

## **AUTHOR GUIDELINES**

### **Seventh Annual Forest Inventory and Analysis Symposium October 3-7, 2005 Portland, Maine, USA**

**DUE DATE:** All manuscripts are due in electronic format by January 6, 2006. If your manuscript is smaller than a megabyte or two, you may send it to me via e-mail: [rmcroberts@fs.fed.us](mailto:rmcroberts@fs.fed.us). If it is larger, please send it to me on a CD:

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### **Manuscript Assembly**

Manuscripts should be assembled in this order:

- Text (see attached sample for proper format of first page)
- Literature Cited
- Appendixes
- Tables
- Footnotes
- Figure Captions
- Figures
- Release Forms for Any Non-Forest Service Personnel Produced Items (i.e., manuscript or photos)
- Copyright Permissions for Any Applicable Text or Figures

### **General**

The manuscripts will be processed using Microsoft Word. If at all possible, please submit your manuscript in Microsoft Word. Otherwise, use a rich text format file. Manuscripts should be submitted double-spaced and should not exceed 14 double-spaced pages. Because Word documents do not always appear the same on all systems, as a means of ensuring that the editors may see the equations as they are intended to appear, also submit your manuscript as a PDF document.

Type text flush with the left margin but leave the right margin ragged. Set the margins so that the text area is 6.5 x 9 inches. For 8.5- x 11-inch paper, this means 1-inch margins. If a different paper size is used, set the margins accordingly. Number the pages (bottom center) consecutively throughout the manuscript. The font for this paper should be set for Times Roman 10 pt.

At the end of each line of text, allow the word processor to “wrap around” to the next line. Hard carriage returns should be used only at the ends of paragraphs.

Do not indent paragraphs. Double space text and insert one blank line between each paragraph. Use one space after periods, question marks, colons, etc. Do not manually hyphenate words that end a line and begin a new one.

Each table, figure, and reference should be mentioned in the text.

Italics should only be used for scientific terms. Do not use italics for author’s information or in reference citations.

## **Title and Author Name(s)**

Center the title. Make it as clear and as brief as possible. Leave two blank lines below the title, then center and boldface author name(s). Use a footnote for author information. At the bottom of page 1 draw a 2-inch line beginning at the left margin and on the next line put in author information including: (1) position title, (2) affiliation, (3) complete mailing address, and (4) e-mail address.

**Abstract.** Three blank lines below the author name(s), type a short, informative abstract that emphasizes the purpose, results, and conclusions. (See attached sample.) Limit the abstract to 100 words. Write what is generally called an informative rather than a descriptive abstract. That is, say “Loblolly pine seeds could not be germinated after they were soaked for more than 16 hours in ethanol at 10 °C (50 °F)” rather than “Article describes effects of soaking in ethanol on subsequent germination of loblolly pine seeds.” Type the word “Abstract” in bold, followed by a period.

## **Headings**

Leave one blank line before first-, second-, and third-level headings and one blank line after. Type headings in the following typographical style:

**First-Level Headings** (centered, bold, only **first-letter**, not all letters, caps)

**Second-Level Heading** (flush left, bold, first-letter caps)

Third-Level Heading (flush left, non-bold, first-letter caps)

Fourth-Level Heading (non-bold, underlined, first-letter caps). Follow with a period, one space, and then text.

## **Lists**

Use Arabic numbers with periods for paragraph enumerations. Sample:

1. Item 1. If the list item is longer than one line indent to line up the second line of text with the first line as shown here.
2. Item 2. ....
3. Item 3. ....

## **Style**

**Numerals:** Express in numerals any number associated with a unit of measurement, time, or money (for example: 7 meters, 0.25 inch, 12 percent, 6 hours, 5-day week, 6 years old, \$3).

**Percent:** Spell out the word “percent” rather than using the symbol “%.”

**States:** Follow the Postal Service style of two-letter abbreviation for U.S. States or Canadian Provinces when used with the name of a town. Spell out the State or Province name when standing alone. Use country when appropriate, particularly for authors from outside the U.S. and Canada.

**Scientific nomenclature:** Set binomials off in parentheses, including authorities, for all species at the first mention in the text. If many species are mentioned, you may prepare a list of common and scientific names to avoid cluttering the text with both names.

## Literature Citations

In general, follow examples provided in the PNW Authors Guide Literature Cited section (available at <http://fsweb.r6.fs.fed.us/pnw/cg/authors/index.shtml>).

Type each literature citation as if it is a paragraph, allowing the word processor to wrap at the end of each line. (None of the lines should be indented.) Hard carriage returns should only be used at the end of each citation. Insert a blank line after each citation.

Use the author-date method to refer to literature in the text. For example, “More rapid runoff may result in increased peak flows (Brown 1980). Later experiments by Miller (1980) showed...” If several references are listed as support for a statement, list the names alphabetically: (Adams 1980, Endres 1972, Peterson 1974).

Citations should include only published material or material already accepted for publication. Manuscripts accepted for publication may be included with the year and volume number in which you expect the article to appear.

Reference to unpublished data and personal communications should be avoided whenever possible. If it must be done, do so parenthetically in the text or mention a footnote in this style:

<sup>1</sup> McDonald, B. Data on file with the Department of Forestry, University of Georgia, 320 Green Street, Athens, GA 30602.

or

<sup>1</sup> Nelson, M. 2002. Personal communication, FIA Specialist. USDA Forest Service, North Central Research Station, 1992 Folwell Avenue, St. Paul, MN 55108.

In text, use the present tense to cite previously established knowledge. For example, “High viscous effects inhibit eddy motion (Roberson and Crow 1990).”

## Literature Cited Examples

### Book or Monograph

Abercrombie, M.; Hickman, C.J.; Johnson, M.L. 1964. A dictionary of biology. Chicago, IL: Aldine Publishing Co. 798 p.

### Chapter in Book

Beasley, R.S. 1979. Assessment of non-point source from forest practices in the south central region. In: [editors], eds. Current research: research needs and problems in assessing impact of forest management practices on water quality and utility. Tech. Bull. 328. New York, NY: National Council of the Paper Industry for Air and Stream Improvement: 10-13.

### Series, Forest Service

Setzer, T.S. 1987. Timber resource statistics for the porcupine inventory unit of Alaska, 1978. Res. Bull. PNW-141. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 32 p.

### Journal or Periodical Article

Adams, L. 1947. Food habits of three common Oregon birds in relation to reforestation. Journal of Wildlife Management. 11(3): 281-282.

### Article in Proceedings Published in Journal

Bull, E.L. 1981. Indirect estimates of abundance of birds. Estimating numbers of terrestrial birds: Proceedings, international symposium; 1980 October 26-31; Asilomar, CA. In: Studies in Avian Biology. Cooper Ornithological Society. 6: 76-80.

### Proceedings of Conference, Seminar, Symposium, Workshop, or Meeting

Rack, J. 2001. Forest/nonforest classifications of Landsat TM data for annual inventory Phase 1 stratification. In: Reams, G.A., McRoberts, R.E., Van Deusen, P.C., eds. Proceedings, 2<sup>nd</sup> annual forest inventory and analysis symposium; 2000 October 17-18; Salt Lake City, UT. Gen. Tech. Rep. SRS-47. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station: 8-10.

Cieszewski, C.J.; Borders, B.E.; Whiffen, H.; Harrison, W.M. 2000. Forest inventory in Georgia. In: Zawila-Niedzeiecki, T.; Brach, M., eds. Proceedings, IUFRO conference on remote sensing and forest monitoring; 1999 June 1-3, Rogow, Poland: Warsaw Agriculture University, Faculty of Forestry: 7-13.

### Thesis and Dissertation

Sampson, Dennis. 1980. End joint tensile strength of 3/4-inch Douglas-fir laminated veneer (LVL). Seattle, WA: University of Washington. 88 p. Ph.D. dissertation.

### Internet

U.S. Department of Agriculture Forest Service. 2005. Remote Sensing Applications Center. <http://www.fs.fed.us/eng/rsac/index.html>. (Accessed October 31, 2005.)

### Acknowledgement

Type the acknowledgment, if any, after the last paragraph of your paper, just before the Literature Cited section.

### Tables

Use tabs, rather than spaces, to separate columns; please DO NOT use the table facility in your word processing program. Number tables consecutively with Arabic numerals and mention each in the text. Tables should be able to stand alone without the text to describe them. All columns should have headings; capitalize only the first word and proper nouns. Table footnotes should start with the superscript “1” and should appear below the table. Begin each caption above the table like this:

Table 1. *Captions should be typed directly above the table, if a second line is required it should be indented 1/4-inch as shown. The caption should be italic except for Table 1. If the table does not cover the whole page it should be centered.*

Study area	Species	Volume <i>Cubic feet</i>	Height <i>Feet</i>	Diameter <i>Inches</i>	Basal area <i>Ft<sup>2</sup>/acre</i>
Upper slope	Aspen	319	19.5	1.08	39.4
Upper slope	All <sup>1</sup>	--	--	1.04	42.6
Lower slope	Aspen	341	19.5	1.15	42.7
Lower slope	All	--	--	1.11	45.0

<sup>1</sup>Includes aspen and all other species found on the site.

### Figures and Photographs

Charts, maps, drawings, and photographs are called “figures,” each should be mentioned in the text. In a sentence, figure 1 is written out; referred to parenthetically, it would be (fig. 1). Number them in the order they are mentioned in the text. Put figure captions on a separate page at the end of the manuscript, after the Footnotes page. Figures will be printed in black and white. Because the published proceedings will have two columns, published figures will generally be approximately 3.25 inches in width. Be sure to check that figures are clear and legends and axis labels are sufficiently large to be readable when the figure is reduced to 3.25 inches in width. For text in the figures, use Arial or Helvetica 9-point type.

Avoid putting footnotes in a figure; include the information in the caption. Begin each figure caption like this:

Figure 1. *Figure captions should be italic.*

All computer graphics must be sharp, reproducible copies done either on a plotter or laser printer. Graphics done on a dot matrix printer cannot be used.

If you submit a figure in electronic format, the preferred format is EPS. We will also accept TIFF or JPEG. The image must be at a resolution of at least 300 dots/pixels per inch for the size it will be in the publication. DO NOT submit images embedded in a document, they must be separate files.

Line drawings should be done in India ink and of a good, reproducible quality. We will reduce graphics and drawings to the necessary size. To maintain readability, characters within figures should be set large enough so that they are no smaller than 6-point type if figures need to be reduced to 3.25 inches (one column-width) wide. Use the Helvetica or Arial typeface for all text on the figures.

Provide a copy of permission to reprint any figures that you want to borrow from copyrighted publications.

### **Photos**

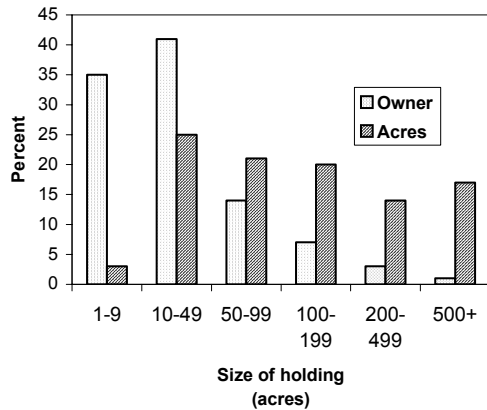
Submit originals—not duplicates—for the sharpest reproduction quality. Make sure each photo has enough contrast and simplicity to communicate its intended message to the reader. Black and white prints are preferred. Color prints usually look poor when they’re converted to black and white. If all you have are color prints, then send the negatives with them.

Identify each photo by taping a small piece of paper to the back so that most of the paper hangs below the lower edges. With the image facing you, write the necessary information—figure number, author’s name, and the first few words of the manuscript—on this tag. To suggest crop marks, make a photocopy of the photo and place crop marks on the photocopy. Do not write directly on the back of the image.

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Provide a copy of permission to reprint any photos that were taken by non-Forest Service personnel.

### **SAMPLE**



“SAMPLE MANUSCRIPT” when submitted, this should be double-spaced.

### **Multiresource Inventories: Techniques for Estimating Biomass on a Statewide Basis**

**Noel N. Cost and Joe P. McClure<sup>1</sup>**

**Abstract.** Multiresource inventory data of Florida are used to develop a technique for estimating biomass on a Statewide basis. The model describes the kinds and sources of data needed to predict standing aboveground biomass, and provides definitions of area base and biomass components. The results represent the distribution and quantity of biomass on commercial forest, noncommercial forest, and nonforest areas.

Traditionally, State and regional forest inventories have been designed to estimate the volume of wood in trees 5.0 inches and larger, diameter at breast height, and form a 1-foot stump to a 4.0-inch top diameter outside bark growing on commercial forest land. These merchantability stands are no longer adequate for assessing the resource. Estimates of crown volume are needed for nutrient cycling studies and wildlife habitat evaluations and to determine site productivity and forest fire hazards (Phillips and Cost 1979).

#### **Biomass Model**

To develop a biomass model, Renewable Resources Evaluation (RRE) expanded the multiresource inventory across all areas in Florida and made maximum use of established inventory methods. Thus, RRE could use its existing computer and data management system, maps, aerial photographs, coding systems, and field crews.

#### **Biomass Definitions**

Nomenclature creates a major problem in quantifying biomass on a Statewide basis. Notes in some of the more recent research studies are the difficulties in exchange of data due to the diverse biomass applications (Hitchcock and McDonnell 1979, Young 1976).

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<sup>1</sup> Resource analyst and project leader, respectively, U.S. Department of Agriculture, Forest Service, Southeastern Forest Research Station, Asheville, NC 12345; e-mail: nncost@fs.fed.us

Definitions for understory vegetation and tree foliage were taken from a vegetative profile study (Cost 1979, McClure and others 1979). Terms from the two studies blend perfectly so that a complete description of total standing biomass can be obtained.

## **Forest**

### **Commercial Forest Land**

Forest land at least 1 acre in size and producing, or capable of producing, crops of industrial wood and not withdrawn from timber utilization.

### **Total Biomass**

The 37.4 million acres of commercial forest, noncommercial forest, and nonforest in Florida support over 2.5 trillion pounds of green biomass. Of the 2.5 trillion pounds of biomass, 74 percent is in wood and bark, 8 percent is in tree foliage, and 18 percent is in other vegetation. The percentage of biomass supported by commercial forest, noncommercial forest, and nonforest uses is shown in figure 1.

The quantity of biomass in each broad use category is highly dependent upon the acreage within the State as well as the concentration of material on these acres (fig. 1). In interpreting biomass quantities, therefore, it is helpful to know how many acres are in each category.

### **Species Groups**

Table 1 shows the distribution of wood and bark associated with nonforest use, by selected species groups. Slash pine (*Pinus elliottii* Engelm.) is the leading yellow pine, containing over half of the yellow pine biomass.

Twenty-nine percent of the nonforest area consists of marsh and water, 21 percent improved pasture, 17 percent urban and other, 16 percent cropland, 13 percent rangeland, 3 percent idle farmland, and 1 percent other farmland (table 2).

## **Acknowledgement**

The authors thank the Florida Department of Agriculture and Consumer Services, Division of Forestry, Tallahassee, FL, for their cooperation in this study.

## **Literature Cited**

- Hitchcock, H.C., III; McDonnell, J.P. 1980. Provisional forest biomass statistics for the 201-county Tennessee valley region. Tech Note B38. Norris, TN: Tennessee Valley Authority. 8 p.
- McClure, J.P.; Cost, N.D.; Knight, H.A. 1979. Multiresource inventories—a new concept for forest survey. Res. Pap. SE-191. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southeastern Research Station. 68 p.
- Phillips, D.R.; Cost, N.D. 1979. Estimating the volume of hardwood crowns, stems, and the total tree. In: Hansen, M.H., Burk, T.E., eds. 2d International symposium: integrated tools for natural resource inventories in the 21<sup>st</sup> century; 1998 August 16-20; Boise, ID. Gen. Tech. Rep. NC-111. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station: 198-215.
- Young, H.E. 1976. A summary of analysis of weight table studies. In: Olso biomass studies. Orono, ME: College of Life Sciences and Agriculture Experiment Station: 251-282.