

## A Preliminary Description of Wyoming Pocket Gopher Habitat

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Approximately 10 individual Wyoming pocket gophers (*Thomomys clusius*) have been captured since the species was rediscovered and its habitat briefly defined by Thaeler and Hinesley (1979)<sup>1</sup>. All of these recent captures occurred in 2008, the majority of which were due to the efforts of Hayden-Wing Associates, LLC. This brief habitat description represents field observations made at capture sites by WYNDD and Hayden-Wing employees. Given the small sample size and qualitative nature of the observations, we expect that this description will be improved greatly by the fall of 2009 following another field season of trapping.

Despite historic habitat descriptions, ridge-top topography does not seem to uniquely characterize suitable habitat for Wyoming pocket gophers, although most sites seem to be at least moderately sloped. They can be found in many different soil types, although rarely in soils with greater than 60% clay. It appears that vegetation composition may be more important, with *T. clusius* occurring primarily in small 'islands' of low vegetation within a sagebrush matrix (e.g. Figures 1 – 3). Wyoming big sagebrush is often a minor component of the vegetation where *T. clusius* are found, with cushion plants, grass, rabbit brush, and other low shrubs and forbs dominating the immediate vicinity (e.g., Table 1). Wyoming pocket gophers have *NOT* been found in flats dominated by greasewood, valley bottoms, sand dunes or areas where medium to high Wyoming big sagebrush dominates the vegetation community.

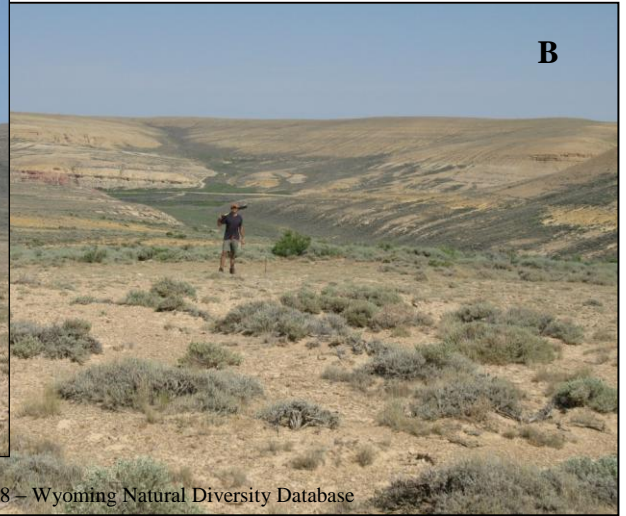
It is our opinion that a site that does not approximate the above description is unlikely to contain *T. clusius*. However, because the northern pocket gopher's (*Thomomys talpoides occlusus*) range overlaps with that of *T. clusius*, and it has been trapped within 200m of *T. clusius*, this habitat description will undoubtedly encompass sites where both or either species could occur. Thus, once a pocket gopher site has been found that fits the above description, it is necessary to confirm the presence of *T. clusius* by capturing animals.

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<sup>1</sup> Thaeler, C.S., Jr. and L.L. Hinesley. 1979. *Thomomys clusius*, a rediscovered species of pocket gopher. Journal of Mammalogy 60: 480-488.

**Figure 1. A:** Landscape-level photograph of *T. clusius* habitat from the western edge of its known range (near Bitter Creek, Wyoming), with mound locations circled in red.

**B:** Close-up of this area, where gopher mounds were found **only** where the surveyor is standing, not in the shrubby areas of the foreground or background.



**Figure 2:** Photograph of *T. clusius* habitat from the eastern edge of its suspected range, near Rawlins, Wyoming. Photograph provided by Craig Okraska of Hayden-Wing Associates and used here with permission.



**Figure 3:** Photograph of *T. clusius* mounds and associated habitat from the western edge of their suspected range; notice the size and formation of fresh mounds and how rocky the surrounding soil is.



**Table 1:** Vegetation from a site of known *T. clusius* occurrence south of Bitter Creek, Wyoming.

<b>Form</b>	<b>Species</b>	<b>Common Name</b>	<b>Abundance on Site</b>
<b>Grass</b>	<i>Elymus elymoides</i> var. <i>elymoides</i>	Bottlebrush Squirreltail	Common
<b>Shrub</b>	<i>Atriplex canescens</i>	Four-wing Saltbush	Very Common
<b>Grass</b>	<i>Poa secunda</i> var. <i>secunda</i>	Sandberg Bluegrass	Very Common
<b>Shrub</b>	<i>Atriplex confertifolia</i>	Shadscale	Common
<b>Large Shrub</b>	<i>Artemisia tridentata</i> var. <i>tridentata</i>	Basin Big Sagebrush	Uncommon
<b>Large Shrub</b>	<i>Atriplex confertifolia</i>	Shadscale	Uncommon
<b>Grass</b>	<i>Achnathemon hymenoides</i>	Indian Ricegrass	Uncommon
<b>Shrub</b>	<i>Krascheninnikovia lanata</i>	Winterfat	Rare
<b>Shrub</b>	<i>Gutierrezia sarothrae</i>	Snakeweed	Rare
<b>Shrub</b>	<i>Sarcobatus vermiculatus</i>	Greasewood	Very rare
<b>Grass</b>	<i>Elymus laceolatus</i> var. <i>lanaolatus</i>	Thick spike wheatgrass	Only found by road
<b>Forb</b>	<i>Cryptantha sericea</i>	Silky crytatha	Only found by road