



Southwest Regional Gap Analysis Wildlife Habitat Relationship

ID	1938	Model Name	SWReGAP 173440
Taxa code (ITIS)	173440		
Scientific Name	Rana sylvatica		
Common Name	Wood frog		
Created By	lobrien	Last Modified By	cmettenbrink
Date	1/1/2004	Date	7/28/2005 11:15:29 AM

Sensitive Data

Model Description Wood Frog
Rana sylvatica
Entire Range
Landcover "or" Hydrology
SWREGAP Final Model

Background Utilize a broad range of aquatic and moist habitats (Muths et al. 2005). Breeding ponds may be permanent, semi-permanent, or temporary; and non-breeding habitat is consistently moist and humidity is important for microhabitat (Muths et al. 2005). In Colorado, wood frogs inhabit subalpine marshes, bogs, pothole ponds, beaver ponds, lakes, stream borders, wet meadows, willow thickets, and forests bordering these mesic habitats (Hammerson 1999). Lodgepole pine and aspen are found near most breeding sites (Hammerson 1999). In the Rocky Mountains, wood frogs are associated with adjoining grassy meadows, willow bogs, coniferous forests, and aspen groves (Muths et al. 2005). Colorado wood frog habitat requirements include small (<0.25 ha), semi-drainage ponds of natural origin, less than 1m deep, fish free, with emergent vegetation (Muths et al. 2005). May also use inactive beaver ponds and man-made ponds if topographical features are suitable (Muths et al. 2005). Wood frogs may also use roadside ditches or depressions, but many locations dry before metamorphosis is completed (Muths et al. 2005). *Carex rostrata*, a shade-intolerant sedge, is an indicator species for wood frog breeding sites in Colorado (Muths et al. 2005). Eggs are laid in shallow water (NatureServe) such as bogs, forested wetlands, herbaceous wetlands, riparian, and shrub-dominated wetland (NatureServe, Hammerson 1999). Sedge-meadows, hummock-bogs, forest floor leaf litter, fallen trees, branches and roots, are used extensively in the post-breeding season (Muths et al. 2005). After dispersing from breeding sites, use willow-wet meadow mosaics and forested and willow-bordered stream courses (Hammerson 1999). May move out of forests when breeding but favors shade (Stebbins 2003). In summer, found along marshy ponds and other wetlands; in winter, hibernates in holes under logs or rocks in forested areas, or rodent burrows or similar underground sites (Hammerson 1999). According to Stebbins (2003) found from sea level to 3050m; in Colorado found from 2400- 3048m (CWSD). In cooler parts of range (northwest), it is chiefly

diurnal and less of a forest dweller, being found in open grassy areas bordered by thickets of willow and aspen, and in tundra ponds with spruce or other trees often present nearby (Stebbins 2003). In the eastern extent of range, *R. sylvatica* is truly a wood frog inhabiting damp shady woods and forests near clear streams and leafy pools (Stebbins 2003).

Description Changes Import of CO-GAP data; removed intermittent water; SWREGAP Internal Review 2004- add landforms 1-4; removed S025- not in species range; adjusted range map according to expert reviewers in Colorado and added recovery plans to citations;

Relationships

Elevation	2400 - 3050;
Slope Min	n/a
Precipitation	n/a
Temperature	n/a
Soil Depth	n/a
Aspect	n/a
Landform	valley flats; toe slopes, bottoms, and swales; gently sloping ridges and hills; nearly level plateau or terrace;
Distance to Water	0 - 100m from Permanent Streams, Lakes, Springs, Wetlands
Soil associations	n/a
Mountain Ranges	n/a
Ecological System	S023 Rocky Mountain Aspen Forest and Woodland S028 Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland S030 Rocky Mountain Subalpine Mesic Spruce-Fir Forest and Woodland S031 Rocky Mountain Lodgepole Pine Forest S032 Rocky Mountain Montane Dry-Mesic Mixed Conifer Forest and Woodland S034 Rocky Mountain Montane Mesic Mixed Conifer Forest and Woodland S042 Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland Complex S091 Rocky Mountain Subalpine-Montane Riparian Shrubland S092 Rocky Mountain Subalpine-Montane Riparian Woodland S093 Rocky Mountain Lower Montane Riparian Woodland and Shrubland S102 Rocky Mountain Alpine-Montane Wet Meadow N11 Open water

Citations

NatureServe 2003 NatureServe Explorer: An online encyclopedia of life (web application). Version 1.8

Hammerson, Geoffrey A 1999 Amphibians and reptiles in Colorado, second edition University Press of Colorado and Colorado Division of Wildlife, Niwot, Colorado. 484 pages

Schrupp, D.L., and A. Cade 1989 Colorado Wildlife Species Database - User's Guide. Colorado Division of Wildlife. DOW-HR-01-89. Denver, CO

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

Muths, E., S. Rittman, J. Irwin, D. Keinath, and R. Scherer 2005 (March 25). Wood frog (*Rana sylvatica*): a technical conservation assessment. [Online]. USDA Forest Service, Rocky Mountain Region. Available: <http://www.fs.fed.us/r2/projects/scp/assessments/woodfrog.pdf> [May 19, 2005]

Haynes, Charles 1981 The distribution and habitat requirements of the wood frog (*Ranidae: Rana sylvatica* Le Conte) in Colorado. Colorado Division of Wildlife. Special report; No. 50.

Puttmann, S. J. and K. J. Kehmeier 1994 Rocky Mountain wood frog (*Rana sylvatica*): recovery plan: September 1994. Colorado Division of Wildlife. NE Region. Denver, CO.

Livo, Lauren 2005 Species expert review and personal communication.

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