

Colorado Cave Survey Meeting

January 9, 2020 7:00-9:00

Location: O'Meara Ford, Northglenn

Attendees:

Kristen Levy (NCG, CCS chair)
Layla Borgens (SCMG, CCS vice-chair)
Kevin Manley (FRG)
Chris Carter (CG)
Jon Schow (CG)
Jim Lawton (NCG)
Carey Hunter (TG)
Paul Fowler (FRG)
Blue O'Brennan
Donald Davis
Stuart Marlatt
Derek Bristol
Gianna Pittman
Leah Ford
Danny Piccone
Ryan Hogan
Jarret Daffern
Carl Heinzler

Remote on-line attendees:

Christine Kirkland (SCMG)
Kenny Headrick (CWSG)
Rob McFarland (CWSG)
Rick Rhinehart (proxy for TG)
Shiloh McCollum
Jennifer Zedalis
Dan Sullivan
LP Lawrence
Dave Lester

Note: *Summary and discussion from current meeting is in italics. Minutes are based on notes taken during meeting by Paul Fowler.*

Meeting Agenda

Previous minutes

*Minutes of previous meeting, as published and distributed, accepted by acclamation.
Attendees reminded of CCS Code of Conduct*

USFS caves:

USFS Region 2 WNS response policies

A new cave closure document was released on August 1, 2019 and is active until July 31, 2021. A few WRNF caves have been added to the closure list, but cave closure policies remain basically the same. Permits need to be obtained in advance and seasonal closures need to be respected.

No further discussion at meeting.

Fixin' cliff cave and karst conservation

The CCS continues to work in collaboration with the USFS, the Access Fund and climbers to conserve cave environments and fragile karst features. We have had several site visits or meetings over the summer. All have been productive in terms of building relationships and in communicating a conservation message to climbers.

8/13/2019 Kay Hopkins (USFS), Paula Peterson (USFS), Jeff Bosboom (Deep Creek Climbers Coalition), Paul Fowler (CCS), Layla Borgens (CCS), Rick Rhinehart (CCS) Pat Lundahl (caver). The goal of this meeting was to have open and respectful communication, listen to other points of view and to ask questions to clarify information.

9/12/2019 Bat biologists Dan Neubaum (CPW), and Jeremy Siemers (CSU/CNHP) accompanied by Paul Fowler (CCS) and Jennifer Zedalis walked the cliffs around Fixin' To Die Cave. The goal was to assess usage of caves by bats and other animals and to get an idea of potential impact by sport climbers.

9/21/2019 Kristen Levy (CCS), Paul Fowler (CCS) and Jeff Bosboom (Deep Creek Climbers Coalition) The purpose of this trip was to delineate climbing and no-climbing zones in the Deep Creek area. Aaron Mayville, former District Ranger tasked us with this responsibility. It was quite successful. We encountered several climbers who were open to listening and offered to remove a few routes that were hanging over or immediately adjacent to caves.

The USFS has asked that climbers remove all routes around caves by July 2020. Gear is not to be cached in caves or at the cliff base and is considered 'abandoned'. Trail construction is not allowed nor pruning of trees or vegetation. We need to help with an educational sign at two descents that will educate climbers regarding cave regulations and bat conservation. It may be necessary to post small signs to delineate no climbing zones though I hope that won't be necessary. Climbers will need to follow similar guidelines to cavers when in proximity to caves. The entire Fixin' Cove will most likely be off limits to climbing as will the area of the water fall traverse.

To access the area, one must park on the Coffee Pot Road and hike in. Climbers have created a short cut trail and it is a reasonable hike. Note: Shepherders will still have access to the area with their campers and vehicles due to existing permits.

Paul Fowler: *During the site visit with Dan Neubaum and Jeremy Siemers, evidence of extensive bat roosting was noted in Curtain Room Cave. This is also the cave most impacted by climbers, with multiple climbing routes up the walls and across the domed roof inside the cave.*

Exception permits on WRNF

As usual, a written request for a CCS/NSS exception permit for Groaning and Spring Caves will be submitted in a timely manner for Fall 2020. Three trips were made after the closure date under an exception permit this past summer. During these trips two dead bats were seen; one was collected for CPW, but fortunately tested negative for Pd and WNS.

No further discussion at meeting.

Deep Creek wild and scenic designation

Ken Newton will provide an update.

Ken Newton was not present, but as far as we know there is nothing important new to report.

Upper Fryingpan timber harvest (including Lime Park)

Recommendations made by Jim Baichtal (Forest Geologist/Tongass National Forest) were accepted by the USFS though hard to find in the records. Parcel 103 was removed from the timber sale. Buffer zones of 100 feet were recommended in areas containing solutional collapse features and sinkholes and a 500 feet buffer zone was recommended for area containing a cave.

A lawsuit has been filed to stop the harvest by people living in the general area so work will be delayed indefinitely. **No further updates but need to keep on radar.**

No further discussion at meeting.

BLM caves:

Cave and Karst Management Training

The BLM held a Cave and Karst Management Training course in Silt, CO on August 12-16. It was well attended by BLM personnel from around the country. There were numerous trips planned for participants to gain a better understanding of BLM karst resources for management purposes. The CCS was asked to assist with in-cave training and to share management and conservation strategies with trainees. Kristen Levy made a short presentation for them on the history of CCS/BLM cooperation in Colorado.

Anvil Points- Trip led by Donald Davis and Blue O'Brennan

8/14/2019 Report submitted by Donald Davis

After spending the night as guests of Ken Headrick and Tracy in Rifle, Blue O'Brennan and I had a very good trip to Anvil Points with two BLM geologists, Jessica Lopez Pearce and Brian Longstreth. We traveled from the lower to the uppermost entrance along the main trend.

After that, we returned via the upper cave near the arch, and then through the arch. We confirmed Ken's report of a newly observed black hole below the arch. You may recall that there used to be a narrow vertical, fluted skylight shaft, maybe 10 or 15 feet long and a foot across, in the ceiling of the Lower Big Room. That whole part of the ceiling has collapsed, leaving a gaping hole I estimated as at least 10 by 12 feet across in the steep slope below the south end of the arch. It overhangs on all sides, so cannot be used as an entrance to the cave. The room looks like a whole different place with that new oculus letting in full sunlight! Scary--if anyone had been underneath when that caved in, they'd have been killed under that multi-ton rubble fall. This looks to be an upward extension of the dirt fall that temporarily

blocked the stream exit from the Lower Big Room some years ago. The rest of the cave looked more as before, but I think there had also been another large ceiling fall in the Upper Big Room, exposing a yards-wide slickenside surface. The bat researchers have installed a solar-powered bat monitor just downslope from the arch; the solar panel reflects sunlight clear down to the ravine junction below the cave system, drawing attention to the location.

LaSunder Cave- August 14, 2019 Shiloh McCollum

Shiloh McCollum led a trip to LaSunder Cave. The trip began at the BLM Silt Office at 7:30 am to carpool to the Deep Creek Parking Lot. Shiloh met Kim Leitzinger and then was introduced to the crew, Jim Goodbar, Dorothy Morgan, and Kyle Rybacki. The LaSunder trip was meant to be the more difficult trip of the day with only experienced cavers from the BLM to join us.

The group was highly impressed with the speleothems throughout the cave. Conversation revolved around how it was likely formed, how the formations were created and grew, and the differences between different cave chemicals. We even had a marvelous discussion about clay. Kyle is a wealth of knowledge and I was deeply grateful for his easy explanations to chemical cave mysteries that had eluded me until this trip. We collected some general atmospheric data at several points in the cave and in general, had a terrific time. It was a laid back and good-natured crowd.

No further discussion at meeting.

LaSunder Cave Management Plan

The cultural survey has been completed but a finalized report has not yet been delivered to the BLM. No caves visited by the archaeologists were found to have signs of being culturally sensitive. However, evidence of prehistoric people was found on the valley floor closer to water.

12/13/2019-discussion with Kim Leitzinger

Revised LaSunder management plan is being written with suggestions and input from the Colorado Cave Survey. Shiloh McCollum has made some revisions/updates to the permit and waiver in collaboration with Kim.

The plan stays the same except trips to the back zone will be allowed. All trips to back zone must include scientific study, exploration, photo documentation, restoration or other justifiable reason. Must get approval in advance once the plan is complete. A short trip report will need to be submitted to the BLM. This is in addition to the paperwork that is returned to the access coordinators.

The management plan will allow 10 caver trips per year, approximately two trips per grotto but since trips have not been maxed out, presently it is first come, first serve. There is a maximum of 5 people per trip including the trip leader. Four of the ten trips will be allowed in the back zone.

All paperwork remains as it is now, but waivers must be submitted in advance of trip due to problems with lost or delayed paperwork in the past.

I propose that sensitive areas be flagged in the back zone if not already in place.

Questions brought up at last meeting:

Chris Carter: Maybe we should allow no more than one trip to the back per grotto each year?

I suggest that initially, we only allow one trip per grotto though we ask that grottos open trips up to others if not full.

David Gnuse: Do trips to fix any rope problems discovered also count against the 10 total allowed trips?

After discussion with Kim, if one has a specific purpose for entering cave and writes a

proposal, it will not count against the 10 or 4 trips. Example, an on-going dig with approval will not count against the ten grotto trips or the four back zone trips.

Derek Bristol: *We should maybe change it from a per grotto rule to first come first serve, as there are now 6, and soon to be 7, grottos, and some are much larger than others.*

Kristen Levy: *We can make it not a hard rule and see how it goes, but the idea should still be to spread the trips around and not have any individual or group dominate.*

Kristen Levy: *Work trips with specific purposes such as rope fixing, digging, or science can get their own permits and not count against the general trip count limit.*

Paul Fowler: *Do all trip leaders for the back need to have prior experience there?*

Stuart Marlatt: *We can leave that to Stuart and Carl to use their judgement and decide on an individual case-by-case basis.*

Donald Davis: *Trips to the back should have an experienced trip leader to point out the gypsum needles and other fragile areas.*

Kevin Manley: *The gypsum needles are already flagged off.*

Derek Bristol: *The main trail above the rope is not all marked with flagging, and should be double flagged like the rest of the cave. There are also bat skeletons that need flagging.*

Kevin Manley: *That could count as a work trip.*

Jim Lawton: *We should log BLM volunteer hours for any work trips. Are we doing that now?*

Stuart Marlatt: *There have been only 1 or 2 real work trips in all the years we have been tracking.*

Kristen Levy: *Reports to the BLM are required for any work trips. Can Stuart coordinate and collect these?*

Stuart Marlatt: *Yes.*

Twenty Pound Tick Cave

Experienced BLM cavers visited the cave this past summer and began an inventory. They were not able to go further than the 'Subway' due to high water. All participants agreed the cave should be designated as significant due to various criteria including hydrological and geological. Survey by cavers continues and the environmental barrier is holding up. A management plan will be developed with CCS involvement. Caver managed access, similar to the plan in place for LaSunder will be the priority of the CCS.

Carl Bern: letter to BLM to be discussed by the Survey. Information will be brought back to grottos for discussion.

Kristen Levy: *Layla Borgens and Paul Fowler led Jim Goodbar and Kyle Rybacki of BLM on an inventory trip into Tick on August 12th.*

Paul Fowler: *We were able to get only as far as the Subway because it was effectively still sumped even this late in the summer (open airspace was less than 1 inch). Jim recommended the cave be designated as significant. Jim was leading the inventory to collect input information for a future management plan. He was taking various measurements frequently in the cave, including air and water temperature, wind velocity, and relative humidity. He was also taking extensive notes and photographs. He said he would recommend significant status to Kim. He also said he would recommend some restoration work, mostly for muddy footprints and handprints on flowstone. Besides inventory, he was also tasked with risk assessment, and he stated that he believed the cave presented clear potential for harm or injury in case of accidents, particularly because of the cold water and the difficulty of rescue. He made clear, however, that his charter for this trip was advisory input, and the responsibility for details of a management*

plan lie with the local BLM office.

Layla Borgens: Jim stated that because of prior legal cases and concern for legal liability, the BLM lawyers would probably insist on access control restrictions. E.g., gating the bypass tunnel.

Paul Fowler: Jim told me pretty much the same thing about legal liability concerns. He was involved in at least one such case where BLM got sued after someone died in a cave on BLM land. In that instance, they were able to use as a successful defense that they simply did not know of the existence of the cave. That does not apply any more in this case.

Derek Bristol: CCS should vote to oppose gating Tick. Gating here would set a bad precedent, and we should clearly tell the BLM that we oppose it.

Paul Fowler: We need to be careful how we talk with BLM about this. If they have already decided to gate the bypass tunnel, then just saying we oppose it may not achieve anything, or may make them listen to us less. We should also be fair to Carl and get further input from him before we do anything, since he went off caving and couldn't come to this meeting.

Derek Bristol: Is anyone in the meeting really in favor of gating? (No one spoke up to reply in favor).

Kristen Levy: Most cavers generally oppose gates, but it is an important decision how we should handle this best, and we should turn this back to the individual grottos for their discussion and input.

Paul Fowler: If we want to influence the BLM to maintain at least some level of caver access through the bypass tunnel, we need to be at the table when they develop a management plan. We need first to identify who the deciders are at BLM. In this case, that is apparently Kim Leitzinger and the CVRFO head Larry Sandoval). Kristen has a good working relation with Kim, but we don't really know Larry. We also need to identify who the main people influencing their decisions will be. Here Jim Goodbar appears to be a major influencer, which is probably good since he is a long time caver himself and some of us have known him for years. We then need to figure out what their current thinking is, which can be difficult. From what Kim has told Kristen, they may have already pretty much decided to gate the bypass, although we do not know how set in stone this decision is. We then need to figure out how to push them in the direction we want, which is to get a management plan written quickly that allows some caver visitation, probably through an access control plan similar to what we have with them for LaSunder cave. Note that both the 2015 BLM Colorado River Valley Field Office Approved Resource Management Plan and the existing MOU between BLM and CCS explicitly define a role for CCS in cave management plans and decisions, so this may give us some leverage.

Stuart Marlatt: We really don't want to repeat the bad experience we had with LaSunder, where we gated the cave and then it took BLM many years to write a management plan, during which no caver visits were allowed.

Derek Bristol: Does gate construction have to go through the NEPA process? (No one was certain, but it appears that it probably does).

Kristen Levy: We have two possible draft letters to the BLM, one from Carl Bern and one from Paul Fowler, which we can send out to the grottos to stimulate discussion about how best to approach this issue.

CCS Managed Caves

Groaning Cave

The USFS has requested that a yearly summary of cave trips to Groaning be submitted. Paul Fowler submitted a summary of trips to Groaning for 2019. Visitation was down because of late

access to the Flattops due to snow conditions. Report posted on CCS website.

Please note there is officially a seasonal road closure on Coffee Pot Road from late October until June 1. Since no user groups respects this closure the USFS may install a gate at the FS boundary below Willow Peak.

Paul Fowler: Paula Peterson of the WRNF has said that she wants to install a gate on the Coffee Pot Road at the Forest Service Boundary below Willow Peak. The road has official closure dates for different segments, but these have never really been enforced previously. This gate would be closed until June 1st, and could limit our access to the Deep Creek caves. This is something we should watch and possibly oppose. We had suggested flexible dates to Paula, since the snow levels vary a lot in different years, but she wanted a single fixed date.

Kevin Manley: Looks like opening date is actually May 21st, not June 1st.

Derek Bristol: Why do they want to close the road?

Paul Fowler: Paula says that early season 4WD users do a lot of damage to the road when there is snow or lots of mud still on the road

[Note added for clarification by Paul Fowler after the meeting: The relevant WRNF road closure map can be found at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd621545.pdf. The lower section of the road from Deep Creek up to the FS boundary at 12.5 miles officially opens May 21st. The next section from 12.5 to 19.5 miles opens June 1st. The proposed FS gate would be at milepost 12.5.]

When visiting Groaning, cavers are requested to fill out the register accurately with first and last names and other pertinent information since this information will be collected on a yearly basis and shared with the FS. Please note any bat sightings, living or dead.

New Groaning management plan: No new updates.

The need for an updated management plan has been discussed with the WRNF. It will probably end up looking more like the LaSunder management plan. Kay Hopkins has yet to send templates to the Survey for input.

No further discussion at meeting.

LaSunder Cave

Stuart Marlatt and Carl Bern continue as access coordinators for LaSunder Cave.

See changes in the management plan above. Stuart submits the yearly reports.

Reminder: Waivers are required in advance of trips due to late submission in the past.

Stuart Marlatt: There have been few trips recently. Stuart is working on a report.

Fly and Marble Caves

Christine Kirkland and Talmage Trujillo are cave access coordinators, contact them for cave access. In order to visit the caves, you must have been to the caves before with a qualified trip leader and be knowledgeable about the caves and rules before being granted permission to lead a trip on your own. **The permit will be granted at the discretion of the access coordinators.** If you lead a trip, you are responsible for ensuring all individuals on the trip read the rules and regulations.

Waivers must be submitted to Christine or Talmage either in person, by mail, or by email before being allowed in the caves or receiving combinations to the gates. Combinations to the gates

are changed frequently. Our priority is to have a continued good relationship with the property owners.

Take pictures and leave nothing but footprints please. No smoking or drinking at parking area per request of landowners.

The access management team is:

Christine Kirkland (liability waiver coordinator) agnew200@yahoo.com

Talmage Trujillo ttrujillo@salidaschools.org

Kevin Manley: *What is the current trip size limit?*

Christine Kirkland: *7 per trip.*

Kristen Levy: *Is there a lower age limit?*

Christine Kirkland: *5 years old is the youngest allowed.*

Active Committee Reports

Mid-Continent Quarry Proposal

Summary: RMR, which has owned the Mid-Continent Limestone Quarry since 2016, wants to expand its federal permit with the Bureau of Land Management from 15.7 acres to 447 acres, with mining of chemical-grade limestone and dolomite on 320 acres within that boundary.

Here is an article about the quarry.

<https://coloradosun.com/2019/11/14/glenwood-springs-limestone-mine-campaign/>

Rick Rhinehart will give a brief summary of events up to most recent development. Kim Leitzinger has been given responsibility for coordinating the RMR Quarry project and is now writing an Environmental Assessment for the five proposed hydrological wells. Many cavers and grottos have written letters in opposition to the wells and to the quarry expansion. CCS and many of the individual grottos have officially endorsed the Glenwood Springs Citizens Alliance in their efforts in opposition of the quarry expansion. The city of Glenwood Springs is officially opposing the expansion of the quarry as well. All grottos and individuals are invited to share join the coalition in opposition of the quarry. Address your comments to the Glenwood Citizens Alliance.

In September, cavers found a cave within the boundaries of the proposed quarry site. It has flowstone, moon milk, lots of animal bones, and is most likely a 'significant' cave due to geologic features.

Discussion: Should CCS nominate this cave as significant?

Rick Rhinehart: *Witches' Pantry is a new cave discovered within the boundaries of the proposed quarry expansion. It was found by Rob McFarland on a ridgewalk with Rick Rhinehart. It is a small cave with a pit entrance, but has nice flowstone decorations and many animal bones in the dirt floor. A decision was made to reveal the cave to the BLM and to the public to potentially help delay or stop the quarry expansion, because if the quarry goes through the cave will be destroyed. An article announcing the cave appeared on the front page of the Glenwood newspaper: <https://www.postindependent.com/news/cave-discovered-in-glenwood-springs-in-the-path-of-the-expanding-quarry/>. Rick Rhinehart and Steve Beckley were*

interviewed about the cave by TV channel 9 also. There is a possibility of extending the cave further, but it may require a BLM dig permit. Rob McFarland is in charge of further exploration there. It would be good to get Don Rasmussen to examine the bones found in the cave also. Resistivity studies done for RMR showed substantial anomalies that we would interpret as indicating likely caves, but the consulting firm working for RMR claimed these were filled fractures or paleokarst features. Jim Goodbar (formerly BLM national cave specialist, now retired and consulting for BLM) will work with Kim Leitzinger of the BLM Silt office on an Environmental Assessment document for the proposed exploratory wells. Jim will also work on the final Environmental Impact Statement for the entire quarry expansion. Jim has told Rick that the National Cave Resource Protection Act can be superseded by mining claims, but this has not really been challenged in court yet.

Rick Rhinehart: *Motion to have CCS recommend Witches' Pantry cave to the BLM for designation as a significant cave. Motion passed by acclamation.*

Bat Working Groups:

Mountain Prairie WNS Coordination Meetings / USFWS Region 6:

Purpose: To discuss white-nose syndrome (WNS)-related topics including WNS strategic planning, communications, surveillance, grants, and research projects. This meeting is specific to states in the USFWS Region 6 (Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming).

Donna Frazier has taken over attending the phone meetings and Christine Kirkland is a backup for when Donna cannot attend. They will coordinate with each other and submit reports to be shared.

Christine Kirkland: *There was a short meeting in November with no major updates to report.*

Colorado WNS Working Group

Paul Fowler attends the Colorado interagency WNS working group phone conferences chaired by Tina Jackson (CPW). The main item to report from there is that despite considerable testing in the last year, there are still no positive Pd or WNS results for Colorado.

Paul Fowler: *The most recent meeting was just this Monday (January 6th). There has been a lot of ongoing testing, but Colorado is still Pd and WNS negative. Rick Truex of the USFS R2 says there will be no further immediate changes in USFS WNS response management, and when they do revisit it further, cavers will be consulted before changes are implemented.*

Colorado Bat Working Group (CBWG)

Works cooperatively to conserve bat species and habitat in Colorado. Participants include Kirk Navo (CPW), Rob Schorr (CNHP/CSU), Dan Neubaum (CPW), Jeremy Seimers (CNHP/CSU), Tina Jackson (CPW). Paul Fowler attended the annual seminar meeting they run, on September 20th at the CPW office in north Denver. Papers on many aspects of bats were presented by people from Colorado and neighboring states.

No further discussion at meeting.

Clear Creek Canyon Project

Goal: Develop a relationship with Jefferson County Open Space regarding cave management and promote exploration and conservation in Clear Creek Canyon.

New temperature loggers were reinstalled in CJs Cavern this past October. Shannon recently submitted a report summarizing CJs data collected thus far, from 2011 to 2018, to the Jefferson County Open Space Program. This data shows that temperatures and evaporation rates are increasingly stable the further the loggers are from the entrance door. A yearly report is required to retain a permit to collect data. The report was approved, which means that data logging will be continuing. If anyone is interested in getting on the email list for any upcoming data logger trips to CJs, please email her at shannon.glazer@gmail.com.

Project members:

Shannon Glazer mock5turtle@hotmail.com

Dan Castellari cavesr4all@yahoo.com

Dave Lambert cavelambert@gmail.com

Chris Carter: Shannon still has openings for her next trip to CJs.

Cave of the Winds- Bat Appreciation Day-Christine Kirkland

Follow up Question. Will Bat Appreciation Day be a yearly occurrence? This topic will be addressed at the COW meeting on January 25, 2020.

Questions from last meeting:

Questions have been raised about the scope of Cave of the Winds rules restricting posting on social media. Does this apply to pictures from main commercial areas too? Would this include pictures from Bat Appreciation day?

The answer to this question is that if pictures are taken in public areas of Cave of the Winds, then they may be posted. Management asks that no images of wild caves or canyon approaches be posted on social media without prior permission.

Christine Kirkland: We can raise the question at the next Williams Canyon Project meeting whether CoW wants to host Bat Appreciation Day again.

Layla Borgens and Christine Kirkland: SCMG has donated money to groups in Australia trying to help bats affected by the huge fires there. Other grottos are encouraged to do likewise.

CCS website

Site fees are paid through May 2020. Paul has suggested that we look into a new server or website. Additional volunteers with relevant experience and skills would be greatly appreciated.

Paul Fowler: It would be really good to update and improve the design and format of the whole website. I can continue maintaining the current site, but it would be really good to have a volunteer with more web design experience help redesign the site.

Derek Bristol: There are lots of young technically oriented cavers here from Colorado School of Mines. Maybe some of them can help.

Rocky Mountain Regional Report

RMR Report from Ken Newton- August 9-11, 2019

The Rocky Mountain Regional was held at Yeoman Park. Forest Service staff visited throughout the day on Friday to ensure that all was good and were there questions. Ken visited with Bridget

Murray, a Geo-Corps volunteer from Meeker/Spring Cave. Twelve people attended the event. Everyone went caving. A brief RMR meeting was held. There are extra t-shirts and guidebooks available for sale by Jennifer Scott. Timberline Grotto did not break even. The former chair of the Rocky Mountain Regional, Jason Weyland, moved to Tennessee.

Kristen Levy: Buy some T shirts or guidebooks from Ken to help him cover costs!

Topics from the floor

CavesR4All

There was a site on the Internet that had posted the CavesR4All information including GPS locations of significant, sensitive, closed or privately owned caves. After contacting this group, it apparently has been removed.

Paul Fowler: Thanks also to Ben Smith for helping with this.

Cave of the Clouds and Drapery Den

Defiance Cave Preserve- Mike Frazier/Donna Frazier

The last of the trash was hauled out of Drapery Den this past summer. The newly formed School of Mines Grotto and others assisted in this difficult task. The Fraziers thank all that participated.

Cavers continue to be welcome to conduct projects on the property. Graffiti removal, digs, archaeology, historical signature studies and more are all possible ideas. The preserve will remain open to cavers despite the possibility of a closure order from the BLM and USFS though Mike is considering a closure for maternity roosting.

Layla Borgens: Josh says Drapery Den is now completely clean.

Kristen Levy: There is a *Myotis* maternity colony in Cave of the Clouds, and Mike and Donna may do a seasonal closure to protect the bats.

Rocky Mountain Caving

Rob Kolstad is the new editor or the RMC. RMC was digitized this past year and RMC journals are available for a small fee digitally.

No further discussion at meeting.

A request has been made to ask about caver access to Hubbard's Cave. Follow-up still needed.

From previous meeting:

Rob McFarland: Rick Truex had said that future caver access might be possible back when the gate was installed.

Rick Rhinehart: Phil Nyland had also said maybe.

Ken Newton: Phil Nyland had said they wanted to wait and have a trial period first after the gate was built. He also said there was a big bat count this fall at Hubbard's.

No further discussion at meeting.

Colorado School of Mines Grotto

Mines Grotto is now chartered by the NSS.

Ryan Hogan (current Mines Grotto president): *CSM grotto would like to join CCS. CSM grotto will have an election for new officers next week and can select a CCS representative then.*

CSM grotto representation in CCS approved by acclamation.

Election of new officers of the CCS

Blue O'Brennan (chair) and Kristen Levy (Vice chair) ran unopposed and were elected to be the new CCS officers for 2020 by a vote of 12-0.

Meeting adjourned after election vote.

2019 Officers of the Colorado Cave Survey

Chair Kristen Levy kblevy@comcast.net
Vice-Chair Layla Borgens nurse.layla@yahoo.com

2020 Officers of the Colorado Cave Survey

Chair Blue O'Brennan obrennan@mymail.mines.edu
Vice-Chair Kristen Levy kblevy@comcast.net

Voting Membership of the Colorado Cave Survey

(Please inform the Survey of any changes at your respective grottos.)

Colorado Grotto	Chair: Jon Schow	acojon@gmail.com
	Survey Rep: Chris Carter	ccarterskis@yahoo.com
Front Range Grotto	Chair: Kevin Manley	kevin.manley@colorado.edu
	Survey Rep: Paul Fowler	pjfowler1@gmail.com
Northern Colorado Grotto	Rep: Kristen Levy	kblevy@comcast.net
	Chair: Jim Lawton	quinoa@frii.com
Southern Colorado Mountain Grotto	Chair: Dustin St. Germaine	varikdragonking@gmail.com
	Rep: Christine Kirkland	agne200@yahoo.com
Timberline Grotto	Chair: Ken Newton	cavekids@comcast.net
	Survey Rep: Carey Hunter	mushmc20@netzero.com
Colorado Western Slope Grotto	Chair: Ken Headrick	cavecritters@gmail.com
	Rep: Rob McFarland	robmcfarland@me.com
Colorado School of Mines Grotto	Chair: Danny Piccone	dannypiccone@mymail.mines.edu
	Rep: Carl Heinzler	cheinzler@mymail.mines.edu

Cave Survey Communication

The Colorado Cave Survey maintains an extensive website at:
www.coloradocavesurvey.org

A Google group is maintained for making announcements and discussing CCS business. An email sent to the group automatically goes out to everyone subscribed. For those interested, this is the best way to keep apprised of what is going on with the CCS. A person can

unsubscribe without assistance whenever he or she wishes. To subscribe, please email the CCS Chair.