

the heritage program's 20th year

a focus on montana's lesser-known living things

When we look around Montana, we are amazed by the big mountains, prairies and rivers and large photogenic critters, like bears, elk, mountain goats and antelope.

What we don't often see—or even know exist—are the more diminutive creatures that live amongst us, like snails and slugs, unique plants like Spalding's catchfly or the many species of bats in eastern Montana.

"These lesser-known critters and plants are important because they make up the fabric of our habitats and ecosystems—and yet we know little about them," says Sue Crispin, director of the Montana Natural Heritage Program.

The Heritage Program, for the last 20 years, has been working to change that. Its teams of biologists, armed with data about a species' habitat preferences, search out these

creatures and plants to try to document their occurrences. In turn, they learn more about the habitat needs of these species.

"Often a plant or animal is thought to be rare, and in need of listing under the Endangered Species Act, because we simply lack good information," said Sue.

In one case, a landowner teamed up with the Heritage Program to survey the long-styled thistle, which is endemic to the mountain ranges of central Montana and thought to be rare. The landowner had wanted to do a land swap with the Forest Service, but a large population of this thistle found on the public land caused the agency to hold up the swap.

Heritage botanist Scott Mincey was enlisted to survey the populations of this thistle on surrounding public and private lands. He discovered several new populations and verified that others were stable, which in effect led the Forest Service to drop the plant from its "sensitive" species list and move forward with the land trade.

In other cases, information provided by the Heritage Program has helped land managers develop a proactive conservation plan before species need emergency-room attention.

"By providing land managers with more accurate information about the distribution and habitats of species thought to be at risk, we can help keep them off future lists," Sue said.

Often, time is a limiting factor in field surveying to document plants or small critters—especially in a state as large as Montana. So Heritage staffers use "predictive modeling," which involves the use of GIS (geo-



Drake Barton

Long-styled thistle is endemic to the mountain ranges of central Montana

graphic information system) mapping to predict suitable habitat for selected species.

Using this technology, Scott found two new populations of the threatened plant Spalding's catchfly in northwestern Montana. The largest population of this plant in Montana, and perhaps

anywhere, is in the Conservancy's Dancing Prairie Preserve near Eureka. In 1988, botanists had looked for Spalding's catchfly in the surrounding area, but it was "a drought year, a terrible year to look for these plants," Scott said.

"I wouldn't have surveyed for this plant if I didn't have this model. It's a real time saver because it increases your efficiency in knowing where to look," said Scott.

Bryce Maxell and his team of zoologists have surveyed species of bats found along stream corridors in eastern Montana. He was able to document evidence of reproduction of several species of bats, including Eastern red, hoary, silver-haired and brown bats. He also documented the existence of some of these species in 10 counties where they were not previously known to exist.

He's concerned about the bats' continued viability in some areas because they depend on cottonwood trees which are not regenerating in many areas due to loss of natural flood regimes and competition from Russian olive and tamarisk.

Knowing the habitat needs of these bats, and of hundreds of rare or simply unnoticed species, is critical for understanding how to manage our lands and waters.

In addition to surveying for individual species, program staffers also conduct broader ecological

Montana Heritage Program Accomplishments

- First Heritage program to develop comprehensive internet field-guides to plant and animal species
- Created the first statewide map of public and conservation lands
- One of just two Heritage programs to develop an aquatic ecology program
- First Heritage program to pioneer new species status ranking procedures that use consistent "scoring" methods to produce more accurate assessments
- Pioneered customized internet tools that provide public land managers with desktop access to the locations and status of priority species
- Saved Montana businesses millions of dollars by compiling information needed for environmental reviews