

GREAT SMOKY MOUNTAINS BIOSPHERE RESERVE:

A BIBLIOGRAPHY OF SCIENTIFIC STUDIES

U.S. MAN AND THE BIOSPHERE PROGRAM U.S. MAB REPORT NO. 4



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Prepared by: The Southern Appalachian Research/Resource Management Cooperative (SARRMC) and Western Carolina University Cullowhee, North Carolina 28723

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INTRODUCTION

This bibliography was prepared as part of a project to provide a basic reference on science activities and the available information base at the Great Smoky Mountains National Park Biosphere Reserve. The bibliographical search was conducted at Western Carolina University (WCU), Cullowhee, North Carolina; the University of Tennessee (UT-K), Knoxville, Tennessee; North Carolina State University (NCSU), Raleigh, North Carolina; the Highlands Biological Station (HBS), Highlands, North Carolina; and the Great Smoky Mountains National Park, (GSMNP), Gatlinburg, Tennessee.

For a detailed description of the history of scientific studies and the current available information base at Great Smoky Mountains National Park, the reader should refer to the following publication: <u>Great Smoky</u> <u>Mountains Biosphere Reserve: History of Scientific Study</u>. U.S. MAB Report No. 5.

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GEOLOGY

- Allen, G. C. 1968. Chemical and mineralogic variations during prograde metamorphism in the Great Smoky Mts. Ph.D. Diss., UNC-CH, Chapel Hill, NC.
- Carroll, D. et al. 1957. Heavy minerals in arenaceous beds in parts of the Ocoee series, Great Smoky Mts., Tenn. Amer. Jour. Sci. 255(3):175-193.
- Cattermole, J. M. 1955. Geology of the Shooks Gap quadrangle, Tenn. US Geol. Survey Geol. Quad. Map, GQ-76.
- Cattermole, J. M. 1962. Geology of the Maryville quadrangle, Tenn. US Geol. Survey Geol. Quad. Map. GQ-165.
- Chorley, R. and M. Morgan. 1962. Comparison of morphometric features. Unaka Mts., Tenn. and NC and Dartmore, England. Geol. Soc. Amer. Bull. 73:17-34.
- Conley, J. F. and K. M. Drummond. 1965. Ultramyolinite zones in the western Carolinas. Southeastern Geology 6:201-211.
- Crickmay, G. W. 1938. Report on rock samples from Cherokee-Gatlinburg section, GSMNP. Addendum to Griffin (1937).
- Espenshade, G. H. 1963. Geology of some copper deposits in North Carolina, Virginia and Alabama. US Geol. Surv. Bull. 1142, 50 pp.
- Goldsmith, R. and J. Hadley. 1955. Pre-Ocoee erosion surface in the Great Smoky Mts. (Abstract) Geol. Soc. Amer. Bull. 66:1687-1688.
- Gordon, C. 1920. Notes on the geology of the cove areas of east Tenn. (abstract) Science 51:492-493.
- Griffin, R. H. 1937. Geologic Cross-section of the GSMNP. Final Rpt. to GSMNP. 26 pp.
- Hadley, J. B. and R. Goldsmith. 1963. Geology of the eastern Great Smoky Mts., NC and Tenn. US Geol. Survey Prof. Paper 349-B, 118 pp.
- Hadley, J. and A. Nelson. 1971. Geologic map of the Knoxville quadrangle, NC, TN, and SC. US Geol. Survey Misc. Geol. Inv. Map, 1-654.
- Hadley, J. B. et al. 1955. Outline of the geology of the Great Smoky Mts. area, TN and NC. <u>In</u>: R. J. Russell (Ed), Guide to southeastern geology. Geol. Soc. Amer. Ann. Mtg. New Orleans, LA. p. 395-427.

- Hamilton W. 1961. Geology of the Richardson Cove and Jones Cove quadrangles, TN. US Geol. Survey Prof. Paper 349-A. 55 pp.
- Hardeman, W. D. 1966. Geologic map of Tennessee. East. Sheet. Tenn. Div. Geol.
- Hatcher, R. D. 1972. Developmental model for the southern Appalachians. Geol. Soc. Amer. Bull. 83:2735-2760.
- Hatcher, R. 1979. The Coweeta group and Coweeta syncline: major features of the NC - GA Blue Ridge. Southeastern Geol. 21:17-29.
- Jonas, A. I. 1932. Structure of the metamorphic belt of the Southern Appalachians. Amer. J. Sci. 24:228-243.
- Keith, A. 1895. Description of the Knoxville sheet (Tenn^{*}. NC): US Geol. Survey Geol. Atlas Folio 16. 6 pp.
- Keith, A. 1896. Description of the Loudon sheet (Tenn.): US Geol. Survey Geol. Atlas Folio 25. 6 pp.
- Keith A. 1907. Description of the Nantahala quadrangle (NC-Tenn.) US Geol. Survey Geol. Atlas Folio 143. 11 pp.
- Keith, A. 1927. Great Smoky Overthrust. Geol. Soc. Amer. Bull. 38:154-155.
- Kendall, H. F. 1953. Some copper-zinc bearing pyrrhotite ore bodies in Tennessee and North Carolina. <u>In</u>: McGrain, Preston (ed.) Southeastern mineral symposium proceeding. 1950. Kentucky Geol. Survey Spec. Publ. Ser. 9:112-123.
- King, P. B. 1949. The base of the Cambrian in the southern Appalachians. Amer. Jour. Sci. 247:513-530, 622-645.
- King, P. B. 1955. A geologic section across the southern Appalachians: An outline of the geology in the segment in Tennessee, North Carolina and South Carolina. <u>In</u>: Russel, R. J. (ed.) Guides to southeastern geology: Geol. Soc. Amer. Ann. Mtg., New Orleans, LA. pp. 332-373.
- King, P. B. 1964. Geology of the central Great Smoky Mts. Tenn. US Geol. Survey Prof. Paper 349-C. 148 pp.
- King, P. B. and A. Stupka. 1950. The Great Smoky Mts. their geology and natural history. Sci. Monthly 71:31-43.
- King, P. et al. 1952. Guide book of excursion in the Great Smoky Mts. Carolina Geol. Soc.

- King, P. B. et al. 1958. Stratigraphy of Ocoee Series. Great Smoky Mts., Tenn, and NC. Geol. Soc. Amer. 69:947-966.
- King, P. B. et al. 1968. Geology of the GSMNP, Tenn. and NC. US Geol. Survey Prof. Paper 587. 23 pp.
- Laney, F. B. 1907. Copper deposits of Swain County. N.C. Geol. Econ. Survey Econ. Pap. 14:72-79.
- Larrabee, D. M. 1966. Map showing distribution of ultramafic and intrusive mafic rocks from northern New Jersey to eastern Alabama, 1:500,000 scale. US Geol. Surv. Misc. Geol. Inv. Map I-476.
- MacKay, D. K. 1935. Preliminary report on the geology of the GSMNP. Unpubl. Rept. 50 pp. GSMNP Library.
- Mohr, D. W. 1973. Stragraphy and structure of part of the Great Smoky and Murphy Belt Groups, Western North Carolina. Amer. Jour. Sci. 273A:41-71.
- Mohr, D. W. 1975. Geologic map and mineral resources summary of the Noland Creek quadrangle, NC. NC Dept. Nat. Res. GM 158-NE.
- Neuman, R. B. 1947. Notes on the geology of Cades Cove, GSMNP, Tenn. Jour. Tenn. Acad. Sci. 2:167-172.
- Neuman, R. B. 1951. The Great Smoky fault. Amer. Jour. Sci. 249(10):740-754.
- Neuman, R. B. and W. H. Nelson. 1965. Geology of the Western Great Smoky Mts., Tenn. US Geol. Survey Prof. Paper 349 D. 81 pp.
- Neuman, R. B. and R. L. Wilson. 1960. Geology of the Blockhouse quadrangle, Tenn. US Geol. Survey Geol. Quad. Map GQ 131.
- Rodgers, J. 1953. Geologic map of east Tenn. with explanatory text. Tenn. Div. Geol. Bull. 58(2):168.
- Stose, G. W. and A. J. Stose. 1944. The Chilhowee group and Ocoee series of the southern Appalachians. Amer. Jour. Sci. 242:367-390, 401-416.
- Sutton, T. C. 1971. Relationship between metamorphism and geologic structure along the Great Smoky fault system. Univ. of Tenn. Knoxville, TN.
- Wiener, L. 1976. Great Smoky Group and Murphy belt strata Paleozoic or Precambrian deposits? Geol. Soc. Amer. Abot. 8(2):299.

- Wilson, C. 1935. The Great Smoky thrust fault in the vicinity of Tuckaleeche, Wear, and Cades Coves, Blount and Sevier Counties, Tenn. Jour. Tenn. Acad. Sci. 9:57-63.
- Wilson, W. F. 1975. Bibliography of NC geology, 1910-1960. NC Dept. Nat. and Econ. Res., Div. of Res. Planning and Eval., Mineral Res. Section, Bull. 82.
- Witherspoon, W. D. 1977. A study of tectonic fabrics in the Little River Gorge, Great Smoky Mts. 3rd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.

- Beesley, T. E. et al. 1955. Soil survey of Cocke County, Tennessee. U.S.D.A. Soil Conservation Service Series. 1944 No. 4, 171 pp.
- Coile, T. S. 1938. Podzol soils in the southern Appalachian Mts. Soil Sci. Soc. Amer. Proc. 3:274-279.
- Elder, J. A. et al. 1953. Soil survey of Blount Co. Tenn. USDA Soil Cons. Service. Wash., DC 119 pp.
- Hubbard, E. H. et al. 1956. Soil survey of Sevier Co., TN. USDA Soil Cons. Service. 203 pp.
- Lee, W. P. 1955. The soils of NC. NC Agri. Exp. Sta. Tech. Bull. 115:187 pp.
- McCracken, R. J. et al. 1962. Soil morphology and genesis at higher elevations of the Great Smoky Mts. Proc. Soil Sci. Soc. Amer. 26(4):384-388.
- Perkins, S. O. and W. Gethys. 1947. Soil survey of Swain County, North Carolina. USDA Soil Conservation Service Series. 1937. No. 18, 65 pp.
- USDA-SCS. 1959. Soil survey for Blount Co., Tenn.
- USDA-SCS. 1970. General soils maps and interpretation for Graham, Cherokee, Jackson, Macon, Clay, Haywood, and Swain Counties, NC.
- Wolfe, J. 1967. Forest soil characteristics as influenced by vegetation and bedrock in the spruce fir zone of the Great Smoky Mts. Ph. D. Diss., Univ. of Tenn., Knoxville, TN. 193 pp.

CLIMATE

- Albee, T. 1979. Preliminary investigation of light scattering and visibility in two eastern national parks. MS Thesis. VPI&SU, Blacksburg, VA.
- Bogucki, D. J. 1972. Intense rainfall in the GAMNP. Jour. Tenn. Acad. Sci. 47:93:97.
- Bogucki, D. J. et al. 1973. Field conference guide for an altitudinal transect of the GSMNP. 1973 Internatl. Geobot. Conf., Univ. of Tenn., Knoxville, Tenn. 40 pp.
- Donley, D. E. and R. L. Mitchell. 1939. The relation of rainfall to elevation in the Southern Appalachian region. Trans. Amer. Geophys. Union 20:711-721.
- Larson, G. et al. 1979. A brief review of causes and consequences of acid precipitation (rain and snow) in relation to potential effects on the resources of the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Rpt. for Superintendent, GSMNP. 28 pp.
- Lubkert, B. 1979. The interrelationship of visibility degradation, ozone and sulfur dioxide in national park areas and their spatialtemporal distribution patterns. MS Thesis, VPI&SU, Blacksburg, VA.
- Matthews, R. et al. 1979. Atmospheric deposition studies in the GSMNP. Pro. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- McNeil, T. 1978. Determination of lead levels associated with motor vehicle traffic within the GSMNP. 4th Ann. Sci. Res. Mtg. NPS-SER GSMNP. p. 9-10.
- Parkhurst, W. 1979. Airmass data in the vicinity of the GSMNP, Sept. 19-27, 1979. Dept. No. IAO-79-9, TVA, Muscle Shoals, AL.
- Ritchie, J. C. 1962. Distribution of fallout Cesium-137 in litter, humus, and surface soil layers under natural vegetation in the Great Smoky Mts. MS Thesis, Univ. of Tenn., Knoxville, TN. 47 pp.
- Ritchie, J. C., E. E. C. Clebsch, and W. K. Rudolph. 1970. Distribution of fallout and natural gamma radionuclides in litter, humus, and surface mineral soil layers under natural vegetation in the Great Smoky Mts., NC-TN. Health Physics 18:479-489.
- Rudolph, W. K. 1963. Concentrations of gamma emitting fallout radio nuclides from <u>Picea rubens</u> and <u>Rhododendron maximum</u> in the Great Smoky Mts. MS Thesis, Univ. of Tenn., Knoxville. 38 pp.

- Shanks, R. E. 1954a. Climates of the Great Smoky Mts. Ecology 35:354-361.
- Skelly, J. M. et al. 1978. Air quality measurements in the Blue Ridge Mts. and GSMNP and relationships to vegetation injury. 4th Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Skelly, J. M. et al. 1979. Impact of photochemical oxidant to white pine in the Shennandoah, Blue Ridge Parkway and GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Smallshaw, J. 1953. Some precipitation altitude studies of the TVA. Amer. Geophy. Union Trans. 34-583-588.
- Stephens, L. A. 1969. A comparison of climatic elements at four elevations in the Great Smoky Mountains. MS Thesis, Univ. of Tenn., Knoxville, TN. 119 pp.
- Stephens, N. and J. Skelly. 1979. A study of ambient air quality and visibility in national parks. Interim report for NPS contract #CX500081549.
- Stephens, N. et al. 1979. A study of ambient air quality and visibility in national parks. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Stephens, N. T., J. M. Rosenquest and B. Lubkert. 1979. Spatial and temporal ozone and sulfur dioxide distribution in the Great Smoky Mountains. 72nd Ann. Meeting Air pollution Control Assoc., Cincinnati, Ohio, June 24-29, 1979. 79-52 pp.
- Stevens, R. et al. 1980. Characterization of the aerosol in the Great Smoky Mts. (abstract). Env. Sci. and Tech. 14.
- Tanner, J. 1963. Mountain temperatures in the southeastern and southwestern United States during late spring and early summer. J. Appl. Meteor. 2:473-483.
- Wiersma, G. B. et al. 1978. Development of a pollutant monitoring system for Biosphere Reserves and results of the Great Smoky Mts. pilot study. <u>In</u>: 4th Joint Conf. on Sensing of Envir. Pollutants. Amer. Chem. Soc., New Orleans, LA. p. 451-456.
- Wiersma, G. et al. 1979. Great Smoky Mts. preliminary study for Biosphere Reserve pollutant monitoring. Env. Monit. Syst. Lab., Off. of Res. and Deve., US EPA, Las Vegas, EPA-600/4-79-072. 47 pp.
- Wiersma, G. et al. 1980. Lead particles in the Great Smoky Mts. Biosphere Reserve. Env. Monit. Syst. Lab., Off. of Res. and Dev., US-EPA, Las Vegas, NV. EPA-600/4-80-002. 11 pp.

Williamson, R. 1939. Climate of the GSMNP. Amer. Meterol. Soc. Bull. 20:149.

VEGETATION

- Anderson, L. E. and R. H. Zander. 1973. The mosses of the Southern Blue Ridge Province and their phytogeographic relationships. J. Elisha Mitchell Sci. Soc. 89:15-60.
- Anonymous. 1935. Cumulative fire map, five year period. 1931-1935. Archives GSMNP.
- Arends, Ernesto. 1981. Vegetation patterns a half century following the chestnut blight in the GSMNP. M.S. Thesis. UT-Knoxville. 79 p.
- Ayensu, E. S. and R. A. DeFillipps. 1978. Endangered and Threatened plants of the United States. Smithsonian Institution and World Wildlife Fund, Inc. Washington, D.C.
- Baranski, Michael J. 1975. An analysis of variation within white oak (<u>Quercus alba</u> L.). North Carolina Agricultural Experiment Station Tech. Bul. No. 236.
- Barden, L. 1974. Lightning fires in southern Appalachian forests. Ph.D. Diss. Univ. of Tenn., Knoxville, TN 65 pp.
- Barden, L. 1979. Tree replacement in small canopy gaps of a <u>Tsuga</u> <u>canadensis</u> forest in the southern Appalachians. Oecologia 44:141-142.
- Barden, L. 1980. Tree replacement in a cove hardwood forest of the southern Appalachians. Oikos 35:16-19.
- Barden, L. and F. Woods. 1973. Characteristics of lightning fires in southern Appalachian forests. Proc. Annual Tall Timbers Fire Ecol. Conf. No. 13:345-361.
- Barden, L. and F. Woods. 1976. Effects of fire on pine and pine hardwood forests in the southern Appalachians. For. Sci. 22:399-403.
- Baron, J. et al. 1975. The status of five exotic woody plants in the Tenn. District, GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #2.
- Barry, P. J., J. D. Ward, and W. E. McDowell. 1971. Evaluation of southern pine beetle infestations on the Cheoah Ranger District, Nantahala National Forest, NC and GSMNP, NC and TN. USDA, FS Asheville, NC. Rpt. #72-1-7.

- Barry P. and E. Wilson. 1971. Evaluation of southern pine beetle infestations on the Cheoah Ranger District Nantahala National Forest and the GSMNP, NC. USDA, FS Asheville, NC. Rpt. #71-1-14.
- Becking, R. and J. Olson. 1978. Remeasurement of permanent vegetation plots in the GSMNP, Tenn., and the implications of climatic changes on vegetation. ORNL, Env. Sci. Div. Pub. #1111, Oak Ridge, TN.
- Billings, W. D., et al. 1937. Winter key to the trees of eastern Tenn. Castanea 2:29-44.
- Billings, W. D. and A. F. Mark. 1957. Factors involved in the persistence of montane treeless balds. Ecology 38:140-142.
- Bloomquist, H. L. 1934. Ferns of North Carolina. Duke Univ. Press Durham, NC 131 pp.
- Bogucki, D. J. 1970. Debris slides and related flood damage associated with the September 1, 1951 cloudburst in the Mt. LeConte-Sugarland Mtn. area, GSMNP. Ph. D. Diss., Univ. of Tenn., Knoxville, Tenn. 165 pp.
- Boner, R. P. 1979. Effects of Fraser fir death on population dynamics in southern Appalachian boreal ecosystems. MS Thesis. UT-Knoxville. 105 pp.
- Bratton, S. 1974b. The effect of the European wild boar (<u>Sus scrofa</u>) on the high-elevation vernal flora in GSMNP. Bull. Torrey Bot. Club 101(4):198-206.
- Bratton, S. 1975a. A comparison of the beta diversity functions of the overstory and herbaceous understory of a deciduous forest. Bull. Torrey Bot. Club 102:55-60.
- Bratton, S. 1975b. The effect of the European wild boar (<u>Sus scrofa</u>) on gray beech forest in the Great Smoky Mts. Ecology 56(6):1356-1366.
- Bratton, S. P. 1975c. The structure and diversity of herbaceous understory communities in temperate deciduous forest. Ph. D. Diss., Cornell Univ., Ithaca, NY 333 p.
- Bratton, S. 1976a. Resource division in an understory herb community-responses to temporal and microtopographic gradients. Amer. Nat. 110:679-693.
- Bratton, S. 1976b. The response of understory herbs to soil depth ingredients in high and low diversity communities. Bull. Torrey Bot. Club 103:165-172.

- Bratton, S. 1977b. The effect of European wild boar on the flora of GSMNP. <u>In</u>: Gene Wood (Ed.), Res. and Mgt. of Wild Hog Pops., Belle W. Baruch Forest Sci. Inst. Clemson Univ., Clemson, SC. p. 47-52.
- Bratton, S. 1978. Rare plant status report. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #25.
- Bratton, S. 1979. Impact of white tailed deer on the vegetation of Cades Cove, GSMNP. Proc. Ann. Conf. SE Assoc. Fish and Wildlife Agencies 33:305-312.
- Bratton, S. et al. 1979b. Rooting impacts of the European wild boar on the vegetation GSMNP during a year of mast failure. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Bratton, S. 1980. Impacts of white-tailed deer on the vegetation of Cades Cove, GSMNP. USDI, NPS-SER Uplands Field Res. Lab. Rpt. for the Superintendent. 36 pp.
- Braun, E. L. 1950. Deciduous forests of eastern North America. Blakiston 596 pp.
- Bruhn, M. E. 1964. Vegetational succession on three grassy balds of the Great Smoky Mts. MS Thesis, Univ. of tenn., Knoxville, TN.
- Bryson, C. T. 1980. Noteworthy <u>Carex</u> records from the Great Smoky Mts. Castanea 45(2) 138-139.
- Buckner, E. and W. McCracken. 1978. Yellow-poplar: A component of climax forests? Jour. Forestry July 1978, pp. 421-423.
- Bye, A. E. 1944. Topographic maps of Gregory and Andrews Bald. Original drawings in the archives of GSMNP, Gatlinburg, TN.
- Cain, S. A. 1929. Upland peat formation in the Great Smoky Mts. Unpublished thesis material. Univ. of Chicago, Chicago, Ill.
- Cain, S. A. 1930a. An ecological study of the heath balds of the Great Smoky Mts. Butler Univ. Bot. Studies 1:177-208.
- Cain, S. A. 1930b. An ecological study of the vegetation of the Great Smoky Mts. Ph. D. Diss., Univ. of Chicago, Chicago, Ill. 153 pp.
- Cain, S. A. 1930c. Certain floristic affinities of the trees and shrubs of the Great Smoky Mts. and vicinity. Butler Univ. Bot. Studies 1:129-150.

- Cain, S. A. 1931. Ecological studies of the Great Smoky Mts. of NC and Tenn. I. Soil reaction and plan distribution. Bot. Gaz. 91:22-41.
- Cain, S. A. 1935. Ecological studies of the vegetation of the Great Smoky Mts. II. The quadrat method applied to sampling spruce and fir forest types. Amer. Midl. Nat. 16:566-584.
- Cain, S. A. 1936. Ecological work on the Great Smoky Mt. region. Castanea 1:25-32.
- Cain, S. A. et al. 1937. A preliminary guide to the Greenbrier-Bushy Mt. nature trail, GSMNP. Unpublished manuscript, Univ. of Tenn., Knoxville, Tenn. 29 pp.
- Cain, S. A. 1940. An interesting behavior of yellow birch in the Great Smoky Mts. Chicago Nat. 3:20-21.
- Cain, S. A. 1942. "As Dr. Cain sees it." <u>In</u>: R. S. Yards, "The Great Smoky Wilderness." Living Wilderness 7:15-16.
- Cain, S. A. 1943. The Tertinary character of the cove hardwood forests of the GSMNP. Torry Bot. Club Bull. 70:213-235.
- Cain, S. A. 1945. A biological spectrum of the flora of the GSMNP. Butler Univ. Bot. Studies 7:11-24.
- Cain, S. A. and A. J. Sharp. 1938. Bryophytic unions of certain forest types of the Great Smoky Mts. Amer. Midl. Nat. 20:249-301.
- Cain, S. A. and J. D. O. Miller. 1933. Leaf structure of <u>Rhododendron</u> <u>catawbiense</u> Mich. grown in <u>Picea-Abies</u> forest and in heath communities. Amer. Midl. Nat. 14:69-82.
- Camp, W. H. 1931. The grass balds of the Great Smoky Mts. of Tenn and NC. Ohio Jour. Sci. 31:157-164.
- Camp, W. H. 1942. "Dr. Camp on balds." <u>In</u>: R. W. Yard's "The Great Smoky Wilderness." Living Wilderness 7:16.
- Campbell, C. C. et al. 1970. Great Smoky Mts. wildflowers: third edition. Univ. of Tenn. Press. Knoxville, TN.
- Ciesla, W. M., H. L. Lambert, and R. T. Franklin. 1965. Forest insect and disease detection survey of the GSMNP and the Cherokee Indian Reservation, NC and TN. USDA, FS Asheville, NC, Rpt. #65-1-21.

- Clerke, W. H. and R. F. Bassett. 1969. An evaluation of southern pine beetle infestation, GSMNP, in Tenn. and NC. USDA, FS, Asheville, NC Rpt. #69-1-51. 9 pp.
- Clerke, W. H., R. F. Bassett, and H. L. Lambert. 1968. Detection and evaluation of southern pine beetle infestations on the GSMNP. USDA, FS, Asheville, NC. Rpt. #68-1-18.
- Clerke, W. H., R. F. Bassett, and J. L. Knighten. 1968a. Evaluation of southern pine beetle infestations on the GSMNP. USDA, FS Asheville, NC. Rpt. #68-1-21.
- Clerke, W. H. et al. 1968b. Evaluation of southern pine beetle infestation in the GSMNP, Tenn. USDA, FS, Asheville, NC. Rpt. #69 1-12. 6 pp.
- Coker, W. and H. Totten. 1945. Trees of the southeastern states including VA, NC, SC, TN, GA, and northern FL, third edition. UNC, Chapel Hill, NC. 419 pp.
- Committee for Tenn. Rare Plants. 1977. The rare vascular plants of Tenn. Mimeo. 26 pp.
- Committee for Tenn. Rare Plants. 1978. The rare vascular plants of Tenn. Jour. Tenn. Acad. Sci. 53:128-133.
- Cooley, L. M. 1934. A preliminary list of the Myxomycetes of eastern Tenn. J. Tenn. Acad. Sci. 9:84-86.
- Cooley, E. H. 1954. A study of plant distribution patterns at a mid-altitude location in the GSMNP. MS Thesis Univ. of Tenn., Knoxville, TN.
- Covell, J. 1978. Fire history of GSMNP, 1931-1977. 4th Ann. Sci. Res. Mtg. NPS-SE Region, GSMNP.
- Crandall, D. L. 1958. Ground vegetation patterns of the spruce-fir area of the GSMNP. Ecol. Monogr. 28:337-360.
- Crandall, D. 1960. Ground vegetation patterns of the spruce-fir area of the GSMNP. Virginia Jour. Sci. 11:9-18.
- Crandall, D. L. 1965. Ecological studies in the Great Smoky Mountains. Assoc. S.E. Biol. Bull. 12(3):63-65.
- Crum, H. et al. 1965. A list of the mosses of NC. Bryologist 68:337-432.
- Davis, J. H. 1930. Vegetation of the Black Mts. of NC: An ecology study. Jour. Elisha Mitchell Sci. Soc. 45:291-318.

- Davis, M. C. 1966. Forests of the Smokies. Living Wilderness 30(6-9):526 pp.
- Degeleius, G. 1941. Contributions to the lichen flora of North America. II. The lichen flora of the Great Smoky Mts. Ark. Bot. 30A-1-80.
- Dey, J. P. 1975. The frutiose and foliose lichens of the high mountain areas of the southern Appalachians. Ph. D. Diss., Duke Univ., Durham, NC.
- Dey, J. 1978. Frutiose and foliose lichens of the high-mountain areas of the southern Appalachians. Bryologist 81:1-93.
- DeYoung, H. R. 1979. The white pine-hardwood vegetation types of the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 190 pp.
- Duncan, Wilbur H. 1933. Ecological comparison of leaf structures of Rhododendron puntatum Andr. Amer. Midl. Nat. 14:83-95.
- Eagar, C. C. 1978. Distribution and characteristics of balsam woolly aphid infestations in the Great Smoky Mts. MS Thesis, Univ. of Tenn., Knoxville, TN. 72 pp.
- Eagar, C. C. and R. Hay. 1977. Distribution of the balsam woolly aphid in the GSMNP. 3rd Ann. Sci. Res. Mtg. NPS-SER, GSMNP. p. 22.
- Evans, A. M., Peter S. White and Charlotte Pyle. 1981. Southern Appalachian Pteridophytes: An Indexed Bibliography. U.S. Dept. of the Interior, National Park Service, NPS-SER Research/Resources Management Report No. 40. 35 pp.
- Fink, P. M. 1931. A forest enigma. Amer. Forests 37:538-556.
- Flavell, T. H., P. J. Barry, J. D. Ward, and W. M. Clerke. 1970. An evaluation of the effects of sub-zero temperatures on an epidemic southern pine beetle population, Nantahala and Cherokee National Forests and the GSMNP Tenn. and NC. USDA, FS, Asheville, NC Rpt. #70-1-46.
- Flora, D. E. 1977. The american chestnut as an allelopath. MS Thesis, Univ. of Tenn., Knoxville, TN. 36 pp.
- Fuller, R. D. 1977. Why does spruce not invade the high elevation beech forests of the Great Smoky Mts.? MS Thesis. Univ. of Tenn., Knoxville, Tenn. 65 pp.

- Galyon, W. L. 1927. Trees and shrubs of east tenn. MS Thesis, Univ. of Tenn., Knoxville, Tenn.
- Galyon, W. L. 1928. The Smoky Mts. and the plant naturalist. Jour. Tenn. Acad. Sci. 3(2):1-11.
- Gersmehl, P. J. 1969. A geographic evaluation of the ecotonal hypotheses of bald locations in the southern Appalachians. Proc. of the Assoc. of Amer. Geographers 1:51-54.
- Gersmehl, P. J. 1970. A geographic approach to a vegetation problem: The case of the southern Appalachian grassy balds. PH. D. Diss., Univ. of GA., Athens, GA. 463 pp.
- Gersmehl, P. J. 1971. Factors involved in the persistence of southern Appalachian treeless balds. An experimental study. Proc. of the Assoc. of Amer. Geographers. p. 56.
- Gersmehl, P. 1973. Recent Appalachian vegetation history: A summary of two centuries of eyewitness descriptions. Unpublished manuscript. Concordia Teachers College.
- Gilbert, V. C. 1954. Vegetation of the grassy balds of the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN.
- Golden, M. 1974. Forest vegetation and site relationships in the central portion of the GSMNP. Ph. D. Diss., Univ. of Tenn., Knoxville, TN. 275 pp.
- Griffin, N. C. 1965. Germination and early survival of <u>Picea</u> <u>rubens</u> Sargent in experimental laboratory and field plantings. MS Thesis, Univ. of Tenn., Knoxville, TN. 44 pp.
- Griggs, R. F. 1942. "Dr. Griggs on the problem of balds." <u>In</u>: R. S. Yard's "The Great Smoky Wilderness." Living Wilderness. 7:15.
- Harmon, M. 1977. Polecat Ridge Burn: Disturbance character and first year of recovery. 3rd Ann. Sci. Res. Mtg. NPS-SE Region, GSMNP.
- Harmon, M. 1978. Early stages of fire succession in the Abrams Creek Area. 4th Ann. Sci. Res. Mtg. NPS-SE Region, GSMNP.
- Harmon, M. 1979a. The distribution and dynamics of forest fuels in the low elevation forests of GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Harmon, M. 1979b. Fire history and ecology of western GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.

- Harmon, M. E. 1979c. Fire disturbance and vegetation recovery in the low elevation forests of western Great Smoky Mountains National Park. 2nd Conf. on Sci Res. in National Parks, San Francisco, Calif. 10:143-158.
- Harmon, M. E. 1980a. The distribution and dynamics of forest fuels in the low elevation forests of GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #32. 86 pp.
- Harmon, M. E. 1980b. The influence of fire and site factors on vegetation patterns and process: A case study of the western portion of GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 170 pp.
- Harmon, M. E. et al. 1980. Woody fuel dimensions within GSMNP. USDI, NPS-SER, UPlands Field Res. Lab. Mgt. Rpt. #31. 28 pp.
- Harmon, M. E. 1981. Fire history of the GSMNP, 1940-1979. NPS-SER Res/Resour. Manage. Rpt. #46. 39 pp.
- Hay, R., C. Eagar and K. Johnson. 1977. Status of the balsam woolly aphid in GSMNP - 1976. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #20. 18 pp.
- Hay, R. C. et al. 1978. Fraser fir in the GSMNP. Univ. of Tenn., Knoxville, TN. 125 pp.
- Hesler, L. R. 1937. A preliminary list of fungi of the GSMNP. Castanea 2(4):45-58.
- Hesler, L. R. 1960. Mushrooms of the Great Smokies, Univ. of Tenn. Press, Knoxville, TN.
- Hesler, L. R. 1962. List of fungi at the GSMNP. Botany Dept., Univ. of Tenn., Knoxville, TN. 83 pp.
- Hicks, D. J. 1978. A niche analysis of aestival herb communities of the cove forest. MS Thesis, Cornell Univ., Ithaca, NY. 139 pp.
- Hicks, D. J. 1979. Forest microclimate in the Great Smoky Mts. Jour. Tenn. Acad. Sci. 54:84-88.
- Hicks, D. J. 1980. Intrastand distribution patterns of southern Appalachian cove forest hardwood species. Amer. Midl. Nat. 104:209-223.
- Hoffman, H. L. 1959. Boreal forest vascular plants which are also native to the Great Smoky Mountains. Typewritten Report. UT-Knoxville.

- Hoffman, H. L. 1964. Checklist of vascular plants of the Great Smoky Mts. Castanea 29:1-45.
- Hoffman, H. 1966a. Notes on vascular plant families in the Great Smoky Mts. Castanea 31:301-307.
- Hoffman, H. L. 1966b. Supplement to checklist, vascular plants Great Smoky Mts. Castanea 31:307-310.
- House, H. D. 1913. Woody plants of western North Carolina Biltmore Forest School, Darmstadt, Germany, C. F. Wintersche Buchdruckerei. 34 p.
- Huber, F. C. 1976. Rare and endangered plant species and special protection areas in the GSMNP. 2nd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Jennison, H. 1939. A sketch of the flora of GSMNP. Jour. Tenn. Acad. Sci. 14:266-298.
- Johnson, K. D. 1977. Balsam woolly aphid infestation of Fraser fir in the Great Smoky Mountains. MS Thesis, Univ. of Tenn., Knoxville, TN. 64 pp.
- Johnson, K. D. 1980. Fraser fir and balsam woolly aphid summary of information. Report for SARRMC, Sept. 30, 1980.
- Johnson, K. D. and R. Hay. 1977. Factors affecting balsam woolly aphid infestation of Fraser fir in GSMNP (abstract). <u>In</u>: 3rd Ann. Sci. Res. Mtg. NPS-SE Region. GSMNP. p. 23.
- Kellner, C. V. 1978. Are pollinators exerting selection pressure on the azalea hybrids on Gregory Bald? MS Thesis. UT-Knoxville. 104 p.
- Kellner, C. V. and E. E. C. Clebsch. 1978. Are pollinators exerting selection pressure on the azalea hybrids on Gregory Bald? 4th Ann. Sci. Res. Mtg. NPS-SE Region, GSMNP.
- Kelsey, H. P. 1949. Unique flora of the GSMNP. Arboretum Bull. 12:11-13,30.
- Korstian, C. F. 1937. Perpetuation of spruce on cutover and burned lands in the higher southern Appalachian Mts. Ecol. Monogr. 7:125-167.
- Kuykendall, N. W. 1978. Composition and structure of replacement forest stands following southern pine beetle infestations as related to selected site variables in the Great Smoky Mts. MS Thesis, Univ. of Tenn., Knoxville, TN. 122 pp.

- Lieth, H. and E. Landolt (eds.) 1980. Contributions to the knowledge of flora and vegetation of the Carolinas. Proc. 16th Internat'1. Phytogeographic Excursion (IPE) 1978 through the SE US. 2 vols.
- Linder, D. H. 1941. Mycological Society of America Rpt. on the 1929
 Foray. Mycologia 33:570-578.
- Lindsay, M. 1976. History of the grassy balds in GSMNP. USDI NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #4. 215 pp.
- Lindsay, M. 1977. Management of grassy balds in GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #17.
- Lindsay, M. 1978. The vegetation of the grassy balds and other high elevation disturbed areas in the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #26.
- Lindsay, M. and S. Bratton. 1979a. Grassy balds of the Great Smoky
 Mts.: their history and flora in relation to potential management.
 Env. Management 3(5):417-430.
- Lindsay, M. and S. Bratton. 1979b. The vegetation of grassy balds other high elevation disturbed areas in the GSMNP. Bull. Torrey. Bot. Club 106(4):264-275.
- Lindsay, M. and S. Bratton. 1980. The rate of woody plant invasion on two grassy balds. Castanea 45:75-87.
- Livingston, D. and C. Mitchell. 1976. Site classification and mapping in the Mt. LeConte growth district. GSMNP library, mimeographed copy. 68 pp.
- Madden, R. S. 1926. The trees of the Great Smokies. J. Tenn. Acad. Sci. 1-21-24.
- Malde, H. E. 1953. Chronology of views of southern Appalachian balds and grass balds of the Great Smoky Mts. (Unpublished manuscript sent to R. E. Shanks, Dec. 23, 1953)
- Mark, A. F. 1958a. An ecological study of the grass balds of the southern Appalachian Mts. Ph. D. Diss., Duke Univ., Durham, NC. 284 pp.
- Mark, A. F. 1958b. The ecology of southern Appalachian grass balds. Ecol. Monog. 28:293-336.
- Mark, A. F. 1959. The flora of the grass balds and fields of the southern Appalachian Mts. Castanea 24:1-21.

- Mason, R. L. and M. H. Avery. 1931. A bibliography of the Great Smokies. Appalachia 18:271-277.
- McCracken, W. 1978. Comparison of forest cover prior to and following disturbance in two areas of the GSMNP. MS Thesis. Univ. of Tenn., Knoxville, TN.
- McGinnis, J. T. 1958. Forest litter and humus types of East Tennessee. MS Thesis, Univ. of Tenn., Knoxville, TN. 82 pp.
- Miller, F. (19?). Brief narrative description of the vegetative types in the GSMNP. Typewritten manuscript. 17 pp.
- Miller, F. H. 1941. Vegetation type map. Vegetation cover types of the GSMNP. Sugarlands Visitor Center, Gatlinburg, Tenn.
- Miller, F. H. 1942. Vegetation successional status map. Archives, GSMNP.
- Moore, B. J. 1963. A preliminary annotated checklist of the foliose and fruticose lichens of the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 95 pp.
- NC Plant Conservation Board. 1980. Proposed list of endangered, threatened and special concern plant species. Mimeo. 3 pp.
- Nelson, T. C. 195. Chestnut replacement in the southern highlands. Ecology 36:352-353.
- Norris, D. H. 1964. Bryoecology of the Appalachian spruce-fir zone. Ph. D. Diss., Univ. of Tenn., Knoxville, TN. 175 pp.
- Oh, K. C. 1964. The sampling, pattern, and survival of the higher elevation beech in the Great Smoky Mts. Ph. D. Diss., Univ. of Tenn. Knoxville, TN. 108 pp.
- Oosting, H. J. and W. D. Billings. 1951. A comparison of virgin spruce fir forest in the northern and southern Appalachian system. Ecology 32:84-103.
- Parker, B. C. and M. K. Roane, Eds. 1976. Distributional history of the biota of the southern Appalachians. Part IV; Algae and fungi. Univ. Press of Virginia. 416 pp.
- Patrick, T. S. 1977. Trilliums of the southern Appalachians: 3rd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Peet, R. 1979. A bibliography of the vegetation of the Carolinas. Veroff. Geobott. Inst. ETH. Stifung Rubel. Zurich. 68. Heft. (1979), 263-297.

- Peterson, R. H. 1977. The southern Appalachian mountains as a refugium for tropical fleshy basidiomycetes. <u>In</u>: Parker and Roans (eds.) Distributional history of the biota of the southern Appalachians. Part IV, Algae and fungi. Univ. of Virginia Press. P. 287-295.
- Peterson, R. 1979. Checklist of fungi of the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #29.
- Pittillo, J. D. and T. Govus. 1978. Important plant habitants of the Blue Ridge Parkway from the GSMNP to Roanoke, VA. WCU, Cullowhee, NC.
- Pittillo, J. D. and G. A. Smathers. 1979. Vegetational patterns of the Balsam and Great Smoky Mountains of the Southern Appalachians. 2nd Conf. on Sci. Res. in National Parks, San Francisco, Calif. 4:307-322.
- Prather, I. D. 1967. Old-field succession studies in Cades Cove. Report on an independent study. Maryville College, Maryville, Tenn. 38 pp.
- Pyle, C., P. S. White, and S. P. Bratton. 1978. Computerization of herbarium records at GSMNP. Rpt. to Great Smoky Mts. Natural History Assoc. Uplands Field Res. Lab. GSMNP.
- Radford, A. E. et al. 1968. Manual of the vascular flora of the Carolinas. UNC Press, Chapel Hill, NC 1183 pp.
- Radford, S. 1968. Factors involved in the maintenance of the grassy balds of the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, Tenn. 74 pp.
- Ramseur, G. S. 1958. The vascular flora of high mountain communities of the southern Appalachians. Ph. D. Diss., UNC-CH, Chapel Hill, NC. 106 pp.
- Ramseur, G. S. 1960. The vascular flora of high mountain communities in the southern Appalachians. Jour. Elisha Mitchell Sci. Soc. 76:82-112.
- Ramseur, G. 1976. Secondary succession in the spruce-fir forest of the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #7.
- Robinson, J. and E. Thor. 1969. Natural variation in <u>Abies</u> of the southern Appalachians. For. Sci. 15:238-245.
- Runkle, J. R. 1978. Gap phase dynamics in climax mesic forests. Ph. D. Diss., Cornell Univ., Ithaca, NY (Diss. Abstr. B. Sci. Eng. 11:5217-B).

- Runkle, J. 1979. Transition probabilities for eastern climax forests. Bull. Ecol. Soc. Amer. 60:83.
- Russell, N. H. 1953. The beech gaps of the Great Smoky Mts. Ecology 34:366-374.
- Saunders, P. R. 1979. Vegetational impact of human disturbance on the spruce-fir of the southern Appalachians Mts. Ph. D. Diss., Duke Univ., Durham, NC. 177 pp.
- Schofield, W. B. 1960. The ecotone between spruce fir and deciduous forests in the Great Smoky Mts. Ph. D. Diss., Duke Univ., Durham, NC. 1976 pp.
- Schwarzkopf, S. K. 1974. Comparative vegetation analysis of five spruce fir areas in the southern Appalachians. Biology independent research, Furman Univ., Greenville, SC. Nov. 27, 1974. 113 pp.
- Shanks, R. E. 1952. Checklist of the woody plants of Tenn. Jour. Tenn. Acad. Sci. 27:27-50.
- Shanks, R. E. 1954b. Photless sampling trials in Appalachian forest types. Ecology 35:237-244.
- Shanks, R. 1954c. Reference lists of native plants of the Great Smoky Mts. Typewritten Rpt. Univ. of Tenn., Knoxville, TN.
- Shanks, R. E. 1956. Altitudinal and microclimatic relationships of soil temperature under natural vegetation. Ecology 37:1-7.
- Shanks, R. E. and J. S. Olson. 1961. First year breakdown of leaf litter in southern Appalachian forests. Science 134:194-194.
- Shanks, R. E. and A. J. Sharp. 1947. Summer key to trees of eastern Tenn. Jour. Tenn. Acad. Sci. 22:114-133.
- Shanks, R. and A. Sharp. 1950. Summer key to Tenn. trees. Bot. Dept. Univ. of Tenn. Reprinted in 1963 by Univ. of Tenn. Press., Knoxville, TN. 24 pp.
- Sharp, A. J. 1939. Taxonomic and ecologic studies of eastern Tennessee bryophytes. Amer. Midl. Nat. 21:267-354.
- Sharp, A. J. 1941. The GSMNP, an important botanical area. Chronica Botanica 6:296-297.
- Sharp, A. J. 1959. Vascular epiphytes in the Great Smoky Mountains. Ecology 38:654:655.

- Shaver, J. 1926. Flowers of the Great Smokies. Jour. Tenn. Acad. Sci. 1:17-20.
- Shaver, J. M. 1954. Ferns of Tenn., George Peabody College for Teachers. Bur. of Publ. Nashville, Tenn. 502 pp.
- Small, J. K. 1933. Manual of the southeastern flora. UNC, Chapel Hill, NC. 1554 pp.
- Smith, A. and L. Hesler. 1940. New and unusual agarics from the GSMNP. J. Elisha Mitchell Sci. Soc. 56:302-324.
- Smithsonian Institution. 1975. Report on Endangered and Threatened Plant Species of the United States. Congressional Rept. Serial No. 94-A, U. S. Government Printing Office. 200 pp.
- Stevenson, G. B. 1967. Trees of the GSMNP. GSM Nat. Hist. Assoc. 32 pp.
- Stevenson, G. B. 1969. Ferns of the GSMNP. Buckhorn Press, Gatlinburg, TN. 16 pp.
- Stiles, R. A. 1972. The comparative ecology of three species of <u>Nothonotus</u> (Percidae - <u>Etheostoma</u>) in Tennessee's Little River. Ph. D. Diss., Univ. of Tenn., Knoxville, TN.
- Stupka, A. 1964. Trees, shrubs, and woody vines of GSMNP. Univ. of Tenn. Press, Knoxville, TN.
- Tenn. Committee for Rare Plants. 1978. The rare vascular plants of Tenn. Jour. Tenn. Acad. Sci. 54(4).
- Thor, E. and P. Barnett. 1974. Taxonomy of <u>Abies</u> in the southern Appalachians: variation in balsam monoterpenes and wood properties. For. Sci. 20(1):32-40.
- Walker, G. L. 1977. Vegetational type map. 3rd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Walker, G. L. 1978. A comparative vegetational analysis of cove hardwood communities in the GSMNP. MS Thesis, WCU. 71 pp.
- Ward, J. D. and W. E. McDowell. 1970. An evaluation of southern pine beetle infestations, GSMNP in Tenn. and NC. USDA, FS, Asheville, NC Rpt. #70-1-47 6 pp.
- Ward, J. D. et al. 1969. An evaluation of southern pine beetle infestation, GSMNP, in Tenn. and NC. USDA, FS, Asheville, NC Rpt. #70-1-30.

- Ward, J. D. et al. 1971. An evaluation of southern pine beetle infestations on the GSMNP. USDA, FS Asheville, NC Rpt. #72-1-14.
- Weber, J. L. 1978. Phenotypic and genotypic variation of Fraser fir (<u>Abies fraseri</u> (Pursh Poir.) in response to altitudinal and geographic gradients. 4th Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Welden, A. 1951a. A taxonomic survey of the myxomycetes of the GSMNP. Jour. Tenn. Acad. Sci. 26:271-276.
- Welden, A. L. 1951b. A taxonomic survey of the myxomycetes of the GSMNP. MS Thesis UT-Knoxville. 165 p.
- Wells, B. S. 1932. Natural gardens of North Carolina. UNC Press, Chapel Hill, NC. 458 pp.
- Wells, B. W. 1936a. Andrews Bald: the problem of its origin. Castanea 1:59-62.
- Wells, B. W. 1936b. Origin of the southern Appalachian grass balds. Science 83:283.
- Wells, B. W. 1937. Southern Appalachian grass balds. Jour. Elisha Mitchell Sci. Soc. 53:1-26.
- Wells, B. W. 1938. Southern Appalachian grass balds as evidence of Indian occupation. Bull. Arch. Soc. NC 5:2-7.
- Wells, B. W. 1946. Archaeological disclimaxes. Jour. Elisha Mitchell Sci. Soc. 62:51-53.
- Wells, B. W. 1956. Origin of southern Appalachian grass balds. Ecology 37:592.
- Wells, B. W. 1961. The southern Appalachian grass bald problems. Castanea 26:98-100.
- White, P. 1978. The ecology of natural disturbances in logged and unlogged stands in the Cades Cove and Tremont areas of GSMNP. 4th Ann. Sci. Res. Mtg. NPS-SER GSMNP.
- White, P. 1979. Herbarium computerization project. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- White, P. 1979. Rare plant monitoring in GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.

- White, P. 1980. Reports on rare, threatened, and endangered vascular plants, discussion and guidelines. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #33.
- Whittaker, R. H. 1948. A vegetation analysis of the Great Smoky Mts. Ph. D. Diss., Univ. of Illinois, Urbana, Ill.
- Whittaker, R. H. 1952. A study of summer foliage insect communities in the Great Smoky Mts. Ecol. Monog. 22:1-44.
- Whittaker, R. H. 1956. Vegetation of the Great Smoky Mts. Ecol. Monog. 26:1-80.
- Whittaker, R. H. 1961. Estimation of net primary production of forest and shrub communities. Ecology 42:177-180.
- Whittaker, R. H. 1962. Net production relations of shrubs in the Great Smoky Mts. Ecology 43:357-377.
- Whittaker, R. H. 1962. Productivities of plant communities in the Great Smoky Mts. Final report on research project G-13159. Biology Dept., Brooklyn College, City Univ., NY 6 pp.
- Whittaker, R. H. 1963. Net production of heath balds and forest heaths in the Great Smoky Mts. Ecology 44:176-182.
- Whittaker, R. H. 1966. Forest dimensions and production in the Great Smoky Mts. Ecology 47:103-121.
- Whittaker, R. H. and V. Gorfine. 1962. Leaf characteristics and chlorophyll in relation to exposure and production in <u>Rhododendron</u> <u>maximum</u>. Ecology 43:120-125.
- Whitten, W. Mark. 1979. Pollination ecology of <u>Monarda didyma</u> L., <u>M.</u> <u>clinopodia</u> L. and hybrids in the Southern Appalachian Mountains. MS Thesis UT-Knoxville. 95 p.
- Whitten, W. Mark. 1981. Pollination ecology of <u>Monarda didyma</u>, <u>M.</u> <u>clinopodia</u> and hybrids (Lamiaceae) in the southern Appalachian Mountains. American J. Botany 68(3):435-442.
- Wingfield, C. T. 1968. The ecology of <u>Pieris floribunda</u> Benth. and Hook, an ericad, in a pine heath community in the Great Smoky Mts. MS Thesis Univ. of Tenn., Knoxville, TN. 68 pp.
- Wofford, B. E. and A. M. Evans. 1979. Atlas of the vascular plants of Tennessee. I. Pteridophytes and Gymnosperms. J. Tenn. Acad. Sci. 54:32-37.

- Woods, F. W. and R. E. Shanks. 1957. Replacement of chestnut in the Great Smoky Mountains of Tennessee and North Carolina. J. Forestry 55:847.
- Woods, F. W. and R. E. Shanks. 1959. Natural replacement of chestnut by other species in the GSMNP. Ecology 40(3):349-361.
- Zavarin, E. and K. Snajberk. 1972. Geographic variability of monterpenes from <u>Abies</u> <u>balsamea</u> and <u>A. fraseri</u>. Phytochem. 11:1407-1421.
- Zobel, D. A. 1969. Factors affecting the distribution of <u>Pinus</u> <u>pungens</u>, an Appalachian endemic. Ecol. Monogra. 39:303-333.

TERRESTRIAL AND AQUATIC FAUNA

Mammals

- Beeman, D. K. and M. R. Pelton. 1978. The effects of the immobilizing drugs phencyclidene hydrochloride and etorphine hydrochloride on blood parameters of black bears. Proc. 4th Eastern Black Bear Workshop, Greenville, Maine. pp. 125-137.
- Beeman, L. E. 1971. Seasonal food habits of the black bear (<u>Ursus</u> <u>americanus</u>) in the Smoky Mts. of Tenn. and NC. MS Thesis. Univ. of Tenn., Knoxville, TN.
- Beeman, L. E. 1975. Population characteristics, movements, and activities of the black bear <u>Ursus americanus</u> in the GSMNP. Ph.D. Diss., Univ. of Tenn., Knoxville, TN. 218 pp.
- Beeman, L. and M. Pelton. 1976. Homing of black bears in the GSMNP. <u>In</u> Pelton et al. (eds.), Bears - their biology and management. IUCN Pub. New Series #40 p. 87-95.
- Beeman, L. E. and M. Pelton. 1980. Seasonal foods and feeding ecology of black bears in the Smoky Mts. Proc. 4th International Conf. on Bear Res. and Mgt. p. 141-147.
- Beeman, D. K. 1981. Serum and whole blood parameters of black bears in the GSMNP. M. S. Thesis UT-Knoxville. 84 p.
- Belden, R. C. 1972. Rooting and wallowing activities of the European wild hog (<u>Sus scrofa</u>) in the mountains of east Tenn. MS Thesis, Univ. of Tenn., Knoxville, TN. 68 pp.
- Belden, R. and M. Pelton. 1975. European wild hog rooting in the mountains of east Tenn. Proc. 29th Ann. Conf. of SE Assoc. of Game and Fish Comm. p. 665-671.
- Belden, R. C. and M. Pelton. 1976. Wallows of the European wild hog in the mountains of east Tenn. Jour. Tenn. Acad. Sci. 51(3):91-93.
- Bratton, S. 1974a. An integrated ecological approach to the management of European wild boar (<u>Sus scrofa</u>) in GSMNP. USDI NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #3. 42 pp.
- Bratton, S. 1977a. Wild hogs in the United States origin and nomenclature. <u>In</u>: Gene Wood (Ed.), Res. and Mgt. of Wild Hog Pops., Belle W. Baruch Forest Sci. Inst., Clemson Univ. Clemson, SC. p. 1-4.

- Brimley, C. S. 1940. The mammals of North Carolina. Card File, GSMNP Herbarium.
- Brooks, A. A. 1976. A population study of <u>Marmota monax</u> in the Cades Cove area of the GSMNP. Unpublished Report, UT-Knoxville.
- Burghardt, G. et al. 1970. Knowledge and attitudes concerning black bears by users of the GSMNP. <u>In</u>: S. Herrero (Ed.) Bears - their biology and management. IUCN Pub. New Series #23.
- Burst, T. L. 1979. An analysis of trees marked by black bears in the GSMNP. MS Thesis, Univ. of Tenn. Knoxville, TN. 80 pp.
- Burst, T. L. and M. Pelton. 1978. Some population parameters of the Cades Cove deer herd, GSMNP. Proc. Ann. Conf. SE Assoc. Fish and Wildlife Agencies 32:339-347.
- Burst, T. L. and M. R. Pelton. In press. Black bear mark trees in the Smoky Mountains. Proc. 5th Inter. Conf. on Black Bear Res. & Manage., Madison, Wisconsin, February, 1980.
- Cherry, J. S. 1975. A simulations model of dietary competition in the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN.
- Cherry, S. J. and M. Pelton. 1976. Relationships between body measurements and weight of the black bear. Tenn. Acad. Sci. 51(1)32-34.
- Collins, J. 1974. Some aspects of reproductive and age structures in the black bear in NC. Proc. SE Assoc. Game and Fish Comm. 27:163-170.
- Conaway, C. H. and D. W. Pfitzer. 1952. <u>Sorex palustris</u> and <u>Sorex</u> dispar from the GSMNP. Jour. Mammal. 33(1):106-108.
- Cook, W. 1978. Selected infectious and parasitic diseases of black bears in the GSMNP. Proc. Eastern Workshop on Black Bear Mgt. and Res. 4:120-125.
- Culbertson, N. 1977. Status and history of the mountain lion in the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #15.
- Daugherty, J. P., D. K. Beeman and M. R. Pelton. 1979. Analysis of electrophoretic pattern of nonspecific esterases of black bear serum. J. Tenn. Acad. Sci. 54:128-131.

- Duncan, R. W. 1974. Reproductive biology of the European wild hog
 (Sus scrofa) in the GSMNP. MS Thesis, Univ. of Tenn., Knoxville,
 TN. 95 pp.
- Eagar, D. 1977. Radioisotope feces tagging as a population estimator of black bear (<u>Ursus americanus</u>) density in the GSMNP. MS Theses, Univ. of Tenn., Knoxville, TN. 89 pp.
- Eagar, J. T. 1978. Panhandler black bears in the GSMNP: methods of ethological research. Proc. Eastern Workshop on Black Bear Mgt. and Res. 4:138-154.
- Eagar, J. T. and M. Pelton. 1979. Pan handler black bears in the GSMNP. FInal Report to NPS. 180 pp.
- Eagle, T. C. 1979. Foods of Black bears in the GRMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 104 pp.
- Eagle, T. C. and M. R. Pelton. 1978. A tooth sectioning and simplified staining technique for aging black bears in the Southeast. Proc. 4th Eastern Black Bear Workshop. Greenville, Main pp. 92-98.
- Eagle, T. and M. Pelton. 1980 (in press). Foods of black bears in the GSMNP. 5th Internatl. Conf. on Bear Res. and Mgt. Madison, Wisc.
- Eiler, J. H. 1981. Reproductive biology of black bears in the Smoky Mountains of Tennessee. MS Thesis UT-Knoxville, 128 pp.
- Eubanks, L. A. 1976. Movements and activities of the black bear (<u>Ursus</u> <u>americanus</u>) in the GSMNP. MS Thesis Univ. of Tenn., Knoxville, Tenn. 83 pp.
- Eubanks, L. A. et al. 1976. Selected chemical analyses of black bear serum. Jour. Tenn. Acad. Sci. 51(1):29-31.
- Fox, J. R. 1972. An evaluation of control techniques for the European Wild hog (<u>Sus Scrofa</u>) in the GSMNP, Tenn. MS Thesis, Univ. of Tenn. Knoxville, TN.
- Fox, J. and M. Pelton. 1973. Observations of a white tailed deer die-off in the GSMNP. Proc. 27th Ann. Conf. of SE Assoc. of Game and Fish Comm. p. 297.
- Fox, J. R. and M. Pelton. 1977. An evaluation of control techniques for the European wild hog in the GSMNP. <u>In</u>: Gene Wood (Ed.), Res. and Mgt. of Wild Hog Pops., Belle W. Baruch Forest Sci. Inst., Clemson Univ., Clemson, SC. pp. 53-66.

- Garshelis, D. L. 1978. Movement, ecology and activity behavior of black bears in the GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 117 pp.
- Garshelis, D. L. and M. R. Pelton. 1978. Assessment of the use of telemetric motion sensors for monitoring activity behavior in black bears. Proc. Eastern Workshop on Black Bear Mgt. and Res. 4:220-226.
- Garshelis, D. and M. Pelton. 1980. Activity of black bears in the GSMNP. Jour. Mammal. 61(L):8-19.
- Garshelis, D. L., H. B. Quigley, C. R. Villarrubia and M. R. Pelton. In press. Diel movements of black bears in the Southern Appalachians. Proc. 6th Inter. Conf. on Bear Res. and Manage., Madison, Wisconsin, February, 1980.
- Goldsmith, D. In Press. Some aspects of the natural history of the striped skunk in Cades Cove, GSMNP. 7th Ann. Sci. Res. Mtg. NPS-SER, GSMNP Abstr.
- Henson, T. M. 1975. Age determination and age structure of the European wild hog (<u>Sus scrofa</u>). MS Thesis, Univ. of TN., Knoxville, TN. 59 pp.
- Herrmann, R. et al. 1978. Environmental monitoring for remote natural areas - GSMNP. The application of remote sensing data to wildlife management. Proc. Wildl. Mgmt. Symp. Pecora IV Meeting, Nat'l. Wildl. Fed., Sioux Falls, SD.
- Hoffmeister, D. F. 1968. Pigmy shrew <u>Microsorex hoyi</u> <u>winnemana</u>, in GSMNP. Jour. Mammal. 49(2):331.
- Howe, T. and S. Bratton. 1976. Winter rooting activity of the European wild boar in the GSMNP. Castanea 31:256-264.
- Howe, T. H. et al. 1979. High elevation forage relationships of European wild boar invading the Great Smoky Mts. USDI, NPS-SER, Uplands Field Res. Lab. Rpt. to Superintendent. 36 pp.
- Howe, T. D., F. J. Singer and B. B. Ackerman. In Press. Forage relationships of European wild boar invading northern hardwood forest. J. Wildlife Management 45.
- Huff, M. H. 1977. The effect of the European wild boar (<u>Sus scrofa</u>) on the woody vegetation of gray beech forest in the Great Smoky Mts. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #18. 63 pp.

- Huff, M. 1979. The effect of the European wild boar (<u>Sus scrofa</u>) on woody vegetation in gray beech forest in the Great Smoky Mts. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Johnson, K. G. 1978. Den ecology of black bears (<u>Ursus americanus</u>) in the GRMNP. MS Thesis. University of Tenn., Knoxville. 107 p.
- Johnson, K. 1979. Denning behavior of black bears in the GSMNP. Proc. Ann. Conf. SE Assoc. Fish and Wildlife Agencies 33:239-249.
- Johnson, K. and D. O. Johnson. 1978. A simulation model of winter heat loss for black bear in a closed tree den. Proc. Eastern Workshop on Black Bear Mgt. and Res. 4:155-166.
- Johnson, K. and M. Pelton. 1980a. Environmental relationships and the denning period of black bears in Tenn. Jour. Mammal. 61(4):653-660.
- Johnson, K. G. and M. R. Pelton. 1980b. Prebaiting and snaring techniques for black bears. Wildl. Soc. Bull 8(1):46-54.
- Johnson, K. and M. Pelton. 1980 (in press). Selection and availability of dens for black bears in the GSMNP. Jour. Wildl. Mgt. 44.
- Jones, P. 1957. A historical study of the European wild boar in NC. MS Thesis, ASU, Boone, NC. 100 pp.
- Jones, P. 1972. The European wild boar in NC. NC Wildl. Resources Comm. Raleigh, NC. 27 pp.
- Jordan, R. H. 1979. An observational study of the American black bear (<u>Ursus americanus</u>). Ph. D. Diss., Univ. of Tenn., Knoxville, TN. 169 pp.
- Keeler, W. E. 1978. Some aspects of the natural history of the raccoon (Procyon lotor) in Cades Cove, the GSMNP. MS Thesis. Univ. of Tenn. Knoxville, TN. 81 pp.
- Kiningham, M. J. 1980. Density and distribution of white-tailed deer (<u>Odocoileus virginianus</u>) in Cades Cove, GSMNP, Tennessee. MS Thesis. UT-Knoxville. 93 p.
- Komarek, E. V. and R. Komarek. 1938. Mammals of the Great Smoky Mts. Bull. Chicago Acad. Sci. 5(6):137-162.
- LaFollette, J. D. 1974. Some aspects of the history of the black bear (<u>Ursus americanus</u>) in the Great Smoky Mts. Ms Thesis, Univ. of Tenn., Knoxville, TN.

- Linzey, A. V. and D. W. Linzey. 1967. <u>Microtus pennsylvanicus</u> in NC and Tenn. Jour. Mammal. 48(2):310.
- Linzey, A. and D. W. Linzey. 1971. Mammals of the GSMNP. Univ. of Tenn. Press, Knoxville, TN.
- Linzey, D. W. 1966. The life history, ecology and behavior of the golden mouse, <u>Ochrotomys nuttalli</u> in the GSMNP. Ph. D. Thesis, Cornell Univ., 107 pp.
- Linzey, D. W. 1968. An ecological study of the golden mouse, Ochrotomys nuttalli in the GSMNP. Amer. Mdl. Nat. 79(2):320-345.
- Linzey, D. W. and A. V. Linzey. 1966. A second record of the meadow jumping mouse in eastern Tenn. Jour. Mammal. 47(1):123.
- Linzey, D. W. and A. V. Linzey. 1967a. Growth and development of the golden mouse, <u>Ochrotomys nuttalli nuttalli</u>. Jour. Mammal. 48(3):445-458.
- Linzey, D. W. and A. V. Linzey. 1967b. Maturational and seasonal molts
 in the golden mouse Ochrotomys nuttalli. Jour. Mammal. 48(2):236 241.
- Linzey, D. W. and A. V. Linzey. 1968. Mammals of the GSMNP. Jour. Elisha Mitchell Sci. Soc. 84(3):384-414.
- Linzey, D. and A. Linzey. 1973. Notes on food of small mammals from GSMNP, Tenn. and NC. Jour. Elisha Mitchell Sci. Soc. 89(1-2):6-14.
- Manlove, M. N. et al. 1980. Biochemical variation in the black bear. <u>In</u>: C. J. Martinka and K. L. McArthur (eds.) Bears-their biology and management. Bear Biology Assoc. Conf. Series No. 3. Proc. 4th Internat'1. Conf. on Bear Res. and Mgt. Kalispell, MT. 1977.
- Marcum, L. C. 1974. An evaluation of radioactive feces-tagging as a technique for determining population densities of the black bear (<u>Ursus americanus</u>) in the GSMNP. MS Thesis, Univ. of TN., Knoxville, TN.
- Matthews, S. J. K. 1977. The seasonal, altitudinal, and vegetational incidence of black bear scats in the GSMNP. MS Thesis. Univ. of Tenn., Knoxville, TN. 89 pp.
- McClure, G. W. 1929. An ecological study of the distribution of animals on Mt. LeConte and along LeConte Creek. MS Thesis. Univ. of Tenn., Knoxville. 35 p.

- Neuhauser, H. N. 1971. <u>Myotis leibii leibii</u> in the GSMNP. Jour. Tenn. Acad. Sci. 46(2):79.
- Neuman, R. 1946. Fauna of the GSMNP, Tenn. (abstract) Geol. Soc. Amer. Bull. 57(12) Part 2:p. 1219.
- Pelton, M. 1970. Use of foot trail travelers in the GSMNP to estimate black bear activity. <u>In</u>: Bears-their biology and management. Proc. 2nd Internat'1. Symp. on Bear Mgt. and Res. Calgary, Alberta, Canada. IUCN Publ. 23:36-42.
- Pelton, M. 1976. Summary of black bear research in the GSMNP. Proc. 3rd. Eastern Wkshp. on Black Bear Mgt. and Res. Hershey, PA p. 37-46.
- Pelton, M. 1979. Summary of black bear research in the GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Pelton, M. and L. Beeman. 1975. A synopsis of population studies of the black bear in the GSMNP. Proc. S. Reg. Wkshp. Amer. Assoc. Zoolog. Parks and Aquar., Knoxville, TN. p. 43-48.
- Pelton, M. and L. Marcum. 1977. The potential use of radioisotopes for determining densities of black bears and other carnivores. <u>In</u>: R. Phillips and C. Jonkel (Eds.), Proc. 1975 Pred. Symp. Montana Forest and Cons. Expt. Sta., Univ. of Montana, Missoula, MT. p.221-236.
- Pelton, M. and R. Nichols. 1972. Status of the black bear in the Southeast. Proc. 1st Est. Wkshp. on Black Bear Mgt. and Res. Delmar, NY. p. 18-23.
- Pelton, M. et al. 1976. Attitudes and opinions of persons experiencing property damage and/or personal injury by black bears in the GSMNP. <u>In</u>: Bears-their biology and management. IUCN Publ. No. 40:87-95.
- Pelton, M. et al. 1980. Den selection of black bears in the GSMNP. Proc. 4th Internat'l. Conf. on Bear Res. and Mgt. Kalispell, MT. 1977. p. 149-151.
- Quigley, H. B., D. L. Garshelis, M. R. Pelton, C. I. Taylor and C. R. Villarrubia. 1979. Use of activity monitors in telemetry studies. 2nd Int. Conf. Wildlife Biotelemetry, July 30-Aug. 1, 1979. Laramie, Wyoming. pp. 48-56.
- Rabinowitz, A. R. 1981. Natural history of raccoons in Cades Cove, GSMNP. 7th Ann. Sci. Res. Mtg. NPS-SER, GSMNP. Abstract.

- Schaffer, M. L. 1976. Behavior of European wild boar in GSMNP -Preliminary study 1976. Rept. to Superintendent USDI, NPS, SER Uplands Field Research Laboratory GSMNP. 25 p.
- Schaffer, M. and L. Peacock. 1976. Behavior of the European wild boar (Sus scrofa) in the GSMNP. 2nd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.
- Schaffer, M. 1977. Behavior of the European wild boar (<u>Sus Scrofa</u>) in the GSMNP. Final report on contract No. CX500061040, GSMNP library. 95 pp.
- Scott, C. D. 1973. Seasonal food habits of European wild hogs (<u>Sus</u> <u>Scrofa</u>) in the GSMNP. MS Thesis Univ. of Tenn., Knoxville, TN. 54 pp.
- Scott, C. D. and M. Pelton. 1975. Seasonal food habits of the European wild hog in the GSMNP. Proc. 29th Ann. Conf. SE Game and Fish Comm. 29:585-593.
- Shoup, C. S. 1939. An annotated bibliography of zoology of Tenn. and the Tenn. Valley region. US Atomic Energy Comm., Office of Inform. Services, Tech. Inform. Center.
- Shoup, C. S. 1974. A bibliography of the zoology of Tenn. and the Tenn. Valley region. US Atomic Energy Comm., Office of Inform. Services, Tech. Inform. Center.
- Singer, F. 1976. Status of European wild boar project, GSMNP (Problem analysis and proposed research). USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #6. 55 pp.
- Singer, F. 1979. A comparison among feral pigs and European wild boar populations. 2nd Conf. on Sci. Reg. in Nat. Parks, San Francisco, Calif.
- Singer, F. J. 1981. Wild pig populations in National Parks. Environ. Manage. 5:263-270.
- Singer, F. J. and B. B. Ackerman. 1981. Food availability, reproduction and condition of European wild boar in GSMNP. NPS-SER Res/Resour. Manage. Rpt. #43. 51 pp.
- Singer, F. and S. Bratton. 1977. Black bear management in GSMNP. USDI NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #13.
- Singer, F. and S. Coleman. 1979. Ecology and management of wild boar in GSMNP. 2nd Conf. on Sci. Res. in Natl. Parks, San Francisco, Calif.

- Singer, F. J. et al. 1977. Studies of European wild boar in GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Rpt. for the Superintendent, GSMNP. 137 pp.
- Singer, F. et al. 1979a. Beaver reoccupation and an analysis of the otter niche in GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Singer, F. J. et al. 1979b. Home range, movements and habitat use of European wild boar. USDI NPS-SER, Uplands Field Res. Lab. Rpt. to the Superintendent, GSMNP. 27 pp.
- Singer, F. J. et al. 1981. (in press) Home ranges movement, and habitat use of European wild boar. Jour. Wildl. Mgt.
- Singer, F. J., D. LaBrode and L. Sprague. 1981. Beaver reoccupation and an analysis of the otter niche in GSMNP. Research/Resource Management Report No. 40. USDI, NPS, SER, Uplands Field Research Lab, GSMNP. 18 pp.
- Tate, J. and M. R. Pelton. In press. Human-bear interactions in the Smoky Mountains: focus on Ursid aggression. Proc. 5th Inter. Conf. Bear Res. & Manage. Madison, Wisconsin, February, 1980.
- Taylor C. 1979. The density, distribution, and activity of woodchucks in Cades Cove, GSMNP. MS Thesis, Univ. of Tenn., Knoxville, TN. 73 pp.
- Williamson, M. J. 1972. Some hematological and serum biochemical parameters of European wild hogs (<u>Sus Scrofa</u>). MS Thesis, Univ. of Tenn., Knoxville, TN. 44 pp.
- Williamson, M. J. and M. R. Pelton. 1975. Some biochemical parameters of serum of European wild hogs. Proc. 29th Ann. Conf. SE Assoc. Game and Fish Comm. 29:672-679.
- Williamson, M. J. and M. Pelton. 1976. Some hematological parameters of European wild hogs (Sus scrofa). Tenn. Acad. Sci. 51(1):25-28.
- Wood, G. (Ed.) 1977. Research and management of wild hog populations. Belle W. Baruch Forest Sci. Inst., Clemson Univ., Clemson, SC.

Birds

- Alsop, F. J. 1968a. Birds of the Great Smoky Mts. Checklist. NPS, Gatlinburg, TN.
- Alsop, F. J. 1968b. A census of a breeding bird population in a virgin spruce-fir forest on Mt. Guyot, GSMNP. M. S. Thesis UT-Knoxville. 69 pp.
- Alsop, F. J. 1970. A census of breeding bird populations in a virgin spruce/fir forest on Mt. Guyot, GSMNP. Migrant 41(3):49-55.
- Bellrose, F. 1938. Notes on birds of the GSMNP. Migrant 9:1-4.
- Dimmick, R. W. et al. 1980. Red-Cockaded woodpeckers in the GSMNP: Their status and habitat. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #38.
- Ganier, A. 1962. Some nesting records from the Smokies. Migrant 33(1):1-6.
- Ganier, A. and A. Clebsch. 1938. Some June birds of the Great Smokies. Migrant 9:41:45.
- Ganier, A. F. and G. R. Mayfield. 1946. A June list from the Smoky Mt. summits. Migrant 17:67.
- Lovell, H. B. 1947. Mountain Vireo nests in the Great Smoky Mts. Migrant 18:51-53.
- Lovell, H. B. and E. Lovell. 1952. Nesting sites of the slate-colored Junco in the southern Appalachians. Chat. 16:38-39.
- Shanks, R. E. 1941. The genus <u>Juncus</u> in Tennessee. J. Tenn. Acad. Sci. 16:345-352.
- Stevenson, H. M. 1950. Distribution of certain birds in the southeastern US. Amer. Midl. Nat. 43:605-626.
- Stevenson, H. 1957. Summer notes on altitudinal distribution in the mountains of the southeastern states in 1956. Chat. 21:2-8.
- Stevenson, H. and A. Stupka. 1948. The altitudinal limits of certain birds in the mountains of the southeastern states. Migrant 19:33-60.
- Stupka, A. 1963. Notes on the birds of the GSMNP. Univ. of Tenn. Press, Knoxville, TN.

- Tanner, J. T. 1952. Black-capped and carolina chickadees in the southern Appalachians. Auk 69:407-424.
- Tanner, J. T. 1955. The altitudinal distribution of birds in a part of the Great Smoky Mts. Migrant 26:37-40.
- Tanner, J. T. 1958. Juncos in the Great Smoky Mts. Migrant 29:61-65.
- Tanner, J. 1965. Red-cockaded woodpecker nesting in the GSMNP. Migrant 36(3):59.
- Tove, M. H. 1980. Taxonomic and distributional relationships of black-capped (<u>Parus atricapillus</u>) and Carolina (<u>P. carolinensis</u>) chickadees in the southern Blue Ridge province, NC. MS Thesis, WCU, Cullowhee, NC.

Amphibians/Reptiles

- Brodie, E. D. and R. R. Howard. 1973. Experimental study of Batesian mimicry in the salamanders <u>Plethodon jordani</u> and <u>Desmognathus</u> ochrophaeus. Amer. Midl. Nat. 90(1):38-46.
- Brooks, M. 1946. Burrowing of Plethodon jordani. Copeia 1946 (2):102.
- Fleetwood, R. J. 1934. Records of amphibians and reptiles in GSMNP. Card File, GSMNP Herbarium.
- Gentry, Glenn. 1955. An annotated checklist of the amphibians and reptiles of Tennessee. J. Tenn. Acad. Sci. 31:242-251.
- Gove, D. and G. M. Burghardt. 1975. Responses of ecologically dissimilar populations of the water snake <u>Natrix sipedon</u> to chemical cues from prey. J. Chem. Ecol. 1(1):25-40.
- Hairston, N. G. 1951. Interspecies competition and its probable influence upon the vertical distribution of Appalachian salamanders of the genus <u>Plethodon</u>. Ecology 32:266-274.
- Hairston, N. G. 1980a. The experimental test of an analysis of field distributions: Competition in terrestrial salamanders. Ecology 61(4):817-826.
- Hairston, N. G. 1980b. Evolution under interspecific competition: Field experiments on terrestrial salamanders. Evol. 34(3):409-420.
- Hairston, N. G. 1981. An experimental test of a guild: Salamander competition. Ecology 62:65-72.

- Hensel, J. L. 1974. An experimental study of aposematic coloration in the salamander <u>Plethodon</u> jordani. MS Thesis, Clemson Univ., Clemson, SC.
- Highton, R. and S. Henry. 1970. Evolutionary interaction between species of North American salamanders of genus <u>Plethodon</u>. Evol. Biol. 4:211-256.
- Highton, R. and T. P. Webster. 1976. Geographic protein variation and divergence in populations of the salamander <u>Plethodon cinereus</u>. Evolution 30:33-45.
- Huheey, J. E. 1960. Mimicry in the color pattern of certain Appalachian salamanders. Jour. Elisha Mitchell Sci. Soc. 76(2):246-251.
- Huheey, J. E. 1964. Use of burrows by the black-bellied salamander. Jour. Ohio Herp. Soc. 4(4):105.
- Huheey, J. E. 1966. The desmognathine salamanders of the GSMNP. Jour. Ohio Her. Soc. 5(3):63-72.
- Huheey, J. E. and R. A. Brandon. 1961. Caves and cave salamanders of the GSMNP. Proc. Cave. Res. Assn. 1(1):7-10.
- Huheey, J. E. and R. A. Brandon. 1973. Rock face populations of the mountain salamander, <u>Desmognathus ochrophaeus</u>, in NC. Ecol. Monog. 43(1):59-77.
- Huheey, J. E. and A. Stupka. 1965. Herpetological records from the Great Smoky Mts. Herpetologica 21(2):148-150.
- Huheey, J. E. and A. Stupka. 1967. Amphibians and reptiles of the GSMNP. Univ. of Tenn. Press, Knoxville, Tenn.
- Johnson, R. M. 1954. The painted turtle, <u>Chrysemys picta picta</u> in eastern Tenn. Copeia 4:298-299.
- King, W. 1936. A new salamander (<u>Desmognathus</u>) from the southern Appalachians. Herpetologica 1:57-60.
- King, W. 1939b. Catalogue of recorded collections of amphibians and reptiles in GSMNP. Card File, GSMNP Herbarium.
- King W. 1939c. A survey of the herpetology of GSMNP. Amer. Midl. Nat. 21:531-582.
- King, W. 1944. Additions to the list of amphibians and reptiles of GSMNP. Copeia 1944:255.

- Larson, A. and R. Highton. 1978. Geographic protein variation and divergence in the salamanders of the <u>Plethodon welleri</u> group (Amphibia, Plethodontidae). Syst. Zool. 27(4):431-448.
- Madison, D. M. 1969. Homing behavior of the red-cheeked salamander, Plethodon jordani. Anim. Behav. 1969(17):25-39.
- Mathews, R. C., Jr. 1980. Updated checklist of Huheey and Stupka 1967. GSMNP Library Mimeo 2 pp.
- Mathews, R. C., Jr. 1981. Salamander checklist for Great Smoky Mountains. Typewritten GSMNP Library. 1 p.
- McClure, G. W. 1931. The Great Smoky Mts. with preliminary notes on the salamanders of Mt. LeConte and LeConte Creek. Zoologica 11(6):53-76.
- Merchant, H. 1972. Estimated population size and home range of the salamanders <u>Plethodon jordani</u> and <u>Plethodon glutinosus</u>. Journ. Acad. Sci. Wash. 62(3):248-257.
- Necker, W. L. 1934. Contributions to the herpetology of the Smoky Mts. of Tenn. Bull. Chicago Acad. Sci. 5(1):1-4.
- Orr, L. P. 1967. Feeding experiments with a supposed mimetic complex in salamanders. Amer. Midl. Nat. 77(1):147-155.
- Orr, L. P. 1968. The relative abundance of mimics and models in a supposed mimetic complex in salamanders. Jour. Elisha Mitchell Sci. Soc. 84(2):303-304.
- Powders, V. N. 1970. Altitudinal distribution of the protozoan <u>Cepedietta michiganensis</u> in the salamander <u>Plethodon jordani</u> in eastern Tenn. Amer. Midl. Nat. 83(2):393-403.
- Reese, R. W. 1948. Catalogue of amphibians and reptile collections made in GSMNP in 1948. Card File, GSMNP Herbarium.
- Savage, Thomas. 1963. Progress report on a study of the reproductive behavior of <u>Plethodon jordani</u> jordani. GSMNP Library, Mimeo. 4 p.
- Savage, T. 1967. The diet of rattleshakes and copperheads in the GSMNP. Copeia 1967:226-227.
- Schenck, M. J. 1979. An annotated index to salamanders in Willis King's field notes, GSMNP, 1935-1938. GSMNP Library.
- Tilley, S. G. 1981. A new species of <u>Desmognathus</u> (Amphibia: Caudata: Plethodontidae) from the southern Appalachian mountains. Occ. Pap. Mus. Zool. U. Michigan 695:1-23.

- Tilley, S. G. and R. J. Harrison. 1969. Notes on the distribution of the pigmy salamander, <u>Desmognathus wrighti</u> King. Herpetologica 25(3):178-180.
- Tilley, S. G. and P. M. Schwerdtfeger. 1981. Electrophoretic variation in Appalachian populations of the <u>Desmognathus fuscus</u> complex (Amphibia: Plethodontidae). Copeia 1981(1):109-119.
- Tilley, S. et al. 1978. Genetic differentiation in salamanders of the <u>Desmognathus</u> ochrophaeus complex (Plethodontidae). Evol. 32:93-115.
- Waller, W. H. 1931. A preliminary list of the salamanders of the Great Smoky Mts. of NC and Tenn. Proc. Jun. Soc. Nat. Sci. 2(1):21-32.
- Wood, J. T. 1946. <u>Graptemys geographica</u> (LeSueur) added to herpetofaunal list of GSMNP. Copeia 1946 (3):168.
- Wood, J. T. 1947. Juveniles of <u>Plethodon</u> jordani Blatchley. Herpetologica 3:185-188.

Fishes

- Carmichael, J. R. 1979. Bibliography of the fish of the GSMNP. Uplands Lab. 55 pp.
- Harned, W. 1976. Comparison of wild and hatchery brook trout in Spruce Flats Branch, GSMNP. USDI, NPS SER, UPlands Field Res. Lab. Mgt. Rpt. #8.
- Harris, J. et al. 1978. Systematics of the Brook Trout, <u>Salvelinus</u> <u>fontinalis</u> (Mitchell), in the GSMNP. Tenn. Coop. Fisher Res. Unit., Tenn. Tech. 66 pp.
- Howell, T. 1941. Some aquatic insects from the GSMNP. J. TN. Acad. Sci. 16:406-407.
- Kelly, G. A. et al. 1980. Changes in distribution of trout in GSMNP 1900-1977. USDI, USF & WS Tech. Paper 102. 10 pp.
- King, J. E. 1943. Survival time of trout in relation to occurrence. Amer. Midl. Nat. 29(3):624-642.
- King, W. 1937. Notes on the distribution of native speckled and rainbow trout in the streams at GSMNP. Journ. Tenn. Acad. Sci. 12(4):351-361.
- King, W. 1939a. A program for the management of fish resources in GSMNP. Trans. Amer. Fisheries Soc. 68:86-95.

- King, W. 1942. Trout management studies at GSMNP. Jour. Wildl. Mgt. 6(2):147-161.
- Lennon, R. E. 1961. An annotated list of the fishes of GSMNP. USDI, USF&WS Tech. Rpt. 25 pp.
- Lennon, R. E. 1962. An annotated list of the fishes of the GSMNP. Jour. Tenn. Acad. Sci. 37(1):5-7.
- Lennon, R. E. 1967. Brook trout of GSMNP. Tech. Pa. Bur. Sport Fish & Wildl. 15:1-18.
- Lennon, R. E. and P. Parker. 1959. The reclamation of Indian and Abrams Creeks, GSMNP. USDI Sci. Rpt. 306:1-22.
- Lennon, R. E. and P. S. Parker. 1960. The stoneroller <u>Campostoma</u> <u>anomalum</u> (Rafinesque) in the GSMNP. Trans. Amer. Fisheries Soc. 89(3):263-270.
- Moore, S. 1979a. Changes in abundance and standing crop of brook trout concurrent with reductions of rainbow trout from four sympatric stream populations in the GSMNP. 2nd Conf. on Sci. Res. in Natl. Parks. San Francisco, Calif.
- Moore, S. E. 1979b. Changes in standing crop of brook trout from sympatric populations concurrent with removal of exotic trout species, GSMNP. MS Thesis, Tenn. Tech. 97 pp.
- Moore, S. E. et al. 1981. Changes in standing crop of brook trout concurrent with removal of exotic trout species, GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #37.
- Morgan, E. and J. Robinette. 1978. Life history of brook trout, <u>Salvelinus fontinalis</u> (Mitchell). GSMNP. Tenn. Tech. 84 pp.
- Robinette, Jr. 1978. Life history investigations of brook trout, <u>Salvelinus fontinalis</u> (Mitchell), GSMNP. MS Thesis, Tenn. Tech. Univ., 84 pp.
- White, D. 1978. Meristic and morphometric analysis of the systematic status of brook trout <u>Salvelinus fontinalis</u> (Mitchell) in the GSMNP. MS Thesis, Tenn. Tech.
- Whitworth, W. E. 1979. Evaluation of rainbow trout (<u>Salmo gairdneri</u>) removal project, Sam's Creek, GSMNP. Proj. Rept. 10 p.

Arthropods

Alexander, C. P. 1940. Records and descriptions of North American craneflies (Diptera). Park I: Tipuloidea of the GSMNP, TN. Amer. Mdl. Nat. 24:602-644.

- Alexander, C. P. 1941. Records and descriptions of North American craneflies (Diptera). Part II. Tipuloidea of mountainous western North Carolina. Amer. Midl. Nat. 26:281-319.
- Barr, T. 1962. The genus <u>Trechus</u> (Coleoptera: Carabidae: Trechini) in the southern Appalachians. Coleopterists' Bull. 16:65-92.
- Barr, T. C. 1969. List of ground beetles (Carabidae) taken in GSMNP. Typewritten, 5 pp. GSMNP Library.
- Barr, T. C. 1970. Carabidae (Coleoptera) of GSMNP. Addendum #1 to Barr 1969. GSMNP Library. Typewritten. 1 p.
- Barr, T. C. 1973. Carabidae (Coleoptera) of GSMNP. Addendum #2 to Barr 1969. GSMNP Library. Typewritten. 1 p.
- Barrows, W. M. 1940. New and rare spiders from the GSMNP region. Ohio Jour. Sci. 40(3):130-138.
- Barrows, W. M. 1945. New spiders from the GSMNP. Ann. Ent. Soc. Amer. 38(1):70-76.
- Barrows, W. M. 1946. List of GSMNP spiders. GSMNP Library, Unpublished list, Handwritten. 23 p.
- Carpenter, J. M. and J. F. Biordano. 1955. Populations of the genus <u>Drosophila</u> in the Great Smoky Mts., Tenn. Amer. Midl. Nat. 54 104-118.
- Causey, N. B. 1942. Six new Diplopoda of the family Xystodesmidae. Ent. News. 53(6):165-170.
- Causey, N. 1950. A collection of Xystodesmid millipeds from Kentucky and Tennessee. Ent. New 61(1):5-8.
- Chamberlin, R. V. 1943. On nine North American Polydesmoid millipeds. Proc. Biol. Soc. Wash. 56:35-40.
- Chamberlin, R. V. 1944. Chilopods in the collection of the Field Museum of Natural History. Field Mus. Nat. Hist. Publ. No. 558 Zool. sec. 28(4):175-216.
- Chamberlin, R. V. 1951. On eight new southern millipeds. Great Basin Nat. 11(1-2):19-22.
- Cole, A. C. 1938. Suggestions concerning taxonomic nomenclature of the Hymenopterous family Formicidae and description of new ants. Amer. Midl. Nat. 19:236-241.

- Cole, A. C. 1939. A new ant from the Great Smoky Mts., Tenn. Amer. Midl. Nat. 22(2):413-417.
- Cole, A. C. 1940. A guide to the ants of the GSMNP, Tenn. Amer. Midl. Nat. 24:1-88.
- Cole, A. C. 1953. A checklist of ants of the GSMNP, Tenn. Jour. Tenn. Acad. Sci .28(1):34-35.
- Etnier, D. A. and G. Schustes. 1979. An annotated list of Trichoptera (caddisflies) of Tenn. Jour. Tenn. Acad. Sci. 54(1):15-22.
- Grimm, J. K. 1963. A population study of land arthropods in a heath bald and minor ecological observations. Ph. D. Diss., Univ. of Tenn. Knoxville, Tenn.
- Nelson, C. H. 1979. A biosystematic investigation of the Plecoptera of the GSMNP. Rpt. to the NPS.
- Pfitzer, D. W. 1950. Checklist of the ants of the GSMNP. Typewritten, GSMNP Library, 3 p.
- Randall, J. B. 1971. A study of the altitudinal distribution of spiders in the GSMNP. A report of an independent study, Maryville College. GSMNP Library, Typewritten 50 pp.
- Snyder, K. D. 1957a. A catalogue of recorded insect collections in the GSMNP. Card File, GSMNP Herbarium.
- Snyder, K. D. 1957b. A checklist of insects of GSMNP. Mimeographed copy. Montreat College.
- Speight, D. L. 1967. The bumblebees (Hymenoptera Apidae, Bombiane) of east Tennessee. MS Thesis, Univ. of Tenn., Knoxville, TN.
- Stalker, H. D. and H. L. Carson. 1948. An altitidinal transect of Drosophila robusta Sturtevant. Evol. 2:295-305.
- Steyskal, G. C. 1947a. Distributional notes on Lauxaniidae (Diptera) mostly from the GSMNP. Ent. News. 58(3):72-73.
- Steyskal, G. C. 1947b. Sarcophagidae (Diptera) from GSMNP. Bull. Brooklyn Ent. Soc. 44(2):60.
- Stoneburner, D. 1977. Preliminary observations of the aquatic insects of the Smoky Mts.: altitudinal zonation in the spring. Hydrobiologia 56(2):137-143.

- Trogdon, R. P. 1961. A survey of the adult Odonata of tenn. Ph. D. Diss., Univ. of Tenn., Knoxville, TN.
- Van Pelt, A. 1963. High altitude ants of the southern Blue Ridge. Amer. Midl. Nat. 69:205-223.
- Wray, D. L. et al. 1963. Collembola of the Great Smoky Mts. Jour. Tenn. Acad. Sci. 38(3):85-86.

Miscellaneous Invertebrates

- Archer, A. F. 1938. A new species of <u>Polygra</u> from the Great Smoky Mts. Nautilus 51(4)135-137.
- Clench, W. J. and A. F. Archer. 1933. Two new land shells from the Southern Appalachians. Nautilus 46(3):86-91.
- Getz, L. 1974. Species diversity of terrestrial snails in the Great Smoky Mts. Nautilus 88(1):6-9.
- Hubricht, L. 1954. A new species of <u>Mesodon</u> from the GSMNP. Nautilus 68(2):65-66.
- Hubricht, L. Undated. Land snails of the GSMNP. Typed checklist in library at GSMNP.
- Pilsbry, H. A. 1900. Mollusca of the Great Smoky Mts. Proc. Acad. Nat. Sci., Philadelphia, PA. 52:110-150.
- Reynolds, J. W. 1972. The activity and distribution of earthworms in tulip poplar stands in the GSMNP, Sevier Co., Tenn. (Acanthodrilidae, Lumbricidae, and Megascolecidae). Bull. Tall Timbers Res. Sta. #16.
- Reynolds, J. W. 1974. Checklist, distribution and key to the Lumbricidae in Tenn. Jour. Tenn. Acad. Sci 49(1):16-20.
- Thompson, E. G. 1978. Observations on the Newfound Gap helix, <u>Mesodon</u> jonesianus, and its proposed threatened/endangered status. Fla. State Mus.
- Thompson, Edgar G. 1980. Survey of potentially threatened and endangered snails with reference to wild boar (<u>Sus scrofa</u>) rooting in their habitat. GSMNP Library, Mimeo 12 p.
- Webb, G. R. 1951. A new land snail, <u>Haplotrema concavum kendeighi</u>. Trans. Kansas Acad. Sci. 54(1):78-82.

AQUATIC SYSTEMS

- Abernathy, A., G. Larson and R. Mathews. 1978. Heavy metals in the sediments of Fontana Lake. 4th Ann. Sci. Res. Mtg. NPS-SER GSMNP.
- Bacon, J. and R. Mass. 1979. Acid and heavy metal contamination of GSMNP trout streams by exposed Anakeesta pyrite. J. Environ. Qual. 8:538.
- Burge, R. et al. 1979. Remote air and water quality monitoring by satellite retrieval data in GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Burge, R. et al. 1979. Remote sensing of water quality and weather in GSMNP: Phase I. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #30. 18 pp.
- Burrows, R. 1935. A biological survey of streams in the GSMNP. US Dept. of Commerce, Bur. of Fisheries, 33 pp. Mimeograph.
- Fenn, D. 1974. Acid pollution of trout streams by disturbed Anakeesta pyrite. Res. Mgt. Plan, GSMNP, appendix 30:63a-63d.
- Green, R. 1975. Benthic macroinvertebrate communities in the GSMNP streams influenced by acid drainage. MS Thesis. Tenn. Tech. 122 pp.
- Herrmann, R. et al. 1975. The nature of acid pollution in a small mountain stream, Great Smoky Mts. (Abst). Geol. Soc. Amer. SE Sec. 24th Ann. Mtg. p. 499.
- Herrmann, R. et al. 1976. Aluminum precipitation, Beech Flats and Walker's Prong Creeks, GSMNP. Proc. 1st Conf. on Sci. Res. in Nat. Parks. Vol. II, New Orleans, LA.
- Herrmann, R. and J. Baron. 1980. Aluminum mobilization in acid stream environments, GSMNP. Proc. Inter. Conf. on Ecol. Impacts of Acid precipitation, Sandefjord, Norway, March 1980. pp. 218-219.
- Hoff, M. H. 1977. Benthic macroinvertebrate community structure of Walker Camp Prong, a naturally acid stream in GSMNP. MS Thesis, Tenn. Tech. 99 pp.
- Hoff, M. H. and E. L. Morgan. 1976. Relationships of Benthic macroinvertebrate fauna with trout populations in Cosby Creek, Cooke Co., GSMNP (Abstract). 2nd Ann. Sci. Res. Mtg. NPS-SER, GSMNP.

Huckabee, J. W. et al. 1973. Mercury concentrations in fish from the GSMNP. Analytica Chimica Acta 70:41-47.

- Huckabee, J. W. et al. 1975. Acid rock in the Great Smokies: unanticipated impact of aquatic biota of road construction in sulfide mineralization. Trans. Amer. Fish. Soc. 104:677-684.
- Kelly, A. 1974. Preliminary report on effects of siltation on Abrams Creek and its recovery. US Fish and Wildl. Ser. Internal Rpt. 14 pp.
- Larson, G. L. et al. 1977. Water quality survey of LeConte Creek and Roaring Forks drainage on Mt. LeConte, GSMNP. USDI NPS-SER, Uplands Field Res. Lab. Rpt. for Superintendent. 18 pp.
- Larson, G. L. and R. C. Mathews, Jr. 1977. Effects of stream users on the water quality of Little River and the West Prong of Little River at the Townsend Wye. Rpt. to Superintendent, GSMNP, 10 pp.
- Larson, G. et al. 1980. A survey of bacterial water quality in Abrams Creek, GSMNP. Jour. Tenn. Acad. Sci. 55:1-6.
- Lowe, R. 1979. Diatom communities from natural and disburbed streams in the GSMNP. Final technical report for contract #C5500061101. 43 pp.
- Mathews, R. et al. 1976. Acid drainage toxicity and assessment of sodium hydroxide neutralization in streams of the Great Smoky Mts. Proc. 1st Conf. on Sci. Res. in Nat. Parks, New Orleans, LA.
- Mathews, R. 1978. Ecological survey of Abrams Creek in the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #28. 195 pp.
- Mathews, R. et al. 1978. Remote water quality and weather monitoring in the GSMNP. Bull. Assoc. SE Biol. 23(2):35.
- Mathews, R. C., Jr., M. W. Davis, E. L. Morgan, and T. J. Mathews. 1975. Impact of Anakeesta formation leachate, mineralization components and pH on the shovel-nosed salamander (<u>Leurognathus</u> <u>marmoratus</u> Moore) of the GSMNP. Abstr. Assoc. SE Biol. Bull. 22(2):68.
- Mathews, R. C., Jr. and E. L. Morgan. In press. Toxicity of Anakeesta formation leachates on the shovel-nosed salamander (<u>Leurognathus</u> marmoratus Moore) of the GSMNP. J. Env. Quality.
- McMaster, W. and E. Hubbard. 1970. Water resources of the GSMNP, Tenn. and NC. US Geol. Survey Hydrologic Atlas. HA 420.

- Morgan, E. and D. Fenn. 1974. Effects of acid drainage on benthic macroinvertebrate communities in streams of the GSMNP. Res. Mgt. Plan, GSMNP, appendix 31:64a-64n.
- Morgan, E. et al. 1976. Biological assessment of selected streams in the GSMNP: Anakeesta leachate drainage and native brook trout investigations (abstract). USDI, NPS-SER, Rpt. Series #8.
- Morgan, E. et al. 1977a. Automated biomonitoring applications to remote water quality sensing platforms for rapid environmental assessment. S. I. L., XX Congress, Copenhagen, Sweden.
- Morgan, E. et al. 1977b. Biological water quality monitoring from remote stations and NASA GOES satellite. 4th Joint Conf. on Sensing Env. Pollutants, New Orleans, LA.
- Morgan, E. et al. 1977c. Remote biomonitoring by satellite for water quality assessment in an impacted part stream. 3rd Ann. Sci. Res. Mtg. NPS-SE Region, GSMNP.
- Morgan, E. et al. 1979a. Automated biomonitoring applications to remote water quality stations and satellite data retrieval: new developments in achieving real-time biosensing for watershed management. 9th Intersociety Conf. on Env. Systems, San Francisco, Calif.
- Morgan, E. et al. 1979b. New developments in automated biosensing from remote water quality stations and satellite data retrieval for resource management. Proc. 3rd World Congress on Water Resources. Internat'1. Water Resources Assoc., Mexico City, Mexico, Vol. XII. p. 3534-3541.
- Morgan, E. L., K. W. Eagleson, N. D. McCollough, Jr., R. Herrmann, R. C. Mathews and R. E. Burge. 1979. Automated biosensing from remote platforms and NOAA GOES satellite data retrieval for water quality management: Demonstration project. Abstr. Assoc. SE Biol. Bull. 26:53-54.
- Morgan, E., M. Hoff and W. Trumpf. 1976. Anakeesta leachate studies and native brook trout investigations. Tenn. Tech. 203 pp.
- Powers, G. B. 1929. Fresh water studies. I. The relative temperature, oxygen content, alkali reserve, the carbon dioxide tension and pH of the waters of certain mountain streams at different elevations in the GSMNP. Ecology 10:97-111.
- Silsbee, D. and G. Larson. 1979. Physical and chemical characteristics of streams in the GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.

- Silsbee, David G. and Gary L. Larson. 1981. Physical, chemical, and bacteriological characteristics of streams in the GSMNP. USDI, NPS, NPS-SER Research/Resources Management Report No. 47. 85 pp.
- Silsbee, D., L. Plastas and H. Plastas. 1976. A survey of backwater quality in GSMNP. USDI, NPS-SER Uplands Field Res. Lab. Mgt. #10. 66 pp.
- Starnes, Lynn Betson. 1977. Comparison of fish and benthic faunal
 populations in polluted and pristine forks of a mountain river.
 Tennessee Wildlife Resources Agency Tech. Report 77-55, PCAN 0061.
 102 pp.
- Zimmerer, K. S. 1978. Preliminary studies on bed load movements in LeConte Creek, GSMNP. 4th Ann. Sci. Res. Mtg. NPS-SER GSMNP.

HUMAN IMPACTS/VISITOR STUDIES

- Amusement/Recreation Marketing Services, Inc. 1974. Visitor sampling survey, GSMNP. Final analytic report #18 for professional services contract #CX2000-4-0035 with NPS. 210 E. 52nd St., NY. 10022.
- Baron, J. 1976. Environmental analysis of the proposed Blue Ridge Parkway extension from Oconaluftee to Deep Creek Campground. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #9.
- Baron, J. and R. Mathews. 1977. Environmental analysis of the proposed Foothills Parkway. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #19.
- Bratton, S. et al. 1977. Trail and campsite erosion survey for GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #16, Vols. I-IV. 567 pp.
- Bratton, S. and P. Whittaker. 1977. GSMNP. Disturbance and visitation on Mt. LeConte. USDI, NPS-SER, Uplands Field Res. Lab. Rpt. for the Superintendent. 59+ pp.
- Bratton, S. et al. 1978. Visitor impact on backcountry campsites in the Great Smoky Mts. Env. Management 2:431-442.
- Bratton, S. et al. 1979a. Cades Cove, an overview; the impacts of an agricultural area within a natural area. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Bratton, S. et al. 1979c. Trail erosion patterns in GSMNP. Environ. Management 3:431-445.
- Bratton, S. and L. Stromberg. 1979. Firewood gathering impacts in backcountry campsites in GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Bratton, S., R. C. Mathews, Jr., and P. S. White. 1980. Agricultural area impacts within a natural area: Cades Cove, a case history. Env. Management 4(5)433-448.
- Devine, H. et al. 1976. A simulation study of Cades Cove visitor vehicle flow. USDI, NPS Occasional paper #4. US GPO Washington, DC.
- Lambert, R. S. 1958. Logging in the GSMNP. NPS Report, Gatlinburg, TN. 65 pp.
- Lambert R. S. 1960. Logging in the Great Smoky Mountains. Report to the superintendent. 12 pp.

48

- Lambert, R. S. 1961a. Logging on Little River. 1880-1940. E. Tenn. Hist. Soc. Publ. 33:32-42.
- Lambert, R. S. 1961b. Logging the Great Smokies. Tenn. Hist. Quart. Dec. 1961.
- Larson, G. L. and W. E. Hammitt. 1978. Management concerns for swimming, tubing and wading in the GSMNP. Env. Management 2.
- Nichols, R. 1977. The ecological effects of LeConte Lodge in the GSMNP. USDI, NPS-SER Uplands Field Res. Lab. Rpt. for the Superintendent. 45 pp. and appendix.
- Nichols, R. 1979. The environmental impact of LeConte Lodge, GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.
- Proudman, R. 1978. Evaluation and recommendations on the trail problems along the Appalachian National Scenic Trail from Silers Bald to Inadu Knob (Snake Den Trail) in the GSMNP. Unpublished report in general file, GSMNP, Gatlinburg, Tenn. 93 pp.
- US Dept. of the Interior, National Park Service. 1981. Proceedings of the Conference on Social Research in National Parks and Wildland Areas, March 21-22, 1980. GSMNP. Gatlinburg, TN. 37738. 133 pp.
- Whittaker, P. 1978. Comparison of surface impact by hiking and horseback riding in the GSMNP. USDI, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #24. 28 pp. and appendix.
- Whittaker, P. and S. Bratton. 1979. A comparison of surface impact by hiking and horseback riding on four trail surfaces in GSMNP. 2nd Conf. on Sci. Res. in Nat. Parks, San Francisco, Calif.

ANTHROPOLOGY / ARCHEOLOGY

- Bass, Q. R. 1977. Prehistoric settlement and subsistence patterns in the Great Smoky Mountains. Final report on USDI, NPS Contract CX500050211, Univ. of Tenn., Knoxville, TN. 122 pp. Mimeograph.
- Bass, Q. et al. 1975. First interim report: archeological survey of GSMNP. Univ. of Tenn., Knoxville, TN. Typewritten report with map.
- Fielder, G. 1978. Archaeological survey of the proposed Foothills Parkway, GSMNP. Final Report on NPS Contract No. CX5000-4-1675. In Archives, GSMNP, Tenn. 63 pp.
- Fink, P. 1933. Early explorers in the Great Smokies. E. Tenn. Hist. Soc. Publ. 5:55-68.
- Lambert, R. S. 1957. The pioneer history of the GSMNP. A report to the Superintendent based on documentary sources. 76 pp.

TOPICS OF GENERAL INTEREST

- Cooper, J. E. et al. eds. 1977. Endangered and threatened plants and animals of NC. Proc. of the Symposium on Endangered and Threatened Biota of NC. I. Biological concerns. NC State Mus. of Nat. Histo., Raleigh, NC. 444 pp.
- DeLapp, J. and T. Wentworth. 1977. Proposed research natural areas in the southern Appalachian mountains. Res. rpt. to Highlands Biol. Stat. 54 pp.
- Evison, B. 1976. Research, monitoring, inventory and education at GSMNP. US-USSR Environmental Protection Agreement Symposium, May 27, 1976. Moscow.
- Herrmann, R. and S. Bratton. 1977. GSMNP as a biosphere reserve: a research/monitoring perspective. USDI NPS-SER Uplands Field Res. Lab. Mgt. Rpt. #23. 38 pp.
- Johnson, W. and S. Bratton. 1978. Biological monitoring in UNESCO Biosphere Reserves with special reference to the GSMNP. Biol. Conser. 13:105-115.
- NPS. 1967. GSMNP. USDI-NPS pamphlet. US Gov't. Printing Office.
- NPS. 1969. Resources Management Plan for the GSMNP. Gatlinburg, TN. 186 pp.
- NPS. 1975. Scientific problem definition, GSMNP. USDA, NPS-SER, Uplands Field Res. Lab. Mgt. Rpt. #1.
- NASA. 1974a. GSMNP Project, final report: regional and Park resources basic inventory procurement and display, Vols. I-IV. Miss. Test Facility.
- NASA. 1974b. Raw data listing GSMNP. Prepared by Miss. Test Facility Data Service Lab.
- Schreiber, R. and K. Holland. 1968. Topographic map of Bull Cave. Library, GSMNP.
- Stupka, A. 1960. GSMNP Natural history handbook series No. 5. Washington, DC. GPO.
- Yard, R. S. 1942. The Great Smoky Wilderness. Living Wilderness. 7:7-19.