

THE SISKIYOU MOUNTAIN ADVOCATE

The Siskiyou Crest White Paper Series

BY LUKE RUEDIGER

Although the biodiversity of the Siskiyou Crest region is globally significant and widely acknowledged in the scientific community, it is also poorly documented in the academic literature. Known for its exceptional botanical richness, habitat connectivity, and biological complexity, the region is among the most varied, unique, and diverse portions of North America.

Located at the convergence of many spectacular ecosystems, the region contains many endemic species found nowhere else on the face of the earth, range extensions where plant and animal species from the north, south, east, and west reach their geographic limits, and disjunct populations isolated outside their prevailing range. Yet, the obscurity of the region, the rugged, often inaccessible terrain, and the general distance from both population centers and large academic institutions have left portions of the region's biodiversity either undocumented, poorly documented, or underappreciated.

Both to bring attention to the region's spectacular biodiversity and to document rare species found in our area, Applegate Siskiyou Alliance (ASA) and the Siskiyou Crest Coalition have started the Siskiyou Ecological Research Project dedicated to documenting the unique biological diversity of the Siskiyou Mountains through the use of citizen science. We work to fill in the gaps in the academic literature and build a stronger sense of place and appreciation for the West Coast's most important biodiversity hot spot and connectivity corridor, the Siskiyou Crest.

Current project

Our current project is the Siskiyou Crest White Paper Series, which explores the biodiversity of the Siskiyou Crest region, from its convergence with the Cascade Mountains and the Cascade-Siskiyou National Monument to its collision with the Coast Range in the remote western portion of the range.

Our first white paper explored the ecology of the endemic Applegate stonecrop (*Sedum oblancoelatum*), a small succulent, rock-loving plant found mainly

in the Applegate River watershed, with only a few plants on the Klamath River side of the Siskiyou Crest. We mapped this rare population's limited range in the Applegate Valley, reviewed the literature, and published a synthesis of the species' habitat, ecology, and distribution.

Second white paper published

By the time you read this article, we will also have published our second white paper examining Western juniper (*Juniperus occidentalis*) in the Applegate River watershed and Siskiyou Crest region. Not a rare tree, the Western juniper is found across an estimated nine million acres in the interior West—predominantly in eastern Oregon, northeastern California, southwestern Idaho, and northwestern Nevada. The species can also be found in a few disjunct stands in southeastern Washington and in a handful of locations in the Klamath-Siskiyou Mountains in northwestern California along the Klamath River and in the Yolla Bolly Wilderness.

Based on our research and mapping, it appears that the westernmost populations of Western juniper are in the foothills of the Applegate Valley. Most range maps for this species do not identify these westernmost populations, and the scientific literature largely fails to mention them. Yet, we mapped over 850 acres of Western juniper habitat on the southern face of Anderson Butte in the Little Applegate River watershed. The population extends from Wagner Butte to Humbug Creek, where one small tree on Left Fork Humbug Creek and a few trees on Kane Creek make up what we believe are the westernmost population of this species. Found in only a handful of populations, Western juniper is not a major component of the Applegate River watershed's flora, but it is an underappreciated and poorly documented piece of its astounding biodiversity.

Citizen-science program

The Siskiyou Crest White Paper Series is a volunteer-based, citizen-science program. Our goal is to make reports that are both academically meaningful and accessible to the public. We aim to build appreciation for the region by



A massive old-growth Western juniper on the face of Anderson Butte. Photo: Luke Ruediger.



A Western juniper below the Jack-Ash Trail on the face of Anderson Butte. Photo: Luke Ruediger.

documenting little-known portions of the area's unique biodiversity.

We are also interested in working with residents, students, naturalists, botanists, and biologists of all sorts to highlight the biodiversity of this beautiful region. If you would like to participate, please contact us at luke@applegatesiskiyou.org.

To read our first two white papers and to learn more about the Siskiyou Crest White Paper Series, visit applegatesiskiyoualliance.org/siskiyou-ecological-research-project.

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