

Plains Spadefoot - *Spea bombifrons*

Abundance: Unknown

Status: NSSU

NatureServe: G5 S4

Population Status: Widely distributed, population numbers and threats are unknown.

Limiting Factor: Habitat: requires water for breeding and loose soils

Comment: Changed from NSS4 in 2005 due solely to changes in the matrix.

Introduction

The Plains Spadefoot Wyoming range includes all eastern and central counties, as well as the Big Horn Basin (Baxter and Stone 1985). Within Natrona and Carbon Counties, the Plains Spadefoot's range meets the range of the Great Basin Spadefoot. However, ranges of these two species are thought to abut and not overlap. As an adaptation to arid habitats, Plains Spadefoots spend most of their lives in underground burrows. Because of this habit, spadefoots are commonly found in loose well drained soils. Plains Spadefoots emerge from their burrows during moist humid nights to forage on spiders, moths, ants, beetles, and other invertebrates. The Plains Spadefoot usually waits for heavy rains or irrigation runoff to fill roadside ponds, stock tanks, and other ephemeral pools before breeding. Although permanent bodies of water may be utilized for breeding, this species prefers ephemeral water. Breeding activity occurs from May through July. Eggs are deposited in elliptical masses of 250 or more ova. Egg masses are attached to submerged vegetation. Eggs hatch in two to three days and larvae usually complete transformation in 36 to 40 days.

Habitat

The Plains Spadefoot prefers plains grasslands and sagebrush communities below 6,000 feet in elevation. It prefers loose and well drained soils that can be found in floodplains, prairies, and loess hills (Farrar and Hey 2005).

Problems

- h Alteration of aquatic habitats needed for breeding may adversely affect populations.
- h Development could compact soils and limit burrowing.
- h Habitat changes and other factors may be adversely affecting this species, but lack of data precludes identification of specific problems and development of management recommendations
- h Population status, distribution, habitat data, and disease status are lacking for this species.

Conservation Actions

- h A systematic study of this species should be conducted with respect to distribution, abundance, habitat associations, and disease status within Wyoming.
- h Continue efforts to educate landowners and the public about the importance of amphibians.
- h Develop management recommendations based on survey data.

Monitoring/Research

Conduct baseline surveys to gain better understanding of species distribution within the state.

Recent Developments

Amphibians have received increased attention within Wyoming. Incidental observations are encouraged to be reported to the herpetology program.

References

- Baxter, G.T. and M.D. Stone. 1985. Amphibians and Reptiles of Wyoming. Second Edition. Wyoming Game and Fish Department, Cheyenne. 137pp.
- Farrar E. and J. Hey. 2005. *Spea bombifrons* Cope, 1863 Plains Spadefoot. Pages 513-517 in M.J. Lannoo (ed), Amphibian Declines: The Conservation Status of United States Species. University of California Press, Berkeley, CA.

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SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Natural Diversity Database. University of Wyoming, Laramie, Wyoming. Note that brown indicates the predicted distribution of the species; heavy black lines indicate outermost boundaries of possible occurrence.