

Abstract template for the conference “A century of national forest inventories – informing past, present and future decisions”

Dear author. This is a two-page template that in the first page will ask for information on presenter name, topic, and preferred presentation form.

On page two, you are asked to fill in your abstract in the format and font size indicated. Please remember to include author’s affiliation information in the footer section of page two. The length of the abstract may not be more than one page including references.

Abstract title:		Using National Forest Inventory Data to Assess Ecosystem Service Levels on Public and Private Ownerships
Take-home message:		NFI data provide an excellent source of information for several major critical ecosystems services such as timber and carbon storage. While the data do not provide direct measurements of other services, they constitute an initial step to assess these services for managers and decision makers.
Presenter name:		Dr. Donald G. Hodges
Presenter contact info:		Professor University of Tennessee Department of Forestry, Wildlife and Fisheries
General topic, see website: (please double click on the check box and activate the relevant one)	<input type="checkbox"/>	Improving future NFIs by learning from the past
	<input type="checkbox"/>	NFIs today and in the future
	<input checked="" type="checkbox"/>	Cutting edge and futuristic inventory techniques and technologies
Preferred presentation form:	<input checked="" type="checkbox"/>	Oral presentation
	<input type="checkbox"/>	Poster
<i>Abstracts will be reviewed by members of our scientific committee and you will be given information on decisions in due time after the submission deadline has passed.</i>		

Using National Forest Inventory Data to Assess Ecosystem Service Levels on Public and Private Ownerships

Donald G. Hodges¹

Introduction: The importance of forests for a wide range of ecosystem services, from timber to biodiversity and water quality to cultural values, has continued to grow over the past decade. While numerous site-specific studies have been conducted and the results published, scientists are now turning their attention to efforts to map and quantify a range of ecosystem services over the landscape or national scale. These landscape efforts are due to a number of factors including changes in national policy, expanding markets for specific ecosystem services, and management planning. National Forest Inventory (NFI) data offer a good source of baseline data from which to develop estimates of a number of ecosystem services, as well as to highlight some of the methodological issues in measuring specific services on a larger scale.

Materials and methods: This study utilized NFI data for one state (Tennessee) from the United States Forest Service Forest Inventory data to estimate the levels of a suite of ecosystem services at a sub-national scale and assess the likelihood of expanding the estimates to a larger scale. Specifically, data for carbon, timber, biodiversity, habitat quality/deadwood were assessed to determine the feasibility of estimating specific ecosystem service quantities at the county-level and scaling these estimates up to the state and national level.

Results: Estimates for timber and carbon were relatively straightforward and readily available for the subnational and national levels. Estimates for biodiversity and habitat required modifications to the NFI data to be useful for even sub-national estimates. This included combining the NFI data with other data sources and limiting the scope of the measurements (e.g., diversity of tree species only).

Conclusion: NFI data provide an excellent source of information on the quantities and distribution of several major provisioning and regulating ecosystems services. While the data do not provide direct measurements of some of the key ecosystem services such as biodiversity and habitat, they offer some initial estimates of such values and can be combined with other publicly-available information to offer critical information to managers and decision makers.