



INVESTIGATOR'S ANNUAL REPORT

United States Department of the Interior
National Park Service

All or some of the information you provide may become available to the public.

OMB # (1024-0236) Exp. Date (11/30/2010) Form No. (10-226)
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Reporting Year: 2010	Park: Big Thicket N PRES	Select the type of permit this report addresses: Scientific Study	
Name of principal investigator or responsible official: Michael Pogue		Office Phone: 202-633-4566	
Mailing address: Smithsonian Institution P.O. Box 37012, NMNH, MRC-168 Washington, DC 20013-7012 US		Office FAX: 202-786-9422 Office Email: michael.pogue@ars.usda.gov	
Additional investigators or key field assistants (first name, last name, office phone, office email)			
Name: Mark Metz		Phone: 202-786-0250	Email: mark.metz@ars.usda.gov
Project Title (maximum 300 characters): A Survey of the Noctuoidea (Lepidoptera) of Big Thicket National Preserve.			
Park-assigned Study or Activity #: BITH-00086	Park-assigned Permit #: BITH-2010-SCI-0026	Permit Start Date: Oct 01, 2010	Permit Expiration Date: Dec 31, 2011
Scientific Study Starting Date: Oct 19, 2010		Estimated Scientific Study Ending Date: Dec 31, 2015	
For either a Scientific Study or a Science Education Activity, the status is: Continuing		For a Scientific Study that is completed, please check each of the following that applies: <input type="checkbox"/> A final report has been provided to the park or will be provided to the park within the next two years <input type="checkbox"/> Copies of field notes, data files, photos, or other study records, as agreed, have been provided to the park <input type="checkbox"/> All collected and retained specimens have been cataloged into the NPS catalog system and NPS has processed loan agreements as needed	
Activity Type: Inventory			
Subject/Discipline: Invertebrates (Insects, Other)			

Purpose of Scientific Study or Science Education Activity during the reporting year (maximum 4000 characters): To begin a survey of the Noctuoidea of Big Thicket National Preserve. The Noctuoidea is the largest superfamily of moths and the following families will be surveyed: Notodontidae, Noctuidae, Nolidae, Eutellidae, and Erebidae. This survey will complement and be compared with the completed survey of Great Smoky Mountains National Park and the ongoing survey of Valles Caldera National Preserve. All specimens collected will be individually numbered and databased. The specimens will also be kept in a spreadsheet format that will be used to predict species richness using the Estimates program. This is a tool that will be used to determine when the survey has reached completion. All specimens will be curated according to collection management procedures outlined by the Department of Entomology, Smithsonian Institution. A synoptic collection will be provided to the Big Thicket National Preserve if requested.
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Findings and status of Scientific Study or accomplishments of Science Education Activity during the reporting year (maximum 4000 characters):

The Noctuoidea includes 6 families of which 5 will probably be found during this study. The study took place from Oct. 19 to Oct. 23, 2010 in Turkey Creek Unit and Hickory Creek Savannah Unit. The overall assessment of the collecting would be considered poor. This probably has to do with the time of year the collecting was conducted. A total of 53 species were collected in the following families: 1) Erebidæ 33 species, 2) Noctuidæ 18 species, 3) Nolidæ 1 species, 4) Notodontidæ 1 species. The Erebidæ makes up 26% of the North American fauna, but at Big Thicket they represented 62% of the total species collected. The Noctuidæ make up 69% of of the North American fauna, but only 34% at Big Thicket. This may indicate that the Erebidæ are more abundant during the fall. A total of 292 specimens were collected. The species, Exyra semicrocea (Guené), is a pitcher plant specialist and was collected in a pitcher plant bog in Turkey Creek Unit.

For Scientific Studies (not Science Education Activities), were any specimens collected and removed from the park but not destroyed during analysis?

Yes

If "Yes", identify where the specimens currently are stored:

National Insect Collection

National Museum of Natural History

Smithsonian Institution

10th and Constitution Ave. NW

Washington, DC 20560

Funding specifically used in this park this reporting year that was provided by NPS (enter dollar amount):

\$0

Funding specifically used in this park this reporting year that was provided by all other sources (enter dollar amount):

\$1792

List any other U.S. Government Agencies supporting this study or activity and the funding each provided this reporting year:

Paperwork Reduction Act Statement: A federal agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. Public reporting for this collection of information is estimated to average 1.625 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the forms. Direct comments regarding this burden estimate or any aspect of this form to Dr. John G. Dennis, Natural Resources (3127 MIB), National Park Service, 1849 C Street, N.W., Washington, DC 20240.