**Photo Series for Major Natural Fuel Types of the United States – Phase II. 98-1-1-05. Roger D. Ottmar and Robert E. Vihnanek.**

**Problem**: Most managers do not have fuels data of sufficient extent, detail, or resolution necessary for fire behavior and fire effects prediction, or for fuel treatment planning. Photo series provide a quick, easy, inexpensive means for quantifying and describing existing fuel properties for selected areas within a landscape. Photo series can reduce inventory time by 80% in many instances. Although there are many published photo series they are often limited in scope, contain single photographs, and generally do not fully characterize the entire fuelbed complex. Recent classification efforts did not describe all critical fuelbeds.

**Approach**: An informal needs assessment resulted in the selection of nine fuelbed types. Photographs were taken and fuel loading, stand structure, and composition data were collected at a minimum of seven sites for each fuel type. Fuelbed types were combined into representative series. Each series had a minimum of 15 sites and a total of 100 sites were completed. The inventory and photographic methodologies are presented in detail in each photo series publication.

**Project Findings**: The primary findings for the project are illustrated within four new volumes of the Natural Fuels Photo Series. The Fire Behavior Project at the Missoula Fire Lab used the photo series to develop 42 new fire behavior fuel models. Photographs and data from several of the photo series from this project were used to describe and represent some of these new fuel models.

**Deliverables and Technology Transfer:** Four Natural Fuel Photo Series publications have been printed and distributed through the National Interagency Fire Center Publication Management System (Volumes IIa (Alaska hardwood), Va (northcentral jack pine), and VII western oak and mixed conifer with shrubs)) and the Pacific Northwest Research Station (Hawaii grasslands, shrublands, woodlands, and forests). Nearly 4,000 copies have been purchased or distributed to date. A web page is available at www.fs.fed.us/pnw/fera/photoseries.html. Additional technology transfer has been completed beyond the original scope of the project including: 1) RX-410 Photo Series Training Package Fact sheet and images posted on FireHouse for Vol. VII. 2) Eleven poster presentations and published abstracts. 3) Seven presentations at various conferences and seminars. 4) 35 photo series presentation and exercises at RX 410 (Smoke management), RX 300, (Burn Boss), and RX 310 (Fire Effects) national and regional training sessions. 5) One proceedings paper published about the Brazil photo series that included discussion of the JFSP-funded photo series project. Three of six regional fuels workshops have also been completed with one field day devoted to training managers how to use the photo series.

**References:**

Project information is located online at: http://jfsp.nifc.gov/projects/03-4-2-06_final_report.pdf and http://jfsp.nifc.gov/JFSP_Products_3.htm.