

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Integrated Pest Management Plan and Educational Powerpoint for Bent's Old Fort: Focus on Invertebrate Pests

Discipline: Natural
Type of Project: Technical Assistance and Education
Funding Agency: National Park Service
Other Partners/Cooperators: Colorado State University
Effective Dates: 9/20/2008 - 12/31/2010
Funding Amount: \$4,065

Investigators and Agency Representative:

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Investigator: Boris Kondratieff, Professor of Entomology and Curator, Colorado State University Department of Bioagricultural Sciences and Pest Management, Fort Collins, CO 80523, (970)-491-7314 boris.kondratieff@colostate.edu

Project Abstract:

PURPOSE

The purpose of this project is two-fold:

- Review the 1st draft of an Integrated Pest Management Plan (IPM) at Bent's Old Fort National Historic Site (BEOL) & revise to reflect resulting recommendations.
- Assist park staff to evaluate implementation of plan after one year trial period.

BACKGROUND

BEOL is an 800 acre historic site with a reconstructed adobe fort which is on the List of Classified Structures (LCS). According to NPS policy, the 1976 reconstruction will be treated as a historic structure. It includes 34 rooms housing exhibits or historically furnished period rooms. The park is writing an IPM Action Plan, written by a natural resource specialist and a museum conservator, and will include Museum IPM as well as other cultural and natural issues at the park. This plan will benefit from review by an entomologist. The basics of IPM have been studied and implemented. This revised plan will address the more difficult challenges of mitigating the presence of dermestid beetle larvae around furs, hides and museum collections, as well as wasps tunneling into adobe walls, invertebrates that inhabit bird nests in the plaza, pigeons roosting and soiling historic structures and vehicles, and rabbits burrowing through historic foundations.

TASKS:

Dr. Kondratieff, Colorado State University (CSU) entomologist, will oversee student identification work, provide technical advice on invertebrate species that should be included in the IPM plan, and oversee student production of an educational CD. He will also review the park's IPM plan.

Dr Kondratieff will make one site visit to instruct park personnel in how to collect insect specimens. CSU personnel will make a site visit for specific sampling of bird nests, rodent nests, and search for possible focal sites for other pests. Park staff will collect most of the invertebrate specimens for the project. The park curator will place, collect, and send sticky traps to Colorado State University.

The park's IPM coordinator, working with the park's museum curator, will provide necessary equipment, supplies, and materials for the collection of specimens from the park, and produce a final project report. Therefore, the park will match the proposed RM-CESU contributions in-kind, including IPM coordinator's and the curator's salary.

Task One: The IPM specialist, curator and the Principal Investigator will continue to add pest specimens to park list and provide control advice for addition to IPM plan

Task Two: Park IPM Coordinator will provide a draft of the park's IPM Plan. The Principal Investigator will review the draft of BEOL's IPM Plan and make recommendations on the proposed control options, including chemical or biological options and source and applicator information.

Task Three: The park staff and Principal Investigator will evaluate the first year results of the implementation of the plan and make changes where it is found that either the plan was unrealistic in what the staff can maintain, improve methodologies.

Outcomes with Completion Dates:

- Identification of invertebrate species included in Bent's Old Fort National Historic Site IPM Plan
- Comments and edits on 1st draft of IPM plan section on invertebrate species
- If applicable, chemical control project, vendor and applicator information
- Assistance in evaluating implementation of plan after 1st year trial
- One-day training on insect collection methods.
- Associated project materials (field notes, drafts, photographs, electronic records) submitted to BEOL key official.

End Date of Project: December 31, 2010

Keywords: Integrated Pest Management Plan, Bent's Old Fort National Historic Site, Colorado State University