



The Natural Fuels Photo Series

<http://www.fs.fed.us/pnw/fera>

Introduction

Ground inventory procedures that directly measure site conditions such as fuel loading and arrangement, vegetation structure, and composition exist for most ecosystem types and are useful when a high degree of accuracy is required. However, ground inventory is time consuming and expensive. Photo series can be used to make quick, easy, and inexpensive determinations of fuel quantities and stand conditions when less precise estimates are acceptable.

About The Natural Fuels Photo Series

The Natural Fuels Photo Series currently includes fourteen volumes representing various regions of the United States and one volume each from Brazil and Mexico. There are one to four series in each volume, each having four to 17 sites. Sites include standard, wide-angle, and stereo-pair photographs. Each group of photos includes inventory data summarizing vegetation composition, structure, and loading; woody material loading; density by size class, forest floor depth, and loading; and various site characteristics.

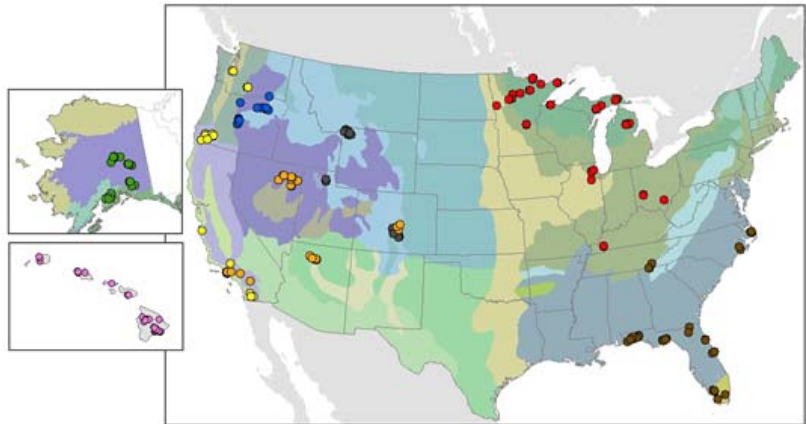
The photo series are important land management tools that can be used to ecologically assess landscapes through appraisal of living and dead woody material and vegetation biomass (fuels) and stand characteristics. Once an ecological assessment has been completed, stand treatment options such as prescribed fire or

Volume	Region	Fuelbed Types
I	Pacific Northwest	Mixed-conifer, western juniper, sagebrush, grass
II	Alaska	Black and white spruce
IIa	Alaska	Hardwoods with spruce
III	Rocky Mountains	Lodgepole pine, quaking aspen, gambel oak
IV	Southwest	Pinyon-juniper, chaparral, sagebrush
V	Central & Lake States	Red & white pine, northern tallgrass prairie, mixed oak
Va	Lake States	Jack pine
VI	Southeast	Longleaf pine, pocosin, marshgrass
VIa	Southeast	Sand hill, sand pine scrub, hardwoods with white pine
VII	West Coast	white oak, deciduous oak, mixed-conifer with shrubs
VIII	Northeast	Hardwood, pitch pine, red spruce/balsam fir
IX	Southwest	Oak/juniper
X	Montana	Sagebrush with grass, ponderosa pine-juniper
Hawaii	Hawaii	Grassland, shrubland, woodland, forest
Brazil	Brazil	Cerrado (savannah)
Mexico	Mexico	Pine and oak forests, montane shrublands

harvesting can be planned and implemented to better achieve desired effects while minimizing negative impacts on other resources.

The photo series is useful in several branches of natural resource science and management. Inventory data such as these can be used as inputs for evaluating animal and insect habitat, nutrient cycling, and microclimate.

Fire managers will find these data useful for predicting fuel consumption, smoke production, fire behavior, and fire effects during wildfires and prescribed fires. In addition, the photo series can be used to estimate carbon sequestration, an important factor in predictions of future climate, and to link remotely sensed signatures to live and dead fuels on the ground. The Natural Fuels Photo Series continues to evolve and grow as land managers, researchers, and policy-makers identify ecosystems for which vegetation and fuel inventory data are needed.



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Visit the Photo Series Website:

http://www.fs.fed.us/pnw/fera/research/fuels/photo_series/

Ordering the Natural Fuels Photo Series:

Volumes I-VIII are available for ordering by fax from the National Interagency Fire Center (208-387-5573/5548). See their website for ordering instructions (<http://www.fire.blm.gov/gbk/publications.html>)

Copies of Volumes IX, X, Hawaii, and Brazil are available at no charge upon request from Roger Ottmar.

Copies of the Mexico photo series are available at no charge upon request from Ernesto Alvarado (alvarado@u.washington.edu).