

Plains Spadefoot - *Spea bombifrons*

Abundance: Abundant

Status: NSS4 (Bc)

NatureServe: G5 S4

Population Status: Widely distributed within known range, populations appear abundant in places. Limiting factors are moderate, but may be increasing across the landscape.

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

Comment: Changed from NSSU to NSS4(Bc) due to what we have learned about the species over the past 6 years.

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.

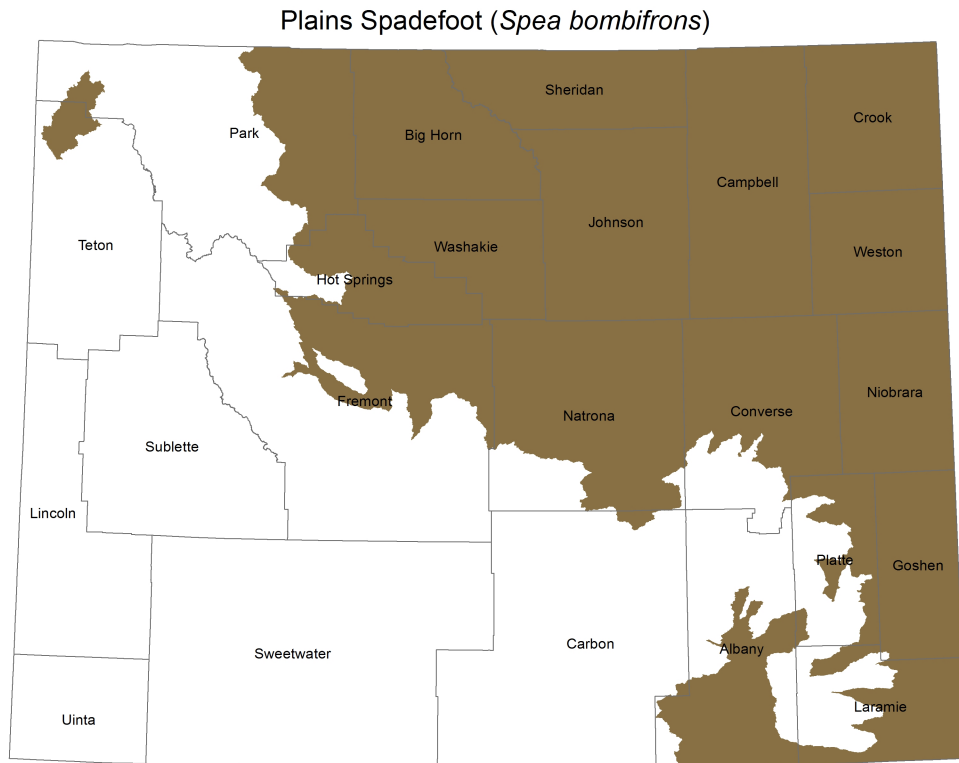
Recent Developments

Baseline surveys have been conducted in southeast and northern Wyoming to better understand herpetofaunal assemblages and distribution (Snoberger and Walker 2013). Many new populations were documented during these surveys. Genetic samples for both Plains Spadefoots and Great Basin Spadefoots have been collected across the state since 2011 in order to determine if these species' ranges overlap or if these species interbreed. Plains Spadefoots have been tested for chytrid fungus across the state. None of these samples have tested positive for the fungus thus far. 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.



SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need: February 2016. Wyoming Game and Fish Department. Note that brown indicates the current known range of the species.