

Fifteen Vail Valley residents recently participated in a trip of discovery with Gore Range Natural Science School to Yellowstone National Park. The Avon-based Science School annually offers two trips, called Invitationals, to destinations that feature premier educational opportunities for individuals and couples who enjoy traveling and exploring the natural world. During each Invitational, the Science School partners with local organizations to plan and execute all outings.

The Science School's past Invitationals have included exploring ecology of coastal Alaska, Anasazi culture of Crow Canyon and Mesa Verde, crane migration at Great Sand Dunes, geology and archeology while rafting on the San Juan River and experiencing first hand the elk rut and bugling at Rocky Mountain National Park. These intimate explorations exemplify the Science School's mission of "awakening a sense of wonder and inspiring environmental stewardship through natural-science education."

The 600-acre Black Butte Ranch, which borders Yellowstone, served as the base for the trip. This historic ranch is owned by the family of Science School board member Dan Patten, whose grandfather acquired the land in the 1950s to breed horses. The family purchased the property before the current boundaries of Yellowstone National Park were established and it now borders the west entrance of the park along the Gallatin River. Joe and Brenda McHugh, who have been on several Invitationals, agreed that the "Patten family's Black Butte Ranch was a wonderful base for exploring the entire area and its proximity to Yellowstone National Park - across the river! - makes it perfect."

Gore Range Natural Science School partnered with Bozeman based Montana Outdoor Science School and with Teton Science Schools Wildlife Expeditions, which provided expert guides during the invitational. The trip included two full days in Yellowstone National Park, exploring geological features and extraordinary wildlife. During the geology exploration, the group learned about hot springs, geysers, mud pots and fumaroles, discovering the difference between them all and quickly learning why the park has the highest concentration of protected thermal features in the world. During the predator exploration, participants learned why predators are a vital part of the Yellowstone ecosystem, which is the only place with a complete, intact ecosystem in the United States. They examined the predators' roles as hunters and learned how to avoid becoming prey, and they searched for signs of unique adaptations that help predators in the wild.

Evenings featured gourmet meals and engaging discussions about lessons gleaned that day. A sample of take home facts included:

- A juvenile eagle's wing span is longer than in adulthood
- 2.2 million acres of Yellowstone can support roughly 130 wolves (or the current 14 packs)
- Juvenile wolves - those in their first year of life - are not included in the wolf census
- Approximately 4000 bison live in the Park. In the early 20th century bison were reduced nearly to extinction
- Yellowstone is one of the earth's super volcanoes, erupting on an average every 500,000 years. The last eruption was 640,000 years ago
- The whooping crane is thought to be the oldest living animal on earth
- Female bison are in heat for only 24 hours. Male bison "smell" this fertility with the vomernasal organ, a sensory organ found in many mammals; it has an opening in the roof of the mouth.
- An average male coyote weighs 30 pounds while an average a wolf weighs 150 pounds

The McHughs were particularly pleased with the educational component of the trip. “We had visited Yellowstone on our own at this time last year, but seeing it again through the eyes of expert naturalists from Teton Science Schools made it a much more rewarding experience.” Joe added, “The scenery, the camaraderie of the participants, the educational value, the accommodations and the cuisine were all outstanding.”

Between guided excursions, participants spent time fly fishing, hiking, horseback riding, relaxing and learning more about the Greater Yellowstone Ecosystem on the ranch. One of the highlights for those fly fishing was Jennifer Hoyler, fishing guide and naturalist with Blue Ribbon Flies Shop in West Yellowstone. Jennifer’s personalized attention and guidance both to neophytes and experienced fishermen was appreciated by all, particularly Brenda McHugh, who landed her first trout! (Blue Ribbon Flies Shop’s owner Craig Matthews founded 1% for the Planet, whose corporate members donate 1% of their profits to environmental organizations, such as the Science School).

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