



BENT'S OLD FORT

Amphibians and Reptiles

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Importance

Amphibians and reptiles (herps) represent an important part of aquatic and terrestrial ecosystems. They eat a wide variety of invertebrate species, and, in turn, they are prey for many fish, bird, and mammal species. The American Southwest is well known for its abundance and diversity of reptiles. Although this region is less known for its amphibian populations, they too can be quite abundant in some habitats and are good indicators of environmental change due to their sensitivity to a variety of factors such as pollution, introduced species, drought, habitat destruction, and disease. Herp populations may be affected by these factors and exhibit measurable changes in site occupancy, distribution, abundance, and species richness.

Status and Trends

Prior to 2001, scant information existed on vertebrate species, including herps, at Bent's Old Fort National Historic Site (BEOL). However, biological inventories conducted by the Colorado Natural Heritage Program in 2001 and 2002 targeted the site's herpetofauna and provide baseline data. The

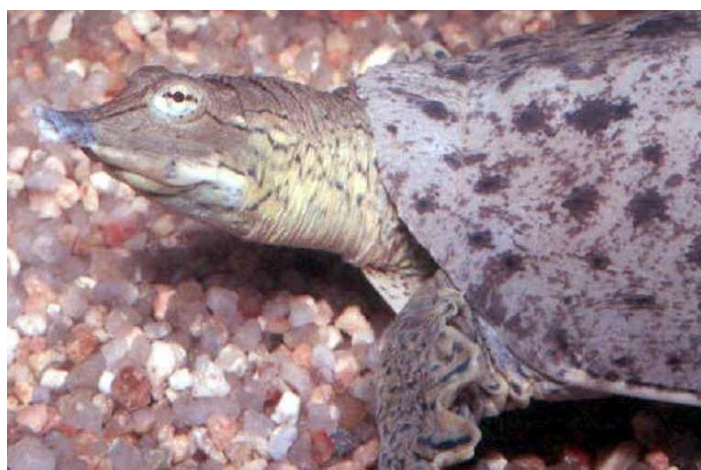
same three species of amphibians were documented during each of the surveys: the bullfrog (*Rana catesbeiana*), Plains leopard frog (*Rana blairi*), and Woodhouse's toad (*Bufo woodhousii*). Numerous observations were made of both the Plains leopard frog and Woodhouse's toad. The number of species documented in 2001 as a function of search effort appears in Figure 1; additional time spent



American Bullfrog

on visual encounter surveys was unlikely to detect new species. Although not found, eight additional amphibian species are on a master list for BEOL.

The reptile master species list for BEOL contains 24 species, including three species of turtles, seven species of lizards, and 14 species of snakes. The following seven species were documented during the 2001 survey: the spiny softshell turtle



Spiny softshell turtle

(*Apalone spinifer*), Texas horned lizard (*Phrynosoma cornutum*), six-lined racerunner (*Cnemidophorus sexlineatus*), Great Plains skink (*Eumeces obsoletus*), bullsnake (*Pituophis catenifer*), Plains garter snake (*Thamnophis radix*), and Western rattlesnake (*Crotalus viridis*). No additional species were recorded in the 2002 survey.

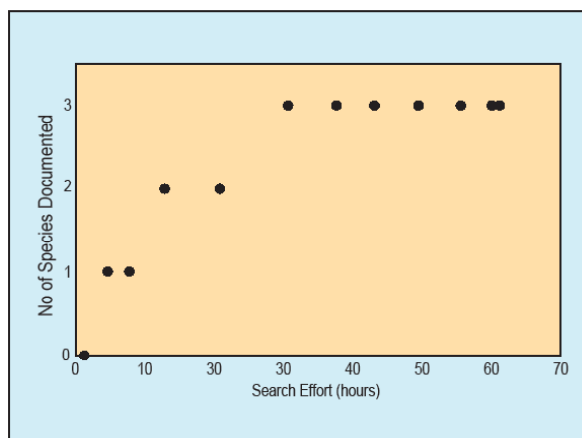


Figure 1. Amphibian species accumulation by effort function (visual encounter surveys).

Discussion

Bullfrogs were recorded during auditory surveys and day-time visual searches, but their density appeared low. The presence of this species at BEOL is of concern because bullfrogs have the potential to disrupt amphibian community ecology and cause the extirpation of local, native anuran populations.