Habitat Description
Grows on raw shale barrens and oil shale barrens of the Evacuation Creek and Parachute Creek Member of the Green River Formation. Soils are xeric, calcareous, fine-textured, whitish or reddish clays overlain by a white shale chips and clammers. Species diversity is low and vegetative cover is sparse. Occurs between 5000 and 6800 ft elevation.

Associated species can include
Amelanchier utahensis, Aquilegia barnebyi, Artemisia nova, Artemisia tridentata, Atriplex confertifolia, Cercocarpus montanus, Chamaelauchaenactis scaposa, Chrysothamnus viscidiflorus, Cirsium barnebyi, Eriogonum ephedroides, Forselletia meionandra, Gutierrezia sarothrae, Leymus salinus, Machaeranthera grindelioides, Mentzelia multicaulis, Oryzopsis hymenoides, Pinus edulis.

Similar species of similar habitat
Thick leaf beardtongue, Penstemon pachyphyllus, may be found on white shale barrens, but this species has more glaucous herbage, +/- epetiolate obovate leaves and obtuse to rounded to emarginated leaf apices.

Phenology and Reproductive Biology
White River Beardtongue is believed to be long-lived, due to the persistence of a relatively substantial, branching woody caudex. Most plants begin to flower after the woody crown reaches 4 cm. Anthesis is in late May to early June, and seeds mature by late June to early July (USFWS, 2005). Pollinators include native bees, bumblebees and hummingbirds.

Current Distribution
Distribution –wise, White River beardtongue follows along the White River from Ignacio Bridge northeast nearly to the Utah / Colorado state line. Other occurrences are known in Weaver Canyon, Hells Hole Canyon Ridge, and in the drainages of Evacuation Creek near Park Canyon, Rainbow and Watson.

Key points:
- Corolla mostly less than 25 mm long, calyx less than 8mm long.
- Corolla pale blue lavender, glabrous or only moderately glandular, stems and calyx green, not cyaneous; shoots ascending-erect.
- Leaves linear to linear-lanceolate, mostly less than 7 mm wide. Corolla pale lavender, Green River Formation, oilshale habitats in Uintah County.