

Chapter 5

ASSESSMENTS AND STRATEGIES FOR SPECIES OF GREATEST CONSERVATION NEED AND KEY HABITATS

This chapter is organized by ecological frameworks at the scale of ecoregions for terrestrial habitats, watersheds for aquatic habitats, and statewide for riparian, ephemeral and perennial tank habitats. Component key habitats (**Element 2**), some of which cross ecoregion or watershed boundaries (Table 5-1, 5-2), are identified within each of these ecological frameworks. Each ecoregion or watershed section provides information on the SGCN associated with its component key habitats (**Element 1**), discusses the condition of key habitats (**Element 2**), describes problems affecting habitats and species (**Element 3**), and identifies information gaps and related research, survey, and monitoring needs (**Element 3**). Each section also provides a prioritized list of conservation actions necessary to overcome problems and achieve desired future outcomes (**Element 4**). Similar information for riparian, ephemeral and perennial tank habitats is provided in a statewide context. Also included is a discussion of SGCN, including arthropods other than crustaceans, that were not associated with key habitats (**Element 1**) and information gaps that limit our ability to associate these species with key habitats. Summarized information gaps and related research, survey, and monitoring needs are provided in Appendices M-P. Summarized conservation actions are discussed in Chapter 4.

Table 5-1. Key terrestrial habitats discussed in the ecoregion ecological framework.

Ecoregion	Key Terrestrial Habitats							
	Chihuahuan Semi-Desert Grasslands	Madrean Encinal	Madrean Pine-Oak / Conifer-Oak	Rocky Mountain Mixed Conifer	Short-grass Prairie	Sand Sage-brush	Big Sage-brush	Rocky Mountain Wet Meadow
Apache Highlands Arizona-New Mexico Mountains	X	X	X					
Chihuahuan Desert	X					X		
Colorado Plateau Southern Rocky Mountains		X	X	X			X	
Southern Shortgrass Prairie					X	X		

Table 5-2. Key perennial aquatic habitats discussed in the watershed ecological framework.

Watershed	Perennial				
	Large Reservoir	Marsh/ Cienega/ Spring/ Seep	1 st and 2 nd Order Stream	3 rd and 4 th Order Stream	5 th Order Stream
Canadian	X	X	X	X	
Gila		X	X	X	X
Mimbres		X	X	X	
Pecos	X	X	X	X	X
Rio Grande	X	X	X	X	X
San Juan	X			X	X
Tularosa		X	X		
Zuni			X	X	

Our assessment of factors that influence species or habitats is primarily focused at the habitat scale, as these factors directly affect wildlife communities and SGCN populations.

We also identified individual factors that are most influential in affecting each SGCN. We provide this information in Appendix I. Given that most of the species-specific factors that influence the long-term persistence of SGCN were habitat conversion, loss, and degradation, fire (burning and suppression), and improper grazing practices, we do not discuss species-specific factors separately from habitat factors.

In our discussion of factors that influence species and habitats, we primarily consider those practices that are harmful to wildlife at certain levels of use or extent. We recognize that many human activities across today's landscapes have the potential to be either beneficial or detrimental to wildlife. Many factors that influence New Mexico landscapes are based on legal and accepted practices. We also understand that it is the manner in which a human activity or practice is conducted that determines if it has a negative or positive effect on wildlife populations. For example, livestock grazing can be a valuable tool to improve wildlife habitat. However, if livestock grazing is applied improperly, it can be detrimental to plant communities and wildlife.

At times, we reference historic land management practices, as these practices have helped shape today's landscapes. In doing so, we do not intend to imply that historic land management practices still occur today. Our intent is to evaluate landscapes as they exist today and develop strategies on how best to make meaningful improvements to benefit species of greatest conservation need.

Human activities have the potential to be either beneficial or detrimental to wildlife. It is the manner in which a human activity or practice is conducted that determines if it has a negative or positive effect on wildlife populations.