


# **NEWS FLASH**

## **The Selleck's Karst Preserve Is a Reality!**

The NCC now owns the Selleck's property! The closing was held early on the morning of February 9, 2002 at Lawyer Mike Breen's office and attended by Bob Addis, Christa Hay, Joe Levinson, and Trustee Mike Warner. Selleck's previous owners, the Ward family, stopped by for a word of thanks and photo taking. Our very successful fund raising effort entirely paid for the purchase. Bob Addis and Joe Levinson will start the process of securing property tax exemption with the Town of Carlisle. Member Al Lehman purchased the Kniskem Rd. culvert and transported the culvert to the site. The Town of Carlisle Highway Superintendent installed the culvert on February 14, 2002. We now can park on our own land to visit the preserve. The Selleck's Karst Preserve will be featured at the Spring NRO, with Bob Addis giving two guided tours of the surface features at 10AM & 1:30 PM. Jon Allison will lead a digging trip to re-open Levy's Cave. The other caves on the preserve will be open.



 Text Box: Northeastern Cave Conservancy News The Northeastern Cave Conservancy, Inc. (NCC) is a not-for-profit corporation committed to the conservation, study, management, and acquisition of caves and karst areas having significant geological, hydrological, biological, recreational, historical or aesthetic features. To these ends, the NCC combines the resources and expertise of affiliated cave explorers, educators, scientists, landowners, and conservation officials.

### Next Meeting

Saturday, March 3, 2002,  
10:30PM  
at the Carlisle Fire Department

Directions: The firehouse is right on Route 20 at the blinking light in Carlisle. The blinking light is at the end of Crommie Road which leads to Kniskern, where Sellecks is located.

• Discussion of the South Bethlehem Cave lease

agreement.

- Joe Levinson has moved to return \$2000 to the NSS Cave Acquisition Fund (this money for the Selleck's property were not necessary due to our successful fund raising efforts).
- Christa Hay has been appointed Publicity Committee chairman.
- The owner of Church and Wagon Wheel Caves was not interested in selling the 14.5 acre parcel for \$17K (as appraised by Roland Vinyard).

### Notes from the Last Meeting

- 1) The trustees elected the officers for 2002. Due to no other nominations the existing Officers were elected to the same positions.
- 2) We discussed the survey of the Selleck's property. [Update - On January 8, 2002, the Town of Carlisle Planning Board approved the sale and the closing occurred on February 9, 2002.]
- 3) Fund-raising will be an issue for next year. Everyone start thinking of ideas!
- 4) Thom Engel discussed an up and coming issue regarding Geo-caching. In some areas of the country, geo-cache buckets are being placed in caves and the coordinates of the caves are being made available to those involved in the sport. Something to watch out for!
- 5) The NCC will be purchasing stickers with our logo. We are also looking into alternate t-shirt vendors. [Update - the stickers are in and are available for \$2 ea. or free with a \$50 donation.]
- 6) We will have a spot for the NCC booth at 2002 NSS Convention. While the NCC booth at the convention this past summer was an improvement over the year past, next year it is even more important since the convention is on our "home turf". With that in mind, we are starting to plan early so that we raise more money/increase our visibility/recruit new members. Please let us if you are attending. Emily & our Office Committee is keeping the list of booth volunteers, so encourage members & others to sign up.
- 7) Positions available: Fund Raising Committee, Nominations Committee. Contact any Board member if you are interested.
- 8) Despite the efforts of 14 volunteers, the Brook's BBQ resulted in a loss of \$53. Thanks to the following crew of cavers that helped: Thom Engel, Tom Rider, Jon Alison, Ed Lucas, Stephanie Fischer, Charlie ?, Chuck Porter, Mike Martuscello, Jim Maughan, Emily Davis, Bob Addis, Craig Cantello, Monica Roth, Walter Roth, and Mike Warner. [I apologize if I missed anyone.]
- 9) Bob Addis reported on the NRO this past Fall and thanked all those who helped with the dinner and casting the 12 concrete survey markers for the Selleck's property.
- 10) The 2002 budget was approved.

### NYS Law on How to Fill a Trustee Position by Mike Warner

Chapter 1066 (which is the NYS law outlining non-profit corporate structure), Article 7, Section 705: Newly created directorships and vacancies -

- (a) Newly created directorships resulting from an increase in the number of directors elected or appointed at large, and vacancies among such directors for any reason, may be filled by vote of a majority of the directors then in office, regardless of their number, unless the certificate of incorporation or the by-laws provide that such newly created directorships or vacancies shall be filled by vote of the members.
- (b) Vacancies among directors elected or appointed by special districts or membership sections, or by bondholders voting as a class, shall be filled by action of the persons entitle to vote thereon; except that, if a vacancy remains unfilled for six month after it occurs, and by reason of the absence, illness, or other inability of one or more of the remaining directors a quorum of the board cannot be obtained, the remaining directors, or a majority of them, may appoint a director to fill such vacancy.
- (c) A director elected or appointed to fill a vacancy shall hold office until the next annual meeting at which the election of directors is in the regular order of business, and until his successor is elected or appointed and qualified.

[I think (a) applies to all our directors because they are all elected by at large vote of the membership. The "such directors" phrase probably means those "directors elected or appointed at large" and not just the earlier "newly created directorships." There are no other provisions for replacement of directors except (b), which does not seem to apply because we do not have bondholders, membership sections or special districts.]

### The Karst 'Cops' by Nick Jans

Volunteers find and map the caves of the Tongass

“Moving!”

“Moving!”

“Moving!”

The call echoes down the line, and fades into the undergrowth. Five of us are spread out at 30-yard intervals, whooping or whistling back and forth, struggling to stay in formation as we clamber through hillside patches of second growth timber, blowdowns scattered like enormous jackstraws, and understory brush beneath giant Sitka spruce and hemlock. The trees tower into the mist 200 feet above our heads. In their shadow, the entire world seems cast in luminous shades of green, coated with layers of moss; there is an almost desperate intensity to the foliage, the sheer mass of it, the way it leans toward the light and rises up.

Before me lies an all but impenetrable tangle of devil’s club and salmon berry. I grit my teeth, raise my arm to shield my face and plunge straight ahead. Like everyone else, I have a compass bearing to follow, my share of a grid to search. I don’t choose the terrain as much as it chooses me. And right now, I’m being inhaled.

I’m wearing a rain suit and rubber knee boots in a vain attempt to stay dry. Everything—leaves, trees, the clothes beneath my rain gear, my skin—drips with moisture. This is late June in Southeast Alaska; in September, the real rain starts.

“Stop!” The shout rings out on my left. I pass the word down the line and thrash toward the voice. Pete Smith stands on a fallen log, easily balancing on its slick curve 10 feet above the forest floor. Before him lies an odd, sunken spot 20 yards long. From somewhere below comes the gurgle of unseen water.

“Here’s a feature for you,” Smith murmurs, bent over a handheld global positioning system. “This is what karst is all about.” I peer doubtfully into the mucky depression, carpeted with bat-eared leaves of skunk cabbage.

“It’s a resurgence,” he explains. “See that water welling up? Imagine how much there’d be in the wet season.” He squints overhead at a splinter of sky, waiting for satellites to lock onto his electronic gadget.

“Define karst for me,” he says suddenly. It’s less a request than a command. His eyes bore through my skull while I fumble through a lengthy, half-baked explanation. “Hold it right there,” he says. “Karst is a landform characterized by subsurface drainage. Everything under our feet right now is karst.”

It’s the second day of a two-week expedition to Kosciusko Island, on the western edge of the Alexander Archipelago in far Southeast Alaska. I’m tagging along with 15 volunteers organized by Smith, co-director of the Tongass Cave Project, an organization dedicated to preserving karst in the sprawling Tongass National Forest. The TCP’s self-appointed mission to Kosciusko, funded by the Alaska Conservation Foundation and the Southeast Alaska Conservation Coalition, is a karst inventory on certain forest tracts administered by the U.S. Forest Service. In layman’s terms, they plan to locate, catalog and map as many caves and cave-related features as possible.

Not coincidentally, the areas targeted for the TCP inventory are part of a proposed timber sale on Kosciusko and neighboring Tuxekan Island, mostly stands of old-growth trees. In all, the Forest Service has slated 15 million board feet of timber to be logged. Seen from the air, Kosciusko, like most of the productive karst in the Tongass, is a geometric patchwork of clear-cuts, scrubby second growth and isolated stands of old-growth timber crisscrossed by logging roads.

By identifying karst features, lots of them, on timber parcels proposed for sale, the Cave Project hopes to use the Forest Service’s own Guidelines and Standards (notably the Cave Resource Protection Act of 1988) to preserve as much pristine karst as possible. The rules require each “significant” feature to have a buffer zone, and areas identified as “high vulnerability” are entirely off limits to logging.

But what do giant trees have to do with caves, and what’s the big deal about karst? OK, so it’s land where the water flows underground. Why should anyone care? What’s all this business about caves in the Alaska rain forest, anyway? All of these are fair and important questions.

Though I consider myself reasonably well-informed on natural history in general, I would have flunked the final exam for Karst 101. I had little idea that much of the Alexander Archipelago—that sprawling constellation of islands that form most of the state’s Southeast Panhandle—is karst: limestone and marble riddled with caves, sinkholes, pits, underground streams and springs and grikes (vertical, trenchlike cracks in bedrock that channel water downward). The number of features on some of these islands is staggering.

One section of Prince of Wales Island is estimated to contain more than 10,000 sinkholes per square mile—some dozens of feet across, others quite invisible. Hundreds of caves have been located across the region, with dozens of new finds added each year. Estimates of undiscovered, “significant” caves run into the thousands.

Karst is common worldwide. What makes Southeast Alaska’s karstlands unique is the “extent of development” due to the rain forest environment. A hundred inches of rain per year is common across the region; triple that amount isn’t unheard of. There is also the naturally high acidity of local peat meadows known as muskegs, some of which cling to rugged slopes above extensive karst forest. There’s one way for the water to go.

“Some muskeg water is 2.5 on the pH scale, practically hazardous material,” says Steve Lewis, one of the TCP’s three co-directors. “It’ll bore through carbonate rock just like a drill.” As muskegs drain onto limestone, water dives through the soft stone, carving a labyrinth of subterranean streams and passages.

The most impressive karst feature discovered in the Tongass so far is El Capitan cave on the northern end of Prince of Wales Island, which features more than two miles of underground passageways. Nearby is El Cap Pit, a vertical drop just short of 600 feet—the deepest cave pit in the United States. Starlight, on the same island, boasts an opening 150 feet in diameter. Temperate rain forests are rare enough; throw in the karst development, and there's nothing like it on this scale anywhere else on the planet.

The caves are also breathtaking from an archaeological standpoint. A human jaw bone recovered from a Prince of Wales cave has been radio-carbon dated at 9,730 years, the oldest human remains found in Alaska. Ancient animal fragments have been found as well; the caves have yielded bear bones, both black and brown, dating back 30,000 to 40,000 years, and a 45,000-year-old marmot's tooth. These are more than curiosities; they offer tantalizing clues regarding the movement of humans and animals during the last glacial advance, and possibly a key to where, when and how ancient hunter-gatherers moved as they colonized the Americas.

But at a nuts-and-bolts level, perhaps the most significant aspect of the Tongass karst is purely environmental. For reasons not fully understood, much of the karstlands in this region are, as the biologists say, "highly productive." The translation: Trees tend to grow bigger on karst. Really big. Salmon streams in karstlands host prodigious runs of fish. The nutrient-rich waters are up to 10 times more productive than in nonkarst areas.

Whatever the mechanism, the salubrious effect of karst on tree growth is not lost on the timber industry. It's not surprising that karstlands have been heavily logged. Given the choice, who wouldn't cut the biggest, most profitable trees first? In a professional article, Ketchikan Area Forest Service geologist Jim Baichtal states, "Because of the presence of these well-developed spruce and hemlock forests, much of the past and proposed timber harvest has been or is focused on karstlands." Case in point: The proposed sale on Kosciusko, which is ranked by the Karst Waters Institute as one of the top 10 endangered karst areas in the world.

Where undisturbed forest remains on Kosciusko, the number of big trees is breathtaking, their size impressive—the kind of trees you travel to see, just to lie on your back and try to absorb the presence of living things so large and old. There's also the sheer abundance of caves, the rugged horizon framed by twisted limestone spires and the proximity of an ocean teeming with life. Wolves, deer and black bear drift through the forests, and the variety of birds is startling.

There are layers of invisible interactions here, intimately tied to the caverns, cracks, seeps and passageways that lie beneath the surface. As karst advocates are quick to point out, this is a three-dimensional landscape. What happens on the surface is only one facet of a complex and largely invisible equation. Streams that disappear underground (known as insurgences) may flow miles before reappearing, and whatever flows into a sinkhole or grike is inevitably carried along by the current. Because of the open nature of the drainage—karst features visible on the surface amount to individual holes of a great, complex, multi-tiered colander—contaminated water may end up in a number of places as it spills from one level to the next.

Logging debris and loose soil—inevitable byproducts of clear-cutting—may clog underground passages, altering or cutting off the flow of water to an area defined by thousands of years of dissolution. Post-logging surveys on Canadian karstlands of Vancouver Island, just south of Kosciusko, show major alterations in drainage, including at least one instance of a subsurface stream being forced above ground. According to both foresters and preservationists, the effect of logging on karst-drainage salmon runs has often been disastrous.

It's not that the Forest Service is blind to the significance of karstlands or their environmental fragility. In 1993, Baichtal and others organized a karst symposium and called for management reform that focused on the interconnected nature of the karst ecosystem. The revised plan called for a three-tiered "karst vulnerability" assessment for any proposed logging area—high, medium and low. This was a huge step forward; in the past, loggers had sometimes deliberately filled sinkholes with slash and stumps, and built roads over the top of cave entrances.

The Tongass Cave Project was, in its infancy, a joint venture between the Forest Service and local cavers, notably Kevin and Carlene Allred. The former provided funding and logistical support in exchange for fieldwork and karst survey data. There was a sense of openness and solidarity that flowed both ways; everyone seemed on the same page, committed to exploring and preserving what little karst remained untouched.

But a rift was inevitable. The Forest Service is, after all, in the business of managing tracts of marketable timber and purveying them to logging companies. Baichtal stated that protecting karst didn't mean timber couldn't be harvested. It could as long as the official standards were met. Karst timber sales remained on the schedule; in the eyes of preservationists, the new management scheme was little more than lip service, a hoop to clear before business continued as usual.

A poorly laid out 1999 timber salvage sale on karst-rich Heceta Island was the breaking point. Though Baichtal, who oversaw major portions of the project, describes himself as "a passionate karst advocate," the TCP documented what it saw as huge gaps between word and deed. Its karst inventory on the island indicated that there were major violations by the Forest Service of the agency's own regulations. As a result, the sale was restructured and at least some sensitive karst features protected—but the close working relationship between Baichtal and the TCP was a casualty. Baichtal felt misunderstood and unjustly accused; the TCP felt mutual ideals had been betrayed. Two years later, Baichtal's voice is strained as he says, "I don't think the TCP understand that I want essentially the same thing they do. I want to do the right thing for the karst."

Smith's rejoinder is simple: "We're determined to make sure he and the Forest Service do just that."

After the Heceta fiasco the TCP continued to distance itself from the Forest Service, becoming more adversarial than cooperative in its conservation efforts. One federal engineer labeled the renegade cavers The Karst Cops. Their presence on Kosciusko was not the Forest Service's idea. The agency was already sponsoring a group of cavers there.

When the floatplane dropped me at Edna Bay, I knew none of these things. My acquaintance with Smith was limited to a couple of short phone calls; my knowledge of karst, timber sales and the Tongass Cave Project was barely on the plus side of squat.

An odd, mechanized roar grew out of the silence. As I listened, it took form—the unmistakable growling whine of a big, turbocharged diesel. That, I supposed, was my ride.

The four men who strode down the hill obviously weren't tourists. Lean and bearded, they were clad in what might as well be the official uniform of Southeast Alaska—beat-up logo caps, X-tra Tuf boots, and a scruffy Salvation Army assemblage of jeans, wool and fleece. We nodded, smiled briefly and shook hands.

Pete Smith turned out to be a slightly built man, relaxed and affable one moment, quietly distant the next. His words were few and carefully chosen and he moved with the decisive economy of a woodsman. Then there was Kevin Allred and Steve Lewis, co-directors of the TCP. We lugged my gear uphill to an Army-surplus deuce-and-a-half with a plywood camper.

“Sit in front,” Smith said. “You’ll need these.” As I slid across the bench seat, he handed me a pair of ear protectors. The truck lurched into gear, and Smith spun the wheel. Camp, I gathered, was thataway.

It turned out to be in a cul-de-sac rock quarry several spine-jarring miles away. There was a barrage of faces and handshakes. I was the only guy without a beard. More than half the crew were kids and women. Lots of long hair and odd hats. No one seemed to care how they looked. I wondered if I’d fallen into some granola-fueled time warp. A square-jawed woman with a bandanna, a tattoo and a cowboy swagger wrung my hand.

“Hi, I’m Creature!” she said.

I should have known, I reflected as I set up my tent on a swath of flinty gravel. A Magic Bus scenario gone Alaskan, a pack of tree-huggers off on a Save the Karst crusade. And here I was, stuck for the next four days.

In the back of the truck, Smith, Lewis and Allred huddled over bundles of maps and notes. It was, I discovered, at least a thrice-daily ritual. Meanwhile, everyone was stuffing water bottles and bags of gorp into day packs, readying for departure.

It took me two days to decipher the chain of command because, at least in the conventional sense, there was none. While Smith appeared to be the alpha male—he was, after all, the one who got to drive—he gave few real mandates. General announcements were more common, and everyone, even Allred’s 11-year-old son, Forrest, felt free to offer comments and opinions—no matter how half-baked—at any time, without fear of interruption or rebuke.

I questioned Allred, who seemed equally reticent about forcing issues. “Cavers are independent-minded people,” he replied. “If you try to drive them, it just won’t work.”

This was the improbable mission at hand: transport these 16 people over rock-strewn, washed-out roads without bridges; find specific but unmarked and widely separated 40-acre parcels of timber by following incomplete, often sketchy maps; organize these same people into coordinated teams that would move in formation through densely vegetated terrain that included sheer cliffs and tangled blowdown areas; comb these specific chunks of forest yard by yard; and last, and most important, identify and catalog karst features precisely, including an exact latitude and longitude, meticulously recorded for submission to the Forest Service.

And somehow, it all went off without a hitch. Every morning we rolled out of our sleeping bags, pulled on wet, muddy gear, and piled into the truck, half of us standing, for a long, kidney-jarring ride. We would unload and deploy into three teams of five. Everything, it seemed, had been thought out in a spare, no-nonsense manner that would have made an Army logistician proud. Though the days were long and exhausting, and rain soaked the woods, no one grouched. The lines plodded on.

The linchpin of the operation was, without a doubt, the big ex-Army truck named General. With an enormous, turbocharged diesel engine, six tires and dual-axle drive, it was a Humvee on steroids. Its bumpers were steel battering rams, and the military nomenclature plate on the dashboard listed specifications for cross-country travel and temperatures to 60 below zero. It was running on recycled vegetable oil. When I complimented Smith on his beast of a machine, he allowed himself a quick, boyish smile and said, “It’s a capable truck.”

We found dozens of karst features that the Forest Service contractors, who had been hired to locate and flag such things, had missed. During 10 hours on just one unit, identified on the map as 543-581, Lewis’ five-person team marked 17 new sinkholes, grikes and caves.

Who were these guys, anyway? It took me until the last day to completely figure that one out. While no one in the crew was being evasive, neither was anybody volunteering much personal information. But I gradually pieced together at least part of the reason things had been flowing so well. Terri Brown from Virginia is a karst hydrologist; Jean Krejca, alias Creature, is a karst invertebrate specialist for the U.S. Fish and Wildlife Service and a world-class caver; Steve Lewis is a biologist and local cave expert. Kevin Allred, who looked like a back-to-the-woods hipster, holds American records for the two deepest vertical cave descents and is a pioneer of caving in Southeast Alaska; his wife, Carlene, is a nationally known cave cartographer. All but four of the crew, including me, had years, even decades, of cave experience.

How did they connect with each other for this trip? “The Internet, of course!” said Creature, grinning. “Cavers stick pretty close together.” All had taken time off from work and routines and traveled up to 5,000 miles, in some cases, to clamber through brush, thorns and rain, hoping to preserve this remote, timeless landscape—one cave and one tree at a time, if necessary.

And driving the whole operation forward was Smith—a quiet man who clearly hated to raise his voice and seemed uncomfortable with the yoke of leadership and the bustle and buzz of so many people. The strain showed in his silence and in his eyes. Where he seemed most comfortable was behind the wheel of General, or gliding through the woods almost weightlessly, moving twice as fast as anyone else. While we were all surely driven by the task at hand, he seemed to be on a different level, both exhausted and unresting, a bit detached as he looked over us all, and the place he hoped to save. Though he never said so, I sensed this was a defining moment of his life—his symphony or novel. It was too early to say how it would turn out.

“This is a good group of people,” he said with a tired smile. “Lots of positive energy.”

One night a storm swept in from the Pacific. I lay in my tent, listening to the splatter of rain on the fly and the rushing of the wind in the trees—a sound that filled the air and echoed in the distance. I imagined these ancient things standing over us, swaying like great strands of kelp in the currents of the sky, and beneath their gnarled roots, the secret, dark world of passages that led the rain seaward once more. I thought of deer slipping silently along their trails, and a rough-skinned newt I’d held in my hand. What was the sound of wind through a clear-cut? Sometime around dawn, I drifted into a restless, angry sleep.

Nick Jans has made his home in Alaska for the past 22 years. His new essay collection, *Tracks of the Unseen*, is available from Fulcrum Publishing.

*[The above article originally appeared in the November 2001 issue of Alaska Magazine. It is republished here with permission from the author, Nick Jans, and the Managing Editor, Tim Woody.]*

### **Knox Cave Bat Count** *by Thom Engel*

There was a bat count at Knox Cave on December 10, 2001. Counters included myself, Ed Lucas, Al Hicks (DEC), Scott Crocoll (DEC), Nancy Heaslip (DEC), and Mike Clark (DEC).

We counted the following:

| Type          | 2001 | 1986 |
|---------------|------|------|
| Little Brown  | 1820 | 559  |
| Small Footed  | 6    | 11   |
| Pippistrelles | 57   | 6    |
| Long-eared    | 4    | 5    |
| Unknown       | 61   | 0    |
| Total         | 1948 | 581  |

A significant increase, in my opinion. Most of these bats were in the first Finger Passage, above old flood levels. Only a hundred or so were beyond the Gunbarrel.

### **Spring 2002 NRO**

We have been asked by the Central Connecticut Grotto to host the dinner at the Spring NRO on May 18<sup>th</sup>, 2002 along with the possibility of an auction and a 50-50 raffle later that evening. We will be looking for volunteers so stay tuned for further details.

### **Website Changes** *by Bill Folsom*

The NSS has moved our site to the "correct" location on their server:

<http://www.caves.org/conservancy/ncc/>

For a short while the NSS will keep both URLs active, but I am not updating the old location anymore, so please update your bookmark. Eventually, once the quasi-governmental cluster\*\*\* organization that controls domain names gets its act together, the easier to recall URL will be:

<http://www.necaveconservancy.org>