Biological Science Technician, GS-0404-06/07

ANNOUNCEMENT NUMBER: ADS07-PSW-325D
APPLICATION DEADLINE: 8-17-2007
JOB LOCATION: Volcano, Hawaii
WORK SCHEDULE: Full Time
SALARY RANGE: $28,562.00-$31,740.00
OPEN DATE: 8-7-2007
TIME LIMIT: Term, not to exceed 13 Months
WHO MAY APPLY: US citizens - Open to State of Hawaii residents only.
NUMBER OF VACANCIES: 1
PROMOTION POTENTIAL: 07

NOTES:
17% Cost-of-Living Allowance.
Position may be extended in increments for a maximum four year term.
The USDA Forest Service has legislative authority to recruit and fill Permanent (Career-Conditional), and Term Appointments under the USDA Demonstration Project. Under this Project, interested individuals need not have present or previous status as a Federal employee in order to apply.

DUTIES: The technician will support research on insect agents for biological control of invasive plants in forests of Hawaii and other Pacific islands: conducting quarantine and field studies of host specificity, development, behavior, population dynamics and impacts of phytophagous insects; maintaining insect colonies in quarantine; organizing use of lab and bench space; performing routine maintenance and minor repairs in quarantine and plant nursery; collecting and propagating native and introduced plants.

QUALIFICATIONS: Must be a U.S. citizen and resident of Hawaii. Must have valid driver's license. Must have demonstrated experience with insect studies in a laboratory or field environment.

TO APPLY: go to www.usajobs.com and enter keyword: ADS07-PSW-325D
For more information contact Tracy Johnson, Research Entomologist:
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INTRODUCTORY STATEMENT: The incumbent is a member of the Invasive Species Team within the Institute of Pacific Islands Forestry, Pacific Southwest Research Station, USDA Forest Service. The mission of the Institute is to develop and disseminate knowledge needed to restore, protect, and sustain forests of the Pacific.
The incumbent supports the team’s mission of developing insect agents for biological control of invasive plants in forests of Hawaii and other Pacific islands. The duty station is the Hawaii Volcanoes National Park Quarantine Facility in Volcano, Hawaii.

Biological Control Research Support 60%
Conducts quarantine and field studies of host specificity, development, behavior, population dynamics and impacts of phytophagous insects. Handles independent assignments requiring use of specialized techniques. Designs, constructs and tests insect cages and other arenas according to needs of particular species or experiments. Evaluates selected aspects of insect biology, modifying existing methods or developing novel techniques if necessary.
Maintains insect colonies in quarantine according to established techniques and principles, modifying procedural details for particular insect species and host plants. Exercises initiative and personal discretion in developing solutions to technical problems.
Collects and preserves voucher specimens of phytophagous insects and associated species, recording pertinent biological data. Maintains reference collection. Obtains identifications of collected species with assistance from taxonomic experts. Performs literature and database searches and retrieval.
Equipment/Supplies/Facilities Maintenance 20%
Organizes use of lab and bench space in quarantine and nursery, coordinating activities of various scientists and projects. Instructs and monitors quarantine facility users for adherence to established standard operating procedures. Determines compliance with safety requirements, establishes inventory and equipment maintenance requirements and maintains appropriate inventories and maintenance schedules. Assists purchasing of supplies and equipment for quarantine facility and research studies. Organizes storage of supplies and equipment. Conducts and reports regular inspections of quarantine facility, noting needs for maintenance and repair. Performs routine maintenance and minor repairs in quarantine and associated plant nursery. Requests and coordinates assistance from National Park Service staff in maintenance and repairs requiring additional expertise. Coordinates maintenance of equipment such as microscopes, illuminators, cameras, balance, autoclave, environmental chambers, fans, fan controller, timers, emergency generator, irrigation system, and office equipment.

Laboratory Records and Data Analysis 10%
Collects, records, and summarizes data in a logical and systematic fashion. Performs some data analysis including arithmetic calculations, algebra, graphing of data using appropriate statistical and graphing software. Keeps a detailed log recording status of insect colonies and maintenance procedures. Develops and maintains detailed records of all experimental protocols and results in appropriate format. Data are often graphed or displayed in tables to highlight results.

Plant Propagation 10%
Collects and propagates native and introduced plants for use in quarantine and field studies. Communicates with botanists and horticulturists to determine appropriate collection sites and methods for propagating particular species. Independently coordinates work efforts with other technicians and scientists to provide plants for specified research activities. Plans propagation schedule and keeps organized records of sites and dates of collection, germination, transplanting, fertilization and other methods.

OTHER SIGNIFICANT FACTS:
Bargaining Unit Status: Eligible - Not Covered.

Factor 1-5
Knowledge Required by the Position
Knowledge of principles and techniques used in entomological research, including basic knowledge of insect taxonomy, insect life cycles, rearing techniques, methods used in field and laboratory studies of herbivorous insects, experimental design and statistics.
Skill in handling small insects, including use of a stereomicroscope.
Skill in operation and maintenance of laboratory and greenhouse equipment.
Skill in organizing and managing data, including performing preliminary analyses using appropriate computer software.
Ability to effectively organize time, space, supplies and equipment to accomplish research objectives for multiple concurrent projects.

Factor 2-3
Supervisory Controls
The supervisor or other designated authority initially provides direction on the profiles, objectives, and/or deadline for types of work previously performed by the unit and therefore covered by precedent. Assignments new to the organization or unusual assignments may be accompanied with a general background discussion, including advice on the location of reference material to use.
The technician identifies the work to be done to fulfill project requirements and objectives, plans and carries out the procedural and technical steps required, seeks assistance as needed, independently coordinates work efforts with outside parties, and characteristically submits only completed work. The technician also exercises initiative in developing his/her own solution to common technical and procedural problems such as changes in priorities, need for extended field time, minor need for additional equipment or personnel, and other such
comparable issues. However, the technician seeks administrative direction or decision from higher authority on the course to follow when encountering significant technical or procedural problems with the work. Review is usually in the form of an assessment as to how the technician resolved technical and related administrative problems encountered. These reviews emphasize the quality of judgment used by the technician in resolving technical and administrative problems noted in reports or identified by those with whom the technician interacted.

Factor 3-2
Guidelines
Guidelines include scientific literature, software manuals, Forest Service manuals and handbooks, technical literature, management and work plans, and precedent cases which are usually directly applicable. Applies judgment in selecting the appropriate guidelines covering individual work assignments. Where existing guidelines are inadequate or deviations are significant, incumbent consults with supervisor.

Factor 4-3
Complexity
The work requires the performance of various technical duties that involve differing and unrelated processes and methods. For example, the technician: (1) shifts frequently from one type of responsible technical assignment to other types which are substantially different in terms of equipment, techniques, and methods used, specific data produced, and uses to which the data will be put, (2) has ongoing or long term responsibility for limited technical and administrative concerns in a small research laboratory or a limited program or operating function; and/or (3) independently executes defined portions of more comprehensive long range projects or assists with several complex experiments which extends over several weeks. There exist a number of possible courses of action for planning as well as executing the work and the employee is given leeway or is otherwise expected to exercise discretion in choosing from among them. For example, regarding the administrative considerations noted in the preceding paragraph, at this level the technician must be aware of a variety of program and special emphasis goals and independently choose what functions to emphasize as well as how to do so. As for the technical/operational considerations noted in the preceding paragraph, at this level, the technician must determine the best methods for executing assignments. Precedented technical and procedural problems encountered in planning the work, as well as those encountered in the course of executing assignments and in preparing them for submission, are independently resolved. However, the problems encountered with which the technician copes independently have some commonality with others previously encountered in the organization.

Factor 5-3
Scope and Effect
The work involves applying both standard and unique, state-of-the-art practices and techniques to complete the project assigned. The results of the work directly affect the accuracy, reliability, and acceptability of the investigations which are the basis for biological control of forest weeds.

Factor 6-2
Personal Contacts
Personal contacts are with employees in the agency, inside and outside of the immediate organizations, e.g., personnel from higher-level organizational units, or, occasionally, resource persons from State or local government units, or other Federal agencies. In other work situations personal contacts may be with the general public, contractor personnel, or special users, e.g., special interest groups, cooperators, or businesspersons. The contacts are usually established on a routine basis, though the employee's authority may not be initially clear to the person contacted, e.g., the identity, role, and authority of the parties may have to be outlined before conducting business.

Factor 7-2
Purpose of Contacts
The purpose of personal contacts is to: plan and coordinate work efforts; explain the need to adhere to laws, rules, contract, or lease provisions; discuss inspected work and contract requirements when monitoring activity of contractors; discuss technical requirements of equipment with manufacturers and resolve problems concerning the work or the peculiar needs of the organization; interpret data obtained and explain its purpose and significance; or reach agreement on operating problems such as recurring submission of inaccurate,
untimely, incomplete or irrelevant data. The persons contacted are usually working toward a common goal and generally are reasonably cooperative. At this level, some technicians may be required to deliver information, such as how data were obtained and their opinion as to its accuracy, in court.

Factor 8-1
Physical Demands
The work requires some physical exertion, such as long periods of standing, walking over rough, uneven or rocky surfaces, recurring bending, stooping, reaching, or similar activities. Normal color and stereovision is essential. Procedures require a high degree of manual dexterity and precision for handling small, fragile insects.

Factor 9-1
Work Environment
Work is performed in office, laboratory and greenhouse environments, and sometimes in a forest environment where terrain is often uneven, rocky, and covered with thick vegetation, and where there is exposure to extremes of weather and temperature. The employee sometimes may be required to use protective clothing and equipment. Exposure to volcanic fumes is common.