To begin addressing this knowledge deficiency, the WSENPP provided research funds to A small piece of bone (2 cm maximum dimension), found in one of the caves was sent to BETA Analytic Lab for AMS radiocarbon dating and stable isotope analysis for stable isotopes.

A 2 cm bone fragment collected from one of the Hidden Valley caves yielded a calibrated radiocarbon age of 170 +/- 40 BP. Bone collagen analysis yielded stable isotope data (13C/12C = -19.0 o/oo and 15N/14N =+4.7 o/oo). The low nitrogen value coupled with a marine or C3-C4 plant signature from the carbon isotopes suggest that this mammalian cave dweller either ate marine food sources (bear/salmon) or consumed lower trophic level C3-C4 plants (caribou/lichen).

**Discussion and Conclusion**

Preliminary results indicate greater bedrock dissolution and a richer cave resource area in the Hidden Valley area compared to the Nizina and Chitistone limestones. Ancient structures likely formed by upwelling phreatic waters and later exposed by glacial erosion are now incidental karst features due to the rapid rate of ice retreat. Many of these ancient structures (e.g., chimney caves, sump caves) were found in the Hidden Valley area. This was also a finding for the survey team. The Nizina River area team found mostly first pockets and not much cave development. Ratcliffe et al. 2000, Szepanski et al. 1999). Future surveys will continue to identify dissolution features and cave development in other regions of the WSENPP.

**REFERENCES**


For further information:

http://www.caves.org/

http://www.uas.alaska.edu/envs/caving/index.html

http://www.caves.org/Karst

**ABSTRACT**

During August 27-September 6, 2008, a team of 13 Alaskan and international speleologists traveled to Wrangell St Elias National Park and Preserve to survey karst and caves in three bioregional areas in the western park region near McCarthy, Alaska: 1) The Nizina River and its West Forks 2) The upper eastern Kenai Peninsula and Wrangell, and 3) Hidden Valley, a karst region near McCarthy. Preliminary results indicate greater bedrock dissolution and a richer cave resource area in the Hidden Valley area compared to the Nizina and Chitistone limestones. Ancient structures likely formed by upwelling phreatic waters and later exposed by glacial erosion are now incidental karst features due to the rapid rate of ice retreat. Many of these ancient structures (e.g., chimney caves, sump caves) were found in the Hidden Valley area. This was also a finding for the survey team. The Nizina River area team found mostly first pockets and not much cave development. Ratcliffe et al. 2000, Szepanski et al. 1999). Future surveys will continue to identify dissolution features and cave development in other regions of the WSENPP.

**INTRODUCTION**

The Nizina River and its West Forks, the Wrangell Mountains, and the Chitistone Limestone are a part of the Wrangell St Elias National Park and Preserve (WSENNP) located in the Wrangell Saint Elias National Park and Preserve, Alaska. The Nizina and Chitistone Limestone are part of the upper eastern Kenai Peninsula and Wrangell, and 3) Hidden Valley, a karst region near McCarthy. These karst areas together are a part of the Wrangell St Elias National Park and Preserve (WSENNP) located in the Wrangell Saint Elias National Park and Preserve, Alaska.