

# Dating American Indian Culturally Modified Ponderosa Pine Trees on the Payette National Forest

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On the Payette National Forest (NF) some American Indian traditional cultural properties are identified by the presence of culturally modified ponderosa pine trees. Since 1975 Payette NF heritage staff have been identifying and documenting the presence of culturally modified trees CMTs. CMTs have been found across the Payette NF of west-central Idaho from the Snake River Trench in the west to the Middle Fork of the Salmon River to the east.

Heritage staff evaluates CMTs as meeting criteria D eligibility to the National Register of Historic Places. That is because these trees can provide absolute dates as to when American Indians culturally modified the trees. When dead CMTs are sampled two dates are determined from each CMT. The age of the tree is measured by counting tree rings from the center core to the unmodified bark layer. When the tree was peeled by American Indians is determined by counting the rings from the center core to the edge of the peeling scar. Heritage staff are careful in selecting CMTs that have been growing on dry landscapes away from water sources. Extra water availability for the tree can generate extra tree rings called false rings. CMTs growing on dryer landscapes will not be a variable in accurately counting the sensitive single annual growth rings in determining the absolute date.

There are several large ponderosa pine groves on the Payette NF with individual trees revealing cultural modifications of bark and cambium removal and cutting marks. Culturally modified trees (CMTs) have been identified along the South Fork of the Salmon River. During the late 19<sup>th</sup> century the Weiser Shoshone and the White Bird Band of Nez Perce Tribal members fished chinook salmon. Today, the Shoshone – Bannock and the Nez Perce Tribes annually visit their chinook salmon fishing sites that are adjacent to cambium peeled pine trees. On July 1, 2005, the author visited with Shoshone - Bannock Tribal members while they were harvesting chinook salmon in the South Fork of the Salmon River and camping at a ponderosa pine grove containing more than 20 CMTs (PY-954 / 10VY547).

Heritage staff began monitoring CMTs in 1989 with the intent of obtaining dates as to when the CMTs were used. In 1993 a dead CMT was found in Adams County (PY-1199 / 10AM363). This tree was felled and a cross-



section removed that bisected the cambium peeled scar. The rings were counted. The total age of the tree in 1992 when it died was 162 years. It was peeled when the tree was 57 years old in the year 1887. In the South Fork of the Salmon River at Buckhorn Bar there is a large ponderosa pine grove with about 20 CMTs (PY-954 / 10VY547). In 2005 while monitoring, it was noted that two CMTs died. Heritage staff with a chainsaw certified tree faller obtained two cross-section samples from the two dead trees. The cross-sections were sanded smooth and the rings were counted. Both samples were culturally modified to circa 1855. Upstream two miles from Buckhorn Bar another dead and fallen CMT (PY-646 / 10VY645) was found. This tree was killed in the August 2007 wildfire. In August 2008 a cross-section was removed, sanded and the rings were counted. This tree was greater than 300 years old. The tree was peeled when it was 152 years old in 1855.

On August 1, 2005 Salmon River Chapter members accompanied the author on a historic properties evaluation in the Frank Church-River of No Return Wilderness. During this time a Salmon River Chapter member identified a large ponderosa pine CMT grove (PY-1736 / 10VY1298). This grove contained as many as 22 CMTs, one of which was standing dead. A two-person cross-cut saw was acquired and the dead tree was felled. A cross-section was removed, sanded smooth and the rings were counted. This tree was over 300 years old and it was culturally modified in circa 1830.

To date, heritage staffs have sampled a total of 13 dead CMTs. Eight samples provided solid cores with tree ring dates ranging in age from 1830 to 1897. It is likely that these ponderosa pine trees were culturally modified by Nez Perce and Northern Shoshone Tribal members in the 19<sup>th</sup> century during their seasonal subsistence rounds.

For further reading on this subject the following reference can be acquired upon request:

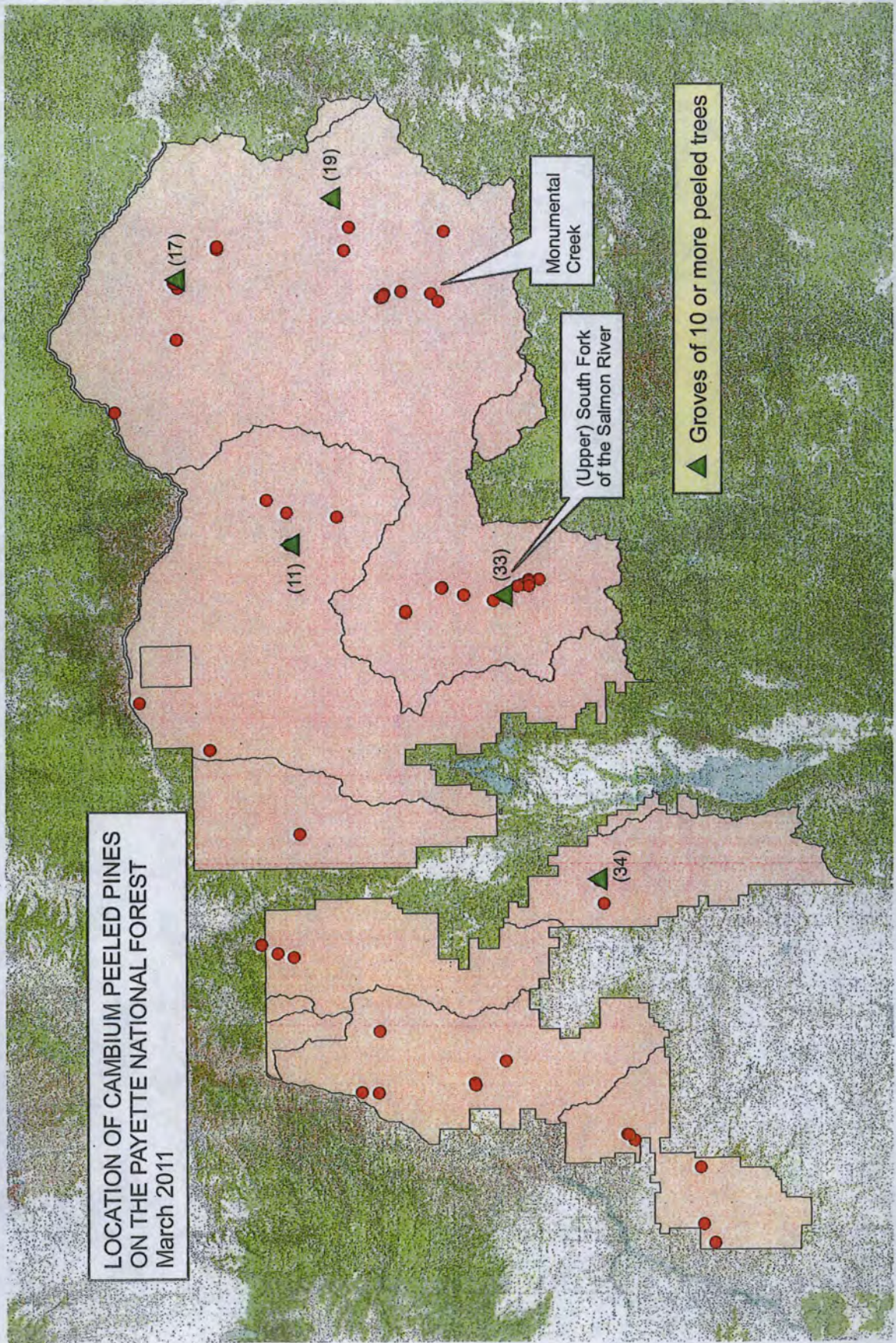
Ready, Sheila D.

1993

Peeled Trees on the Payette National Forest, Inner Bark Utilization as a Food Resource by Native Americans, USDA Payette National Forest, Supervisor's Office, McCall, Idaho 83638







**Figure 2.**