

## Migrating conifers By Larry Hyslop



Single-leaf piñon pines migrated north after the last ice age

This is one more reason the Ruby Mountains are such a unique mountain range. During the most recent ice age, about 15,000 years ago, the harsh local conditions meant most conifer tree species died out. The only ones we know that survived in and around the Ruby Mountains were bristlecone pines, limber pines and common juniper (a low, spreading mat of prickly juniper.)

As glaciers retreated and conditions improved across this area, conifer species have gradually extended their ranges back into this area. These migrations are still taking place and most have reached the Ruby Mountains but no farther.

One main migration route has been from the mountain ranges of southeast Idaho, through the Jarbidge Mountains. Whitebark pines migrated south and are now found in the Jarbidge and Independence Mountains but no farther south than the Ruby Mountains.

Most mountain ranges are covered with firs, pines and spruces, with whitebark and limber pines occupying a thin band right along the tree line, which is the highest elevations where trees can survive. But here in the Rubies, these two pine species dominate the slopes from ridge top to canyon bottom.

The tall, conical subalpine firs have also migrated from Idaho and are now the main conifers in the Jarbidge and Independence Mountains, but they have not quite arrived here yet. The closest they have come to the Rubies is Lone Mountain about 30 miles north.

A second migration route is through 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. Following the last ice age, they have quickly spread back north. Piñon pines migrated about 400 miles in 8,000 years, averaging about 1 mile every 20 years. Piñons are found in most of Nevada's central and southern ranges but their migration north has reached no farther than the Rubies and East Humboldt Range. Junipers are now wide spread through most of Nevada. This rapid migration of junipers and piñons was aided by birds.

From southern Utah have come white firs. These firs cover mountains around Ely, and are the dominant conifer on Spruce Mountain. Their farthest point north is one stand of firs in Seitz Canyon of the Rubies.

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

Bristlecone pine survived the ice age and is found in several mountain ranges of southeastern Nevada. The farthest north they can be found is, you probably guessed it, the Rubies and the Eastern Humboldt Range.

Why have these migrations gotten here but 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, that no clear pattern has yet emerged.

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