: Wilkinsons Hollow near Joelton, no. 2427; DECATUR Co.: N. of Parsons, no. 9141; DICKSON Co.: N. of White Bluff, no. 8233; DYER Co.: loess bluff, rd. 78, no. 10348; FAYETTE Co.: W. of Somerville, U.S. 64, no. 10890; FENTRESS Co.: 8.4 mi. N. of Jamestown, rd. 28, no. 10287; FRANKLIN Co.: near Morgan Steep, Sewanee, no. 2228; GIBSON Co.: N. of Trenton, rd. 54, no. 9654; GILES Co.: near Waco, no. 8217; GRAINGER Co.: by U.S. 25E, no. 10124; GREENE Co.: mtn. top, near Greystone School, no. 10102; GRUNDY Co.: Big Fiery Gizzard gulch, Tracy City, no. 9787; HAMBLÉN Co.: Needmore Boat Docks, W. of Whitesburg, no. 10089; HAMILTON Co.: Falling Water Cr., Waldens Ridge, no. 10632; HANCOCK Co.: N. of Greene-Lawson School, Flat Gap Rd., W. of Mooresburg, no. 10927; HAWKINS Co.: Flat Gap Rd., W. of Mooresburg, no. 10922; HARDEMAN Co.: Chickasaw Forest by rd. 100, no. 9172; HARDIN Co.: Olive Hill, no. 8299; HENDERSON Co.: E. of Lexington, rd. 20, no. 10438; HENRY Co.: SE. of Paris towards Big Sandy, rd. 69, no. 9152; HICKMAN Co.: by rd. 48, near rd. 100, N. of Adams, no. 8307; HOUSTON Co.: Cumberland City, no. 2997; HUMPHREYS Co.: 3.5 mi. W. of Waverly, U.S. 70, no. 4438; JEFFERSON Co.: Dandridge, no. 10059; JOHNSON Co.: W. side of Iron Mtn., E. of Shady Valley, U.S. 421, no. 10915; KNOX Co.: near Sevier Co., rd. 71, no. 10064; LAUDERDALE Co.: W. of Ripley, no. 9990; LAWRENCE Co.: near Maury Co., U.S. 43, no. 8322; LEWIS Co.: E. of Perry Co., rd. 20, no. 10883; LINCOLN Co.: marsh near Kelso, no. 2219; LOUDON Co.: Marble Bluff, Clinch River, no. 10132; McMINN Co.: W. of Athens, rd. 30; McNAIRY Co.: W. of Adamsville, no. 10245; MACON Co.: 6 mi. E. of Lafayette, rd. 52, no. 10480; MADISON Co.: Pine Ridge Rd., E. of Medon, no. 9677; MARION Co.: Martin Sprgs., Sequatchie Valley, U.S. 70, no. 8263; MARSHALL Co.: sinkholes by rd. 106, no. 10459; MAURY Co.: near Rockdale, no. 8315; MEIGS Co.: near Tenn. River below Watts Dam, no. 10583; MOORE Co.: near Bedford Co., no. 7860; MONROE Co.: up Tellico River from Tellico Plains, no. 10908; MONTGOMERY Co.: Sheltons Branch, E. Clarksville, U.S. 41A, no. 9252; MORGAN Co.: S. of Scott Co., U.S. 27, no. 8080; OBION Co.: Chigger Ridge, Reelfoot Lake, no. 2269; OVERTON Co.: E. of Livingston, no. 10812; PERRY Co.: Lick Community by rd. 100, no. 10818; PICKETT Co.: near Obey River, rd. 42, no. 8096; POLK Co.: Hiwassee Beach, rd. 30, no. 10905; PUTNAM Co.: mtn. side near Monterey, no. 2278; RHEA Co.: Washington, rd. 30, no. 10585; ROANE Co.: Shanty Cr., U.S. 70, E. of Rockwood, no. 10391; ROBERTSON Co.: Cross Plains, no. 7978; RUTHERFORD Co.: near Coffee Co., U.S. 41, no. 9778; SCOTT Co.: E. of Huntsville, rd. 63, no. 10930; SEQUATCHIE Co.: mtn. W. of Dunlap, no. 8247; SEVIER Co.: Bear Pen Hollow Trail, Mt. Le Conte, no. 2234; SHELBY Co.: W. of Millington, no. 9993; STEWART Co.: specimens lost; SULLIVAN Co.: Holston Mtns., U.S. 421, no. 9746; SUMNER Co.: Tyree Sprgs., near White House, no. 4302; TIPTON Co.: woods to E. of U.S. 51, 2 mi. S. of Brighton, no. 9125; UNICOI Co.: Limestone Cove, no. 2226; UNION Co.: near Anderson Co., rd. 61, no. 10936; WARREN Co.: Pinnacle Mtn., Irving College, no. 9715; WASHINGTON Co.: rd. 107, E. of Tusculum, mtn. coves to E., no. 10926; WAYNE Co.: E. of Clifton, rd. 114, no. 9897; WEAKLEY Co.: W. of Henry Co., rd. 54, no. 10900; WHITE Co.: gulf of Caney Fork River, Dodson, no. 2222; WILLIAMSON Co.: rd. to Fernvale, E. of rd. 100, no. 8187.

MOSQUITO FERN *Azolla caroliniana* Willd.

*BRADLEY Co.: 1856 *Gattinger* (Anderson, 1931); CHESTER Co.: S. Fork, Forked Deer River, E. of Henderson, *A. J. Sharp, E. Clebsch, and A. Clebsch*.

no. 9423; DAVIDSON Co.: Radnor Lake, *Frances R. Bottum*, July 29, 1949; LAKE Co.: Blue Bank, Reelfoot Lake, no. 1999; *McMINN Co.: pond, Briceville [Riceville?], *Gattinger* (1901, p. 30); OBION Co.: bayou, Walnut Log, Reelfoot Lake, *South. Appalachian Botanical Club* 644; SHELBY Co.: near entrance to Shelby Forest, *Gentry*, Sept. 13, 1950.

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