

GCWC Draft White Paper: Extirpated Species in the Colorado River Ecosystem
25 March 2009

Table 1: List of extirpated and at-risk species in the CRE, and rare species of unknown status and/or nativity.

Common Name	Species Name	Status in CRE	Ecological Role	Quality of Information Confirming Status in CRE	References
Northern Leopard Frog (NLF)	<i>Rana pipiens</i>	Extirpated	Predator	High	Tompko 1976
Relict Leopard Frog (RLF)	<i>Rana yavapaiensis</i>	Extirpated	Predator	High	LES files, USGS files
Yellow-billed Cuckoo (YBCU)	<i>Coccyzus americanus</i>	Extirpated	Insectivore	Moderate	Brown et al. 1987, LaRue et al. 2001
SW Willow Flycatcher (SWWF)	<i>Empidonax trailii extimus</i>	Extirpated	Insectivore	High	Brown et al. 1987, LaRue et al. 2002
Bald Eagle (BAEA)	<i>Haliaeetus leucocephalus</i>	Not monitored	Predator, scavenger	High	Brown et al. 1987, 1998; Brown and Stevens 1997
Prairie Falcon (PRFA)	<i>Falco mexicanus</i>	Not monitored	Top predator	Low	Stevens et al. in press, NPS files
Peregrine Falcon (PEFA)	<i>Falco peregrinus</i>				
California Condor (CACO)	<i>Gymnogyps californianus</i>	Reintroduced	Scavenger	High	Brown et al. 1987, LaRue et al. 2001; NPS and Peregrine Fund files
Wild Turkey (WITU)	<i>Meleagris gallopavo</i> *	Occasional colonist	Herbivore/omnivore	Moderate	Brown et al. 1987, LaRue et al. 2001
Mexican Spotted Owl (MXSO)	<i>Strix occidentalis lucida</i>	Occasional in lower tributaries	Predator	Moderate	Brown et al. 1987, LaRue et al. 2001
Waterbirds ~ 70 species, including Brown Pelican	All	Unknown	Herbivores, predators	Moderate	Brown et al. 1987, Stevens et al. 1997; LaRue et al. 2001; NPS files
A Chironomid Midge (MEST)	<i>Metrocnemis stevensi</i>	Undetermined	Herbivore	Medium	Sublette et al. 1998
Humpback Chub (HBC)	<i>Gila cypha</i>	Stablized population	Mid-trophic predator	High	Minckley 1991
Bonytail Chub (BTC)	<i>Gila elegans</i>	Extirpated	Mid-trophic predator	Moderate	Minckley 1991

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Roundtail Chub (RTC)	<i>Gila robusta</i>	Extirpated	Mid-trophic predator	Moderate	Minckley 1991
Colorado Pikeminnow (CPM)	<i>Ptychocheilus lucius</i>	Extirpated	Top predator	High	Minckley 1991
Razorback Sucker (RBS)	<i>Xyrauchen texanus</i>	Extirpated	Detritivore	High	Minckley 1991
Kanab Ambersnail (KAS)	<i>Oxyloma haydeni kanabensis</i>	ES; to be delisted?	Decomposer, parasite host	High	Spamer and Bogan 1994, AGFD 2009
Vulcan's Well waterbug (BEFL)	<i>Belostoma nr. flumineum</i>	Undetermined	Predator	Medium	Stevens and Polhemus 2008
A Saldid Shorebug (MIQU)	<i>Micracanthia quadrimaculata</i>	Undetermined	Predator	Medium	Stevens and Polhemus 2008
Many species	---	Undetermined	Many	Variable	Blinn and Cole 1991, Stevens et al. 1998
Viceroy Butterfly (VBF)	<i>Limenitis archippus</i>	Extirpated?	Herbivore, pollinator	Medium	LES files
Bats ~ 20 species	All	Unknown	Insectivores and frugivores	Low	Hoffmeister 1986, NPS files
Feral Ass (FEAS)	<i>Equus asinus</i>	Nearly extirpated	Herbivore	High	Carothers et al. 1979
Mountain lion (MtnL)	<i>Felis concolor</i>	Undetermined	Predator	Moderate	Hoffmeister 1986, Stevens 1983, NPS files
Colorado River Otter (CRO)	<i>Lontra canadensis sonora</i>	Extinct?	Predator	Moderate-high	Hoffmeister 1986; GCWC 2005; NPS files
Bobcat (Bobc)	<i>Lynx rufus</i>	Undetermined	Predator	Low	Hoffmeister 1986, Stevens 1983, NPS files
Muskrat (MR)	<i>Ondatra zibethica</i>	Undetermined	Herbivore	Moderate	Hoffmeister 1986, Stevens 1983, NPS files
Northern Grasshopper Mouse (NGM)	<i>Onychomys leucogaster</i>	Undetermined	Predator	Low	Hoffmeister 1986, Stevens 1983, NPS files
Deer Mouse (DM)	<i>Peromyscus maniculatus</i>	Undetermined	Omnivore	Low	Hoffmeister 1986, Stevens 1983, NPS files
Western Harvest Mouse (WHM)	<i>Rheithrodontomys megalotis</i>	Undetermined	Herbivore	Low	Hoffmeister 1986, Stevens 1983, NPS files
Spotted skunk (SpSk)	<i>Spilogale spilogale</i>	Undetermined	Predator	Low	Hoffmeister 1986, Stevens 1983, NPS files

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Badger (BDGR)	<i>Taxodea taxa</i>	Unknown	Predator	Low	LES files
Fremont Cottonwood (POFR)	<i>Populus fremontii</i>	Declining?	Cornerstone	Low	Turner and Karpiscak 1980
Goodding's Willow (SAGO)	<i>Salix gooddingii</i>	Declining	Bird, beaver, insect habitat	Medium	Clover and Jotter 1944, Phillips et al. 1987, LES files
Zebra-tailed Lizard (ZTL)	<i>Callisaurus draconoides</i>	Extirpated	Terr. predator	High	Tompko 1976, Miller et al. 1982, LES files
Species of Unknown	Status or Nativity				
Painted Turtle (PT)	<i>Chrysemys picta</i>	Native, Extirpated?	Predator	Low	T. Nichols photos, S. Johnson pers. comm.
Brown Pelican (BRPE)	<i>Pelicanus occidentalis</i>	Rare migrant	Predator	Low	Brown et al. 1987
Turkey Vulture (TUVU)	<i>Cathartes aura</i>	Not monitored	Scavenger	Low	Brown et al. 1987
Mountain Plover (MOPL)	<i>Charadrius montanus</i>	Rare migrant, at best	Predator	Low	Brown et al. 1987, LaRue et al. 2001
Gambel's Quail (GAQU)	<i>Calipepla gambelii</i>	Missing in lower GC	Herbivore	Low	Brown et al. 1987, LES unpublished data
Roadrunner (RR)	<i>Geococcyx californianus</i>	Undetermined	Predator	Low	Brown et al. 1987. LES unpublished data
Arizona Wetsalts Tiger Beetle (CIHA)	<i>Cicindela haemorrhagica arizonae</i>	Undetermined	Predator	Medium	Stevens and Huber 2004
LCR Hairy-necked Tiger Beetle (CIHC)	<i>Cicindela hirticollis coloradula</i>	Undetermined	Predator	Medium	Stevens and Huber 2004, Pearson et al. 2006
Gray Wolf (GW)	<i>Canis lupus youngi</i>	Extirpated	Terr. predator	Low	J.D. Lee diary, Rasmussen 1941, Hoffmeister 1986
Netleaf Hackberry (CELA)	<i>Celtis laevigata var. reticulata</i>	Declining?	Cornerstone	Low	Salzer et al. 1996