Gina Roberti | Gina.m.roberti@gmail.com

Photograph credit: Summer blooms at Mount St. Helens, D.T. Strouse.

Title: **Observation Point: Birding at the Mount St. Helens National Volcanic Monument**

Short description:

What makes the landscape around Mount St. Helens a unique place for birdwatching? Learn about why birders and scientists alike flock to the landscape around Mount St. Helens for the experience of birding in a mosaic of diverse habitats and landforms created by active volcanic processes. Join us for this virtual presentation about birding in the Mount St. Helens National Volcanic Monument.

Long description:

On May 18, 1980, a cataclysmic event occurred at Mount St. Helens as the north flank of the volcano slid off in one of the largest landslides in recorded history, unleashing a powerful eruption. This eruption buried 230 square miles of existing old-growth forest with hundreds of feet of volcanic debris. In some places closest to the crater of the volcano, almost no living organisms survived. Ash from the eruption blew across the United States and megatons of logs and volcanic debris clogged up rivers, lakes and streams. The eruption dramatically reshaped the landscape, creating a mosaic of habitat types that are now home to a diverse suite of birds.

In 1982, the Mount St. Helens National Volcanic Monument was designated to protect the land closest to the volcano as a place for research, recreation and education. Today, home to more than 80 species of nesting birds, the Mount St. Helens National Volcanic Monument offers unique birding opportunities.

Join us as we take a tour through the diverse mosaic of habitats created by the 1980 eruption and learn about where to see some of Mount St. Helen's signature birds. This interactive presentation will excite and prepare you for birdwatching in the Mount St. Helens National Volcanic Monument. Bring your questions and curiosities!

This course is part of a three-part series about the birds of Mount St. Helens presented by Gina Roberti from the Mount St. Helens Institute.

Photo:

Bio:

Gina Roberti is a geologist, naturalist and educator who grew up digging quahogs and exploring the shorelines of the Narragansett Bay in Rhode Island (the state with the largest coastline per capita!) amidst ancient metamorphic rocks of the Appalachian Mountains. Since graduating from Brown University with a degree in Geology-Biology, Gina spent several years working as a geoscience educator in various geologic regions in the western U.S., including the Colorado Plateau, Snake River Plain, Klamath-Siskiyou, North Cascades, and presently the active Cascade volcanic range. In each of these places she taught thousands of youth and adults about earth science in a variety of field-based and classroom settings.

Gina currently works with the Mount St. Helens Institute. She strongly believes in the power of education to inspire awareness, appreciation and stewardship for the natural world. When Gina is not working she can be found on long walks or cross country skis, often in the company of birds. Contact Gina at gina.m.roberti@gmail.com.

Resources to share about Mount St. Helens:

- The Mount St. Helens Institute put together an interactive Google map highlighting attractions, camping and hiking around Mount St. Helens.
- The U.S. Geological Survey Cascades Volcano Observatory monitors the active volcanoes of the Cascades Range in the Pacific Northwest. Their mission is to conduct scientific research and to provide information to help people live knowledgeably and safely with volcanoes. Visit their website to find up-to-date information about scientific monitoring including updates about earthquakes for our regional volcanoes.
- The Volfilm project is an international collaboration between volcanologists and filmmakers creating films that inspire reliance to risks from volcanic hazards. Short educational films are designed to help communities living near volcanoes.
- View a short video created by Oregon Public Broadcasting/Washington Department of Natural Resources titled "How dangerous are the Cascades Volcanoes?"
- Watch this time series of satellite images showing changes in the landscape of Mount St. Helens between 1979 and 2016 produced by NASA Earth Observatory.
- Explore the resources of the Smithsonian Institute Global Volcanism Program including the Earthquakes, Eruptions and Emissions time series animation.
- In celebration of the 40th anniversary of the 1980 eruption of Mount St. Helens, the Portland Art Museum put together a fantastic exhibit titled Volcano! Mount St. Helens in Art. View the exhibit online or by visiting the Portland Art Museum in Portland, Oregon.
- Visit the Mount St. Helens Institute webpage for a list of recommended websites for learning about volcanoes, earthquakes and other earth science phenomena in the Cascades. Visit Mount St. Helens with guided programs, field seminars, summer camps and more with the Mount St. Helens Institute.

Current information about volcanoes in the Cascades Range from the USGS Cascades Volcano Observatory:

Follow the USGS Cascades Volcano Observatory on Facebook!

Mount St. Helens updates 2020:

- Free field trip guide to Mount St. Helens was published by the USGS in 2019.
- No new projects were planned for 2020 and station maintenance continues on the ~20 monitoring stations on the volcano (monitoring map and data available online).
- On August 13, 2020 a field crew visited the gas monitoring station in the crater of Mount St. Helens. Read a brief write up on the USGS Volcanoes Facebook page at this link HERE.

Mount Hood updates 2020:

- In the fall of 2020, field crews installed 3 new monitoring stations on the north side of Mount Hood to detect and provide warning of any changes in earthquake activity or ground deformation that may signal an increase in volcanic activity and a subsequent danger to people and property. Read about the installation of this equipment.The approval to install stations in the Mount Hood Wilderness took several years. Documentation of the public approval process on the project is on the Forest Service webpage. CVO seismologist Wes

Thelen briefly talks about the new stations in his perspective on a Mount Hood earthquake swarm that occurred on January 17, 2021
- Mount Hood seismicity is monitored by the Pacific Northwest Seismic Network and Cascades Volcano Observatory via a regional network that includes 5 seismic stations within 12 miles of the volcano.

Mount Rainier updates 2020:

- In October 2020 the USGS began installing several more lahar detection stations in the Mount Rainier lahar monitoring network. Read about the new lahar detection system at Mount Rainier on the USGS webpage. Learn more about the hazards of lahars from Mount Rainier on this USGS webpage.

Other Volcanoes:

- Every Monday, the USGS Yellowstone Volcano Observatory publishes an article for a series called Caldera Chronicles.
- Every Thursday, the USGS Hawaiian Volcano Observatory publishes a weekly article for a series called Volcano Watch.
- Newberry Volcano got new volcanic features named in 2020 with input from the Klamath Tribes and Deschutes National Forest.
- Volcanic gas emissions scientists from CVO and California Volcano Observatory teamed up to investigate the sulfur smells at Newberry. Nothing significant was found in data to indicate Newberry was restless; the stinky smells are likely the result of a low-water year that allowed gases that would typically be emitted beneath the water of the caldera lake to instead be emitted into the air. Read more in this article.

Birds and Mount St. Helens:

- U.S. Forest Service checklist of Birds in the Mount St. Helens National Volcanic Monument (2005)
- Washington Birding Guide to Mount St. Helens (webpage)
- Visit the Pacific Northwest Research Station for the most current scientific research at Mount St. Helens and other places in the Pacific Northwest

Book recommendations

- ❏ In the Path of Destruction: Eyewitness Chronicles of Mount St. Helens Richard Waitt, 2015
- ❏ After the Blast by Eric Wagner, 2020
- ❏ Mount St. Helens: The Eruption and Recovery of a Volcano, Rob Carson, 2000
- ❏ Roadside Geology of Mount St. Helens National Volcanic Monument and Vicinity by Patrick Pringle, 2002
- ❏ Day Hiking Mount St. Helens by Craig Romano, Aaron Theisen, 2015
- ❏ Roadside Geology of Washington
- ❏ Hiking Washington's Geology
- ❏ Plants of the Pacific NW
- ❏ Wildlife of the Pacific NW