

## New woolly mammoth dated 5,725 BP on St Paul Island, Alaska

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Evolutionary scientists at one time assumed that the woolly mammoth became extinct at about 10,000–11,000 years BP (before present), the end of the Pleistocene.<sup>1</sup> This corresponds to the timing of the end of the ‘last’ Ice Age, which was characterized by a mass extinction. During that extinction, when the ice was almost gone and temperatures were rebounding, 70 to 75% of animals greater than 45 kg became extinct in North America and Eurasia, and 90% in Australia.<sup>2</sup> This end-Ice-Age mass extinction is a major mystery within the evolutionary worldview.<sup>3</sup>

### Mammoths from time of Egyptian civilization in northeast Siberia

It came as a mild shock to evolutionary scientists that mammoth bones were discovered on Wrangel Island, at the edge of the Arctic Ocean continental shelf off northeast Siberia. Using carbon-14, these remains

were ‘dated’ as between 7,000 and 4,000 BP.<sup>4,5</sup> Of course, the carbon-14 dates were questioned by those who believed that mammoths died out long before, but the dates were claimed to be accurate by supporters of the Wrangel Island results.<sup>6</sup> Stuart *et al.* sum up:

“Previous assumptions that the megafauna of northern Eurasia had disappeared by the Pleistocene/Holocene transition [about 10,000 BP] were first challenged a decade ago by the discovery that the latest woolly mammoths on Wrangel Island, northeastern Siberia were contemporaneous with ancient Egyptian civilizations.”<sup>7</sup>

### Woolly mammoths on St Paul Island, Alaska

The young age of the mammoths on Wrangel Island was considered an anomaly—a result of island isolation after the end of the Ice Age. But now there is another island with late surviving woolly mammoths, and that is St Paul Island, Alaska.

It had been known for a long time that woolly mammoth bones occur on St. Paul Island. This is one of the Pribilof Islands at the edge of the wide Bering Sea continental shelf, lying some 500 km west-southwest from the nearest point on the Alaskan mainland. But now, remains of woolly mammoth from a cave on that island have been dated to 5,724 BP by carbon-14.<sup>8</sup> So, the

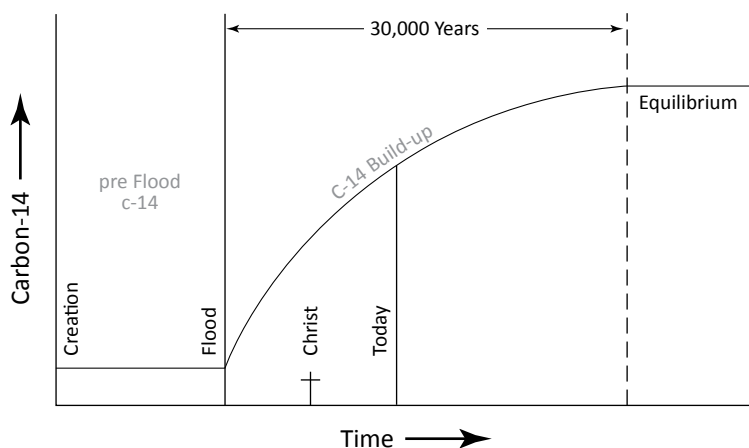
idea of woolly mammoths surviving well past the Ice Age on isolated islands has been reinforced.

### Creationist implications

The idea that woolly mammoths almost became extinct at the end of the Ice Age with only a few small populations surviving for a while on a few isolated islands fits well with creationist ideas.<sup>3</sup> This assumes that, although the absolute dates obtained from the carbon-14 analysis are far too old, the relative dates are acceptable (although even this assumption can also be questioned because there are issues of contamination, which would affect the relative dating).

Creationists have transformed the carbon-14 dating method by using a non-equilibrium model. With this method the ages calculated from the carbon-14 analysis are much less than by the conventional carbon-14 method, and the results are consistent with the biblical date for the Flood. The non-equilibrium model is based on the fact that more carbon-14 is being produced in the atmosphere today than is decaying back to nitrogen-14 in the biosphere. This out-of-balance in the system points to a global disturbance in the not-so-distant past which correlates well with the massive disruption of the global Flood. This means that the carbon-14/carbon-12 ratio, which is what the instruments normally measure, would have been much different in the past, before, during and immediately after the Flood.<sup>9</sup> It is estimated that much more carbon-12 existed in the biosphere before the Flood and immediately after the Flood, which means that the dates obtained from the carbon-14 analysis need to be corrected. Considering these variables, the carbon-14 method dates from the time of the Flood to today would be greatly altered.

The end of the Ice Age was not a period of increasing warmth following centuries of extreme cold, which is typical of the uniformitarian ice age models. Rather, in the creationist model, winters early in the Ice Age were mild and summers cool, but late in the Ice Age winter would



**Figure 1.** The non-equilibrium model for carbon-14 levels in the atmosphere through history is based on the fact that more carbon-14 is being produced in the atmosphere today than is decaying back to nitrogen-14 in the biosphere. This imbalance points to a global disturbance in the not-so-distant past which correlates well with the massive disruption of the global Flood



**Figure 2.** Replica of a woolly mammoth at the Lovci mamutuz exhibition at the National Museum in Prague.

become severely cold. The late Ice Age would also be drier than today and characterized by strong windy dust storms. Blowing dust can explain many of the observations of woolly mammoths from Siberia.<sup>3,10</sup> Because of the cold and dust storms, and drought in many areas, the animals that thrived earlier during the Ice Age were severely stressed. These are the main reasons so many animals, including the woolly mammoth, became extinct at the end of the Ice Age.

Many animals would become trapped on what are now islands as sea level rose while the ice sheets melted. The animals were probably able to survive for awhile on these islands, since the dust storms likely were not as severe. Also, the temperatures on isolated islands were milder in the winter, and it was only the interior of mid- and high-latitude continents that record the coldest winter temperatures.

For the islands along the edge of the continental shelf, like Wrangel and St. Paul Islands, the sea level during the Ice Age was probably not low enough to connect the islands to the mainland. But, the mammoths could have easily swum to these islands from the exposed mid continental shelf. Elephants have been known to swim a fair distance in historical time, even to islands they cannot see. Mammoths populated the Channel Island off Southern California across

deep water during the Ice Age.<sup>11</sup>

Another interesting implication of the mammoth remains on St Paul Island applies to creationist models of the Flood and the demise of the woolly mammoth. Walter Brown postulates that the mammoths on Siberia and Alaska died in a quick freeze at the *beginning* of the Flood by being buried in muddy hail.<sup>12</sup> However, most of the evidence points to the mammoths becoming extinct at the

*end* of the post-Flood Ice Age.<sup>13</sup> If they died early in the Flood, the remains of mammoths would be found at the *bottom* of sedimentary rocks, but they are found in frozen, unconsolidated sediments at the *top* of sedimentary rocks. For instance, a huge amount of mammoth remains lie on top of the New Siberian Islands; they lie on top of carbonates with marine fossils, coal layers, and other sedimentary rocks.<sup>14</sup> Some of these sedimentary layers were once as deep as 15,000 m before they were deformed. Woolly mammoths have also been discovered on *top* of glacial till in northwest Siberia.<sup>15</sup> The glacial till is the debris left over after the melting of the ice sheet. These observations seem to falsify Brown's prediction 20: "One should not find marine fossils, layered strata, oil, coal seams, or limestone directly beneath undisturbed rock ice or frozen mammoth carcasses."<sup>16</sup>

The fact that the mammoth remains on St Paul Island are found in a cave points to a post-Flood event. Although caves likely formed late in the Flood, the action of the mammoth discovering and dying in the cave when sea level was quite low shows that the St Paul Island mammoths lived in the post-Flood period at the end of or soon after the Ice Age.

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