



About Amphibians in the Blanco



Texas Blind Salamander

Habitat and Population

Amphibian habitat along the Blanco River is limited to riparian cover and immediate areas influenced by spring outflows. Population distributions, especially with salamanders, appear to be extremely limited and patchy and are dependent on constant water temperatures near spring openings. Amphibians in many ecosystems can be considered keystone species and are good indicators in bio-assessments of the health of aquatic systems (EPA 2002).

The Blanco River Basin Ecological Significance

The Blanco River Springs Salamander is found only in the Blanco River flowing through Blanco, Hays and Kendall Counties (Figure 19). This salamander's habitat is limited to freshwater springs and has been found predominantly in Fern Bank Spring, Peavey's Springs, Boardhouse Springs, Zercher Spring, Grapevine Cave, and T Cave within the River¹.

Threats

Several other threatened and endangered salamanders with specific habitat requirements are found in the Blanco River and its tributaries (table 2). With such a narrow and specific range of habitat, the successful management of such organisms depends on several critical factors, including water quality and quantity parameters which can be greatly influenced by development and other human activities.

¹ Geoffrey Hammerson 2010. Eurycea Pterophila. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.4. www.iucnredlist.org (Accessed September 2010).



Increased incidences of disease and malformations from introduced contaminants are common due to their vulnerable thin, moist, and highly permeable skins and shell-less eggs (EPA 2002).

General habitat alteration and loss, due to destruction of riparian zones or inadequate spring flows from excessive pumping, has impacted populations who have restricted home ranges and limited dispersal abilities.

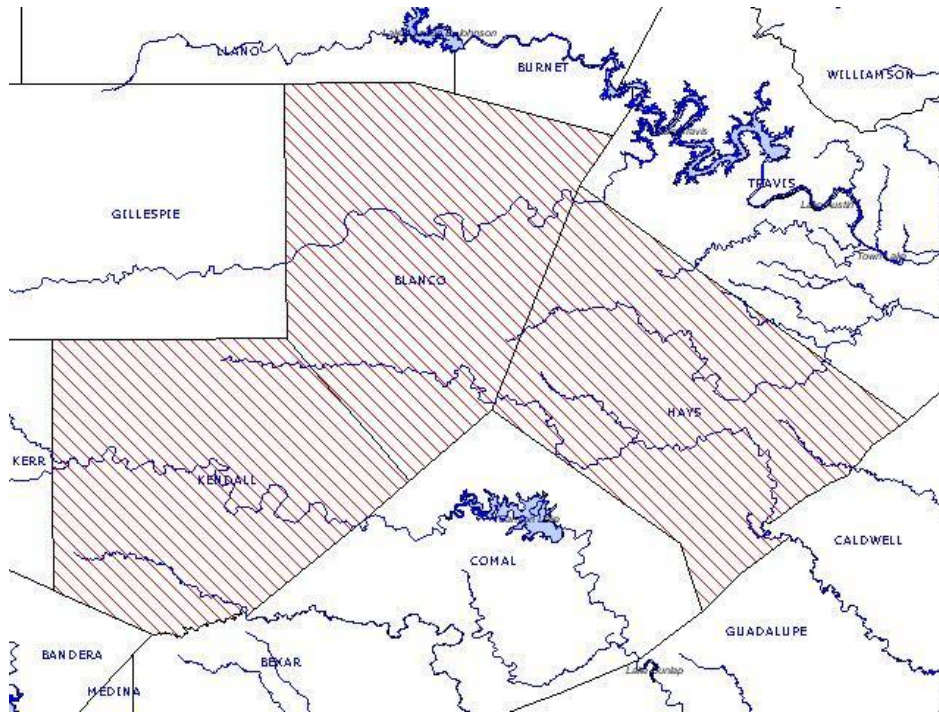


Figure 19 Potential or Known Presence of Threatened Blanco River Springs Salamander (TPWD 2006).



Table 2 Threatened, Endangered and Rare Amphibians (TPWD).

Common Name	Habitat Description	Location within Basin
Blanco blind salamander	troglobitic; water-filled subterranean caverns; may inhabit deep levels of the Balcones aquifer to the north and east of the Blanco River	Hays
Blanco River springs salamander	subaquatic; springs and caves in the Blanco River drainage	Kendall, Blanco Hays
Cascade Caverns salamander	endemic; subaquatic; springs and caves in Medina River, Guadalupe River, and Cibolo Creek basins within Edwards Aquifer area	Comal, Kendall
Comal blind salamander	endemic; semi-troglobitic; found in springs and waters of caves	Comal, Kendall
San Marcos Salamander	headwaters of the San Marcos River downstream to ca. ½ mile past IH-35; water over gravelly substrate characterized by dense mats of algae (Lyng bya) and aquatic moss (Leptodictyum riparium), and water temperatures of 21-22 O C; diet includes amphipods, midge larve, and aquatic snails	Hays
Texas Blind Salamander	troglobitic; water-filled subterranean caverns along a six mile stretch of the San Marcos Spring Fault, in the vicinity of San Marcos; eats small invertebrates, including snails, copepods, amphipods, and shrimp	Hays