

Making it count

Citizen scientists tally local wildlife to aid conservation efforts.

By **Nalani Askov**, *Former Executive Director
Jackson Hole Wildlife Foundation*

Launched in early 2009, Nature Mapping Jackson Hole is a program that is working to increase our knowledge about wildlife in Teton County to help planners, resource managers and residents make decisions that will help our community live more compatibly with wildlife.



Nalani Askov

An abundance of wildlife is a hallmark of life here in Jackson Hole, but our knowledge about their location and distribution in the valley is limited, especially in developed areas. Agencies can be restricted in their ability to gather adequate data due to limited resources, safety and human disturbance issues. For example, the Wyoming Game and Fish Department no longer conducts aerial counts of wildlife over developed areas. As a result, we have limited data about wildlife in such areas. As the local human population increases and wildlife habitat becomes more fragmented, it will become increasingly difficult for agencies to obtain accurate information about wildlife presence and distribution. At the same time, knowledge about where and how wildlife use the valley floor will be more critical than ever to effective planning.

Nature Mapping is designed to help fill this gap and increase our knowledge of wildlife. Individually, Jackson Hole residents and visitors often see wildlife, such as moose, elk, deer, bison, many species of birds, coyotes, bears, wolves and pronghorn. However, until now, there hasn't been a way to compile our individual knowledge into one usable form. With Nature Mapping, now there is.

The Nature Mapping program has created a website – www.naturemappingjh.org – with an online database of wildlife species in Wyoming. Nature Mapping instructors teach volunteers how to make accurate wildlife observations, and how to report

those observations using the website and database. To date, Nature Mapping has trained more than 150 wildlife observers on how to use the Nature Mapping tools. The website and database allow people's individual observations to be aggregated with all other observations, analyzed and mapped to provide a broader picture of what wildlife are present in Jackson Hole and how they use the landscape.

Nature Mapping is also providing the website and database to support a variety of projects sponsored by other agencies and organizations that seek to document wildlife presence and movement in Teton County. Nature Mapping projects include Project Backyard, the Pika Project and the Gros Ventre Project. More information on each is available at right.



These projects and others will increase our knowledge about the number and distribution of wildlife in this region. Nature Mapping relies on volunteers and works to involve people of all ages in observing and reporting on wildlife in our community. As a citizen-science program, we seek to ensure the accuracy and credibility of the data that is gathered by providing participants with training in observation methods and protocols, GPS use, mapping, animal identification and more. Training and participation in the program is fun, free and open to all. For more information about Nature Mapping projects, how you can participate in Nature Mapping and upcoming trainings, please visit the Nature Mapping website, www.naturemappingjh.org.

Get involved with Nature Mapping now and help make a difference for wildlife in the future. ■

The Wildlife Matters Campaign is supported by Earth Friends Wildlife Foundation, EcoTour Adventures, Skinny Skis and Patagonia, Inc.

Volunteers needed – one two-hour training is all it takes...

In brief, Nature Mapping is a program that teaches people to be wildlife observers for the benefit of their local communities. The information gathered from trained observers can help our community come up with an accurate picture of what kinds of wildlife we have and where they live during different times of the year, and these data could be used for conservation efforts in Jackson Hole.

Visit www.naturemappingjh.org and click on "Event Calendar" for upcoming trainings, and please consider signing up – as little as 15 minutes a week of just recording what wildlife you see in your own backyard or while you're out exploring can make a difference.

Nature Mapping is a joint project of the Meg and Bert Raynes Wildlife Fund and the Jackson Hole Wildlife Foundation with funding from both groups, 1% for the Teton and others.



Mark Gocke



Erika Muschawick

Project Backyard is the primary Nature Mapping project, and its purpose is to increase knowledge about wildlife in developed areas of Teton County. Project Backyard volunteers observe and report on the wildlife they see in their backyard or neighborhood according to a set of specific protocols intended to ensure accurate observations.

Visit www.naturemappingjh.org for details on all the Nature Mapping projects.



Mark Gockle

The Pika Project enlists volunteers to report observations of pikas in the Greater Yellowstone ecosystem to provide much-needed baseline information on their presence, habitat use and distribution. It's a joint effort led by Teton Science Schools and supported by the Raynes Wildlife Fund, Grand Teton National Park, the U.S. Forest Service and the Wyoming Game and Fish Department. Pikas – the smallest member of the rabbit family – have adapted to survive in high-altitude cold. If it gets above 80°F, they can overheat and die in as few as six hours if they can't find a cool space in the talus. Also, in winter, pikas rely on insulation provided by the snowpack to protect them from extreme cold. Freeze/thaw patterns brought

on by warm winter temperatures can change the snowpack, exposing pikas to weather and reducing their access to food resources. Because of their sensitivity to rising temperatures, pikas are a good indicator species for evaluating the biological impacts of climate change. In February, the U.S. Fish and Wildlife Service decided to not extend Endangered Species Act protection to pikas, but agency officials acknowledged that the species bears watching.

The Gros Ventre Project was initiated by the Raynes Wildlife Fund and Bridger-Teton National Forest to help evaluate the effects on wildlife of new seasonal restrictions on motor vehicle travel in the upper portion of the Gros Ventre drainage. This area is important for bighorn sheep, elk calving, pronghorn migration and sage grouse leks. In 2009, citizen scientists gathered baseline data and gained knowledge about how animals were distributed in the drainage during the critical transition month of May. This year, volunteers will collect information mid-April to mid-June; call Chuck Schneebeck at (307) 733-1582 if you'd like to lend a hand.



Mark Gockle

Filling in the blanks

A database showing where wildlife species are during different times of the year will definitely help efforts to protect that wildlife. But to really help our community make intelligent land-use decisions, we also need an accurate picture of the habitat that wildlife species depend on.

To this end, the Conservation Alliance and Craighead Beringia South, with funding from 1% for the Tetons, are working on the first phase of a project to create a comprehensive vegetation map covering all of Teton County.

In this initial phase, researchers are correlating data that already exists, determining the best way of mapping vegetation on private lands, and designing a pilot mapping project. (After this phase, we'll also have a better idea of how much a countywide vegetation map would cost.)

The long-range goal is to end up with updatable maps that show:

- How much and what kind of vegetation is where in Teton County;
- What quality of habitat for which species this vegetation represents;
- Whether these habitats are connected (in other words, can wildlife get to them); and
- Where the bottlenecks are.

Another goal is to estimate historic ranges, use current vegetation data to determine how much habitat has been lost since then, and set targets for what we don't want to risk losing in the future.

Decision makers could use all of this information to set priorities for conservation. For example, land with habitats that serve multiple species, or habitats that serve species most at risk, might be identified as places needing extra protection. The data might also help conservation buyers locate those parcels most critical for wildlife. We'll keep you posted on this project as it progresses. ■