





Theme—Shrub-Steppe Animals	Expert (s) & Check-In	Challenge	Suggested Hikes/ Walks & Locations
<p><b>Shrub-Steppe</b> landscapes are dominated by rolling, grassy plains or “steppe,” with an overstory of sagebrush and other woody shrubs. On the ground, a fragile community of microscopic organisms form the <a href="#">cryptobiotic crust</a>, which locks in moisture and helps prevent erosion. Various habitat features such as streams, wetlands, rocky talus slopes, and canyons support a variety of plants and animals uniquely adapted to the harsh and sensitive <b>Shrub-Steppe</b> ecosystem. <b>Shrub-Steppe</b> landscapes extend from south-central British Columbia into Eastern Washington, Oregon, and California, through Idaho, Nevada, and Utah, and into western Wyoming and Colorado. In Washington, <b>Shrub-Steppe</b> habitats are throughout the Columbia Plateau and into the surrounding higher elevations regions.</p>  <p>What else can you observe in the shrub-steppe? Try to find:</p> <ul style="list-style-type: none"><li>• Wildflowers</li><li>• Burrowing Owls</li><li>• Large Sage Brush</li><li>• Sage Thrashers</li><li>• Bitterbrush</li></ul>	<p>Dr. Kristina Ernest Dr. Daniel Beck</p> <p>Sunday May 9 1pm-3pm @ <a href="#">Yakima Canyon Interpretive Center</a></p> <p><a href="#">Please pre-register for in-person check-in here.</a></p>	<p>Your challenge, should you choose to accept it is to:</p> <p><b>2 Shrub-Steppe mammals OR Lizards</b></p> <p>Sagebrush ecosystems provide habitat for about 250 vertebrate species. <b>Shrub-Steppe</b> small mammals and birds typically nest either underground or nest using the structure of <b>shrubs</b> and tall grasses. A number of species have become so adapted to the <b>shrub-Steppe</b> that they have become <b>obligates</b>, including the Sage and Brewer's sparrows, sage grouse, sage thrasher, and pygmy rabbit. Even though you may have never <b>seen</b> one, three <b>kinds of lizards</b> are <b>found in shrub-steppe</b> lands of the lower Columbia Basin: the side-blotched <b>lizard</b>, northern sage-brush <b>lizard</b>, and short-horned <b>lizard</b>. The side-blotched <b>lizard</b> is the most abundant <b>lizard</b> in the area.</p> <div><p>Your bonus challenge:</p><p><b>Western Pacific Rattlesnake or American Badger</b></p></div>	<p><a href="#">Quilomene Recreation Area</a></p> <p><a href="#">Selah Cliffs</a></p> <p><a href="#">Yakima River Canyon</a></p> <p><a href="#">WildHorse Wind &amp; Solar Facility</a></p> <p>(permit required...that can be found here: Permits are free and can be filled out here: <a href="https://www.pse.com/pages/tours-and-recreation/wild-horse/wild-horse-access-request">https://www.pse.com/pages/tours-and-recreation/wild-horse/wild-horse-access-request</a> )</p> <p>Don't forget to track your observations with iNaturalist under our project.</p>  <p>Click on the image to join the project.</p>

**Dr. Kristina Ernest—** Dr. Ernest has a Ph.D. from the University of New Mexico and teaches General Biology, General Ecology, Mammalogy, Wildlife & Fisheries Ecology, Conservation Biology, Community Ecology, and Field Techniques at Central Washington University. Her research focuses on population and community ecology with particular interested in community structure, plant-herbivore interactions, and tropical biology. Her lab is investigating ecological connectivity of pika populations in the central Washington Cascades across Interstate 90.

**Dr. Daniel Beck—** Dr. Beck has a Ph. D. University of Arizona (Ecology & Evolutionary Biology), 1991. He teaches at Central Washington University in Ellensburg and works to strengthen the field biology program and catalyze interdisciplinary field/natural history experiences in the natural sciences. His research focuses on Northwest vertebrate terrestrial ecology, habitat selection, tropical dry forest ecology of Western Mexico, and the biology of helodermatid lizards.