Creation Research Society Quarterly 2013. 49:230–235

Upright Petrified Trees of Ramshorn Peak, Montana

Arthur Manning*

Abstract

Two upright petrified trees on Ramshorn Peak, Montana, were examined. One is quite large and located near the summit of this high mountain. The second is unusually tall and is located at a lower elevation. They are similar to those found in the Specimen Ridge area of Yellowstone National Park. Field evidence corresponds with a Flood model, based on observations from the 1980 Mount St. Helens eruption. They were likely catastrophically uprooted, then floated on the waters, and then sank in an upright position, where they were buried and petrified. Finally, they were exposed by the uplift of the land and erosion of the Floodwaters running off in the recessive stage of the Flood.

Introduction

Ramshorn Peak is the highest mountain in the Gallatin Petrified Forest, located in Montana, adjoining the northern boundary of Yellowstone National Park. The altitude at its summit is over 10,200 feet. Vertical petrified trees are found there, like those in the Specimen Creek and Specimen Ridge areas of Yellowstone National Park. Though Gallatin Petrified Forest is not part of Yellowstone National Park, it is still illegal to disturb the petrified trees and stumps there, just as it is in our national parks.

The Ramshorn Peak petrified trees are found in Absaroka volcanics, which are composed of "nearly horizontal layers of volcanic breccias, conglomerates, and ash" (Hergenrather et al., 2012, p. 59). These volcanics are said to have been "deposited by underwater mudflows and landslides mixed with large angular volcanic rocks" (Hergenrather et al., 2012, p. 71).

Creationists have studied the petrified trees in Yellowstone National Park and have found significant evidence of their formation during the Flood (Arct, 1991; Austin, 1986; Coffin, 1976, 1979, 1983a, 1983b, 1987, 1997). These researchers have proposed that Floodwaters uprooted live trees, stripped off their bark and branches, and waterlogged the remaining trunks, causing them to sink, many in a vertical orientation due to their heavier base (Austin, 1986). Then they were rapidly buried and later petrified by dissolved minerals. A modern analog was seen at the Mount St. Helen's eruption of May 18, 1980. The initial blast triggered a landslide into Spirit Lake, and the resulting wave that impacted the opposite shore uprooted hundreds of thousands of large trees. Many of these trees were stripped of bark and branches and formed a giant log mat on Spirit Lake. As they became waterlogged, the trees sank (some in the vertical orientation) to the bottom of the lake (e.g., Coffin, 1997, pp. 30–37). Today there are many upright trees in the bed of Spirit Lake. They are not now petrified, but if they were buried in sediments with the proper diagenetic environment, they would be quite similar to the fossils at Specimen Ridge and Specimen Creek in Yellowstone National Park.

* Arthur Manning, Millville, NJ, RNTC@juno.com
Accepted for publication December 4, 2012

There was previously a sign in Yellowstone National Park explaining that the petrified trees on Specimen Ridge were the result of growth, burial, and petrification of 27 distinct forests in a uniformitarian manner. These cycles would have required long ages, and the Yellowstone trees were once used as an argument against the creationist position. However, the sign has been removed. Subsequent studies have provided evidence for deposition in an aqueous catastrophe (Arct, 1991; Coffin, 1997).

Other studies (Juby, 2006; Oard and Giesecke, 2007) have shown that similar catastrophic explanations work well for other examples of fossilized trees. Adding to these, this paper will explain how the Flood provides a good model for petrified trees found on Ramshorn Peak in Montana.

Ramshorn Peak

Near the trailhead to Ramshorn Peak at the Tom Miner Campground, a visitor can follow a half-mile interpretive trail that highlights geological features with explanatory signs. One such sign reads, in part:

> The rocks in these conglomerate (rounded rocks) or breccia (angular rocks) beds often show reverse sorting (fine to course upward) or reverse to normal. The easiest explanation for these textures is movement of rock flows under water. Some of the beds are chaotic (show no sorting). Modern volcanoes rarely leave deposits such as these making it difficult to compare current eruptions with eruptions from the past.

While the sign refers to the geology of the Tom Miner Basin, the same type of geology can be observed as one continues to higher elevations of Ramshorn Peak.

In addition, there are petrified logs in the rocks of the interpretive trail, as well as more in the rocks above the trail. As one hikes up the flanks of nearby Ramshorn Peak, there are many places where petrified logs can be seen. They occur over an elevation change of approximately 3,000 feet. If these rocks were rapidly and chaotically deposited (as the geology indicates), then the depth and extent of water required to deposit this volume of rock so quickly would seem to argue for the Flood. Furthermore, these volcanic rocks reach much greater thicknesses nearby, often up to 6,000 feet (Hergenrather et al., 2012, p. 59)!

King of Ramshorn

Several of the petrified logs on Ramshorn Peak are notable for their impressive size, and there are some enormous stumps near the 10,000-foot level, not far below the summit. However, anyone wishing to see them should be aware of the extremely hazardous conditions, including steep slopes, sheer cliffs, and loose rocks. The most notable of these stumps (Figures 1 and 2) is an upright specimen measured on August 14,

Figure 1. Large petrified tree near the summit of Ramshorn Peak: "King of Ramshorn."

Figure 2. Same petrified tree as Figure 1. Grey camera case above white streak near the base of the stump is 7 inches high.

2007. Its dimensions were 11 feet, 2.5 inches high on its upslope side and 18 feet, 9.5 inches high on the downslope side. Its circumference was 28 feet, 11 inches, which means an average diameter of 9 feet, 2 inches. Fisk (1976, p. 54) referred to this tree, which he identified as a redwood, as the "King of Ramshorn."

Analyzing this tree from an uniformitarian point of view, it is remarkable that such an enormous stump could be found at this elevation (well above the present tree line). In searching the literature, I could find no record of petrified logs at such a high elevation. Perhaps those near the summit of Ramshorn Peak are the highest in the world. Given the elevation, the area had to have been uplifted to its present altitude after the trees were emplaced.

A Flood explanation would include the following: living trees were uprooted and stripped of bark and branches by Floodwaters, and then floated until they were waterlogged. Once waterlogged they settled into the substrate volcanics or, more likely, were transported by the submarine mud and rock flows, and then were buried. Following this burial, diagenetic processes petrified the logs. The area was then uplifted to its current altitude, possibly during the recessive phase of the Flood. Floodwater retreat also produced massive erosion, which exposed the petrified logs. Minor erosion would have taken place by rain and snowmelt since the Flood.

World's Tallest Upright Petrified Tree?

A second notable upright petrified tree is also located on Ramshorn Peak (Figures 3 and 4). This tree is at the face of a cliff, well below the summit. Located far from any trail and not visible from any trail, Coffin (1997, p. 14) claimed that it may be the tallest standing petrified tree in the world.

On July 29, 2012, I measured its height as 34 feet, 3 inches. Its base diameter is 2 feet, 11 inches, and the diameter of its upper portion is 2 feet. Its base is at the base of a cliff, and its top extends over ten feet above the cliff. It is pictured in Wilbur and Hansen (1992, p. 180) and in Coffin (1997, p. 14). Coffin (1997) estimated its height

Figure 3. Tall petrified tree on Ramshorn Peak. Photo taken from base of cliff. It is possible to climb into an opening to the right of the tree and pass around to the back of the tree from whence one can look up to the top of the cliff.

at approximately 15 meters (49.2 feet). My measurement showed that it was much shorter, although it is possible that part of the tree was broken off since he obtained his measurements. However, when I compared my photograph of the tree in Figure 3 to the older photos it appeared that it may have lost about a foot, but certainly not 15 feet. Even so, after a search of the literature, a 34-foot-high petrified tree is about twice as high as any other petrified tree for which I could find a record. Also, it is not possible to determine how deep this tree is embedded in the rocks, so its total length could be more than 34 feet.

Would such a tall tree have floated and been emplaced in a vertical position, or does this indicate that the tree was petrified where it grew? Would the base of such a tree would have been substantial enough to change a floating tree of this height from a horizontal to a vertical orientation? Coffin (1983b, p. 149) provided a photograph of an upright tree (not petrified) that was transported and deposited by flooding associated with the Mount St. Helen's eruption. He states that it was about 30 feet tall.

The tall petrified tree on Ramshorn Peak is most likely visible in outcrop today because of the extensive erosion of the recessive stage of the Flood. Its location along a cliff probably protected the lower part of the tree from erosion, although the part elevated above the cliff would have been subjected to that erosion. Slow exposure of an upright petrified tree by modern-day erosive forces, as assumed by the petrification in situ model, could possibly result in very tall trees being revealed over long periods of time. However, the typical height limit of such trees is about 15 feet, as seen in upright petrified trees at Specimen Ridge and Specimen Creek, as well as in those in Malm Gulch, Idaho, Theodore Roosevelt National Park, North Dakota, and Florissant Fossil Beds National Monument, Colorado (Manning, 2002). A shorter trunk could withstand massive erosion. A taller trunk, however, normally would be toppled over, broken up, and eroded away, or it would be split by such erosion, leaving behind a shorter stump.

So the universal lack of taller upright petrified trees is indicative of the massive erosion of the Flood, not slow, gradual erosion having exposed them. This particular tree would have survived such massive erosion only because of its location at the base of a cliff, with only the top portion of less than 15 feet exposed to the full force of such erosion. Perhaps the top was even higher originally but was broken off by the massive erosion

Figure 4. Measuring the upper portion of the same petrified tree as shown in Figure 3.

associated with the recessive stage of the Flood.

One possible objection to this model for the lack of higher petrified trees might be the argument that this lack would have been due to the process of water freezing in the cracks in the tops of petrified trees, expanding, and slowly deteriorating the tops, decreasing their height. However, this process also would have decreased the height of this high tree to a height of about 15 feet unless this tree was much higher than all the others to begin with, which would seem to be very unlikely, considering the much greater diameter of other trees that are much shorter. In addition, this exceptionally higher tree's location at the foot of a cliff would have been quite coincidental.

Summary

Anyone contemplating visiting this region should be aware of the dangers mentioned above and travel in a group, bring enough water, and carry bear spray since this is grizzly bear country. Also, it is imperative to return from any hiking in this area before dark because of the grizzly bears. A safer alternative is to hike up to see the upright petrified trees at Specimen Ridge in Yellowstone National Park. Hergenrather et al. (2012) give more details about this hike.

There are large petrified tree stumps near the summit of Ramshorn Peak. Their presence is best explained by the events of the Flood rather than uniformi-

tarian geology. They are well above the tree line and so could not have grown in situ, unless the area was significantly uplifted after the trees were fossilized. Also, the surrounding rocks apparently were deposited under water at very high rates. Then there was significant erosion afterward that exposed the trees. Another petrified tree lower on the mountain was found to be exceptionally tall. This tree probably was preserved at such a large height because it was sheltered from erosion by the adjacent cliff. Like similar fossils in Yellowstone National Park, these trees on Ramshorn Peak appear to stand in support of the biblical history of a global Flood.

Acknowledgments

I wish to acknowledge, with appreciation, the help and companionship of Brent Carter, Barak Havens, and Nathan Havens in studying these upright petrified trees. Also, the editorial suggestions of anonymous reviewers significantly improved this article.

References

Arct, M.J. 1991. Dendrochronology in the fossil forests of the Specimen Creek Area, Yellowstone National Park. Ph.D. Diss., Loma Linda University Graduate School, Loma Linda, CA.

Austin, S.A. 1986. Mount St. Helens and catastrophism. In Walsh, R.E., C.L. Brooks, and R.S. Crowell (editors), *Proceedings of the First International Conference on Creationism*, pp. 3–9. Creation Science Fellowship, Pittsburgh, PA.

Coffin, H.G. 1976. Orientation of trees in the Yellowstone petrified forests. *Journal of Paleontology* 50:539–543.

Coffin, H.G. 1979. The organic levels of the Yellowstone petrified forests. *Origins* 6 (2):71–82.

Coffin, H.G. 1983a. Erect floating stumps in Spirit Lake, Washington. *Geology* 11:198–199.

Coffin, H.G. 1983b. *Origin by Design*. Review and Herald Publishing Association, Hagerstown, MD.

Coffin, H.G. 1987. Sonar and scuba survey of a submerged allocthonous "forest" in Spirit Lake, Washington. *Palaois* 2:179–180.

Coffin, H.G. 1997. The Yellowstone petrified forests. *Origins* 24(1): 5–44.

Fisk, L.H. 1976. The Gallatin "petrified forest": a review. *Montana Bureau of Mines and Geology Special Publication* 73:53–72.

Hergenrather, J., T. Vail, M. Oard, and D. Bokovoy. 2012. *Your Guide to Yellowstone and Grand Teton National Parks*. Master Books, Green Forest, AR.

Juby, I.A. 2006. The fossil cliffs of Joggins, Nova Scotia. *Creation Research Society Quarterly* 43:48–53.

Manning, A. 2002. *Petrified Wood in the U.S.A.—Where to Collect It, Where to See It*. Self-published, Lancaster, PA.

Oard, M.J., and H. Giesecke. 2007. Polystrate fossils require rapid deposition. *Creation Research Society Quarterly* 43:232–240.

Wilbur, J., and K. Hansen. 1992. Change in a petrified forest and implications towards management. *Environmental Management* 16:179–186.