







Western Bat Working Group

Regional Bat Species Priority Matrix

The Western Bat Species: Regional Priority Matrix is a product of the Western Bat Working Group Workshop held in Reno, Nevada, February 9-13, 1998. The matrix is intended to provide states, provinces, federal land management agencies, and interested organizations and individuals a better understanding of the overall status of a given bat species throughout its western North American range. Subsequently, the importance of a single region or multiple regions to the viability and conservation of each species becomes more apparent. The matrix should also provide a means to prioritize and focus population monitoring, research, conservation actions, and the efficient use of limited funding and resources currently devoted to bats.

The following descriptors provide the information needed to interpret the Western Bat Species: Regional Priority Matrix.

-  **RED OR HIGH:** Based on available information on distribution, status, ecology, and known threats, this designation should result in these species being considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.
-  **YELLOW OR MEDIUM:** This designation indicates a level of concern that should warrant closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.
-  **GREEN OR LOW:** This designation indicates that most of the existing data support stable populations of the species, and that the potential for major changes in status in the near future is considered unlikely. While there may be localized concerns, the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on red and yellow species.
-  **PERIPHERY:** This designation indicates a species on the edge of its range. This designation was utilized by only one region and reflects neither high, medium, nor low concern.

The map and matrix regions were derived from R.G. Bailey's Ecoregions of the United States (revised 1994) by pooling at the province level of the hierarchical structure to produce a workable, but ecologically meaningful, number of regions for analysis and discussion at

the Western Bat Working Group Workshop.

In some instances, regions were combined when the number of workshop participants were too few to provide information on the distribution, status, ecology, and known threats to bats in the respective regions.

Research And Management Needs

Research and management needs, recommended as high priority by the majority of regional analysis groups, fell into five general areas:

- The need for standardized sampling recognizing that population status and trend data are lacking and seriously needed for most species;
- Monitoring the effectiveness of management actions implemented for bat conservation;
- Assessing the effects of contaminants on migratory bat species;
- Information on roosting requirements, foraging ecology, and seasonal movement patterns; and
- The need to gain a regional perspective and more complete distributional information, especially in relation to longitude, latitude, elevation, and habitat types for most species.

As a means to accomplishing the latter, two groups suggested establishing a summer censusing program analogous to the Christmas bird count. As a result, a "National Bat Survey Week" will be initiated by the WBWG with the intention of promoting the need to obtain bat data from mist netting efforts by appropriately trained researchers, managers, and biologists across the U.S. The second full week of August each year will be considered "National Bat Survey Week." It will be a targeted time period for emphasis on conducting bat surveys. State bat working groups are encouraged to help promote, coordinate, and facilitate state efforts, and identify locations for surveys.

Multiple Habitat Bats						
SPECIES	REGION 1	REGION 2	REGIONS 3,4,9,& 10	REGION 5	REGION 6	REGIONS 7 & 8
Southwestern myotis <i>Myotis auricolus</i>	X	X	X	X	X	●
California myotis <i>Myotis californicus</i>	●	●	●	●	●	●
Western small-footed myotis <i>Myotis ciliolabrum</i>	P	●	●	●	● +	●
Long-eared myotis <i>Myotis evotis</i>	●	●	●	●	● -	●
Keen's myotis <i>Myotis keenii</i>	●	X	X	X	X	X
Little brown bat <i>Myotis lucifigus</i>	●	●	●	●	●	●









Arizona myotis <i>Myotis occultus</i>	X	X	X	X	X	●
Northern myotis <i>Myotis septentrionalis</i>	X	X	●	X	X	X
Fringed myotis <i>Myotis thysanodes</i>	●	●	● ⁺	●	●	●
Long-legged myotis <i>Myotis volans</i>	●	●	●	●	●	●
Yuma myotis <i>Myotis yumanensis</i>	●	●	●	●	● ⁻	●
Big brown bat <i>Eptesicus fuscus</i>	●	●	●	●	●	●
Lappet-eared bat <i>Idionycteris phyllotis</i>	X	X	X	X	●	●
Pallid bat <i>Antrozous pallidus</i>	●	●	●	●	●	●
Mexican free-tailed bat <i>Tadarida brasiliensis</i>	●	X	●	●	● ⁻	●
















Tree - Roosting Bats

SPECIES	REGION 1	REGION 2	REGIONS 3,4,9,& 10	REGION 5	REGION 6	REGIONS 7 & 8
Western red bat <i>Lasiurus blossevillii</i>	X	X	X	●	●	●
Eastern red bat <i>Lasiurus borealis</i>	X	X	●	X	X	X
Hoary bat <i>Lasiurus cinereus</i>	●	●	●	●	●	●
Western yellow bat <i>Lasiurus xanthinus</i>	X	X	X	●	X	●
Silver-haired bat <i>Lasionycteris noctivagans</i>	●	●	● ⁺	●	●	●

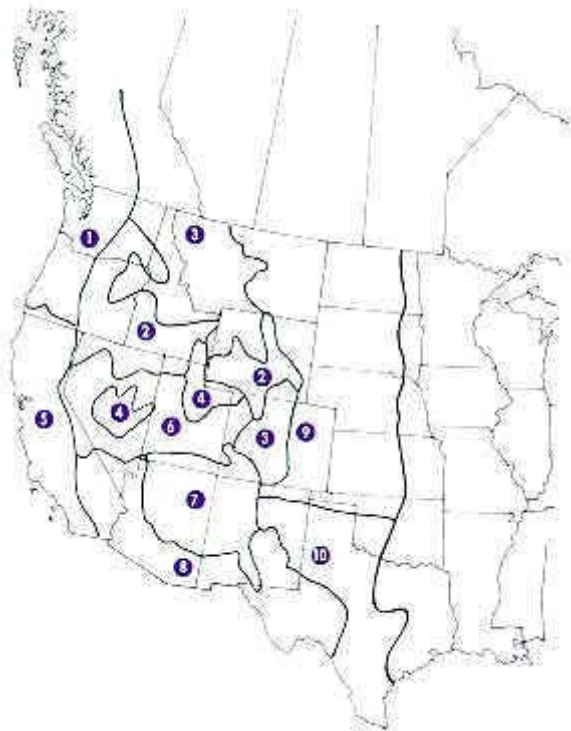
Cliff - Roosting Bats

SPECIES	REGION 1	REGION 2	REGIONS 3,4,9,& 10	REGION 5	REGION 6	REGIONS 7 & 8
Western pipistrelle <i>Pipistrellus hesperus</i>	● ^P	●	●	●	●	●
Spotted bat <i>Euderma maculatum</i>	● ^P	●	●	●	●	●
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	X	X	X	●	X	●

Big free-tailed bat <i>Nyctinomops macrotis</i>	X	X				
Western mastiff bat <i>Eumops perotis</i>	X	X	X			
Underwood's mastiff bat <i>Eumops underwoodi</i>	X	X	X	X	X	

Cave - Roosting Bats						
SPECIES	REGION 1	REGION 2	REGIONS 3,4,9,& 10	REGION 5	REGION 6	REGIONS 7 & 8
Ghost-faced bat <i>Mormoops megalophylla</i>	X	X	X	X	X	
California leaf-nosed bat <i>Macrotus californicus</i>	X	X	X		X	
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	X	X	X		X	
Lesser long-nosed bat <i>Leptonycteris curasoae</i>	X	X	X	X	X	
Big long-nosed bat <i>Leptonycteris nivalis</i>	X	X	X	X	X	
Cave myotis <i>Myotis velifer</i>	X	X		X	X	
Townsend's big-eared bat <i>Corynorhinus townsendii</i>						

Map of Ecoregions Used In Priority Matrix



From:

**Bailey's Ecoregions of the United States
(revised 1994)**