



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services

9014 East 21st Street

Tulsa, Oklahoma 74129-1428

918/581-7458 / (FAX) 918/581-7467



American Burying Beetle *Nicrophorus Americanus*

Trapping and Relocating Guidance In Oklahoma

Updated June 13, 2007

Trapping and Relocating Guidance

Introduction

This guidance is provided to aid in compliance with the Endangered Species Act. Trapping and relocating is a technique to remove ABBs from a given area prior to project soil disturbance. Trapping and relocating methods primarily follow the Service's "ABB Survey Guidance", but any captured ABBs are relocated elsewhere. The "ABB Survey Guidance" is available at <http://www.fws.gov/southwest/es/oklahoma/beetle1.htm>. The following "Trapping and Relocating Guidance" takes precedence over conflicting guidance in the "ABB Survey Guidance".

Time

Same as Service's "ABB Survey Guidance".

Timing

Same as Service's "ABB Survey Guidance".

Timeframe a Trap and Relocate Effort is Valid*

A trap and relocation effort is only valid for the immediate corresponding project for which ABBs are being removed. Project soil disturbance should commence within 5 days of completion of the trap and relocation effort.

Trap and Relocate Effective Radius*

The effective radius of a trap and relocate effort is dependent on the number of transects deployed. Each transect has an effective trapping radius of approximately 0.5 mile.

Transect Spacing*

Transects should be spaced 0.5 mile apart on all projects, both linear and non-linear.

Transect Placement*

Nonlinear projects with a radius equal to or less than 0.5 mile from the center to any given point along the perimeter should deploy transects outside the project boundary where feasible so ABBs are not lured into the project site. Transects should be spaced at 0.5 mile intervals and about 500 feet outside the perimeter of the project.

Nonlinear projects with a radius greater than 0.5 mile from the center to any given point along the perimeter should deploy transects inside the project boundary for bait to be effective. Transects should be spaced at 0.5 mile intervals so the entire project area is within the effective trapping area (a 0.5 miles radius from transect) of at least one transect.

For linear projects with a radius close to 0.5 mile in width (about 0.35 to 0.5 mile), transects should be deployed lengthwise along both long sides of the project at 0.5 mile intervals and about 500 feet away from the project perimeter where feasible. For projects with a smaller width (less than 0.35 mile), transects should be deployed alternately along both sides of the projects long boundaries at 0.5 mile intervals. (Meaning one transect should be deployed on side A and then another transect deployed 0.5 linear mile away on side B, and so on).

There are some projects where the rights-of-way or areas outside the project boundary are unavailable or too small for transect deployment. In these cases, transects can be deployed at 0.5 mile intervals inside the project boundary so the

entire project area is within the effective trapping area of at least one transect. Transects must be deployed in areas where no soil disturbance will occur or where soil disturbance has already occurred and will not be disturbed again.

Minimum Trap and Relocate Effort

Trapping and relocating efforts should begin at least three nights prior to project disturbance. If after these first three nights no ABBs are captured then the project can commence. However, if ABBs are captured anytime during these first three nights, then trapping and relocating is to continue until three consecutive nights pass where no ABBs are captured. Once three consecutive night's pass in which no ABBs are captured, then the project can commence. Once the area is disturbed (*i.e.*, area cleared, equipment is operating, human presence, etc) it is assumed that the ABB would not be attracted to the disturbed area.

Transect

Same as the Service's "ABB Survey Guidance".

Traps

Same as the Service's "ABB Survey Guidance".

Bait

Same as the Service's "ABB Survey Guidance".

Planning

Operators implementing projects during the ABBs active season, between May 20 and September 20 in Oklahoma, can implement a trap and relocation effort at any time during this period and then be able to proceed with their project.

Operators implementing projects during the ABBs inactive season, between September 20 and May 20 in Oklahoma, cannot implement a trap and relocation effort during this period. Such an effort would be ineffective because ABBs are inactive and burrowed underground. However, projects implemented during the ABBs inactive season can be planned so that the ABB is addressed prior to the onset of the ABBs inactive season. Planning ahead in the ABBs active period for projects to be implemented in the ABBs inactive period allows for the opportunity to remove ABBs from the project area, thereby allowing for project implementation during the ABBs inactive season. Near the end of the ABBs active period, trapping and relocating can be implemented in the project site to be disturbed during the ABBs inactive period. This allows for the removal of ABBs from the project area prior to the onset of the inactive season, thereby allowing the commencement of project construction in the ABBs inactive season.

Trapping/relocating near the end of the ABBs active season must be conducted for 6 consecutive nights starting September 14. The increase in required trapping/relocating nights from 3 to 6 is due to temperatures in September starting to decline and ABBs becoming less active. Consequently, a larger, longer effort is needed to lure ABBs out of a project area.

Another option to avoid impacts to ABBs during their inactive period is to postpone or move up the date of project implementation to coincide with the ABBs active season so trapping and relocating can be implemented.

Setting and Checking Traps

Same as the Service's "ABB Survey Guidance".

Disturbed bait or traps

Same as the Service's "ABB Survey Guidance".

Processing ABBs

All ABBs captured and relocated must be marked with a numbered, colored bee tag. No other type of marking is allowed unless specifically authorized by the Service, this include clipping of the elytra. Guidance on the use of bee tags is described in Service's "ABB Survey Guidance".

Holding and Transporting ABBs

ABBs to be held for transport must be confined in a hard plastic container. The container must contain a damp paper towel, meal worms for food, and puncture holes for air. Containers must be placed in a cooler with

adequate coolant to keep the temperature at approximately 60 to 65 degrees Fahrenheit. Each ABB should have 6 square inches of surface area. Keep coolers out of the sun while in the field, and during transport. During transport the cooler should be in air-conditioned vehicle. ABBs can only be held in this manner for 3 hours.

ABB Release

All relocations of ABBs must be coordinated and approved by the Service prior to initiating any trap and relocation effort. Release locations must have documented current occurrences of ABBs. Prior written approval from the landowner must be obtained before ABBs can be released.

Reporting

A 'Trapping and Relocating Form' must be completed and submitted to the appropriate Service Field Office within 30 days of relocation effort.

Accidental Death

Same as the Service's "ABB Survey Guidance".

Protocols and Forms

All forms can be downloaded from the Oklahoma Ecological Services Field Office's website <<http://www.fws.gov/southwest/es/oklahoma/beetle1.htm>>.

***Trap and relocation radius and validity, and transect placement and spacing are more restrictive for "ABB Trapping and Relocating Guidance" than the Service's "ABB Survey Guidance" because ABB surveys are only aimed at determining the presence or absence of ABBs. Trapping and relocating is aimed at removing all ABBs from the project area.*Transects and trap design should follow the Services "ABB Survey Guidance" dated April 6, 2005.**

This guidance was developed from the U.S. Fish and Wildlife Service's July 14, 2005, "ABB Survey Guidance" and a U.S. Fish and Wildlife Service Working Group on May 6, 2004. The Oklahoma Ecological Services Field Office, in coordination with other Field Offices, update this protocol as necessary due to new findings. The purpose of this guidance is to streamline and update American burying beetle trap and relocate recommendations among the Arkansas, Oklahoma, Kansas, and Arlington, Texas Field Offices.

AMERICAN BURYING BEETLE RELOCATION DATA FORM

PERMITTE INFORMATION

Endangered Species Permit # _____
 Permittee Company: _____ Permittee: _____

PROJECT INFORMATION:

Project Company: _____ Project Name: _____
 Fish & Wildlife Section 7 Consultation #: _____ Project Size: _____

SUMMARY INFORMATION

Trap and Relocation Start Date: _____ End Date: _____
 3 Days With No ABB Captures, Start Date: _____ End Date: _____

CAPTURE DATA

Date: _____ State: _____ County: _____

Landowner _____ General Location: _____

(nearest town, mngt. area, etc.)

Legal Description: _____ Decimal Degrees: _____ / _____ Projection: NAD83
 (township, range, section to quarter)

Dominant Vegetative Species: _____ Primary Soil Type: _____

(Refer to County Soil Survey)

Temp*: _____ °F Wind*: _____ mph Cloud Cover*: _____ % Rain: yes or no

RELEASE DATA

Date: _____ State: _____ County: _____

Landowner _____ General Location: _____

Legal Description: _____ Decimal Degrees: _____ / _____ Projection: NAD83
 (township, range, section to quarter)

Dominant Vegetative Species: _____ Primary Soil Type: _____

(Refer to County Soil Survey)

Temp*: _____ °F Wind*: _____ mph Cloud Cover*: _____ % Rain: yes or no

LIST EACH ABB CAPTURED AND TRANSLOCATED

Tag# *	Sex*	Age*	Time Captured	Time Released	Death (Y/N)

*Weather data refers to current conditions.
 Old=breeding adult, born the previous year; Young=newly eclosed adult; Unknown=age or sex cannot be determined.
 Tag# refer to color and number of bee tag.