

WILPLIFE NOTES

Leopard frog

New Mexico has five or six species of leopard frog (*Rana*). The lowland leopard frog is listed as endangered by the State of New Mexico under the Wildlife Conservation Act. The Chiricahua leopard frog is federally listed as threatened as of June 2002 under the Endangered Species Act.

Populations of leopard frogs are diminishing—many have disappeared altogether—and biologists are trying to learn more about these frogs and why they have declined. The state's Share with Wildlife program, derived from taxpayers' donations, started funding studies of leopard frogs in 1982. This early work detailed the frogs' distribution in New Mexico and showed a need for more research.

The Rio Grande leopard frog (*Rana berlandieri*) is a river and spring

species

restricted to Eddy County in southeastern New Mexico. A brown or green frog without spots on its head, the Rio Grande leopard frog is found in tributaries of the Pecos River, including Delaware River and Black River. The plains leopard frog *(Rana blairi)* is a species found in the eastern plains, and isolated locations in the middle Rio Grande Valley. It is also common to the Pecos River, such as its tributaries or prairie ponds and stock tanks. It is brown with spots on the head.

The Chiricahua leopard frog (*Rana chiricahuensis*) is found in the mountain streams and rivers of southwestern New Mexico, including waters of the Gila and San Francisco rivers and their tributaries. Its range crosses the Continental Divide into a few springs in Socorro County and in the Black Range of Sierra County.

Further south in Hidalgo County, it is found in stock tanks and is associated with the smaller streams of the Pacific (Rio Yaqui) drainage. The Chiricahua leopard frog is the most distinctive of the leopard frogs in New Mexico. It has prominent white spots on a dark ground color and has an unspotted head. This form may actually represent two species in New Mexico.

The northern leopard frog (*Rana pipiens*) is found in small streams, springs, and permanent pools along the entire length of the Rio Grande in northern New Mexico. It is the only leopard frog in New Mexico with dark spots on a light ground color on the posterior thighs. Populations of this species have declined drastically within the last 10 years.

The lowland leopard frog (*Rana* yavapaiensis) (our state endangered species of leopard frog) rarely enters southwestern New Mexico, where its population is in trouble. It is found along streams flowing off the Mogollon Rim, in the San Francisco and Gila rivers. In Hidalgo County, lowland frogs are also known from small streams in the southern Peloncillo Mountains. It was recently found in only one of the 13 sites where it was previously reported.

Chytrid (pronounced kit-rid) fungus is implicated as a factor in declining leopard frog populations. The fungus attacks the parts of a frog's skin that have keratin, a tough, fibrous protein that forms the resistant layer in animal skin. The actual mechanism by which chytrid kills the frogs is still unknown, although some scientists believe that a toxin produced by the fungus may be responsible. Additional factors contributing to declining populations include predation by bullfrogs and introduced fish, as well as alteration of habitat, toxicants and acid rain. Researchers in New Mexico Department of Game and Fish Endangered Species Program are continuing long-term studies of leopard frog populations in a variety of habitats. The goal is to learn enough about the frogs to help prevent further declines.

> Revised 2003 by Charlie Painter and Colleen Welch





northern leopard frog (Rana Pipiens) Rio Grande leopard frog (Rana berlandieri) lowland leopard frog (Rana yavapaiensis)





Chiricahua leopard frog (Rana chiricahuensis) plains leopard frog (Rana blairi)

Wildlife Notes is published by the Department of Game and Fish. If you are interested in obtaining additional copies, please send your request to: **Conservation Education Section Department of Game and Fish** PO Box 25112 Santa Fe, NM 87504 (505) 476-8119