Scientist Recruitment Initiative RWU Proposal

Name of Proposal Contact:
RWU Title:
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Name and contact points of proposed position supervisor: Dr. W. Mark Ford

Position title/discipline of proposed position: Research Wildlife Biologist

Brief description of proposed RWU/graduate research supported through the position:

The Forest Service supervisor and student would develop a research program to address either:

1) community level wildlife assessments (ecological values and functions, present contributions, future contributions, present inadequacies, future inadequacies) in the Allegheny Highlands of West Virginia, western Pennsylvania, western Maryland, and eastern Ohio. Emphasis would be placed on researching total biodiversity as well as selected problematic taxa such as woodland salamanders (*Plethodon* and *Desmognanthus*), cavity-nesting songbirds, shrub-scrub interior songbirds with high regional Partners-in-Flight concern scores, and tree-roosting bats (Indiana bat, northern long-eared bat, little brown bat, red bat, and hoary bat) in a complex and dynamic forest landscape consisting of unfragmented natural and semi-natural, lightly managed national forests, unfragmented but intensively managed industrial forests, and fragmented nonindustrial private forests in a wide array of stand conditions and management regimes. Each of these 3 landscapes positively or negatively impact these taxa depending on management context and species of interest. Research on industrial forest lands would tie into Sustainable Forestry Initiative® monitoring and compliance efforts. Currently, this region is experiencing unprecedented demands on forest resources and is realizing harvest levels comparable to those from the early 1900's. Thus, understanding these relationships is a high priority.

2) development of restoration ecology tools in Appalachian montane spruce communities to improve habitat for the endangered Virginia northern flying squirrel and the threatened Cheat Mountain salamander, fisher, and selected avifauna such northern goshawk, saw-whet owl, red-breasted nuthatch, and blackburnian warbler. Threatened by development, mining, acid deposition, climate change, and exotic arthropods, Appalachian spruce forests are considered among the top 5 most endangered forest ecosystems in the United States. Emphasis would be placed on stand modeling to predict various future desired conditions, on employing silvicultural techniques to hasten stand development to more suitable stages for the above relict taxa or create corridor habitat linking isolated spruce "islands", and to assess the conservation value of legacy Norway and red spruce plantations.

Desired academic qualifications of the student recruit: Masters degree in Wildlife Management, Forest Resources, Zoology, Biology, or Ecology. The goal of the position would be to complete a Ph.D. program prior to conversion to a Research Wildlife Biologist.

Colleges/universities to be contacted for potential recruits: Clemson University, North Carolina State University, University of Georgia, University of Kentucky, Purdue University, University of Tennessee, Virginia Tech, and West Virginia University

Potential colleges/university to provide graduate education: West Virginia University has programs in Forest Resources (with Wildlife option) and Biology. The campus is situated centrally to potential study areas for problem 1 and is within a 1.5 hour drive of potential study areas for problem 2. West Virginia University is within a 1.5 hour drive of the Northeastern Research Station at the Fernow Experimental Forest. The university hosts a USGS BRD Coop Unit and has extremely strong programs in Forestry, Wildlife Management, and Resource Management. West Virginia Division of Natural Resources is anticipating opening a collaborative research office within the Forestry Department at West Virginia University by early 2001. Additionally, West Virginia University's Resource Management program and Geography program are recognized nationally as leaders in remote sensing and GIS applications.

Brief description of the community environment: Morgantown, West Virginia, home to West Virginia University is conveniently located 90 miles south of Pittsburgh, Pennsylvania and 175 miles west of the Washington D.C. metro area. Routinely ranked as among the most livable mid-sized communities in the United States, Morgantown is unparalleled in recreational offerings. Following the state motto, "Wild, Wonderful West Virginia", world-class whitewater, mountain biking, rock-climbing, and downhill skiing opportunities abound in the Morgantown area. Moreover, housing costs are below the national average and health care is readily accessible from the West Virginia University Medical Center and School of Medicine.

Proposed temporary housing options for the student while working away from campus :

Housing for visiting researchers is maintained at the Fernow Experimental Forest, convenient to potential study sites for both identified problems. Arrangements have been made with Westvaco Corporation to allow the use of housing facilities at the Westvaco Ecosystem Research Forest and with the West Virginia Division of Natural Resources to allow the use of maintained game protector cabins located throughout West Virginia.

Brief explanation of how this proposal supports the scientist recruitment initiative:

This proposal directly supports the recruitment initiative because it will train a scientist for a priority position within the Station.

Station priority of proposal:	Priority 1	Priority 2	Priority 3 <u>X</u>
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I understand acceptance of this proposal will result in a commitment to hire the student into a full-time permanent scientist position at my unit upon successful completion of the program.

Mary Beth Adams, Project Leader	/s/Mary Beth Adams	date 6/19/00
Bov Eav, Station Director	/s/ Bov B. Eav	date <u>6/28/00</u>