



# Southwest Regional Gap Analysis Wildlife Habitat Relationship

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<b>ID</b> 2216	<b>Model Name</b> SWReGAP 173438
<b>Taxa code (ITIS)</b> 173438	
<b>Scientific Name</b> Rana clamitans	
<b>Common Name</b> green frog	
<b>Created By</b> wrieth	<b>Last Modified By</b> wrieth
<b>Date</b> 6/18/2003 12:46:35 P	<b>Date</b> 7/22/2005 6:41:37 PM
<b>Sensitive Data</b> <input type="checkbox"/>	

**Model Description** FINAL SWREGAP. This species' model was not externally reviewed. HYDROLOGY OR LANDCOVER.

**Background** The green frog is a native of the east coast of North America. It was introduced into the West (probably from aquaria trade) and is now known from British Columbia, Washington, and Utah (Stebbins 2003; Lannoo, in press). In the SWReGAP region this species is known from only two river systems in Utah. In 1961, two were found in Hooper Canal, Ogden, Utah then more were found in six other sites along Ogden and Weber Rivers, Utah; well-established along the lower Weber River drainage system (Behle and Erwin 1962).

Usually found along shorelines of any permanent or temporary water with submerged or emergent vegetation, including marshes, lakes, streams, springs, and man-made water bodies (Knutson et al. 2000; Stebbins 2003). Requires water that does not freeze in winter (Lamoureux and Madison 1999). Major dispersal routes include streambanks and drainage ditches (Carr and Fahrig 2001).

Needs water to breed (Martof 1953; Lamoureux et al. 2002). In the East it is found within 20-30 m of a water source (Bohnsack 1951; Martof 1953; Lannoo et al. 1998). In Utah the species was always found within 1 m or less of water (Behle and Erwin 1962). The species is a water obligate, therefore we selected a distance to water in the 0-50 m category. This model used an "OR" overlay where habitat was predicted based on selected landcover types OR hydrology in order to capture streams that were smaller than mapping resolution of the landcover.

In eastern North America, the species occurs from 10 to 1250 m (Berven et al. 1979). However, the city of Ogden, where the species was found in Utah, has an elevation of 1362 m. No elevation was used in the model because there were no data available on this attribute for introduced green frog populations in the West.

**Description Changes** 2/15/05: edited Background; changed elevation based on Utah range; changed distance to water from 30 m to 50 m to fit in the 0-50 m category; changed range code to K34 and added citations; removed intermittentstreams and

temperature (SWReGAP Internal Review 2004).7/22/05: Final edits; minor editing of background; removed elevation; added "or" statement.

## Relationships

<b>Elevation</b>	n/a
<b>Slope Min</b>	n/a
<b>Precipitation</b>	n/a
<b>Temperature</b>	n/a
<b>Soil Depth</b>	n/a
<b>Aspect</b>	n/a
<b>Landform</b>	n/a
<b>Distance to Water</b>	0 - 50m from Permanent Streams, Lakes, Springs, Wetlands
<b>Soil associations</b>	n/a
<b>Mountain Ranges</b>	n/a
<b>Ecological System</b>	S093 Rocky Mountain Lower Montane Riparian Woodland and Shrubland S100 North American Arid West Emergent Marsh S118 Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland

### Citations

Stebbins, R.C 2003 A field guide to western reptiles and amphibians. Third Edition Houghton Mifflin, Boston

Berven, K.E., D.E. Gill, and S.J. Smith-Gill 1979 Countergradient selection in the green frog, *Rana clamitans* Evolution 33: 609-623

Behle, W.H. and R.H. Erwin 1962 The green frog (*Rana clamitans*) established at west Ogden, Weber County, Utah Proceedings of the Utah Academy of Science 39: 74-76

Bohnsack, K.K. 1951 Temperature data on the terrestrial hibernation of the green frog, *Rana clamitans* Copeia 1951: 236-239

Carr, L.W. and L. Fahrig 2001 Effect of road traffic on two amphibian species of differing vagility Conservation Biology 15: 1071-1078

Knutson, M.G., J.R. Sauer, D.A. Olsen, M.J. Mossman, L.M. Hemesath, and M.J. Lannoo 2000 Landscape associations of frog and toad species in Iowa and Wisconsin, USA Journal of the Iowa Academy of Science 107: 134-145

Lamoureux, V.S. and D.M. Madison 1999 Overwintering habitats of radio-implanted green frogs, *Rana clamitans* *Journal of Herpetology* 33: 430-435

Lamoureux, V.S., J.C. Maerz, and D.M. Madison 2002 Premigratory autumn foraging forays in the green frog (*Rana clamitans*) *Journal of Herpetology* 36: 245-254

Lannoo, M.J., J.A. Holman G.S. Casper, and E. Johnson 1998 Mummification following winterkill of adult green frogs (Ranidae: *Rana clamitans*) *Herpetological Review* 29: 82-84

Martof, B. 1953 Home range and movements of the green frog, *Rana clamitans* *Ecology* 34: 529-543

Martof, B. 1953 Territoriality in the green frog, *Rana clamitans* *Ecology* 34: 165-174

Lannoo, M.J. (ed) *Status and Conservation of U.S. Amphibians* University of California Press, Berkeley