

Unnamed lake near Marston Pass, Buffalo Plateau



September 4, 1893

Thomas A. Jaggar 117 US Geological Survey



September 10, 1968

George E. Gruell, US Forest Service



September 4, 2018

Michael F. Merigiano US Forest Service

#### Description:

All of the terrain is the Wiggins formation, a water-laid, sedimentary rock made of mostly andesite fragments in a sandy matrix -- a breccia -- which weathers to coarse sand and loose andesite fragments. The sky-line ridge elevation is 11317 feet. The low, gentle ridge beyond the lake is the continental divide, and a fork of Marston Creek drops steeply down to the South Fork Shoshone River. The old Marston Pass trail passed through here, and the Hague expedition used it; some trail sections were present in 2018.

Since 1893, ice patches have diminished, the few trees have grown taller, and the grass-like vegetation has expanded. The immediate foreground in 1893 is mostly barren, due to late-melting snow. Woodrush sedge is an early colonizer on such sites, and Parry's rush apparently follows it. Both dominate the turf-like patches. More expansive views in the area show the sedge and rush expansion on similar sites. The turf was yellow-orange in 2018 (and 2017, on a previous visit on the same day), and was likely the same color in 1893. Such warm colors show as dark gray on early films, and on the orthochromatic film used in 2018. The film used in 1968 has a more-even spectral sensitivity, so warm colors do not have the same tonation. In 2018, other species in the formerly barren area were pale agoseris, a bent-grass, aster, skyline bluegrass, and elephant head lousewort. For this same area in 1968, Gruell reports sedges, pale agoseris, varileaf cinquefoil, Escholtz buttercup, and a parsley. He also noted significant expansion of sedge, which was probably more obvious in the field than in the photo. Gruell describes the soils as a silt-loam. It appears constant through time, and was a coarse sand with loose rock in the foreground. Some lake-margin areas, with marsh marigold, could have finer-textured soils, but these were not examined in 2018.

Shadows are less stark in 1893 due to high, thin clouds. The timing of the 2018 image is about 45 minutes earlier than Jaggar's. Gruell's cairn marking his camera station was about 2 feet NE of the 2018 station.