

**Protocol  
For  
Incidental Take Authorization**

**Butler's Garter Snake (*Thamnophis butleri*)**

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Note

*If carrying out a given protocol is not feasible, or multiple listed species in a given management area pose conflicts, contact the Bureau of Endangered Resources at 608/264-6057. Staff in BER will work with Integrated Science Services (Research) staff, species experts and managers to establish an acceptable protocol for a given site that will allow for incidental take without further legal Consultation or public notice*

**I. Species Background Information**

**A. Status**

**State Status:** Threatened.

**USFWS Region 3 Species of Management Concern:** No

**Number of Known WI Sites:** Less than 20.

**Global Range:** Found in NE Indiana, SE Michigan, NW Ohio, extreme SW Ontario and the disjunct population in SE Wisconsin which includes Milwaukee, Ozaukee, Waukesha and Washington counties.

**B. Habitat**

**General Habitat Description:** Inhabits wet-mesic prairies, sedge meadows, shrub-carrs, fresh (wet) meadows, low prairies, marshes, and grasslands, savannas, old fields and vacant weedy lots. Generally, habitat must include the interface of a wetland and upland component, both of which lack closed canopy. They are most visible under cover objects such as boards and rocks.

**Over-wintering Habitat:** Wetlands are considered critical for this species as they provide overwintering habitat where the snake can avoid desiccation during dormancy. They hibernate in crayfish burrows, root canals or other crevices that allow them access to adequate groundwater below the frost line. Hibernation in man-made structures, such as buried foundations and landfills, is common.

C. Life History

**Home Range:** One Michigan study determined an activity range of 3,000 yds<sup>2</sup>. The small areas that are known to support populations suggest that only a few acres (or less) may be occupied during the annual activity cycle.

**Communal Behaviors:** Butler's garter snakes are colonial. In some populations females are known to congregate during the incubation of their developing young, but this may be due to the availability of specific, yet to be qualified, microhabitat conditions.

**Site Fidelity:** It is highly probable that hibernation sites are used annually, especially those that are more permanent in nature.

**Breeding:** Mating usually occurs in spring following emergence from hibernation. Females produce 4-19 young that are live-born between early July to mid-September. Young mature in their second full year.

**Activity periods:**

Seasonal: First become active shortly after frost-out in March or early April, often triggered by a spring rain. They remain active near the hibernation site until temperatures warm enough to trigger dispersal to adjacent uplands (sometime in April), although some may remain in the wetlands throughout the season. They typically remain active into October but may remain active into November if temperatures remain above normal. Butler's garter snakes are usually the last garter snake to emerge in spring and the first to return to dens in the fall.

Daily: Usually active during the day. They tend to bask earlier in the day to elevate their body temperatures and often spend much of the day under cover foraging or resting.

II. Management Protocols For Authorizing Incidental Take

If the management activity is for the purpose of recovering, maintaining or improving the grassland, prairie or savanna ecosystem that includes habitat for Butler's garter snakes, then incidental take is allowed if these conditions are followed.

If incidental take of Butlers' garter snakes results from the activity, please notify BER so we can reevaluate this guidance.

**A. Burning:**

1. If burning will be done between Nov. 1 – March 15 , there are no restrictions.
2. If burning will be done between March 16 – October 31, then only up to 25% of the available grassland habitat for that site (*see definition*) should be burned in any one year.

**B. Mowing/Haying:**

Herbaceous mowing and brush-mowing should be done as follows:

1. Conduct mowing in small patches in a monthly rotational pattern, with no more than 33% of the available grassland habitat on the site (*see definition*) affected in any one year.
2. Mower blades should be set a minimum of 8 inches off the ground.
3. Conduct when weather conditions are most likely to avoid snake activity:
  - a. during the hottest period of the day when sunny conditions prevail and air temperatures exceed 80° F, OR
  - b. on very cool, overcast days when temperatures are below 50° F

**C. Selective Brush/Tree-Cutting:**

Selective cutting (i.e. chain saw), may be done without restriction.

**D. Grazing:**

Light-to-moderate grazing (<1.0 head per acre) may be used in rotations among habitat patches, with no more than 33% of the available habitat on the site (*see definition*) grazed in any one year. Grazing should be discontinued in a patch as soon as 50% of the grasses and forbs in a grazed patch are cropped to 8 inches in height. For heavier grazing, contact Bob Hay in BER.

**E. Herbiciding:**

To the maximum extent possible, herbiciding should occur during the snake's dormant period (Nov. 1- March 15).

Where active season herbiciding is necessary to control herbaceous vegetation, spot treat, preferably with a low persistence/short half-life herbicide (i.e. Round-up®), using wick, sponge or hand-held spray applications, not broadcast spraying.

Basal-bark or cut-stump-treatment methods should be used when treating woody vegetation.

## Definitions

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**Definition of “Site”:** A given field or habitat patch and all of the directly adjoining (contiguous) suitable grassland or open-canopy wetland habitat that is under DNR ownership or for which there is a management agreement.