Greetings fellow cavers, and Happy New Year!

The Glacier Grotto has been active with meetings occurring this past year in both Juneau and Ketchikan, a late summer expedition to the Chitistone and establishment of the UAS Caving Club. Welcome to new members in both communities and welcome back to those members that are still active. Activities this past year in the Juneau area included several meetings at the climbing wall in the new UAS Recreation Center, slide shows and cartography presentation and a talk on caving ethics and conservation of karstlands in the Tongass by the Grotto conservation chair, Steve Lewis from Tenakee Springs. Southeastern Alaska’s "first family" of caving, Kevin and Carlene Allred, also made a Grotto-sponsored trip by ferry to the Capitol City in April to present the use of Corel Draw for digital cave cartography, and to work with UAS Geologist and Grotto member Cathy Connor on a rock bolting project similar to that used on karst in other areas of the Tongass National Forest, that will hopefully provide baseline dissolution rate measurements at the Mendenhall Glacier and near to the UAS campus. In addition, a group of cavers lead by Kevin Allred made a trip to the Chitistone in Wrangell St-Elias to access and survey an unexplored cave that is part of a cave system that they have been working on in past years. Kevin Allred continues to explore the underbelly of Ketchikan town and has elicited additional interest from a group of locals to meet and possibly make a few trips to Carroll Inlet and other karst areas near to Ketchikan. For those of you in the Ketchikan and outlying communities, please contact Kevin Allred for meetings in the Ketchikan area. Also please join me in another round of applause and very heartfelt thanks to Carlene Allred for her hard work on the editing, compiling, organizing and mailing of the Alaskan Caver. Because of your dedication, Carlene, we all have an attractive, professional publication to look forward to reading. Thanks so much!

(continues on page 10)
A LOOK AT THE BURREN
October 2006, by Carlene Allred

The Burren is a large mass of exposed, multilayered carboniferous limestone located in County Claire, Ireland. This landform extends for over 40 km from east to west, and 32 km from north to south. The name Burren is derived from bhoirrann, which means a stony place.

Figure 1. Geologic map of the Burren showing carboniferous areas and photo sites. Layering from younger to older- SLII; Lissylisheen Fm (purple), SLbe; Ballyelly member (pale blue), SLfh; Sahee North member (pale gray), SLbi; Balliny member (pale purple), Buau; Aillwee member (upper) (pale green), Bual; Aillwee member (lower) (pale tan).
A- Caherconnell area, see figure 2.  B- Poulnabrone area, see figures 3 and 4.  C- Ballyconry area, see figure 5.  D- area south of Ballyallaban, see figure 6.  E- Aillwee Cave, see figures 7 through 9.

What was I doing in Ireland during October? I was traveling with a Ketchikan folk band called Paddys Leather Breeches. We had been invited to compete in the 2006 Seisiun Na H-Eireann Festival, which is competition between Irish pub session house bands. We represented the Crow's Nest, Ketchikan's Coast Guard recreational facility, where we hold our dances and music sessions. I was the fiddler, one of eight musicians traveling to Ireland. This festival was held in the small picturesque town of Quin, in County Claire.

After the festival we did some touring. I had been wanting to see the Burren, so on October 3rd we drove out there. I had in mind to compare Ireland's karst with our own in Southeast Alaska. Both are on islands bordering the eastern edges of great oceans. One difference is that Alaska's is still heavily forested, while Ireland's is now nearly barren. According to pollen studies by W. A. Watts and K. Crabtree (see Add. Reading section at the end of this article), seven thousand years ago much of the Burren was forested with hazel, scots pine, yew, and oak, and has since undergone the process of man-induced deforestation over the past 6000 years. This deforestation was most likely caused by overgrazing and overuse. Presumably, once the forest canopy was gone, the open ground became subject to increased weathering, and the soils were lost down the numerous openings into the underground drainage systems below.

From our rented farmhouse near Ennis we drove north to road 480, which took us into the heart of the Burren. The pastoral green farmland country, so characteristic of Ireland, gave way to more barren rocky karst terrain. As we toured some old archeological sites I found myself fascinated with the karst landforms (see figures 2 through 4). The flatter land surfaces were textured with a pavement network of interlaced grikes and clints. The bedding plane is nearly horizontal and the terrain has been scraped by glacial action, thus the characteristic karst pavement. An interesting array of plants root in the numerous grikes and provide grazing for livestock. I have never seen karst pavement anything like this in Alaska.

From a distance the layered carbonate hills of the Burren appeared gently rounded and barren, (see figure 5). I would have liked to have had the opportunity to walk across one of them and I imagine there would be some very

The Alaskan Caver, Volume 27 No. 1 page 3
Figure 3. Karst pavement with grikes and clints in the Poulnabrone area. Photo by Anita Hales.

Figure 4. Vicky O’Brien standing in a grike amidst karst pavement in the Poulnabrone area. Photo by Carlene Allred.

Figure 5. Looking westwards towards carbonate uplands of the Ballyconry area. Photo by Carlene Allred.

Figure 6. A typical rocky hillside on the Burren in the area south of Ballyallaban. Photo by Carlene Allred.

Our group took the opportunity to tour a commercial cave that was entered on a barren, rocky hillside. Aillwee Caverns is a joint-and-bedding, controlled phreatic cave that contains 210 meters of rough areas to cross (figure 6). Interestingly, even the roughest, most barren parts we saw were sparsely crisscrossed with old rock walls, indicating land use in even the most inhospitable areas.

Figure 7. Solution pockets texture a lower ceiling area in Aillwee Cave, indicating phreatic genesis. Photo by C. Allred.

Figure 8. A bear’s bed in Aillwee Caverns. Depression diameter is estimated to be between 1.2 and 2 m. Photo by Anita Hales.