Migrating conifers

A stand of bristlecone pines found in
Thomas Canyon of the northern Ruby Mountains

As far as I know, no one has climbed the side of Seitz Canyon since the 2018 Range Two fire. This wildfire burned across Seitz Canyon, over the ridge and into Lamoille Canyon. High on the side of Seitz Canyon is an important stand of conifers, since they are the only white fir trees found in the Ruby Mountains. These trees are part of an ice age saga of migration into the Ruby Mountains.

No one seems to know what types of trees grew in the Rubies before the most recent ice age, about 15,000 years ago. However, we do know that conditions during the ice age were so severe that most conifer tree species died out. The only ones that survived in and around the Ruby Mountains and East Humboldt Range were bristlecone pines, limber pines and common junipers (low, spreading mats of prickly juniper.)

As glaciers retreated and growing conditions improved, conifer species slowly extended their ranges back into this area. These

migrations continue today and several tree species have reached the Ruby Mountains but gone no farther.

One main tree migration route has been from the mountain ranges of southeast Idaho. Trees have slowly expanded their range throughout the Jarbidge Mountains and Independence Range. Whitebark pines used this migration path to reach the Rubies but are not found any farther south.

Whitebark pine trees now cover the Rubies. Most mountain ranges are covered with firs, pines and spruces, while whitebark and limber pines are found only along a high, thin band right at the tree line, the highest elevations where trees can survive. But here in the Rubies, these two pine trees dominate the slopes from ridge top to canyon bottom. The reason why the Rubies have no thick forests of limber pines and whitebark pines is these pine species only grow in open settings.

Tall, conical subalpine firs also migrated from Idaho but have not yet reached the Rubies. They are the main conifers in the Jarbidge and Independence Mountains. The closest subalpine firs are found at Lone Mountain, about 30 miles north or Elko.

Other conifers migrated north from the mountain ranges of southwest Utah, entering Nevada around Ely. During the last ice age, single-leaf piñon pine, Utah juniper and Rocky Mountain juniper existed only in the low deserts of southern Nevada. Since the last ice age, they have quickly spread back north. Pinyon pines migrated about 400 miles in 8,000 years, averaging 1 mile every 20 years. Pinyons are now found in most of Nevada's central and southern ranges but their migration has extended no farther than the Rubies. Junipers are now wide spread through most of Nevada. This rapid migration of both junipers and pinyons has been aided by birds.

Engelmann spruce moved north from Utah's mountains. Its farthest advance to the northwest is Pilot Peak and a single stand in Thorpe Canyon of the Rubies.

Also from southern Utah have come white firs. These firs dominate mountain ranges around Ely, and are the dominant conifer on Spruce Mountain. The one stand found farthest north is, or was, the firs in Seitz Canyon.

Bristlecone pines were hardy enough to stay here and survive ice age conditions. They are now found in several mountain ranges of southeastern Nevada. The farthest north they can be found is, you probably guessed it, the Eastern Humboldt Range and one stand in the northern Rubies. These bristlecones can be seen in Thomas Canyon.

Why have these migrations reached the Rubies but gotten no farther? One factor is probably the good habitat offered by the Ruby Mountains. Species have been able to grow here that have not survived elsewhere. A second factor is blind luck. These migrations began so recently, no clear pattern has yet emerged.

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