

2007 REQUEST FOR PROPOSALS

To Conduct Research on Biological Invasions in Northeastern and Midwestern Forests

Northern Research Station RWU NRS-4557 Morgantown, WV

The Forest Service, U.S. Department of Agriculture, Northern Research Station Research Work Unit (RWU) NRS-4557, Disturbance Ecology and Management of Oak-Dominated Forests, requests proposals for research on non-native species biology, ecology, and management. Proposals should address information and management gaps and further the research mission of the Northern Research Station and RWU NRS-4557. The Unit's mission is to provide methods for creating and maintaining healthy, sustainable oak-dominated forests based on a more complete understanding of ecological relationships, landscape ecology principles, silvicultural management, and non-native species population biology and to incorporate this knowledge into management guidelines and decision support systems.

The three problem areas assigned to the RWU are: (1) biology, ecology, and management of biological invasions; (2) non-native species spread dynamics and decision support for management, and (3) development of biologically- and economically-effective silvicultural treatments for rehabilitating and regenerating oak forests. Oak forests are defined broadly as the various forest types that make up the central hardwoods forest region including both conifers, such as hemlock, and other deciduous species that occur within these forest types. The Unit is responsible for cooperative research and technology transfer efforts and is implementing this RFP as part of the Invasive Species Research Initiative. This Initiative is part of the Forest Service's effort in implementing the National Campaign against Non-Native Species established by Presidential Executive Order.

Proposed Research Areas

The proposed research should focus on biological invasions of non-native species in Northeastern and Midwestern forests. Non-native pest insects, pathogens, and plants that result in serious or potentially serious economic or ecological effects are included in the scope of this RFP. Some potential organisms include hemlock woolly adelgid (*Adelges tsugae*), emerald ash borer (*Agrilus planipennis*), *Phytophthora* spp. (sudden oak death-related), Sirex woodwasp (*Sirex noctilio*), and a variety of non-native plant species that are known to invade forests, but proposals need not be limited to these species.

Some potential areas of research are: 1) hemlock woolly adelgid (HWA) host resistance, silvicultural management, and impact assessment; 2) emerald ash borer (EAB) epidemiology

(history of infestation) and spread, impact assessment, effects on ash forest resources for multiple uses, and silvicultural management; 3) *Phytophthora* spp. potential for damage to forests in the Eastern U.S., occurrence and distribution in eastern forests, phytopathogenicity of *Phytophthora* spp. on common eastern forest species, and potential impacts of *Phytophthora* spp. to eastern forests; 4) Sirex woodwasp host resistance, spread, and silvicultural management; and 5) non-native plant species biology and ecology of species that invade forests and cause regeneration problems or reduce the fitness of native forest species, mechanisms of spread into forests, interactions with disturbances, and management and control.

Scientists in NRS-4557 must be included in the proposals as cooperating scientists in the joint research. Current scientists include: Dr. Kurt W. Gottschalk, Project Leader and Research Forester; Dr. Andrew M. “Sandy” Liebhold, Research Entomologist; Dr. Gary W. Miller, Research Forester; Dr. Cynthia B. Huebner, Research Botanist; Dr. Patrick C. Tobin, Research Entomologist; and Dr. Mary Ann Fajvan, Research Forester.

PROPOSALS

Due March 30, 2007

Proposals will be reviewed for their scientific merit and for their utility to advance the Forest Service’s biological invasions research mission. A total of up to \$150,000 is available in the RFP for FY2007 pending final Congressional budgetary action. Projects can be multiyear but will be funded one year at a time with a maximum of \$30,000 per year. Projects will be funded as Research Joint Venture Agreements and must include a Forest Service scientist (listed above) as a cooperator. In accordance with Forest Service guidelines, indirect charges will not be provided for land-grant and state-affiliated institutions and will be limited to 10% for non-land grant institutions. Matching funds of at least 20% of total costs must be provided by the institution. Participation is open to scientists at universities, colleges, and private research institutions.

Proposals (see format below) are due by 5:00 pm EST on Friday, March 30, 2007 and should be submitted via email to kgottschalk@fs.fed.us – late submissions will not be accepted. Receipt of all submittals will be acknowledged as quickly as possible. For further information contact:

Dr. Kurt Gottschalk
USDA Forest Service
Northern Research Station
180 Canfield St.
Morgantown, WV 26505-3180

Phone: 304-285-1598
Email: kgottschalk@fs.fed.us

Notification of acceptance or rejection of proposals will be made by April 30, 2007. Proposals will be submitted for processing by the Forest Service by May 4, 2007 with funding availability dependent upon Cooperator and Forest Service processing time (probably 1-3 months).

Proposals will be peer reviewed by scientists of NRS-4557 and other peer reviewers as needed. Rankings by reviewers, budget requested, availability of funds, and applicability to the RWU's mission will be used to determine funding with final funding decisions by Dr. Kurt Gottschalk.

INVASIVE SPECIES PROPOSAL OUTLINE

Format: Submissions shall be on 8.5" x 11" paper with 1" margins, typing on one side only and 12-point font with no more than 6 lines per inch (standard line spacing for 12-point font). The proposal is to be submitted electronically in Microsoft Word or PDF formats. Required information must fit on **5 pages** and includes:

1. Project Title:
2. Principal Investigator: (name, institution, address, phone, fax, email)
3. Cooperators and Other Participating Institutions:
4. Amount requested: (total for first year only)
5. Project Goals and Supporting Objectives:
6. Project Justification: (relevance and significance)
7. Research Approach: (description of activities, methods, length of project, analyses)
8. Expected Products and Outcomes: (products and how they will be used)

Additional supporting material that is outside the five page limit includes:

9. Timetable of research activities
10. Literature Cited
11. NEPA Compliance
12. A one page Curriculum Vitae of each Principal Investigator/Co-Investigator (not including Forest Service Co-Investigators)

One additional item needs to be submitted along with the proposal:

13. A budget using the Agreements Financial Plan formatted Excel file titled '[Agreements Financial Worksheet.xls](#)'. The file is available for downloading by clicking on the file name.

Budgets should include the first year costs only, as agreements will be funded a year at a time. Budgets should be checked by your grants financial office before submission, as the proposal and financial plan will be used directly to set up the Research Joint Venture Agreement for those proposals that are funded. A minimum 20 percent cost sharing is required. Indirect charges can be used to meet the cost sharing requirement but one recent change requires some in-kind funding other than indirect charges – this can be PI salary, travel, supplies, etc.

The spreadsheet has been changed from previous years and includes several new items. First, the budget narrative (justification/explanation of budget items) is entered directly on the spreadsheet in the color coded remarks area (the color-coding relates to the column of budget data). Secondly, there are 3 columns of budget data that need to be completed for a Research

Joint Venture Agreement: columns (a), (c), and (d). Column (a) is where the non-cash expenses of the FS cooperator are entered and include any FS Co-PI salary, technical support salary, FS travel, supplies, etc. that we spend as part of our joint research. Column (c) is where the expenses that will be reimbursed to your organization by the FS are entered (e.g. the budget for the proposal). Column (d) is where your organization's non-cash expenses to obtain the 20% minimum match are entered and **must include more than just indirect charges to qualify as joint research**. Thirdly, the new column on FS non-cash expenses are required in order to classify the agreement as a Research Joint Venture Agreement and are included in the calculations of the agreement's total expenses and increases the 20% level of cost sharing accordingly. If you have any questions about these new requirements, please feel free to contact us.