

Appendix A. Glossary of Terms

basal area – A forestry term referring to the cross-section area of the trunks of trees, generally expressed as square feet per acre. In wildlife management, the basal area is a commonly used way to estimate competition of large trees with groundcover plant communities. Denser and higher-quality groundcover plant communities will be supported at lower basal areas due to increased sunlight reaching the ground.

carrying capacity – The population size of a species that the environment can sustain in the long-term given the food, habitat, water, and other necessities available in the environment.

duff – The layer of organic material that accumulates on the forest floor.

early-successional habitat – Plant communities such as young forests, native grasslands, weedy fallow fields, and scrub-shrub areas. These areas support plant communities that provide critical habitat for many species of wildlife. These are some of the most imperiled habitat types in North Carolina and the entire Southeastern United States.

early-successional wildlife – The group of species that inhabit plant communities such as young forests, native grasslands, weedy fallow fields, and scrub-shrub areas. Examples of these species include quail, rabbits, and many declining songbirds.

edge feathering – Cutting trees along crop field edges to create a wide transition zone from field to forest.

field borders – Strips of planted or volunteer vegetation along the edges of crop fields that provide food and cover for wildlife.

forbs – A broad-leaved herb other than a grass, especially one growing in a field, prairie or meadow.

keystone wildlife species – A species that has a disproportionate effect on its environment relative to its abundance. Such species affect many other organisms in an ecosystem and help to determine the types and numbers of various other species in a community. Examples include beavers and woodpeckers. Beavers construct ponds that provide brood habitat for wood ducks and support a diversity of aquatic organisms. Woodpeckers excavate cavities that many other species depend upon for nest sites and concealment.

mast – Woody plant (trees, shrubs, or vines) fruit used by wildlife for food. Usually referred to as hard mast (examples are acorns, hickory nuts, pine seeds, and beech nuts) and soft mast (grapes, greenbriar berries, dogwood fruits, black haws, and persimmons).

NC Cooperative Extension Service – Through educational programs, publications, and events, Cooperative Extension field faculty deliver unbiased, research-based information to North Carolina citizens.

pocosin – A type of wetland with deep, acidic, sandy, peat soils. Groundwater saturates the soil, except during brief seasonal dry spells and prolonged droughts. Pocosin soils are deficient in many nutrients, especially phosphorus.

United States Department of Agriculture (USDA) Service Center – Local office that houses the Farm Service Agency, Natural Resources Conservation Service, and Soil and Water Conservation District Office.

Appendix B. Wildlife Management Programs and Publications

Web links are time-sensitive and can expire. Find an updated list of Web links at www.ncwildlife.org/tarheelwildlife.

Forest Management

Edge Feathering Job Sheet (Natural Resource Conservation Service)

http://www.mo.nrcs.usda.gov/technical/forms/out/wildlife_js/JS-BIOL-18EdgeFeathering_408.pdf

Forest Landbird Legacy Program (U.S. Fish and Wildlife Service)

The Forest Landbird Legacy Program (FLLP) is a voluntary wildlife conservation program for private non-industrial forest landowners in all parts of North Carolina who want to manage their mature forests to benefit forest-dwelling landbirds. The focus of the FLLP is migratory “birds of conservation concern” identified by the Partners in Flight assessment for North Carolina.

<http://www.fws.gov/nc-es/es/partners/factsheetlbl.pdf>

Increasing Pine Plantation Wildlife Habitat and Recreational Value with Hub and Spokes (Wildlife Trends) by Hamrick, R.

<http://www.coontailfarm.com/documents/PDFs/PDFs2/Hub%20and%20Spokes.pdf>

Managing Pine Plantations for Timber and Wildlife by Kimmel, F (Southeast Quail Study Group)

<http://seqsg.qu.org/seqsg/docs/managingpine.pdf>

North Carolina Red-Cockaded Woodpecker Safe Harbor Program (NCWRC)

http://www.ncwildlife.org/Wildlife_Species_Con/documents/nongame_rcw_landowners.pdf

Grassland Management

A Landowner's Guide to Native Warm-Season Grasses in the Mid-South by Harper, C., G.E. Bates, M.J. Gudlin, and M.P. Hansborough

<http://www.utextension.utk.edu/publications/pbfiles/PB1746.pdf>

Converting Common Bermuda Grass to Native Warm Season Grasses by Barnes, T.G. and B. Washburn

http://www.wildlifemanagement.info/files/nwsg_24.pdf

Handling the Fescue Problem by Sole, J. and P. Keyser

<http://seqsg.qu.org/seqsg/docs/fescue.pdf>

Using Plateau to Assist in No-till Establishment of Native Warm-Season Grasses by Barnes, T.G. and B. Washburn

<http://www.uky.edu/Ag/Forestry/TBarnes/Assets/Plateau%20assist%20NWSG.pdf>

Other Helpful Publications

A Guide to Creating Vernal Ponds by Biebighauser, T.R.

<http://www.fs.fed.us/r8/boone/documents/resources/vernal.pdf>

Going Native: Urban Landscaping for Wildlife with Native Plants (N.C. State University)

<http://www.ncsu.edu/goingnative/>

Herbicide labels

<http://www.cdms.net/LabelsMsds/LMDefault.aspx?pd=7602&t=>

North Carolina Wildlife Action Plan (NCWRC)

<http://www.ncwildlife.org/plan/index.html>

Wildlife Damage Control (NCSU Extension)

<http://www.ces.ncsu.edu/nreos/wild/wildlife/wdc/>

The following publications are available online through the N.C. Wildlife Resources Commission's Web site at www.ncwildlife.org.

- Beaver Management in North Carolina
- An Evaluation of Deer Management Options
- North Carolina Wood Ducks Natural History and Management
- Tarheel Wildlife
- The Wild Boar in North Carolina
- White-Tailed Deer in North Carolina
- The Wild Turkey in North Carolina
- Upland Gazette

Stay up-to-date with small game issues and wildlife habitat information in North Carolina with the *Upland Gazette* newsletter. This publication is produced twice yearly. Obtain your FREE subscription by calling (919) 707-0050 or writing to:

NCWRC
Division of Wildlife Management
1722 Mail Service Center
Raleigh, NC 27699-1722

See back issues of the *Upland Gazette* at:
http://www.ncwildlife.org/Wildlife_Species_Con/WSC_Upland_Gazette.htm.



Appendix C. Monitoring Data and Protocols

Web links are time-sensitive and can expire. Find an updated list of Web links at www.ncwildlife.org/tarheelwildlife.

Visit the Breeding Bird Survey (BBS) (Patuxent Wildlife Research Center) at <http://www.mbr-pwrc.usgs.gov/bbs/bbs.html> to see bird species present and population trends through time from survey routes near your property.

To see examples of nongame surveys used by the NCWRC Division of Wildlife Management, visit http://www.ncwildlife.org/Wildlife_Species_Con/documents/AnnualProgramReportWDinWM07-08.pdf and click on the *Wildlife Diversity Program Annual Report*.

The North Carolina GAP Analysis Project provides information on distribution and abundance of most vertebrate species occurring in the state. Visit the NC GAP site at <http://www.basic.ncsu.edu/ncgap/> and follow instructions to view known and predicted ranges of many species.

To see the protocol for conducting fall quail covey counts, visit *How Many Bobwhite Coveys Are There?* (Tall Timbers Research Station) at <http://www.talltimbers.org/gb-autumnest.html>

Appendix D. Alphabetical List of Web Links Listed in Tarheel Wildlife

Web links are time-sensitive and can expire. Find an updated list of Web links at www.ncwildlife.org/tarheelwildlife.

A Guide to Creating Vernal Ponds

<http://www.fs.fed.us/r8/boone/documents/resources/vernal.pdf>

A Landowner's Guide to Native Warm-Season Grasses in the Mid-South

<http://www.utextension.utk.edu/publications/pbfiles/PB1746.pdf>

Audubon

<http://nc.audubon.org/>

Beaver Management in North Carolina

http://www.ncwildlife.org/Wildlife_Species_Con/WSC_BMAP.htm

Bird Houses and Feeders: How to Build and Enjoy Them

http://www.ncwildlife.org/Wildlife_Species_Con/WSC_Publications3a.htm

Bobwhite Basics

<http://seqsg.qu.org/seqsg/docs/bobwhitebasics.pdf>

Breeding Bird Survey

<http://www.mbr-pwrc.usgs.gov/bbs/bbs.html>

Butterflies in Your Backyard

http://www.ncsu.edu/goingnative/ag636_02.pdf

Certified Wildlife Biologists

http://joomla.wildlife.org/index.php?option=com_content&task=view&id=41&Itemid=245

Commercial Sources for Wildlife Planting Materials

http://www.ncwildlife.org/Wildlife_Species_Con/WSC_WPM.htm

Conservation Trust for North Carolina

<http://www.ctnc.org/site/PageServer>

Converting Common Bermuda Grass to Native Warm-Season Grasses

http://www.wildlifemanagement.info/files/nwsg_24.pdf

Crop Data Management Systems Agro Systems Data Base

<http://www.cdms.net/LabelsMsds/LMDefault.aspx?pd=7602&t>

Developing Wildlife-Friendly Pine Plantations

<http://www.ces.ncsu.edu/forestry/pdf/WON/won38.pdf>

Ducks Unlimited

<http://www.ducks.org/>

Eastern Bluebirds Nesting Structure Design and Placement

<http://www.ca.uky.edu/agc/pubs/for/for52/for52.htm>

Eastern Native Grassland Alliance

<http://nativegrasses.utk.edu/enga.htm>

Edge Feathering Job Sheet

http://www.mo.nrcs.usda.gov/technical/forms/out/wildlife_js/JS-BIOL-18EdgeFeathering_408.pdf

Effects of Management Practices on Grassland Birds: Field Sparrow
<http://www.npwrc.usgs.gov/resource/literatr/grasbird/fisp/fisp.htm>

Forest Landbird Legacy Program
<http://www.fws.gov/nc-es/es/partners/factsheetlbl.pdf>

Going Native Urban: Landscaping for Wildlife with Native Plants
<http://www.ncsu.edu/goingnative/>

Growing and Managing Successful Food Plots for Wildlife in the Mid-South
<http://www.utextension.utk.edu/publications/pbfiles/PB1743.pdf>

Handling the Fescue Problem
<http://seqsg.qu.org/seqsg/docs/fescue.pdf>

Homes for Wildlife II Plans
http://www.michigandnr.com/publications/pdfs/huntingwildlifehabitat/Landowners_Guide/Resource_Dir/Acrobat/Homes_II.PDF

How Many Bobwhite Coveys Are There?
<http://www.talltimbers.org/gb-autumnest.html>

Increasing Pine Plantation Wildlife Habitat and Recreational Value with Hub and Spokes
<http://www.coontailfarm.com/documents/PDFs/PDFs2/Hub%20and%20Spokes.pdf>

Longleaf Alliance
http://www.auburn.edu/academic/forestry_wildlife/longleafalliance/

Managing Pine Plantations for Timber and Wildlife
<http://seqsg.qu.org/seqsg/docs/managingpine.pdf>

National Wild Turkey Federation
<http://www.nwtf.org/>

North Carolina Cooperative Extension Service
<http://www.ces.ncsu.edu/>

North Carolina Division of Forest Resources
<http://www.dfr.state.nc.us/>

North Carolina Farm Service Agency
<http://www.fsa.usda.gov/FSA/stateoffapp?mystate=nc&area=home&subject=landing&topic=landing>

North Carolina GAP
<http://www.basic.ncsu.edu/ncgap/>

North Carolina Natural Resources Conservation Service
<http://www.nc.nrcs.usda.gov/programs/>

North Carolina Prescribed Fire Council
<http://ncprescribedfirecouncil.org/>

North Carolina Soil and Water Conservation Districts
<http://www.enr.state.nc.us/dswc/>

North Carolina Red-Cockaded Woodpecker Safe Harbor Program
http://www.ncwildlife.org/Wildlife_Species_Con/documents/nongame_rcw_landowners.pdf

North Carolina Wildlife Action Plan
<http://www.ncwildlife.org/plan/index.htm>

North Carolina Wildlife Federation
<http://www.ncwf.org/>

North Carolina Wildlife Resources Commission
www.ncwildlife.org

North Carolina Wildlife Resources Commission, Division of Wildlife Management
www.ncwildlife.org

North Carolina Wood Ducks Natural History and Management
http://www.ncwildlife.org/Wildlife_Species_Con/documents/WOODDUCK.pdf

NRCS Data Gateway
<http://datagateway.nrcs.usda.gov/>

Partners for Fish and Wildlife Program, U.S. Fish and Wildlife Service
<http://www.fws.gov/raleigh/pfw.html>

Quail Forever
<http://www.quailforever.org/>

Quail Unlimited
<http://www.qu.org/>

Quality Deer Management Association
<http://www.qdma.com/>

Red-Cockaded Woodpecker (U.S. Fish and Wildlife Service)
<http://library.fws.gov/Pubs4/redcockadedwp02.pdf>

Registered Foresters who Offer Consulting for Private Landowners
http://www.dfr.state.nc.us/Managing_your_forest/consulting_foresters.htm

Ruffed Grouse Society
<http://www.ruffedgrousesociety.org/>

Southeast Quail Study Group
<http://www.qu.org/seqsg/>

Tall Timbers Research Station
<http://www.talltimbers.org/>

Technical Guide to Crop Tree Release in Hardwood Forests
<http://www.utextension.utk.edu/publications/pbfiles/PB1774.pdf>

The Nature Conservancy
<http://www.nature.org/wherewework/northamerica/states/northcarolina/>

Upland Gazette
http://www.ncwildlife.org/Wildlife_Species_Con/WSC_Upland_Gazette.htm

USDA Service Center Locator
<http://offices.sc.egov.usda.gov/locator/app>

USFWS Ecological Services

<http://www.fws.gov/nc-es/>

USFWS Safe Harbor Program for the Red-Cockaded Woodpecker

<http://www.fws.gov/ncsandhills/>

Using Fire to Improve Wildlife Habitat

<http://www.ces.ncsu.edu/forestry/pdf/ag/ag630.pdf>

Using Plateau to Assist in No-Till Establishment of Native Warm-Season Grasses

<http://www.uky.edu/Ag/Forestry/TBarnes/Assets/Plateau%20assist%20NWSG.pdf>

Wildlife Damage Control NCSU Extension

<http://www.ces.ncsu.edu/nreos/wild/wildlife/wdc/>

Wildlife Diversity Program Annual Report

http://www.ncwildlife.org/Wildlife_Species_Con/documents/AnnualProgramReportWDinWM07-08.pdf

Wildlife Management for Missouri Landowners

<http://mdc4.mdc.mo.gov/Documents/258.pdf>

Literature Cited

Web links are time-sensitive and can expire. Find an updated list of Web links at www.ncwildlife.org/tarheelwildlife.

Bowen, L.T. and C. Moorman. 2002. *Butterflies in Your Backyard*. NC Cooperative Extension Service. 12 pp.

http://www.ncsu.edu/goingnative/ag636_02.pdf

Brown M. 2002, 2004. *Forest Statistics for North Carolina*. Southern Forest Research Station. USDA Forest Service. Resource Bulletin SRS-88

Burrell, C. Colston. 2006. *Native Alternatives to Invasive Plants*. Brooklyn Botanic Garden,

Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, B. D. Parkin, and B. R. Euliss. 2003. *Effects of Management Practices on Grassland Birds: Field Sparrow*. Northern Prairie Wildlife Research Center, Jamestown, N.D. Northern Prairie Wildlife Research Center Online.

<http://www.npwrc.usgs.gov/resource/literatr/grasbird/fisp/fisp.htm> (Version 12DEC2003).

Fuller, J. C. 2002. *North Carolina Wood Ducks Natural History and Management*. Division of Wildlife Management. North Carolina Wildlife Resources Commission.

http://www.ncwildlife.org/Wildlife_Species_Con/documents/WOODDUCK.pdf

Harper, C. A. *Growing and Managing Successful Food Plots for Wildlife in the Mid-South*. University of Tennessee Extension. PB1743. 37 pp. <http://www.utextension.utk.edu/publications/pbfiles/PB1743.pdf>

Harper, C. A, G.E. Bates, M. J. Gudlin, and M. P. Hansbrough. 2004. *A Landowner's Guide to Native Warm-Season Grasses in the Mid-South*. University of Tennessee Extension. PB 1746. 25 pp.

<http://www.utextension.utk.edu/publications/pbfiles/PB1746.pdf>

Howell, D. (editor). 2002. *Bobwhite Basics*. Southeast Quail Study Group. 2 pp.

<http://seqsg.qu.org/seqsg/docs/bobwhitebasics.pdf>

Leopold, A. 1966. *A Sand County Almanac with Essays on Conservation from Round River*. Oxford University Press, New York, NY. 295 pp.

- Miller, G.W., J.W. Stringer and D.C. Mercker. 2007. *Technical Guide to Crop Tree Release in Hardwood Forests*. University of Tennessee Extension. PB1774
- Moorman, C. and R. Hamilton. 2005. *Developing Wildlife-Friendly Pine Plantations*. NC Cooperative Extension Service. WON-38. 7 pp. <http://www.ces.ncsu.edu/forestry/pdf/WON/won38.pdf>
- Moorman, C. and T. Sharpe. *Using Fire to Improve Wildlife Habitat*. NC Cooperative Extension Service. AG-630. <http://www.ces.ncsu.edu/forestry/pdf/ag/ag630.pdf>
- Pitts, D. and W. McGuire. 2000. *Wildlife Management for Missouri Landowners*, Third Edition. Missouri Department of Conservation. <http://mdc4.mdc.mo.gov/Documents/258.pdf>
- Stoddard, H. L. 1961. *The Hunting of the Cooper's Hawk*. In Terres, J. K., ed. *Great moments in the lives of outstanding naturalists*. J.P. Lippincott Co., N.Y. 338 pp.
- Tallamy, D.W. 2007. *Bringing Nature Home*. Timber Press. Portland, Oregon. 358 pp.

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