



THERE'S AN APP FOR PLANTS

Bozeman duo develops flora programs for cellphones, tablets



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Wondering what that beautiful rose-pink flower is that's blooming close to the ground?

There's an app for that, thanks to the collaboration of Bozeman residents Katie Gibson and Whitney Tilt, who formed a new business a year ago called High Country Apps.

That's right, now you can use your smart phone or tablet to figure out what a particular tree, bush, grass or flower is. The duo launched their "Flora of the Yellowstone" app in April and plan to release one for Glacier National Park later this month in association with Shannon Kimball, a botanist and author from Kalispell. In between, they've also worked with other botanists to develop apps for Colorado and the Wasatch Mountains of Utah.

Sales have been slow so far, but advertising has been minimal, mainly confined to Facebook.

"It's pretty promising," said Gibson, who handles the technical aspect of writing the code for the apps. "We're not quitting our day jobs, but we're optimistic."

Gibson is a software developer and consulting computer scientist. Tilt is a natural resource conservation consultant. They were introduced by a mutual friend, Pete Coppolillo, after Tilt's book, "Flora of Montana's Gallatin Region," was published. Coppolillo suggested Tilt create an app with the same features as his book.

But Tilt said that when something goes wrong with his computer or phone, he asks someone under 10 for help. He never takes his phone hiking, and he flunked computer science.

"Well then, you need to meet Katie Gibson," Coppolillo told him. She could provide the technical expertise.

"It was typical Bozeman, Montana. We met at the coffee shop," Tilt said.

Tilt and Gibson agree that the phone and tablet platform can offer many possibilities that a book can't. Not only can information be added or edited quickly, but it may also be

adapted to use for citizen science projects or to capture tech-savvy children's interest in nature. They're already considering adding a feature for users to compose a life list of plants they've seen.

"The great thing about the app is that it's wonderfully flexible and very portable," Tilt said.

The app is available on iPhone, iPad, Android phone, Android tablet or Kindle Fire platforms for \$7.99 to \$9.99. Five percent of the proceeds from each sale goes to a nonprofit group. For the Yellowstone app, the Yellowstone Park Foundation is the recipient.

The Yellowstone app contains 330 plants accompanied by more than 1,500 images, illustrations and range maps. Descriptions include information on distinctive field marks, the plant's preferred habitats and tidbits on the plant's ecology and cultural use.

For example, did you know that quack grass is also known as outhouse grass because of where it grows, or that Kentucky bluegrass was called whiteman's footsteps by American Indians because it seemed to follow them?

"I must admit the tidbit part of this is one of the most interesting," Tilt said.

Don't worry that you won't be able to get a cellphone signal to operate the feature while you're deep in the woods. The app doesn't use a data connection. To save the phone or tablet's battery life, Gibson recommended that users put their device on airplane mode while hiking.

If technology or botany are intimidating, fear not. Tilt and Gibson tried to make the application simple.

"Katie and I designed the app around somebody standing in a meadow and wondering what flower they're looking at," Tilt said.

Using a search key, the user can ferret out the information by selecting the flower color, leaf type and other characteristics to identify the unknown plant. Users can also search by environmental parameters such as elevation, habitat and time of year for flowering.

So what is that low flowering pink plant mentioned at the beginning of this article? If you had the Yellowstone Flora app you could figure out that it's a bitterroot, the state flower. It grows on dry rocky soils and typically flowers between May and July. Its taproot was an important food for many American Indian tribes.

Tilt hopes that, beyond its obvious utilitarian use, the app will provoke people to become more concerned about their natural resources.

"If people don't give a damn about their backyard, they're not going to protect it," he said.