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Diane Raab

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IN THIS ISSUE:

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P.O. Box 9062
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Editor -- Diane Raab

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Glacier Grotto

President: Dave Love
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President's Corner BY DAVE LOVE, President of the Glacier Grotto

By the end of September, local cavers and conservation groups made almost 70 pages of comments, critiques, and evaluation of the methodology used to develop the Kosciusko Island Timber Sale Draft Environmental Impact Statement (DEIS). Letters and comments were submitted to the USFS by the Glacier Grotto, Tongass Cave Project directors Kevin Allred, Pete Smith, and Steve Lewis, Southeast Alaska Conservation Council, and one letter authored by the following organizations: Sitka Conservation Society, Alaska Center for the Environment, Juneau Group of the Sierra Club and the Forest Conservation Council. Issues discussed by these groups and by the DEIS included Roadless Entry, Karst, Watersheds, Domestic Water Supply, Wetlands, Wildlife Viability, Road Density, Silvacultural Methods and Economic Analysis. For the purposes of archiving these comments as relates to karst for the public record, the letters from Glacier Grotto, Tongass Cave Project directors Pete Smith and Steve Lewis are included in their entirety. Complete letters from SEACC and Sitka Conservation Society et al., have been archived and can be obtained form Diane Raab, Editor or from David Love, President.

Three comments were common to all of these letters regarding this document and the process this document represented at publication: 1) Complete Tongass Cave Project (2000 and 2001 field seasons) and Glacier Grotto (2000, 2001, and 2002 field seasons) inventory and comments were not included and should have been to give anyone who wished to comment on the DEIS the best, most current information on this timber sale. This omission could have easily been rectified by including an appendix or attachments with the DEIS, rather than stating that the printing process was already too far along. 2) The EIS contractor, URS, did an inadequate inventory using the random sampling method rather than systematically sampling the units as was done by TCP. It is clear that this method(ie- "ground-pounding" with a large number of people in each unit) is the only effective way to locate features and 3), the "No Action" alternative would be preferred or a supplemental DEIS must be prepared to adequately address the concerns expressed by the caving and conservation groups that commented. Adequate inventory and possibly additional cave mapping needs to be completed on ALL the units, possibly during the summer of 2004, before this sale can be let.

The critique provided by the Tongass Cave Project and Glacier Grotto has provided an evaluation of the methodology used by the USFS to lay out this timber sale. Many members of the Glacier Grotto and Tongass Cave Project do not feel that the methods employed on Kosciusko are adequate to protect karst in areas having marketable timber. This DEIS should be considered a "work-in-progress". So much information was left out, NEPA requires a supplemental DEIS, otherwise the USFS as the land manager fails to protect karst systems and the watersheds they are a part of on Kosciusko Island as specified by the Federal Cave Resources Protection Act, The Clean Water Act and USFS' own Forest Standard and Guidelines.

Finally, the Glacier Grotto wishes to commend the USFS, and especially the Forest Geologist, on the stricter interpretations of the Forest Standard and Guidelines as applied to this project. These improvements to the Standard and Guidelines include: 1) larger buffers for windfirmness around karst features and absolute requirement of windfirm buffers around insurgent and resurgent streams, 2) Protection and delineation of waterways and watersheds above sinking streams, 3) Relative density of features used to establish vulnerability ratings (i.e.- extensive moderate vulnerability karst, which might be diffuse recharge areas or proximity of moderate vulnerability to more vulnerable areas results in a higher vulnerability rating) and, 4) removal of high vulnerability karst prior to layout of harvest units. This is where use of LIDAR may be an effective, time-saving method of identifying high vulnerability karst early in the planning process.

As all US citizens are owners of the public property that is our national forests, I, for one, would like to say that I am grateful for all the hard work both sides have put into this project and hope that we will continue to work together to protect this truly unique and rare landscape, the temperate rainforest karst ecosystem of Southeast Alaska. Have a great Holiday Season and may your New Year be prosperous, healthy and happy! ***Sincerely, David Love***

Little Ticket Cave and Mud 'n' Blood Cave

Preliminary Cave Report #415
Kosciusko Island, Alaska
Reoprt by Barbara Morgan
Glacier Grotto, National Speleological Society
August 23, 2002

Description:

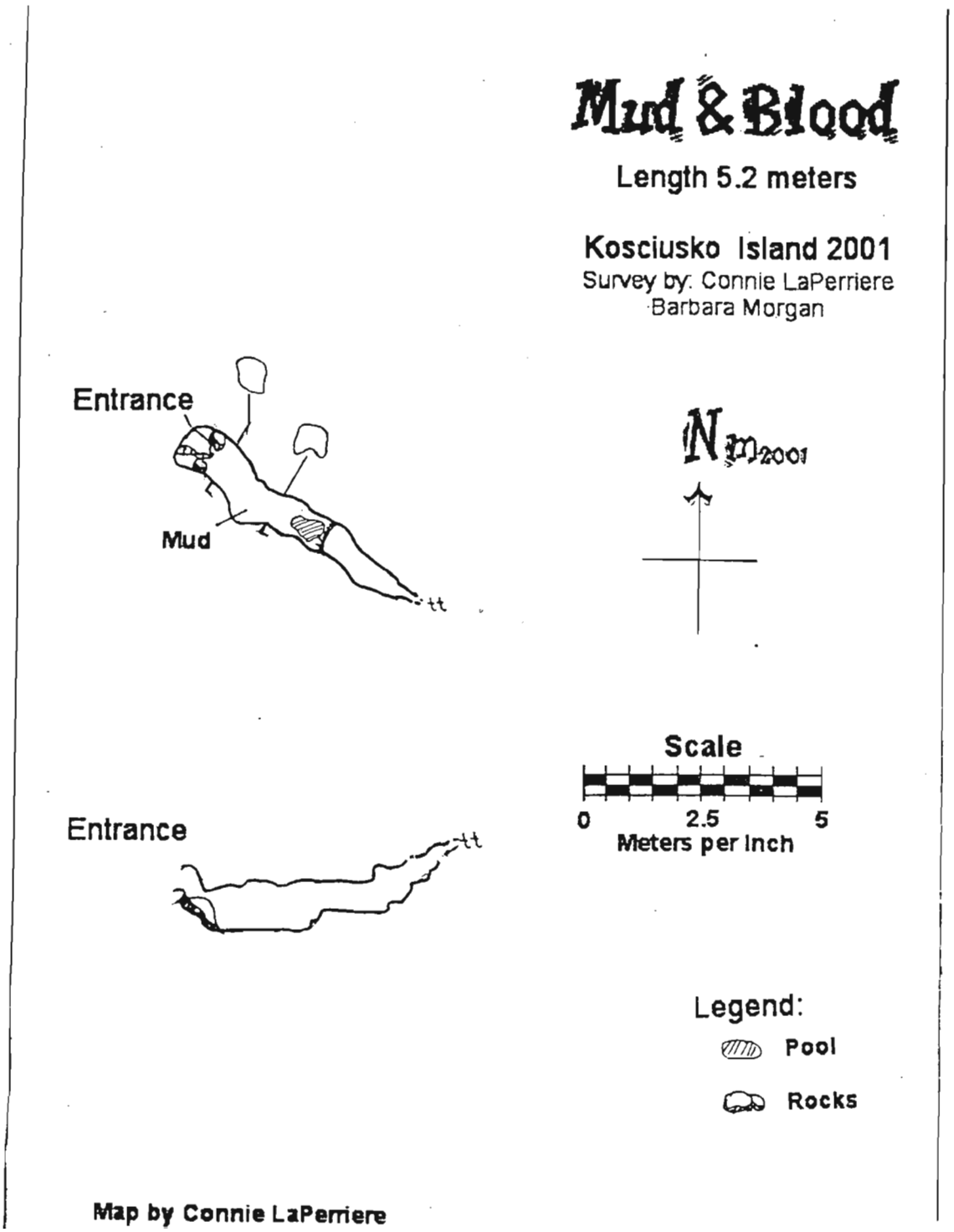
Both of these caves were found by Barbara Morgan and Connie LaPerriere while they were scouting in a proposed timber harvest unit that LIDAR maps had indicated may have caves in it. Little Ticket is a small pocket cave with a floor that is at a 45-degree angle. Little Ticket pinches off in a too-tight passage and has a cobble breakdown floor. There is an accumulation of fine muddy sediments in the cave that are partially blocking the entrance.

Mud 'n' Blood is a small cave that is mostly horizontal and has formed in an epikarst outcrop and has many grikes in the immediate area. It is a tight squeeze that pinched down too tight to continue the survey.

Both of these caves are in an area that is riddled with both insurgences and resurgences and may be hydrogeologically connected to part of a bigger system.

Management Recommendation:

Both of these caves and the heavily karsted area around them should be protected.



Tongass Cave Project comments on Kosciusko Draft Environmental Impact Statement

September 25, 2002

David Schmid, DR, USFS
PO Box 19001
Thorne Bay, AK 99919

Mr. Schmid,

The Tongass Cave Project (TCP) has been involved with the Kosciusko Island timber sale since planning began to insure that the Forest Service (FS) and the EIS contractors (URS) were doing everything necessary to protect the karst and caves as required under law. On October 1, 2000 TCP supplied you with a preliminary report outlining problems we had found on the Kosciusko sale during the 2000 field season. In this letter we requested further information in order to continue our studies of the project area. You denied us this information. On July 24 2001 TCP supplied the FS with our final report of our findings for both years fieldwork. This work was done with entirely volunteer labor and a crew of 12 personnel both 2000 and 2001.

Your argument for not incorporating the TCP data into the DEIS is that "As the survey results were not available when the project alternative analysis began, the information is not included in the analysis presented in this draft EIS." The fact that you had our final report in your hands for more than a year before releasing the DEIS knocks the legs out from under your argument. At a minimum, you should have included this information as an appendix to the DEIS. Waiting to disclose and evaluate this information until you issue the Final EIS does not cure the harm because that release is after a decision is made and it fails to provide the opportunity for public scrutiny of your consideration of this significant new information. NEPA regulations require "that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 CFR 1500.1(b). By failing to disclose and take a hard look at the survey data TCP collected and shared with the Forest Service in 2000 and 2001, you cannot demonstrate that you have made the necessary environmental analyses to support your proposed decision. 40 CFR 1500.2(b). It is obvious that your failure to incorporate the TCP data makes your DEIS analysis incomplete. This failure, at the least, requires the Forest Service to prepare a supplement to the DEIS that discloses the significant new information contained in TCP's 2000-01 survey. 40 CFR 1502.9(c)(1)(ii).

This significant new information clearly is relevant to the environmental concerns and impacts of the proposed action; in fact,the agency identified "watershed-wide concerns, including karst system protection" as a significant issue to be analyzed in depth in the DEIS and a focus for one or more alternatives. DEIS at 1-16, 1-17, 2-3 to 2-5.

The Tongass Land Management Plan requires that timber sale areas be thoroughly inventoried for karst features in the first stages of the planning process. During the 2 field seasons that TCP worked on the Kosciusko Island timber sale we thoroughly inventoried a random sampling of 13 proposed harvest units. As described in this report submitted to the FS, the only way to accurately inventory karsted areas (on the Tongass) is to visually inspect every foot of ground. The Forest Service claims that comparing the TCP karst inventory with the IDT karst inventory shows a 90% agreement. We differ in this assessment, believing that we found substantially more karst features and caves than the IDT. In fact, of the 12 units that we inventoried which are included in the DEIS, all 12 have problems making harvest on them unlawful. The highlighted sentences below quantify the differences between the TCP inventory and the URS inventory.

543-580: Unit within the 1000ĺ beach buffer. There are 4 high vulnerability karst features in unit not shown on the unit card. Two areas of moss that this author has never seen on the Tongass before which is possibly a rare or unknown species needing more study. The URS karst features map (appendix E) only shows one of the 4 features we found in our inventory.

543-581: 4 high vulnerability karst features, including caves, not shown on unit card. None of these features are on the URS karst features map.

543-582: Road and landing laid out to be situated on a field of 6ĺ deep grikes. This is a likely insurgence point for the caves and resurgences located in unit 543-583 and /or resurgence located in lower portion of 543-582. Dye trace required to delineate hydrology patterns. This is an example of the lack of systems management of the karst resource. Laying out a road and log landing on the high point of the unit with disregard to the field of 6ĺ deep grikes that is an obvious input point for the resurgences downslope is just plain negligent. The one sink in the unit is given protection on the unit card. The resurgence TCP found is not shown in the URS features map or the unit card.

543-583: This unit card shows no significant karst features, however, TCP found 5 caves and 2 major resurgence areas in this planned unit which probably drain this unit and 543-582. The road as laid out crosses high vulnerability karst. None of the features we found are shown on the URS karst features map.

543-546: This unit drains into caves located outside the lower (east) edge of unit boundary, making it high vulnerability. There are numerous small resurgences throughout middle of unit. This is an example of tweaking the unit boundaries to exclude high vulnerability features and then ignoring the features even though they are within mitigation distance. The TCP inventory shows two features in the unit: TCP-f2r and TCP-f3r, not shown on the URS karst features map.

543-558: Portion of unit drains into Broken Marble Cave. Resurgences inside and outside of unit make this high vulnerability. This is another example of the planning team ignoring features just outside the unit boundary, where if done properly mitigation would impact most, if not all of the unit. Cave just outside of unit.

Tongass Cave Project comments, continued

543-559: South end of unit drains into cave just outside unit boundary. There are numerous 8í deep sinkholes in SE part of unit. Cave just outside of unit boundary on unit card, but inside original layout. This cave is not on the URS feature map, yet was flagged by the contractor. Yet another example of tweaking unit boundary to remove cave from unit.

546-549: There are many caves just outside the unit boundary that would have windfall problems if unit were cut because of the exposed ridge top setting. The non-carbonate slopes circle around above the unit and act as a recharge area for the entire unit, which is all karst. This is another example of lack of the systems management approach. Stream Cave shown on URS karst feature map, but not given any mitigation on DEIS unit card, possibly because it is just outside unit boundary? Circular buffer on unit card likely in wrong position, should be ~300í to the SE.

546-557: Numerous resurgences and caves in unit as shown on unit card. Top of unit has wide area of 6í deep grikes that will likely contribute to resurgences along lower portion of unit. Hydrology studies needed. The TCP inventory shows 7 karst features in unit not shown on URS feature map, or unit card. We supplied these findings to the Forest Geologist and contractor's geologist in the summer of 2000 as an example of problems with the karst inventory then still underway. The Forest Service still seems intent on ignoring our work.

546-562: Proposed access road passes within 100í of several caves. There are 5 high vulnerability karst features in the unit not shown on the unit card. Other caves nearby have been used for hydrologic dye tracing by the IDT to determine that water flows from this area, under unit 546-566, to resurge at Car Wash Spring where it is used by the people of Edna Bay. 5 features not shown on the URS karst feature map, or unit card.

546-566: TCP found 3 resurgences just outside of the eastern boundary of this unit and 1 inside the unit. The proposed harvest unit is likely the recharge area for these resurgences. This unit also is the recharge area for numerous caves downslope to the South on state land and a likely recharge area for Car Wash Spring. One feature in unit not found by URS.

546-665: TCP found 3 resurgences and 2 sinks deeper than 8í in this unit, which make it high vulnerability. The URS karst feature map and the unit card show none of these features.

One serious problem we saw over and over in our inventory is that features, including caves, that are just outside unit boundaries are not considered for mitigation or unit planning purposes. A cave outside a unit boundary needs to have the same protection it would receive if it were inside the unit. Tweaking a unit boundary to exclude a high vulnerability karst feature is not an acceptable method of dealing with the resource. When properly executed a karst inventory will include all potentially affected lands upslope or downslope outside of a unit.

While there were some hydrology studies done on the sale area, they were only useful in delineating general watersheds. For hydrologic studies to be useful on a terrane as karstified as Kosciusko Island is, they will need to be applied specifically to each unit as well as generally across the watersheds. Karst is defined as a terrane characterized by subsurface drainage. To not study and understand the drainage patterns of proposed harvest units is to be remiss in your responsibilities under NEPA.

In the karst vulnerability assessment section 3.1.2.2: Thus, it is crucial to evaluate the karst geomorphology as a whole, taking into account the relative density of karst features or exposed epikarst, in addition to characterizing individual features. For example, an area with a high density of features may result in a high vulnerability classification, even if no direct evidence of openness is encountered..." This means that areas such as the upper portions of units 543-582 and 546-557 should be considered as high vulnerability even though there are no 8í deep grikes or sink holes, only wide areas of 6í deep grikes. We believe that there has been widespread error mislabeling karst vulnerability classification on this sale, and indeed, across the Tongass.

All 12 of the units that TCP inventoried should be dropped from the timber pool due to karst concerns. Since this random sampling of units that we inventoried all show a lack of proper inventory as well as a lack of accurate vulnerability rating by the Forest Service and the EIS contractor (URS) it stands to reason that most of the other proposed units will also have problems. These same issues will no doubt carry over to the Tuxekan Island timber sale as well as all other sales on the Tongass. The Forest Service seems to insist on doing business as usual expecting to mitigate damage to karst features after the sale has been sold, which ends up damaging the fragile karst environment and impacts caves, which is contrary to the Federal Cave Resources Protection Act, The Clean Water Act and the Forest Service Standards and Guidelines. This practice has to stop. Proper karst inventory methods must be implemented on this sale and all other sales on the Tongass. If this sale is to proceed it will require a completely fresh karst inventory.

The FS has recently taken quite an interest in the LIDAR methodology for karst inventory. Obviously it is inadequate to be relied upon as the sole means of inventory on karst lands of the Tongass. No doubt it could be useful in pulling obviously high vulnerability karsted areas from the unit pool, but to depend on it, as was done in this sale, for the primary karst inventory method is foolhardy. As Tongass Cave Project has been telling the Forest Service for the past 10 years, to depend on methods other than visually covering every foot of ground by experienced professionals is folly and a waste of time and resources.

It is obvious that this proposed sale is driven by timber target and not by resource protection. While we were working with the Forest Service and URS on the karst inventory, we were told that the sale was being planned for 17 million board feet. Now suddenly the proposed action is 24 million feet. The karst lands take the brunt of this increase in proposed action. These are the same karst lands that the FS had a blue ribbon panel examine and pronounce to be a world class treasure.

Because of all the problems we have seen on the karst and hydrology aspects of this sale the only possible alternative to consider is the no action alternative.

Sincerely,
Pete Smith
Cc: SEACC Jim Werker, National Speleological Society
Dr. David Culver, Karst Waters Institute

Sitka Conservation Society, Alaska Center for the Environment, Sierra Club, Forest Conservation Council comment on Kosciusko Timber Sale

These comments on the Kosciusko Timber Sale are on behalf of the Sitka Conservation Society (SCS), the Alaska Center for the Environment (ACE), the Juneau Group of the Sierra Club (JGSC), and the Forest Conservation Council.

Our organizations **support the no action alternative for the Kosciusko timber sale.** Any timber harvest leading to further fragmentation of the old growth habitat in the project area will pose unacceptable risks to species viability, as well as the hydrological functions and productivity of the temperate rainforest karst landscape, a unique and significant national resource.

We appreciate the efforts the Forest Service has made to avoid high vulnerability karst and to use alternative silvacultural prescriptions and helicopter harvest in sensitive areas. However, as will be discussed in further detail below, the selection of alternative 3 as the preferred alternative, and failures of the karst inventory, show that the design of this sale still emphasizes timber production in a heavily damaged area rather than balanced multiple use, sustainable harvesting, and protection of natural resources.

We have the following concerns with the project design and analysis:

Roadless Entry: No timber harvest should be planned in currently roadless areas.
Karst: Karst features and hydrology are not adequately inventoried or protected.
Watersheds: Impacts should be presented and considered at the watershed scale.
Harvest in domestic water supply: No harvest should be made in source watersheds.
Wetlands: Wetlands are inadequately analyzed and protected.
Wildlife Viability: The proposed action will not maintain species viability.
Corridors, Old Growth Reserves, Weaknesses in standards and guidelines for martin, goshawk, Management Indicator Species (MIS) Surveys are all significant issues.
Road density: Road density is too high in the project area.
Silvacultural methods: Clearcuts with reserves cannot be justified in this heavily fragmented area.
Economic Analysis: Economies contributed by other resources are not fully considered.
Cummulative Impacts: The full range of cumulative impacts have not been disclosed, analyzed, or considered.
Intact roadless areas; issues with the 1997 Tongass Land Management Plan (TLMP) and Species Viability;

We strongly oppose any planning for this sale proposing entry into roadless areas. The Kosciusko area has been harvested extensively in the past. The remaining roadless areas need to be conserved, as recommended by peer review of the TLMP Viability strategy.

In response to the 1996 TLMP Draft, the Peer Review Committee issued a joint statement because of their concern that the wildlife measures in the Forest Serviceís proposal failed to respond effectively to scientific input. The 1996 joint statement concluded that the 1996 Draft alternatives would not ensure the viability of populations of several wildlife species associated with old growth forests. The 1996 joint statement also recommended that the Forest Service develop new alternatives to improve the TLMPís strategy for old growth forests. As the Peer Review and previous reviews had done, the 1996 joint statement made several specific recommendations, including 1) no logging on the remaining large blocks of old growth forest and on undeveloped watersheds, and 2) adoption of single tree and small group selection logging techniques in the matrix between old growth blocks to mimic the dominant natural disturbance patterns on the Tongass.

In September 1997, the Peer Review Committee commented on the Final 1997 TLMP and indicated, What changes were made do not address the fundamental problems with the old growth strategy raised consistently by the scientific community over the last few years. They concluded...like previous alternatives proposed by the Forest Service, the plan adopted in May 1997 will not ensure viable, well distributed populations of wildlife species adapted to old growth forest on the Tongass National Forest. Therefore, in order to ensure viable, well distributed populations, the Forest Service must not enter roadless areas, and further fragment the old growth habitat of the Tongass.

Furthermore, the Kosciusko IRA contains some of the last intact karst systems in the Tongass. Currently, the National Wilderness system contains no representation of coastal temperate rainforest karst landscape. The Tongass Cave Project and SCS-JGSC recommended that area 515 be protected as Wilderness. The Roadless Area evaluation for area 515 states that ìkarst and cave formations in the limestone underlying this roadless area may be of national and international significance because of their complexity, the resources they contain, and intense development. Littoral caves along the outer coast contain important deposits. The roadless area contains productive fish and wildlife habitat. Extensive inventories in this area have yielded some of the highest density of caves found throughout the Alexander Archipelago.î (section 4, Appendix C #515)

The Kosciusko Timber Sale should not plan any entry into this roadless area. It should be preserved as Wilderness.

Restoration Opportunities

Because the following ecological subsections have had substantial amounts of productive forest harvested, the roadless areas within these sections should be protected as Wilderness or at a minimum LUDII. Since past harvest tended to focus on the highest value stands, these figures represent a significant threat to biodiversity, making protection as Wilderness imperative for the remaining lands. Opportunities for restoration may be available.

These subsections included North POW-Kuiu Carbonates (41% of POG harvested), indicating roadless areas; 515,516,517.

Under Alternatives 3 and 4 of the Kosciusko Island Timber Sale significant acreage of culturally and ecologically significant wildlands from this Roadless Area would be lost. North Prince of Wales Island has been identified as having the highest percentage of productive old growth forest logged of any biogeographic province within the Tongass. Yet this province also has some of the most important remaining stands of productive old growth within the Tongass and the world. According to the Forest Service's Wilderness Attribute Rating System the Kosciusko Roadless Area is the highest value roadless area in the North Central biogeographic province.

Furthermore, Forest Service analyses of roadless value areas and impacts from timber sales do not provide adequate information to reveal the true impacts. Loss of acreage or productive old growth statistics do not reveal the full damage done to the ecology of the roadless area systems. Timber harvest concentrates in stands which typically are also high value habitat. The analysis roadless area impacts should reveal the extent to which high value habitat will be harvested, and what percentage that habitat composed of the total available in the roadless area. The correct data sets to reveal this habitat will be discussed in more detail in a la section.

We protest the continued planning of timber sales in roadless areas while the Wilderness SEIS process is going on. The energy expended in sale study is a misuse of taxpayers money and will inevitably sway the decision process on the roadless area. W make that investment in sale planning and then decide to make the area Wilderness? You are predetermining the outcome of the Wilderness SEIS process. We are puzzled why the score for the Kosciusko roadless area was only 24, given its high ecological value and rare karst features. One explanation for the low score could be the planned timber sale.

Karst Issues

High densities of significant karst features are located in the southwestern portion of the project area, as well as in several locations in the central and northeastern portionî (p.2-3 URS Watershed Report)

Public Process are greatly concerned with the proposed logging on the karst landscape. Because of the necessary security provisions the locations of caves, the public must rely on representatives of cave groups and the Forest Service to adequately protect this unique landscape. We remain very concerned with the limited amount of information available to the pubic for evaluation.

On October 1st 2000 TCP supplied the Forest Service with a preliminary report outlining problems found with the Kosciusko sale during the 2000 field season. In this letter TCP requested further information in order to continue our studies of the project area. The FS did not provide this information. On July 24 2001 TCP supplied the FS with their final report on findings for both years fieldwo This work was done with entirely volunteer labor and a crew of 12 personnel both 2000 and 2001.

The Forest Service did not incorporate the TCP data into the DEIS published July, 2002. The justification by the Forest Servi that the unit pool was locked for analysis in May, 2002î does not appear adequate, especially given the long time period in which no action was taken on the project. Significant new information should always result in new analyses and adjustment of proposed actions To say that the process will take place between the DEIS and the FEIS obscures it from the public and scientific communities eyes, providing no chance to comment on the issues.

NEPA regulations require "that environmental information is available to public officials and citizens before decisions are ma and before actions are taken.† The information must be of high quality.† Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."† 40 CFR 1500.1(b).†By failing†to disclose consider the survey data TCP collect and shared with the Forest Service in 2000 and 2001, the Forest Service cannot demonstrate that it has made adequate environment analyses to support the proposed decision. 40 CFR 1500.2(b).† The Forest Service must prepare a supplement to the DEIS that discloses the significant new information contained in TCP's 2000-01 survey. 40 CFR 1502.9(c)(1)(ii).† This significant new informatic clearly is relevant to the environmental concerns and impacts of the proposed action; in fact,†the agency identified "watershed-wide concerns, including karst system protection" as a significant issue to be analyzed in depth in the DEIS and a focus for one or more alternatives. DEIS at 1-16, 1-17, 2-3 to 2-5.†

Under the **Federal Cave Protection Act,** and a Memorandum of Understanding, the Forest Service is expected to share the locations of caves with cave groups. Members of the Tongass Cave Project received copies of karst information only in the last week August, with an original comment deadline of Sept. 3rd for the DEIS. Furthermore, locations of caves were withheld.

It was reported in the 1998 Monitoring report that disagreements exist between the Forest Service and cave experts, such as the Tongass Cave Project on the definition/interpretation of moderate and high vulnerability epikarst and its ability to transport sedime organics, and debris into the karst hydrological systems below.

Tongass Cave Project (TCP) is an official project of the National Speleological Society (NSS). Volunteers for the TCP have volunteered over 40,000 hours over the last decade exploring, surveying, and studying Tongass karst and cave resources. In the pa many Forest Service activities have favored the monetary economics of timber harvest over resource conservation. Forest Service timber harvesting activities on karst topography have resulted in severe degradation to karst and cave resources. Damaging the fragil karst environment and impacts to caves are contrary to the Federal Cave Resources Protection Act, The Clean Water Act and the Forest Service Standards and Guidelines. On the other hand past TCP activities on karst topography have resulted in the study and protection of karst and cave resources. It is for these reasons that we put our faith within their vulnerability judgments.

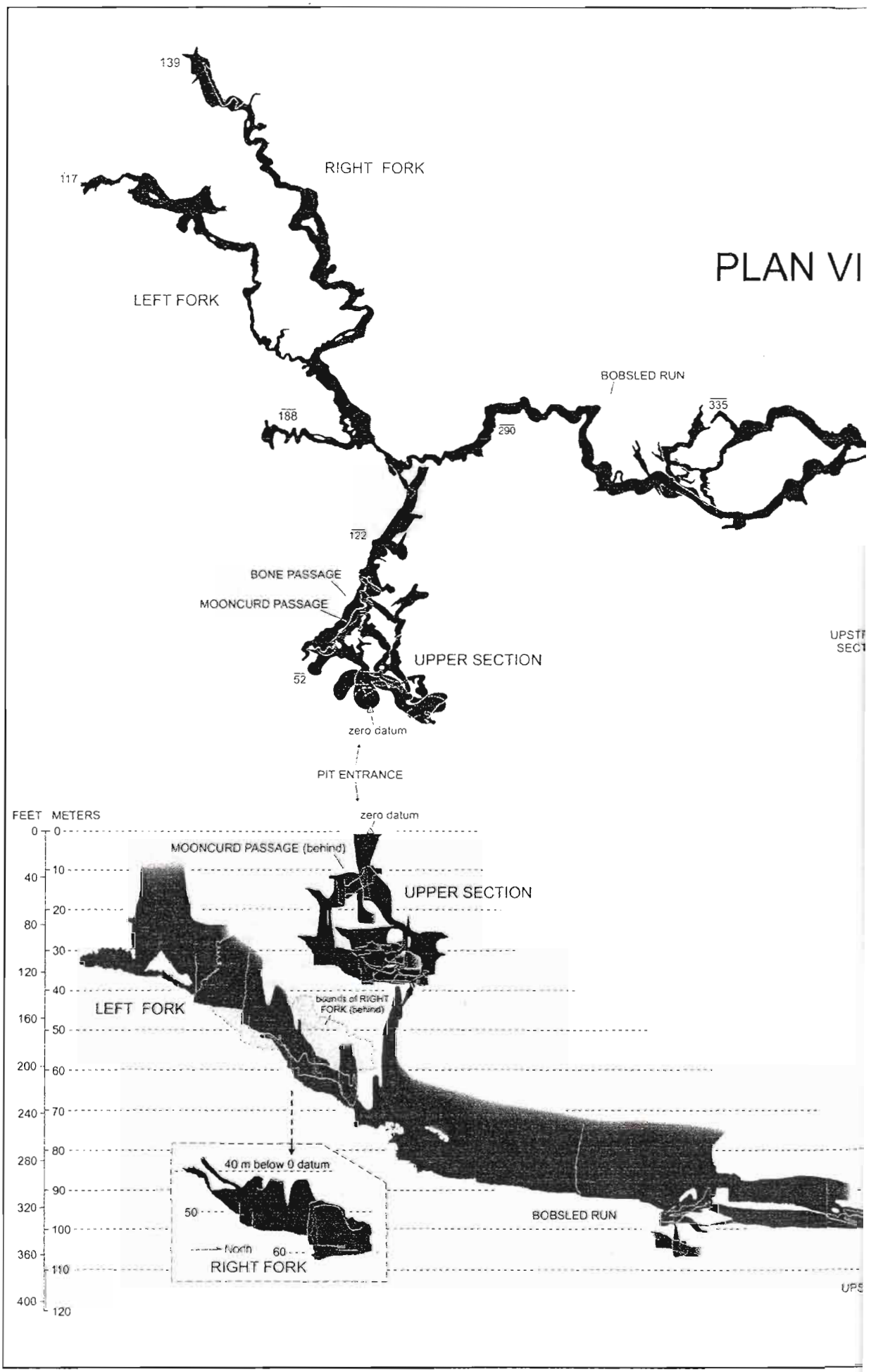
of TLMP guidelines

The Forest Service cannot demonstrate that the 1997 TLMP karst standards and guidelines are adequately protective, or tha they will be implemented and carried out as designed.

The Tongass Annual Monitoring & Evaluation Report for Fiscal Year 1998 monitored some timber sales that have occurred c karst topography since TLMP. The monitoring was to determine whether TLMP karst and cave standards and guidelines were being implemented. Monitoring revealed that S & Gs were not being adequately implemented. According to the report, even though the standards and guidelines were implemented within the EISís they were not implemented in the timber sale. The report found that 11% of the acres of the existing harvest units monitored should have been deleted to fully meet the requirements of the Karst and Cave Standards.

A serious weakness in current standards and guidelines identified by the Tongass Cave Project is the absence of a way to compensa for past poor logging practices. TCP believes moderate vulnerability areas that might have been harvested under current practices without serious damage to karst are now of higher vulnerability because of previous damage to the system. This seems especially tru in areas of high sink and grike density that are not deep enough to be considered high vulnerability under current S&Gs.

Continued on Page 10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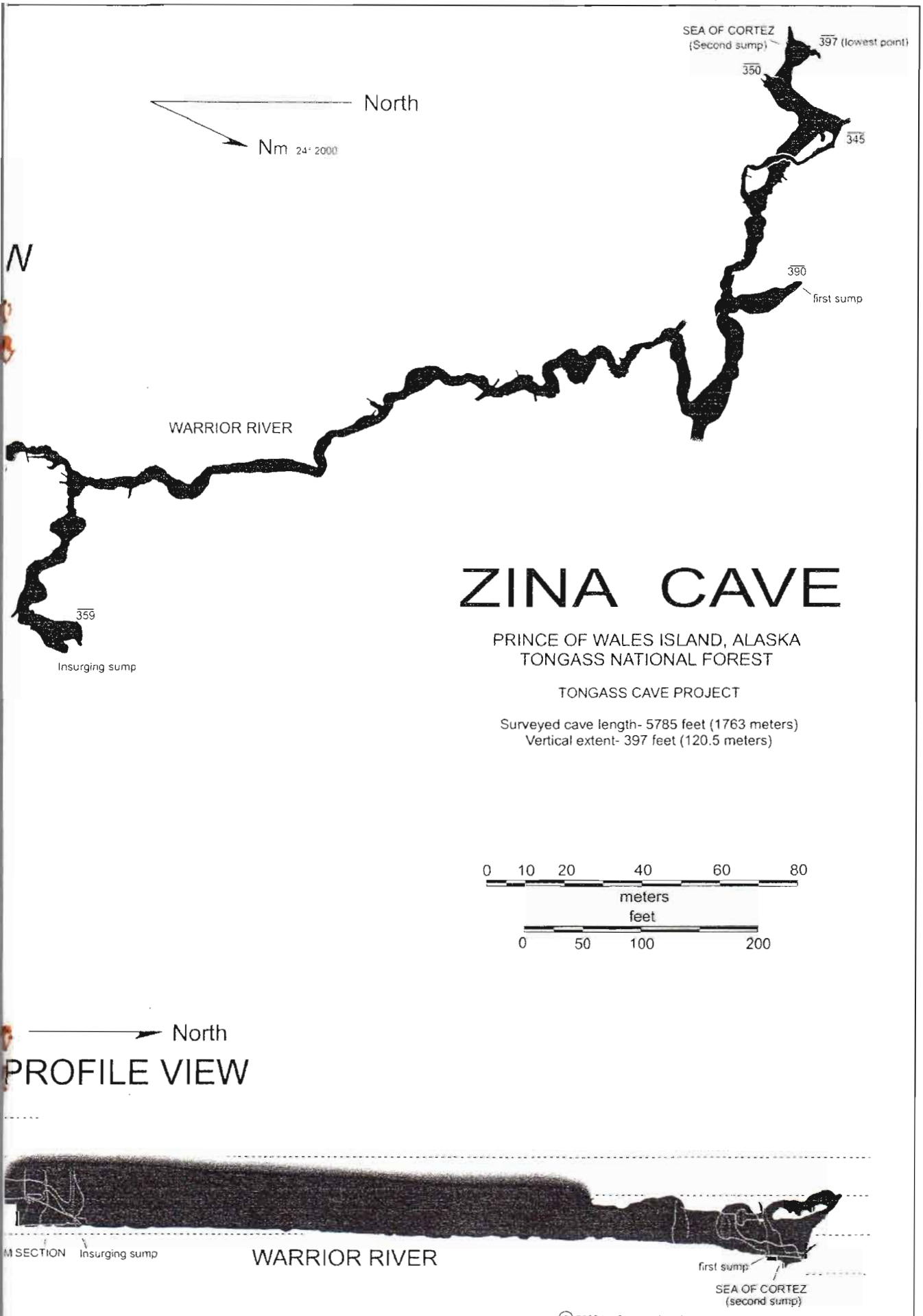


ZINA CAVE

PRINCE OF WALES ISLAND, ALASKA
TONGASS NATIONAL FOREST

TONGASS CAVE PROJECT

Surveyed cave length- 5785 feet (1763 meters)
Vertical extent- 397 feet (120.5 meters)

North

PROFILE VIEW

Sitka Conservation Society, Alaska Center for the Environment, Sierra Club, Forest Conservation Council comment on Kosciusko Timber Sale continued

Project Area Karst Concerns
A great deal of the karst in the area is either high or medium vulnerability karst. The Forest Service proposes to log on the medium vulnerability karst. However, in reviewing the karst vulnerability assessment, it is clear that inadequate data exists about the hydrography of the entire area. Logging on karst may affect streams significant distances away, irregardless of intervening surface topography. ìSubsurface flow paths have been identified in several watersheds in this project area, including Trout Creek, Dry Creek, and Hamlin Creek Watersheds. However, due to the extent of the karst system, there are many unknown flow paths in this project areaî (p.2-8 URS Watershed Report).

Thus the distinction between high and medium vulnerability karst seems impossible to make, especially without much more intensive ground surveys. An area might not be considered high vulnerability karst based on surface features, but it might have a subsurface connection in an area proposed for logging, resulting in hydrologic change and damage. The Forest Service cannot guarantee that units within these watersheds will not cause impacts to subsurface flows, Class 1 streams located away from the unit, and other resource damage.

The DEIS fails to adequately detail the damage done in past logging on karst in the project area. The URS watershed report provides more detail, but is not readily available to most DEIS readers. ìPoor regeneration in high-elevation karst areas in the northern portion of Trout Creek Watershed indicates possible soil disturbance from past harvest operations. Soil erosion is apparent in several locations in Survey Creek Watershed. There are second-growth areas where springs emerge from sediment accumulations in what appears to be either collapse features or sediment-buried resurgences.î (p.2-8) We question whether the FS has adequate data to design harvest methods for timber on karst without resource damage.

SCS has members who are also members of the Tongass Cave Project. We have discussed with them their concerns concerning the karst data from Kosciusko. We support the positions and comments made by the Tongass Cave Project and urge the Forest Service to carefully heed their field based expertise.

In addition, we have reviewed the karst information and karst vulnerability assessments provided as part of the planning record. Several of us have scientific backgrounds in fisheries, oceanography, and limnology. We believe there are serious weaknesses and questions about the caliber of the karst data, necessitating either choice of the no action alternative or a supplemental EIS. Karst is a unique and world class feature of the Tongass. Karst areas deserve Wilderness protection. Because of the extent of past harvest that has taken place on karst, no further cutting should be done on this highly productive landscape. Remaining intact karst landscapes are necessary to maintain the rich wildlife and fisheries resources of the area.

(EDITORS NOTE: Due to the length of this document, it is not reproduced here in its entirety. Following herewith is the summary)

In many areas the DEIS provides insufficient information. Our analyses show that Alternative 3 will cause unacceptable and illegal levels of resource damage. We believe that further timber harvest in this heavily fragmented area cannot be done sustainably. We urge you to choose the no action alternative, or at the least provide a supplemental DEIS with an improved karst inventory and other requested information. Do not enter the inventoried roadless area.

Thank you for the opportunity to participate in this process. We encourage you to reconsider the proposed action in light of our concerns.

Sincerely,
Page Else, Research Director, Sitka Conservation Society
Randy Virgin, Executive Director, Alaska Center for the Environment
Mark Roark, Chair, Juneau Group Sierra Club
Bryan Bird, Director, Forest Conservation Council

Websites worth looking into:

http://ipl.unm.edu/cwl/fedbook/fedcave.html

http://www.aqd.nps.gov/grd/geology/inside/1988regs.htm

http://www.caves.org/region/mar/act_federal.htm

Newsworthy articles:

On November 2, the Anchorage Daily News Business Section ran an article by Paula Dobbyn titled, "Cave Experts Oppose Plans for Timber Sale", wherein Tongass Cave Project Co-Director, wildlife biologist, Conservation Chair of the Glacier Grotto and certified high school teacher **Steve Lewis** is quoted regarding the USFS' methodology used to lay out the Kosciusko Timber Sale, "They're going to need to go back in and do their homework". USFS District Ranger in Thorne Bay, **Dave Schmid**, admits that the Tongass Cave Project (TCP) uses surveying methodology that is "meticulous, hand-to-hand, field walks, where every square foot of soil is ground-truthed, whereas the USFS relies on maps, imagery and more limited field survey". The agency claims it finds 95% of caves. Cavers say that figure is inflated (Editorial note: This appears to be the case if you read the analysis provided by Steve Lewis in his letter to the USFS regarding this DEIS). TCP is lobbying the USFS to protect the karst underlying much of the Kosciusko Island timber units, not log it.

On November 4, **Joe Viechnicki** of KFSK, Petersburg, a member of the Alaska Public Radio Network (APRN) aired a radio piece with the following opening line, "Cavers from Southeast Alaska are objecting to a proposed timber harvest on a remote island in the southern panhandle. Members of the Tongass Cave Project(TCP) say the limestone holes and formations on Kosciusko island are found in few other places on the planet and should be protected as wilderness. The USFS says it is taking cave formations into consideration as it plans the timber sales."

Tongass karstland is worldclass, according to TCP Co-Director **Pete Smith**, due to heavy rainfall and the overlying temperate rainforest, comparable to few other places in the world. Timber activities on these fragile landforms can cause caves to be filled in, or water flow through them to be altered. This can damage unique geological, archeological and paleontological features. TCP has proposed that the area be designated karst wilderness, under the forest-wide review of potential wilderness areas ordered last year. The forest service's draft wilderness review recommended the creation of NO new wilderness on the Tongass.

District Ranger **Dave Schmid** says the project will protect Koscisuko karstland. Schmid says, ..." I think we've developed a strategy to assess the risk or vulnerability of karst. I think we're using state of the art inventory and mapping...any alternative that we move forward will certainly meet our standard and guidelines to protect the resources there..." Says Pete Smith, "...The only action acceptable on the Kosciusko sale is no action because the karst has not been inventoried properly.....we found at least 50% more features in the sample of 12 units that we inventoried than they(the USFS) found"
(Note: How did the USFS calculate that they found 95% of the caves?)

Tongass Cave Project has provided their karst inventory to the USFS...the agency says it will take the information into consideration in the final environmental impact statement. A final EIS on the Koscisuko Sale could be out in late spring or early summer, 2003.

Dear Mr. Laperriere:

I obtained your email address from a series of articles that appeared in Alaska Magazine in November 2001. One particular line in the first article ("The Karst Cops: Volunteers find and map the caves of the Tongass") really caught my attention. The line read "Trees tend to grow bigger on Karst. Really Big!". I am currently a post-doctoral research associate at Duke University, and I'm working in cave systems in TX and NC. In our study cave systems, trees growing on thesurface above the caves are able to access perennial underground streams and grow much more vigorously than trees off the stream. The cave systems provide a unique study site where we can access deep roots and study water flow and uptake patterns by the trees. Roots studies have historically been neglected because the difficulty associated with excavating deep roots without damaging them. The caves allow us access to these roots in undisturbed environments. During your exploration of the Tongass caves in Alaska, have you found tree roots that grow down through the passages? We are looking for additional study sites to compare with results from our current sites.I also believe that further research in these unique study systems in the Tongass would help in conservation efforts. Any studies that would raise awareness and exposure for the caves, should provide additional conservation leverage. If you would be willing to discuss these cave systems in further detail, please respond to this email. Also if there are other cavers/scientists that could provide additional information, please forward their contact information.

Thanks for your time,

Andrew J. McElrone
Post Doctoral Research Associate
Department of Biology
133 Biological Sciences Building
Duke University
Durham, NC 27708
phone: (919) 660-7289
mcelrone@duke.edu

Dear Andrew,

Yes we have seen tree roots in our caves. Your work sounds very intresting and I'm sure you would find the Tongass of value. I have forwarded this onto a couple other cavers. (hey you other cavers,will you also send info to Andrew along with more e-mail addresses? Please send him Steve's and Kevin's. Thanks)
Andrew, please feel free to e-mail me with more questions. I know our grotto would love to be of help to you in your studies.

Thanks.
Marcel

Glacier Grotto

A grotto of the National Speleological Society
P.O. Box 9062
Ketchikan, Ak 99901

2002 FINANCIAL STATEMENT

(as of 01/5/03)

Starting Balance	**$ 1723.30**
Income	
Dues	$ 585.00
T-Shirts	$ 15.00
Total Recieved	$600.00
Expenses	
Cavers	$ 295.55
Postage	$ 38.90
Total Expenses	$ 334.45
Ending Balance	**$1988.85**

DEAR GLACIER GROTTO:

I AM WRITING AS A GROTTO MEMBER AND PATCH COLLECTOR WITH HOPES THAT YOU HAVE A GROTTO PATCH AVAILABLE FOR PURCHASE. I WILL REMIT ANY COST. I COLLECT ALL TYPES OF CAVE RELATED PATCHES IF YOU COULD KEEP ME IN MIND AT YOUR MEETINGS.
THANK YOU.

SINCERELY,

RON HARLOW
CIG 41984

1901 MARTIN STREET
INDIANAPOLIS, IN 46237-1040

Dear Rope Cutter:
I was watching "Worst Case Scenarios" on TV; you know that show that tells you how to handle the bad things that happen to everybody. I saw an episode that involved caving. After seeing this episode, I feel the show helped me to be ready for an intense caving experience. Have you seen the show?

Signed
Couch Potato.

Dear Couch;
I did see that episode of "Worst Case Scenarios" because I was stuck in ahotel room and bored out of my gourd. This TV show did much to enliven an otherwise dull evening as I contemplated the population reduction that would result if anyone thought that they were seeing a realistic caving scenario. For those who didn't see the show I will try to recap. Two "competitors" sprint through the jungle carrying woefully inadequate or inappropriate caving gear to a place where they must "fix" a handheld flashlight. This is to be their only source of light, except for two cylume sticks. Then they go to an "unexplored" area of the cave to map it. Both fail to match the map at checkpoint three, so they have to go back in the cave to find the map, past a 12-inch diameter tight spot. One of the competitors is a bit on the big side so he goes off looking for a by pass. Then he gets lost, falls off a 15-foot cliff and hurts his ankle. The winner finds the map, gets out of the cave to another checkpoint, builds a ladder out of bamboo, goes back in the cave and comes out another opening with a 30 foot vertical pitch in which he uses his ladder to get to a fixed rope he hand over hands out of the cave. This episode only raises questions in my mind. Why would any caver ever let someone else pick out or pack their gear? (Oops, stop packing that bag for him, ladies) Did they really need to make a map? Couldn't they have just asked a cameraman for directions? Did they really think that the cavers would wallow, eat or sniff the dangerous bat guano that the cavers had to pass? Can any caver imagine what would happen to cave maps if we had to hit timing buzzers as we go? If the cave was so cold, why were the cavers wearing shorts? Is bamboo naturally outside cave entrances to make ladders ? Would you let someone show your klutzy fall down a 15-foot drop on national TV? Is this the worst case caving scenario they could think of? Don't they know worst case scenarios usually involve more near death experiences? I do have to hand it to the narrator; he made a rather good observation when he noticed that it is dark at night as well as in the cave. The only good thing about this program was a quote from the "loser" who said, " Any day caving is a good day. I think it was appropriate that this episode was followed by how to evade a raging bull. In fact, before I watch another episode of this sterling program I will avoid a worst case scenario by taking the safety precaution of wearing my hip waders. Stay on your couch, Mr. Potato.

Yours,
Phreada Phreatic

P.S. Perhaps in the next issue of the Rope Cutter I'll talk about the episode where a lady had to climb a terrifying 140 feet of ice on a top rope tied with 3 bowlines. Stayed tuned—or not.

ATTENTION:

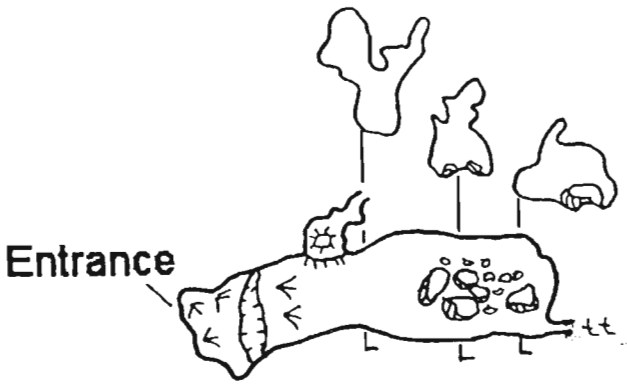
Looking for a member of the Glacier Grotto willing to take on the publication of the **Alaskan Caver** for the next 4 issues.

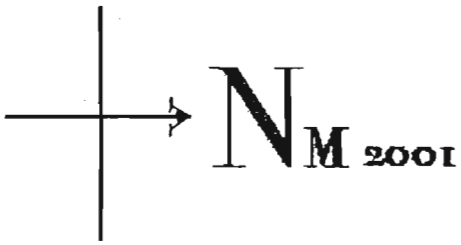
Please send an email to AlaskanCaver@hotmail.com.

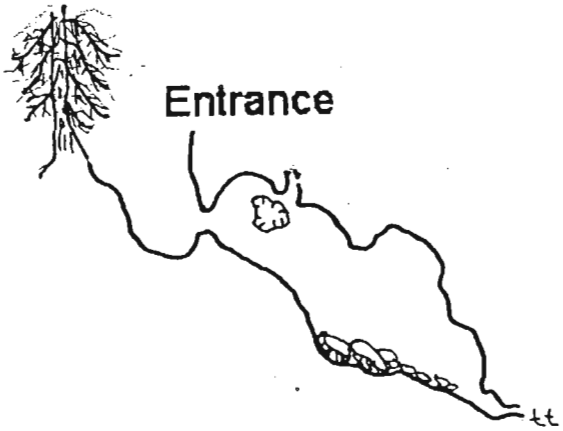
Little Ticket

Length 5.26 meters
Depth 2.63 meters

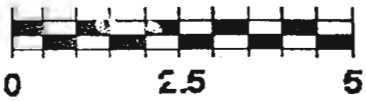
Kosciusko Island 2001
Survey by: Connie LaPerriere
Barbara Morgan







Scale



Meters per Inch

Legend:

- **Cobble**
- **Rocks**
- **Steep**

Map by Connie LaPerriere

MEMBERS OF THE GLACIER GROTTO IN GOOD STANDING 2002

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2002 Baichtal, Jim PO Box 19515 Thorne Bay AK 99919
2002 BOWERS, WM HARVEY 305 Bartlett Circle WASILLA AK 99654
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2002 Eash, Art PO BOX 240801 AnchorageAK 99524-0801
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2002 MONTEITH , DAN Auke Bay AK 99821
2002 MUNDY III, GEORGE R PO BOX 1222 CORDOVA AK 99574
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2002 PERRIGO, DALENE, & LYLE 1921 CONGRESS CIR APT B ANCHORAGE AK 99507
2002 RAAB , DIANE 7887 N La Cholla Blvd #3192 TUCSON AZ 85741
2002 ROCKWELL, DR JULIUS JR & ELIZABETH A 2944 EMORY ST ANCHORAGE AK 99508-
2002 SANDHOFER, PAUL F PO BOX 91333 ANCHORAGE AK 99509
2002 Sattler, Robert Po Box 83115 Fairbanks AK 99708
2002 Slagle, Kathy & Stanley PO BOX 22651 Oklahoma City OK 73123
2002 SMESTAD, RANDY 3844 Denali Ave KETCHIKAN AK 99901-5332
2002 SMITH, DR G WARREN 251 MALTBY AVE SLIPPERY ROCK PA 16057
2002 STRATMAN , JOSEPH P PO BOX 1736 PETERSBURG AK 99833
2002 Summer, William B 260 Weymanda Circle Athens GA 30606
2002 VALENTINE, DAVID B 11976 N TONGASS KETCHIKAN AK 99901
2002 VAN NOTE, MICHAEL PO BOX 26 HAINES AK 99827
2002 WHITE, BRUCE & Samantha PO BOX 7531 KETCHIKAN AK 99901

GINO ALBERT SALUTES BEFORE DROPPING YIN YANG PIT
KOSCIUSKO ISLAND CAVING EXPEDITION 2002 Photo by Diane Raab

The Alaskan Caver

P.O. Box 9062
Ketchikan, AK 99901

Address Service Requested