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# The MOUNTAIN PADDLER

REPORTS AND ARTICLES OF INTEREST  
FOR OUR PADDLING COMMUNITY

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### EDITOR'S NOTE

by Sue Hughes

Yea for us; we did a lot of paddling this season.

Planning for the upcoming 2017 season has already started. Check out the schedule on the RMSKC website and mark your calendar for the Winter Party on January 28th. It's a potluck and the food is always awesome.

Looking forward to seeing you there and hearing more about these adventures.

Happy Holidays, Sue



Drying mud, Jasper Canyon of the Green, 2016

# DAY PADDLES

## SUMMER 2016



Marty, Marsha, Sue, Tim and Brian

### WEDNESDAYS AFTER WORK, AT CHERRY CREEK RESERVOIR:

Clark Strickland and Brian Hunter paddled regularly the first part of the summer; other members joined them, although the rush hour traffic was daunting for many. The weekly paddles proved to be a good outreach; several new people joined the group and RMSKC business cards were given to others. News about earlier Wednesday nights was in the previous *Mountain Paddler*. Here are details about a few of the later outings before they ended in early August.

**MAY 18:** The weather was pleasant, partly cloudy, 62° at the start, water temperature 60° degrees and a breeze at 6 mph at start rising to 12 mph at the end. Lots of birds and a swimming beaver as well as the usual frisky carp rewarded the sole paddler.

RMSKC information was given to a new paddler who got some help loading a sit-on-top onto her car after her first-ever paddle. Retired Denver Judge Frank Martinez who is a cyclist and kayaker, stopped by on his bike and took an RMSKC card. He plans to check out the website and may join.



**MAY 25:** Brian Hunter, Clark and Marty Strickland, Tim Fletcher, Marsha Dougherty and Sue Hughes enjoyed nice weather; the water was starting to warm up. There were 75 pelicans on the east side.

The group went into both Cherry Creek and Cottonwood Creek, see the photo on the next page.

The group had dinner afterward at Casa Vallarta to discuss details for the upcoming PaddleFest.





May 25: Clark and Marty didn't have enough turn-around room

**JUNE 1:** Clark and Marsha Dougherty were the only paddlers; they didn't file a report.

**JUNE 22:** Water temperature 74°, air temperature 78°. The water level was down about 4" from full pool. Clark wrote, "A muskrat entertained us in Cherry Creek. A young pelican had a dogfight with a double crested cormorant. We observed them for at least a half-mile of low-level flight over the water, with the pelican right on the cormorant's tail matching turn for

turn. I have not seen that behavior before. The paddle was short because I had spent the day on the water at Girl Scout camp. We were met by Stephanie and Nicholas Larson as usual."

**JULY 6:** The water and the air were warm. Brian, Rik Lawson and Clark paddled 5.4 miles and had nice side trips up Cherry and Cottonwood Creeks. They met a paddler in an Epic V10 surf ski paddling with a wing paddle. Good grief, he was three times as fast as their 4 mph pace. He was playing with some wakeboard boats and getting long rides with no paddle strokes. He was quite the sight and clearly an accomplished European paddler.

**AUGUST 3:** This was the final *Wednesday After Work* paddle of the season because Clark was in Maine and Brian was busy being a grandfather and getting ready for trips on the Green River and Lake Powell. Brian and Julie Pfannenstein, who has since joined RMSKC and is looking for a sea kayak, enjoyed the summer weather.

**ANNUAL OPENING DAY AT GROSS RESERVOIR**

**MAY 30:**

Ten members met, as usual, at Osprey Point: trip organizer Dave Hustvedt, Jud Hurd, Gary Cage and Anne Fiore, Sandy Carlsen and Harold Christopher, Marsha Dougherty, Sue Hughes and Clark and Marty Strickland.

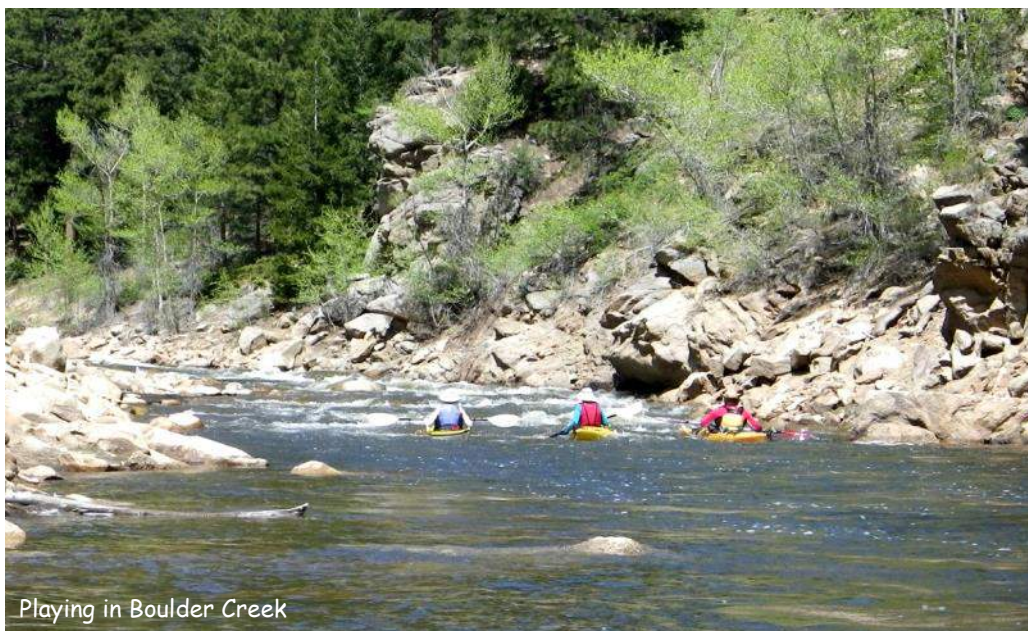
The water was down so there were more shallow put-in spots, which was nice because it was a very busy day. There were definitely more cars and paddle craft than we remember seeing on Memorial Day.

However, there weren't as many people with fishing lines across the water so we got to play in the water from South Boulder Creek. Gary Cage went up into Wineger Gulch to check it out and we all ate lunch at the beach on the north end.



Sandy with Marsha, Marty, Clark and Dave out in front



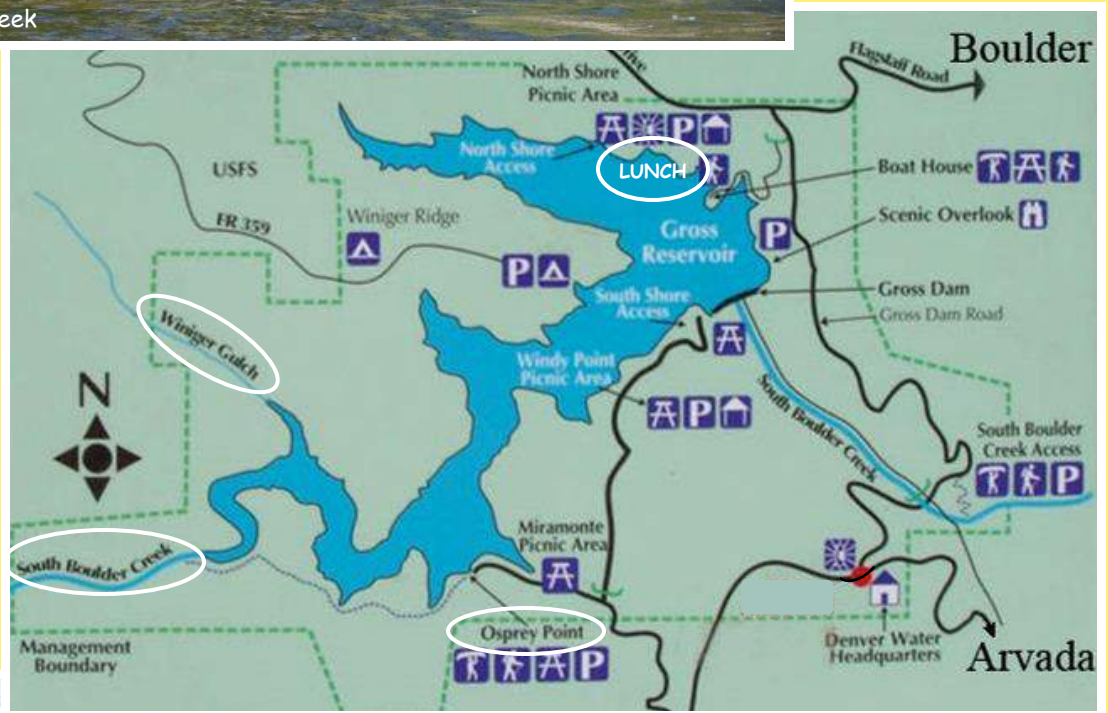


Playing in Boulder Creek

The thimbleberries from the year before weren't in bloom on the shore, and there wasn't as much pollen on the water, but there was lots of floating wood around the incoming streams.

We only saw one pair of water fowl, with too much white to be mallards. Were they shovelers, or buffle-heads?

We would have known and probably would have seen lots more birds if our experts Anna Troth and Gregg Goodrich had joined us.



Marty Strickland

We didn't keep track of how long or how far we paddled, but no one cared because it was a fun, early summer sunny day with many of the regulars and newer members Sandy, Harold and Marty.



## HORSETOOTH RESERVOIR, JUNE 18:

A dozen members, several of whom we don't see as often as we'd like, joined Jud Hurd for a beautiful day of paddling on picturesque Horsetooth Reservoir. Those members were Sandy Carlsen and Harold Christopher, Jim and Karen Dlouhy, Marsha Dougherty, Joy Farquhar, Craig Godbout, David Hustvedt, Marlene Pakish and Julie Rekart, Michaela Poole and Eileen Yelverton.



The group heading out

of big boats rafted up and partying in North Eltuck Bay but there just weren't that many. There was a big triathlon on shore so maybe they used the bay for the swimming portion which would explain the low boat count.



Michaela Poole and Eileen Yelverton



Craig Godbout

We continued south down to Quarry Cove and after lunch we headed back to the put-in

After the paddle Craig invited everyone back to his house above the lake just north of Lory State Park. He has a beautiful home with a marvelous overlook of Horsetooth and the valley.

Craig put out a wonderful spread of snacks and drinks and we relaxed on his eastside deck, ate and drank, and just enjoyed good fellowship. Thank you, Craig, for opening your home to us.

What a wonderful day of fine paddling and good company!

*More photos by Marlene on the next page*





View of Horsetooth Reservoir from Craig's deck

EDITOR'S NOTE: Pictures really make a report. I'm grateful to everyone who sends in photos, especially if they select the best ones and put captions on them!

## STANDLEY LAKE, SUMMER 2016



Seated, left to right: Karen and Marsha  
Standing: Harold (reflected in the window) and Jud

Andy McKenna paddled his home lake, Standley Lake in Westminster, frequently and invited RMSKC members to join him. He was getting ready for Lumpy Waters, a symposium put on in October by Alder Creek in Portland, Oregon [<http://www.lumpywaters.com/>].

He said the eastern three-quarters of Standley is a powerboat playground but the western quarter of the lake is paddle craft only and adjacent to the bald eagle nesting area, with some nice shoreline paddling with decent wildlife viewing opportunities. He sees the usual seasonal waterfowl, herons, an occasional eagle, hawks--red tails and sometimes coopers, sharp-shinned, and ferruginous.

He emailed, "For having only 1200 acres of water, Standley has a few spots that offer some fun bumps and confused water in the form of slow rolling boat wakes that hit the long western shallows and wind-enhanced boat wakes in the southeastern shore, and fun reflected wakes along the dam and eastern side of the large southern island.

The slow rolling wakes are similar to the conditions at the point West of the Chatfield Marina when there is an easterly wind on a busy Saturday, but I always feel safer at Standley.

"I've found the majority of power boaters on Standley are respectful and careful, but there are idiots on every lake. I stay close to shore when in the power boat area, plus the more dynamic water is close to shore on Standley."

Few of us have paddled Standley; we should put that on the calendar for this fall or next year.



## **LAKE DILLON, JUNE 29:**

Stan White, Jay Gingrich and Jane Lewis paddled on Lake Dillon. They're all strong paddlers and probably had a fine time zipping around the lake keeping up with each other, but they didn't send a report or pictures so we'll never know for sure.

## **TRI FOR THE CURE ON CHERRY CREEK RESERVOIR, AUGUST 7:**

Jud Hurd paddled to assist swimmers and met Julie Pfannenstein, who was interested in moving up from her rec boat. The Tri for the Cure event awards \$50 stipends to volunteers. [Julie later became a member and paddled with Jud and Sue to try out Jud's new Delta 17 on McIntosh Lake.]



## **HORSETOOTH SWIMMER ASSIST, AUGUST 14:**

Several members have done this in the past but this year they weren't available, and Sue Hughes backed out with a shoulder issue. Dave Hustvedt paddled and assisted, but didn't take any pictures. It's been touted as a fun day, and we'll have it on the RMSKC calendar again next year.

## **SERVICE OPPORTUNITIES**

### **RMSKC MISSED IN 2016:**

Our leaders were pretty busy with traveling and family obligations and groups weren't organized for the following events. Maybe we'll participate in 2017?

- *Boulder Peak Triathlon, July 10*
- *Lake Appreciation Day Cleanup at Barr Lake State Park, with free admission and a BBQ, July 16*



## UNION RESERVOIR:

Club members enjoyed impromptu paddles at Union Reservoir in Longmont all summer long.

It's less busy during the week but I-25 commuter traffic means that many prefer to paddle on a weekend morning.

People should take more photos of these summer days on the water.



Marlene Pakish and Julie Rekart,  
Union Reservoir, July 2016

## KAYAK CAMPING CLASS 2016

A kayak camping class has been part of RMKSC's lineup of instruction opportunities for many years. Its graduates have gone on to enjoy "backpacking" out of their boats from Alaska to Maine.

The class has traditionally been presented in three sessions: an introductory lecture, a practice "Pack and Paddle" day and then a shake-down overnight outing to make sure the basics have been learned.

This year our Safety and Instruction Coordinator, Brian Hunter, held the first classroom meeting on July 24<sup>th</sup> at Von Fransen's house in Littleton. Class members Craig Godbout, Tammy Haven and Von watched a PowerPoint presentation and then observed Brian pack his kayak. The session went well, with good weather and friendly company.

Unfortunately the final two portions of the class proved hard to schedule; people were busy with summer club trips and family responsibilities. Maybe they will happen next summer? The participants have gotten a good introduction to the know-how needed to camp from a small boat, but it is wise to practice packing a kayak and paddling a loaded boat before taking off for even just a couple of days of camping.

Check out some articles, with photos, about earlier Camping Classes in issues 16-3 (2008) and 18-1b (2009).



# PUEBLO RESERVOIR

MAY 21, 2016

By Jud Hurd, Trip Leader

Ten RMSKC members and one guest got together for a day or two of paddling on Pueblo Reservoir. I was joined by Joy

Farquhar, Brian Hunter, Gary McIntosh, Marsha Dougherty, Julie Rekart, Marlene Pakish, Jay Gingrich, Jane Lewis, Harold Sturgis and Harold's son-in-law Brandon Evans. A few of us went down on Friday to camp. The rest drove down on Saturday morning and met us at the South Marina boat ramp at 11AM.

The forecast for the day was mostly sunny, temperature in the mid-80s and winds picking up in the afternoon to 17 mph out of the SSW. The reservoir was almost at full pool level so we had lots of water to explore, more than in other years. Gary, Brian and Joy and I camped Friday night and got to the launch early. We were joined by Jay and Jane who stayed in Pueblo with Jay Bailey.

We explored the Boggs Creek Cove until Saturday's 11AM launch time when we joined up with the people driving down from Denver. Since it was a late launch we paddled across Boggs Creek Cove mouth and pulled out for a bite of lunch.

After lunch we headed west along the south shore into Rock Creek Cove which is fairly large and provided lots to look at. Since the water was so high we were able to get farther back than what we usually can go. At the mouth of the cove we stopped to consider whether the group wanted to continue west or head back or break into two groups with some going west and some heading back. I wanted to run this by the group given the high wind forecast for the afternoon.

In typical RMSKC style we all elected to continue west to Peck Creek Cove.



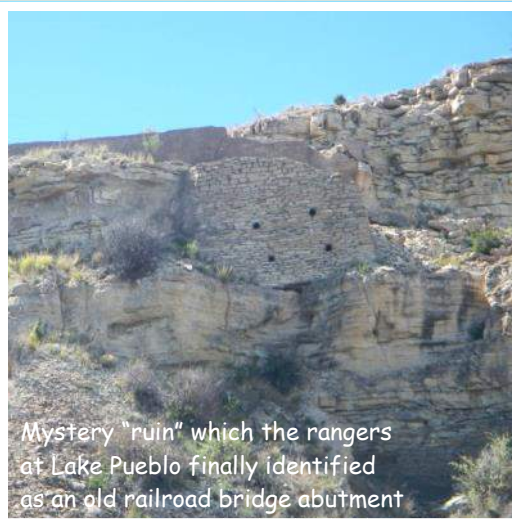
Saturday lunch stop

Cliff Swallow nests



Peck Creek Cove is a little under a mile farther west along a bluff wall. It is fun to paddle along the bluff walls and look at all the cliff swallows. We saw a lot this year and it seemed that every nest hole had a little beak poking out of it.

We did have some challenging wind along the way. That combined with the boat waves made for some fun paddling in choppy water. After a short rest at Peck we headed for home.



Mystery "ruin" which the rangers at Lake Pueblo finally identified as an old railroad bridge abutment

On the way back folks in our group noticed that a member was paddling off to the side and slowing down. They asked a couple different times if that person was OK, with mixed answers. It became clear that the person wasn't feeling well and after some discussion it was decided that this would be a good opportunity to practice towing skills. A second member paddled along side the towee in case more assistance was needed, which fortunately it wasn't.

Thanks, people, for being so alert and lending assistance. We all need assistance at one time or another and one of the main purposes of the RMSKC is to be there for each other when we do. [Read Jud's thoughts about this on the following page.]

All in all, we did about  $8\frac{1}{2}$  to  $9\frac{1}{2}$  miles on Saturday depending on whose GPS you are looking at. I like that  $9\frac{1}{2}$  figure better but mine said  $8\frac{1}{2}$ .

Jud, Gary, Brian, Joy, Julie and Marlene stayed Saturday night and paddled the west end on Sunday. We launched from an old State Wildlife Area boat launch which has been blocked off but you can carry your kayaks down it. This is just west of the park entrance on the north side of the lake. The day was gorgeous: sunny with calm winds. The temperature was perfect for this paddle. After about a mile we entered a no wake zone for the whole west end. There are about a dozen poles set up on the north shore for nesting osprey and we saw four active osprey sitting on nests. Usually there is a small forest of dead trees which are full of osprey but at this water level most of those were under water. Again we saw a lot of cliff swallow nests with beaks poking out and swallows constantly flying in and out.

We made it all the way to the Arkansas River flowing into the lake where we turned around so that we wouldn't disturb some belly boat fisher people. This was at least my fourth time trying to find this so I was very happy to reach this point. At that point we had gotten in another beautiful  $8\frac{1}{2}$  miles that morning but it was time to say goodbye and head for home.

Shortly after we turned around we heard a couple of gun shots from shore which incited us to pick up our paddle pace and get the you know what out of there. We got back to our launch site just before the winds really picked up. We were loading our boats when gusts of 20 mph began blowing; talk about perfect timing!

Both the people who came down for the day and the ones who made a weekend of it had a really good time.

I hope you can join us on our next spring trip to beautiful Pueblo Reservoir.





## THOUGHTS ABOUT GROUP PADDLING FROM LAKE PUEBLO

By Jud Hurd, Paddle Coordinator

The Rocky Mountain Sea Kayak Club was created to promote an appreciation of the outdoors, good environmental stewardship and the sport of sea kayaking in a safe,

friendly and respectful manner. The emphasis here is on "**safe, friendly and respectful manner**". So, let's talk about some lessons learned from our paddler who needed assistance at Lake Pueblo.

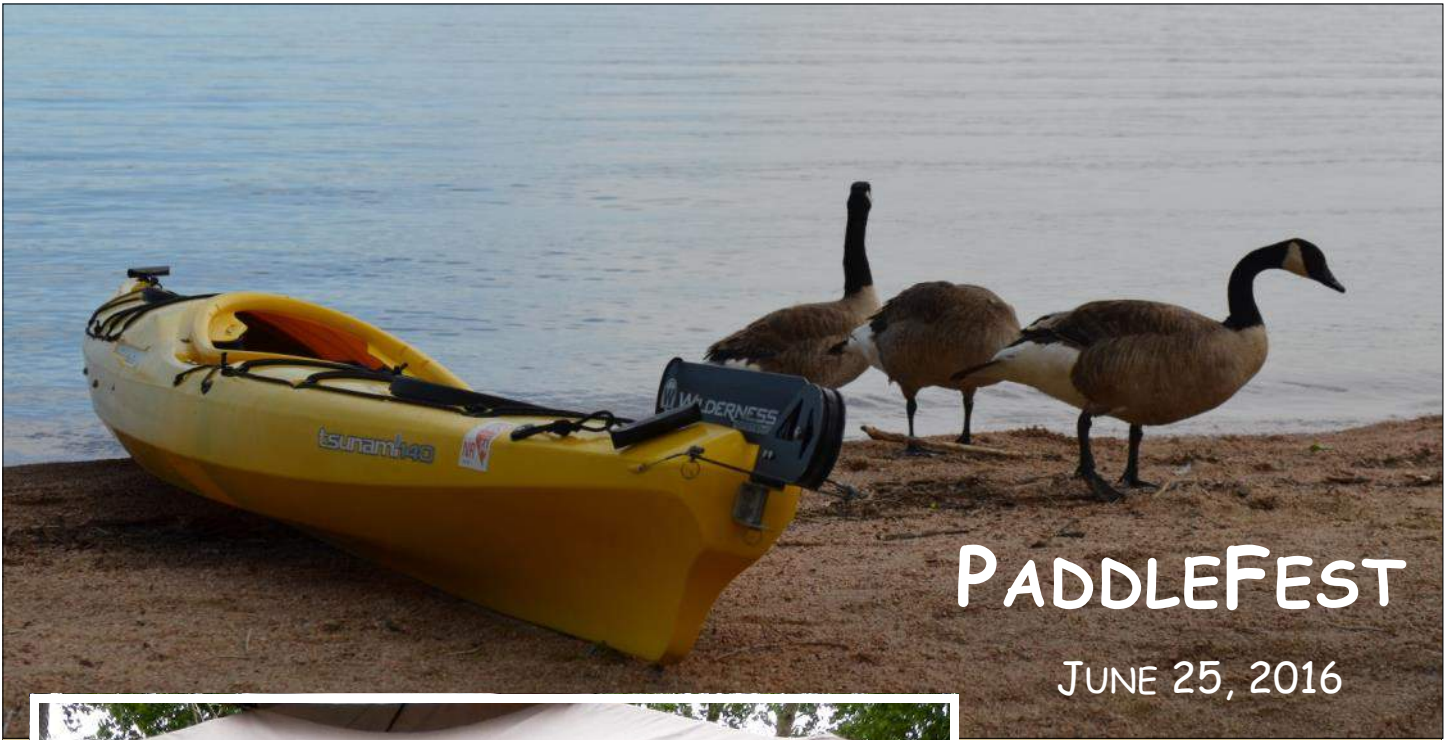
- ➔ You need to **know how much you can do**, both physically and mentally. Do not attempt more than you are up for just because you don't want to hold back other club members. We all have different abilities, skills, and strengths that all club members need to respect. It is better to reduce the scope of a paddle or break up into two groups than it is to put yourself, and the whole group, at risk by pushing too hard.
- ➔ One good way to keep your energy up for a paddle is to **stay hydrated and eat frequently**. It is easy to forget to drink when you are on the water with the cool breezes blowing, but you are sweating a lot due to harder breathing in our dry air and you need to drink water at regular intervals to replenish what is lost. This is especially true in Pueblo which seems to be to be about the hottest and driest place in Colorado.
- ➔ Everybody needs to be ready to **ask for help** before the situation gets too serious, especially us macho guys. Don't be embarrassed to ask for help. Help can be stopping for a rest break, food and water, or getting a tow, as in this case. Don't be embarrassed and don't be concerned about slowing the group down. Again, we are there for each other and it is better to slow down before you get into a serious condition. Brian is very good about letting people know he is good for about 1½ to 2 hours and then he needs a break. Let's all follow Brian's example.
- ➔ Everybody needs to **keep an eye on each other** and ask if things just don't look right. That was the key to providing help on this trip. As much as we promote paddling together, it isn't always practical. We had eleven paddlers spread out over 50 to 75 yards long and about 20 yards wide. It is just not possible for one person, the trip leader, to be the only person checking on everybody. So, as you paddle along just ask people, "How you doing?" And observe their behavior because sometimes they will respond, "Just fine," when they aren't. If things just don't seem right then be aggressive and find out what is going on. We do this for our members who are diabetic and we need to do it for everybody.

Also, the faster paddlers in the front must keep an eye on what is going on the behind them. They need to slow down or stop from time to time to let the rest of the group catch up.

To put it another way, if you don't see any paddlers in front of you, look back every five minutes or so.

The lead paddler and sweep paddler can keep the group tighter but neither one can do it alone; it takes coordination to help keep a group together and safe.

- ➔ Everybody needs to **be prepared to lend assistance**. We all practice self-rescues and assisted-rescues but we don't practice towing. Does everybody own a tow belt and line? If not, you might consider getting one and practice with it. We were fortunate our safety coordinator was on this trip and had his tow line. I have one also but we all need to be prepared. Along those lines, the person doing the towing should be willing to share the towing so that she or he doesn't get worn out. Towing requires extra effort and we don't need two people getting into serious condition. So, you towers, don't hesitate to share the load. We are all there to help.



# PADDLEFEST

JUNE 25, 2016



The weather was nice, some newer members joined the fun, Brian Hunter demonstrated flocculation, and people test-paddled each other's boats.

The grills were busy and the pot-luck options were varied and good.



Silt starting to settle out in a flocculation bag

In attendance: Sandy Carlsen and Harold Christopher, Sandy's sister Laura Carlsen and guest Edward Pashtarohi, Bernie and Marcie Dahlen, Dick Dieckman, Joy Farquhar, Tim and Kathy Fletcher and their son Ben, Von Fransen, Jay Gingrich and Jane Lewis, Brian Hunter, Jud Hurd, Rik and Stephanie Lawson, Marlene Pakish and Julie Rekart, Michaela Pool, John Ruger, Clark and Marty Strickland, and Anna Troth.





Safety Coordinator Brian Hunter, President Clark Strickland and Onshore Coordinator Tim Fletcher



Bernie Dahlen and John Ruger



New members Stephanie Lawson and Nicholas Lawson

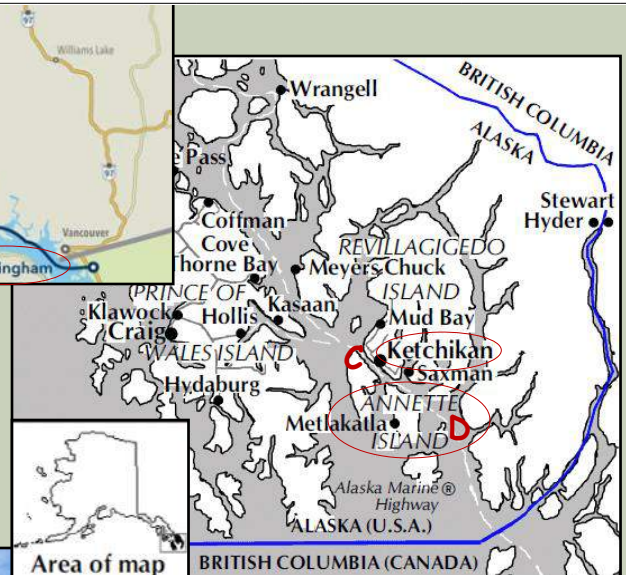




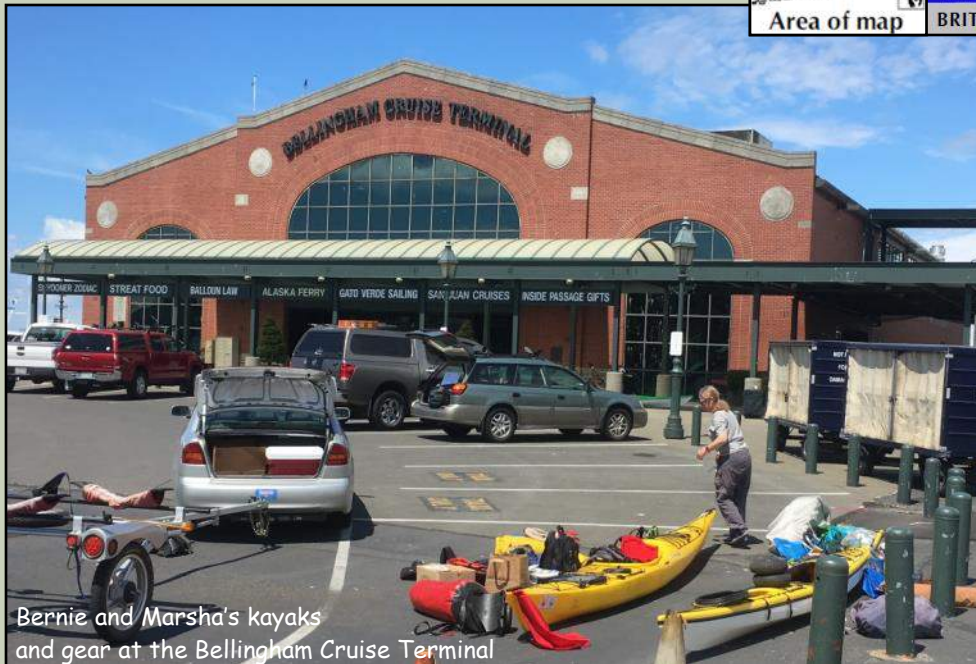
# CIRCUMNAVIGATING ANNETTE ISLAND, NEAR KETCHIKAN, ALASKA

JULY 13-29, 2016

By Jud Hurd



This trip started out in 2014 with Dave and Lou Ann Hustvedt and Jud Hurd planning to paddle from Wrangell to Petersburg, Alaska. Sadly, those plans had to be put on hold due to Lou Ann's cancer. Dave and Jud revived this trip for 2016.



Bernie and Marsha's kayaks and gear at the Bellingham Cruise Terminal

We took another look at the Wrangell/Petersburg route [A] and considered the amount of mud flats shown on the chart. Those flats are exposed during low tide which meant we would be limited to launching and landing at a number of camp spots only during high tide. We decided this would be a problem so we looked for an alternative.

Our plan had been to drive to Bellingham, Washington [B] and take the Alaska Marine Highway System (AMHS) to

our destination island. We would then complete our paddle and return to Bellingham on the ferry and drive home. So, a major planning dictate was where the AMHS ferry docked. We picked Ketchikan [C] where we would launch and then paddle southeast to circumnavigate Annette Island [D].



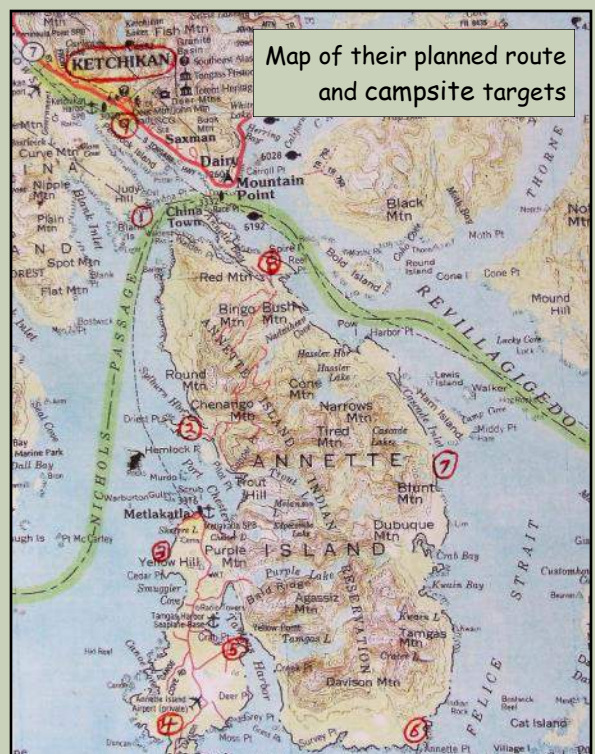
Next we had to decide when to go. This wasn't too hard because it was Alaska after all, which meant we wanted the warmest (and driest) time possible. We settled on July. The ferry departs Bellingham to Ketchikan only on Friday at 6PM arriving in Ketchikan on Sunday at 7AM. It then departs Ketchikan to Bellingham only on Wednesday at 5PM arriving in Bellingham on Friday at 8AM. Given these sailing constraints we decided on a ten-day paddle with the following itinerary:

- Depart Bellingham Friday July 15, 6PM and arrive Ketchikan Sunday July 17, 7AM
- Launch out of Ketchikan Sunday July 17
- Circumnavigate Annette Island
- Return to Ketchikan Monday July 25; this gave us eight nights of camping on Annette Island and nine days of paddling with a layover day if needed due to weather.
- Nights Nine and Ten we would camp on Pennock Island just across from Ketchikan; this would give us Day Ten in Ketchikan to get a shower, wash clothes, sightsee and enjoy a good meal.
- Depart Ketchikan Wednesday July 27, 5PM and arrive Bellingham Friday July 29, 8AM

With a trip and dates in hand we sent an invitation to the RMSKC membership and received an unexpected and overwhelming response. This meant we had to decide on a limit for this paddle to keep the group at a manageable size considering the unknown campsite situations we would find. We settled on eight people and after some drops and adds our group was composed of David Hustvedt, Jud Hurd, Dick Dieckman, George Ottenhoff, Joy Farquhar, Marsha Dougherty, Tim Fletcher and Bernie Dahlen.

We spent a number of months gathering the information and working out all the logistics we needed for this trip. Every time we thought we had it all identified, we would think of something else. I cannot stress enough the importance of taking your time to consider all the components of this type of trip and getting the best information you can find. Here is the exhaustive list of what we included in our planning:

- Trip description with specifics on the minimum experience a paddler needed to be accepted
- Mandatory preparation requirements: rescue practice and a dry-run campout
- Details about when and where to meet, equipment
- Requirements, ferry ticket purchase, travel to Bellingham plans, cell phone numbers, etc.
- Permission to camp on Annette Island from the Metlakatla Tribal Council and police; Annette Island is the reservation for the Metlakatla Indian tribe, the only island reservation in the United States.
- Fishing license requirements
- Cost estimate for the total trip
- Mileage and estimated driving time to Bellingham; from Fort Collins it is 1,342 miles, 21.5 hours
- Lodging arrangements in Bellingham for Thursday night
- Parking arrangements in Bellingham
- July average weather patterns for Annette Island - temperatures (53° low and 64° high), water temperature (56°), rain, wind speed and direction



- Websites for information on tides and currents
- NOAA chart covering our target area
- Maps and charts, one for everybody
- GPS for navigation; VHF radio for weather reports; emergency locator beacon for life and death situations
- First aid equipment
- Sleeping and dining options while on the ferry
- Arrangements to stow non-paddle gear in Ketchikan - carts, travel clothes, etc.
- Launch site in Ketchikan after we get off the ferry, and how to get there
- Day-by-day itinerary - paddle route, estimated mileage, target campsites (including coordinates to mark on each GPS), low and high tide times
- Paddle clothes - cold water gear required
- Rain gear and a tarp - required
- Bear information - no bears on Annette Island
- Drinking water - carry and filter
- Meal planning - individual responsibility
- Alcohol provisions, if desired
- Trash - pack-out bag required
- Toilet arrangements, a favorite topic of every trip - relieve yourself below the high water line to be washed away by the tide and burn your toilet paper
- Method to carry loaded kayaks from low water edge to high tide camp [see picture at right]
- Way to communicate our status to people back home
- Local knowledge about our trip, as much as we can find - Southeast Sea Kayaks (a tour business in Ketchikan) was extremely gracious in answering questions and giving us suggestions.



Boat moving technique



With all of this information in hand we were finally ready to start the trip. Oh, one other thing: I can't stress enough the importance of a dry-run camp out which we did on Granby Lake. This allowed people to test their gear and get to know each other on the water. I am happy to report that our dry-run and advance planning was a resounding success. In Alaska, everybody showed up at the right place by the right time, the group stayed together, nobody got lost on the water and nobody got sick. [See the related article in this issue on pages 9-11.]

**WEDNESDAY, JULY 13:** We begin our drive to Bellingham; Joy is already in Washington visiting friends; Tim, Dave and I caravan together; Dick and George drive together and they are about 1 ½ hours or so ahead of us; we all drive north through Laramie and then west; Bernie and Marsha are behind us and they drive west on I-70; Tim, Dave and I spend the night in Twin Falls, Idaho,

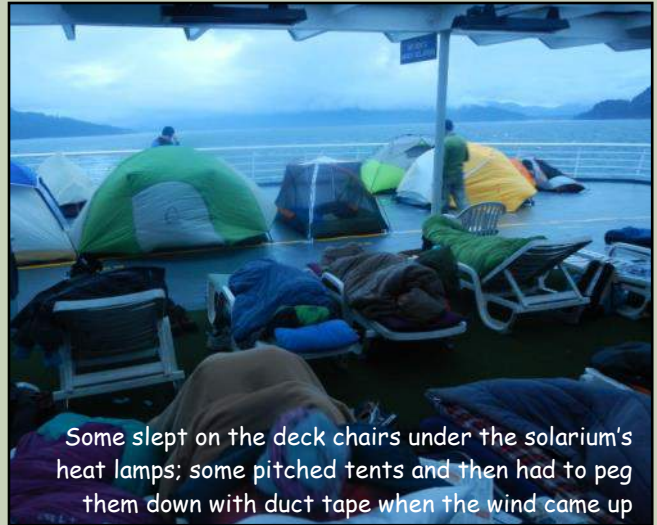
**THURSDAY, JULY 14:** We all arrive in Bellingham in good shape but driving the last leg on I-405 and I-5 through Seattle is a nightmare of stop and wait and go a little and then repeat.

**FRIDAY, JULY 15:** We board the ferry and set sail on time; six of us opt to sleep on lounge chairs in the solarium; Tim's wife was planning to come with him so he bought a state room; Kathy didn't make the trip so Bernie buys half of his stateroom. [Photos of the deck arrangements are on the next page.]





Joy and Marsha, cozy on their deck chairs



Some slept on the deck chairs under the solarium's heat lamps; some pitched tents and then had to peg them down with duct tape when the wind came up

**SATURDAY, JULY 16:** A very pleasant and leisurely day is spent on the ferry where we have the chance to see dolphins, orca and humpback whales. For the most part the ferry ride is very gentle except for one short stretch of water that is more exposed to the sea and we can feel some swells; weather is a mixture of fog, clear, warm and chilly.

**SUNDAY, JULY 17:** We dock right on time at 7AM but it takes a while to get our kayaks off as we have to wait for a lot of vehicles to be moved; Marsha takes our heavy gear down to the harbormaster while we walk our kayaks down, I would say about a quarter mile walk.

We begin loading our kayaks and organizing our gear when the harbormaster comes out and tells us the US Coast Guard is bringing in a damaged boat and we need to make room for them, which we thought we did. The Coast Guard comes in with a boat alongside and they are trying to get lined up to load it on a trailer; evidently we aren't out of their way enough as some lady is kind of screaming and cussing at us so we keep trying to accommodate. I take our wheels and other gear down to a hostel where we had made arrangements to stow it while we are paddling. Finally we are all together and get launched.



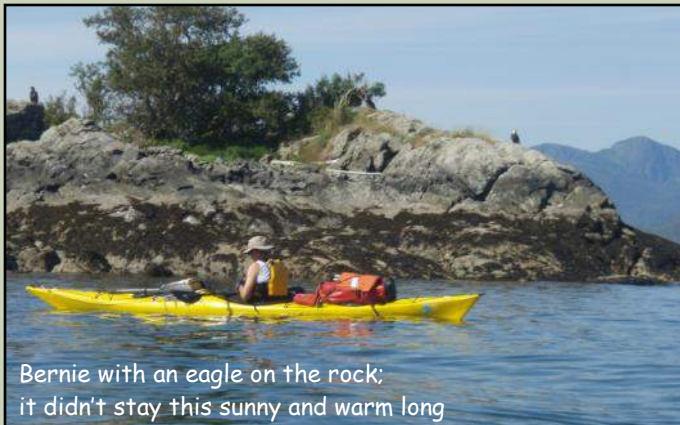
First day's campsite

We have good weather for paddling and make our way across the strait and then head south along Gravina Island; it is a fairly easy paddle with the winds out of the NNW at about 10 mph, which gives us a nice tail wind. After about 7.2 miles we land at Black Sand Beach, our first campsite; there is a family there that had camped the night before but they are getting ready to leave.

We set up camp, bring the boats above high water line and sit back to enjoy ourselves, which we do because we know how to do that. This site is very popular and we have a nice shelter with picnic benches and a port-a-potty; we enjoy it because it is the last one we will see.



**MONDAY, JULY 18:** After a good night's sleep and breakfast we head out for a crossing of about two miles to Walden Point on Annette Island; it is a beautiful sunny day, mild wind and calm sea, not a problem for this group, in fact it is so nice that we don't wear our dry suits. We paddle about 9.2 miles to Campsite Two in the cove at Driest Point. On the way we see seals, whales less than 100 yards from us, and bald eagles which are becoming very common. There are fish jumping around us everywhere.



Bernie with an eagle on the rock; it didn't stay this sunny and warm long



Jud talking to the fishermen

We stop and talk to a couple of fishermen on a boat who give us a salmon for dinner and point us toward some good camping beach stretches. (One of the most challenging parts of this trip is locating good camping sites as most of the shoreline is very rocky or has a 2 - 4 foot rock wall; our chart indicates this type of shoreline all around the island with some breaks representing beach stretches suitable for landing and camping, these are our targets each day.) For dinner we have salmon steak with onions, butter, wine, ginger, salt and pepper prepared by George and cooked in aluminum foil over an open fire built by Dick, it is delicious and one salmon feeds all eight of us.



Chef Ottenhoff preparing the salmon that Dave was given by the fishermen



Part of the fish that easily fed all eight of the group

Marsha wakes up about 2AM with a feeling that she is floating on air, but she realizes that there is water under and in her tent. Dave wakes up to the sound of water lapping and he gets out to check on the boats when he sees that Marsha is in the water. He gets us all up and we help move Marsha's tent and all her gear to higher ground; she had camped on a tongue of land that some of the others used also, but evidently she is farther out and just low enough for high tide water to reach her. One of the most critical aspects of selecting a campsite every day is making sure there is enough land above high tide to accommodate all our tents and making sure we pull the boats up and tie them off.





Monday night's camp where the salmon was tasty but they misjudged the tide and three of them had to move their tents in the middle of the night.

**TUESDAY, JULY 19:** Today we paddle about nine miles to Campsite Three at Cedar Point. The weather is overcast with a little more wind and swells up to about two feet; we also have a little misty rain off and on. Once again we see whales and seals; the seals are really funny as all you see are their little round heads poking out of the water as they stare at us wondering what in the world are these strange animals. We see their heads off and on as if they are following us trying to figure us out.



Loading up, Tuesday morning



Metlakatla Municipal Office

We stop in the town of Metlakatla as we need to visit the Tribal Council office to get our visitor permits signed and buy fishing licenses; the Metlakatla Tribe owns the water around Annette Island out to 3,000 feet, so if you want to fish there you have to get a license from them.

We worked with Connie Darling at the council office throughout this whole process and she was very helpful and accommodating; we also find a nice café and have a great lunch. We are able to fill our water jugs at the Council office.





After leaving Metlakatla we make our way to our third campsite which turns out to be at the back of Smuggler Cove. Our first two campsites had fairly nice sandy beaches, but we are now into beaches composed mostly of what I would describe as river rock and larger; that makes landing, unloading and walking around a little more difficult, but RMSKC members are up for any challenge.

At this camp we notice a rather large slug population. I make the mistake of leaving my trash bag out overnight and it has lots of slugs in it the next morning. Let me tell you those are really slimy critters as you pull them out of the bag,

**WEDNESDAY, JULY 20:** We paddle 7.3 miles past the southwest point of the island and head for Campsite Four around Point Davison; our typical weather pattern now is overcast, off and on rain or mist and some wind with occasional sun. This is the most exciting stretch of the trip as the southwest point is more exposed to the ocean and we get to paddle through three to four-foot ocean swells. (Dave thinks they might even be four to five feet). On top of that the wind is shifting out of the SSW so we have a head wind now.

Everybody does just fine and we don't lose anybody, well not dumping anyway, but there are times the person in front of you disappears from your sight as you are in the bottom of a swell and they are in the bottom of the next swell up in front of you.

It really isn't difficult to paddle as the swells have a rhythm to them and if you stay calm and let your boat do the work you just get to ride up and over them. After we get through this stretch we stop and everybody says it was some of the most paddling fun they have ever had.



David was the only one brave enough to let go of his paddle and take a picture



Campsite, July 20

Dave wrote, "Maybe they were eight to ten feet. These gravity waves were coming in from the open sea. The boats rode very nicely up and down. The short period wind waves were what we had most of the time going down the west side of the island, one to two feet high; the boats just plowed through them with water over the deck."

Our campsite is nice today as we have some grassy areas but we have rain so the tarps go up.



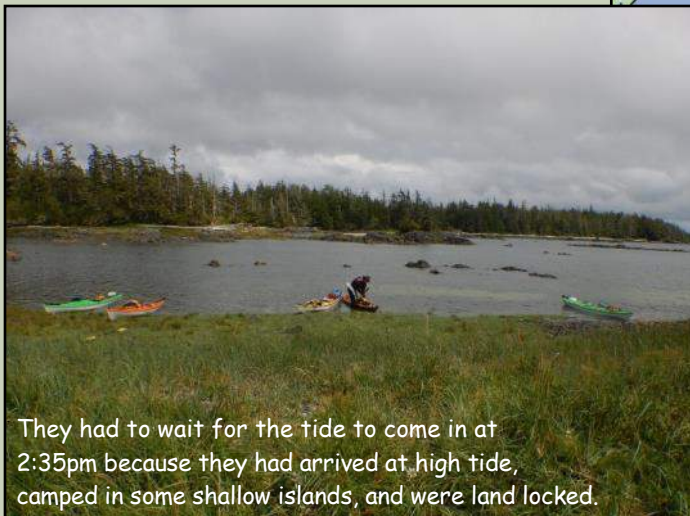
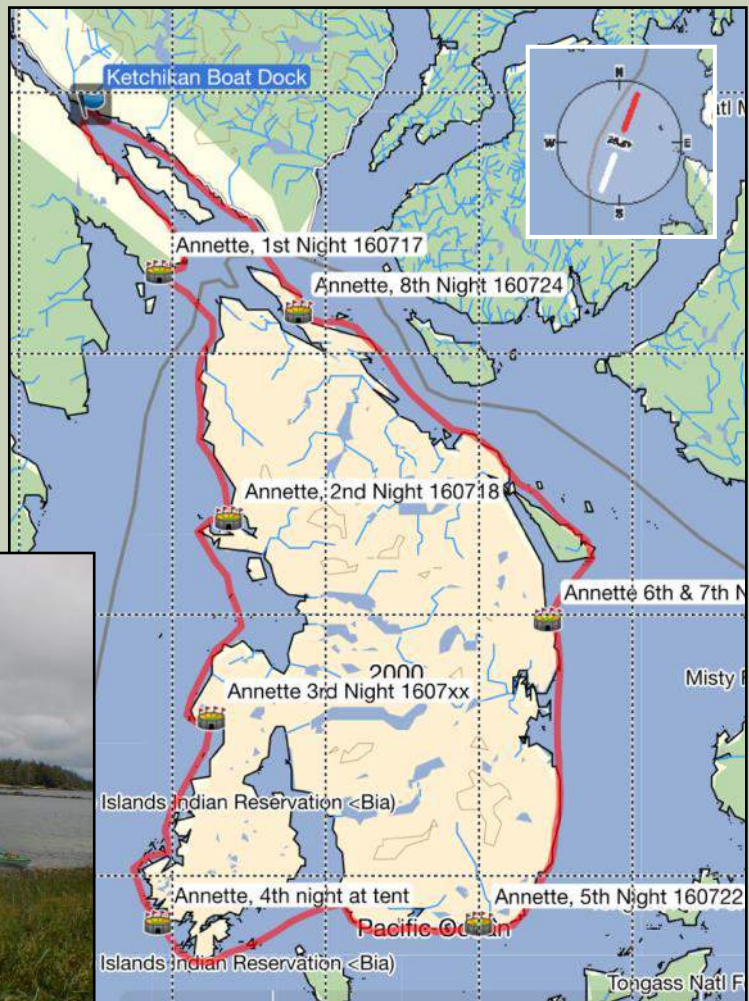


**THURSDAY, JULY 21:** So, we have now been out for four days and we are all thinking maybe it would be nice to cut our trip short by one day and skip Camp Five at Tent Point. So let's review our situation: we are eight people ages 59, 61, 67, 71, 72, 75 and 81; we have had nice and not so nice weather; Dick got his sleeping bag wet the first day and has been sleeping in his clothes in a bag liner George brought; George has been struggling with a back problem and Dick had a shoulder problem which he thought might have kept him from going.

It's been fun but we are all getting a little tired of camp food and sleeping on the ground, we haven't bathed since we left Ketchikan, and once something gets damp or wet, even from perspiring, it never dries out due to the high humidity so we are all constantly in a soggy state.

No surprise, the group agrees to skip Camp Five so we head directly to Camp Six (which is now five) just across from Indian Rock.

Our campsite that night had exposed a lot of large rocks at low tide and we can't launch until the tide got high enough to cover the rocks.



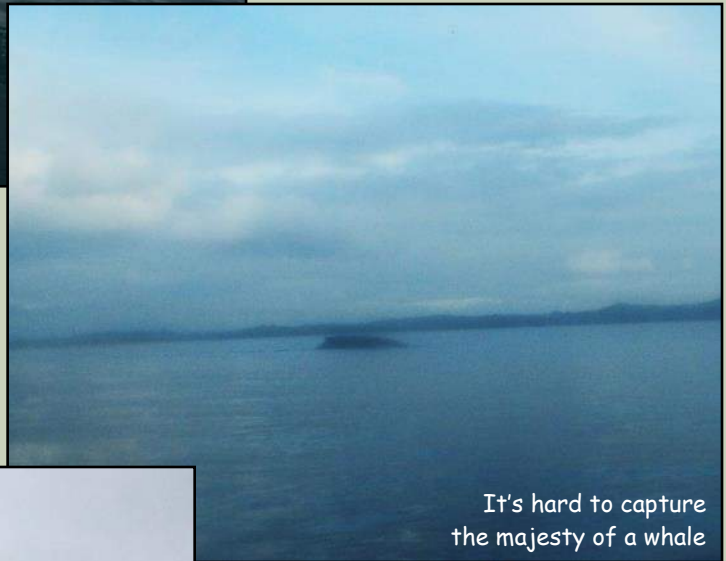
They had to wait for the tide to come in at 2:35pm because they had arrived at high tide, camped in some shallow islands, and were land locked.





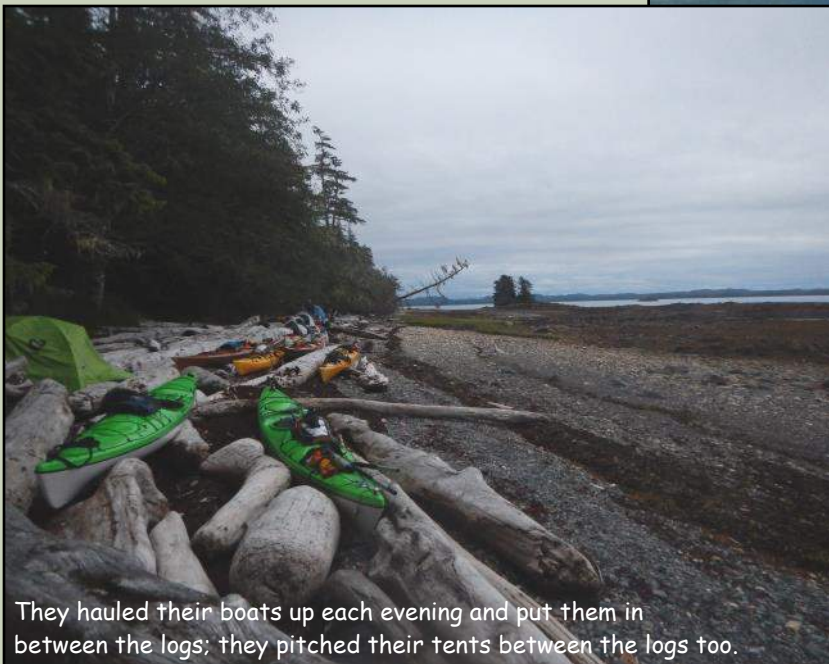
Paddling on Day Five

We paddle about 10.6 miles and camp at Annette Point where we have a couple of whales hang around our campsite most of the afternoon and evening; we can hear and see them when they came up to breathe.



It's hard to capture the majesty of a whale

Marsha wrote, "We heard the blow first, way out in the bay. Then I noticed it came up in sets of two with a little time in between but definitely a pattern. And kept coming closer to look at us. It doesn't look like it in the pictures but it seemed to me to be only 60 to 80 feet away."



They hauled their boats up each evening and put them in between the logs; they pitched their tents between the logs too.

After dark we are sitting around with some head lamps on and a power boat comes along the shore but a ways offshore. They then stop right across from us and after a while they start to slowly motor towards us.

I am getting a little nervous when they shout out to see if we are all right. We said we are and they rather rudely tell us we shouldn't be showing lights at night; they leave and nothing comes of it. I guess maybe that is some kind of distress signal that I have never heard of.

**FRIDAY, JULY 22:** Today is a pretty straight forward day and we paddle about 10.9 miles to Campsite Seven (which is now six) to a little cove just a little south of the southern end of Ham Island. This gives us nice protection from the wind. On the way we find our first opportunity to collect water since refilling at Metlakatla. [A photo of the pretty fresh water stream is on the next page.]





A fresh water stream on Day Six, their first opportunity to collect water since refilling at Metlakatla

**SATURDAY, JULY 23:** We had some rain yesterday and it is a little cool; we wake up to a heavy rain and the weather report says the wind has picked up in the channel. The group discusses our options and decides to stay put for the day; our original itinerary allowed for a weather day and we picked up a day by skipping Campsite Five so we are fine schedule-wise.

We just stay under our tarps and in our tents watching sheets of rain come down. It reminds me of that scene from *Paint Your Wagon* where they are all in camp watching it rain, we just need someone to sing "They Call The Wind Mariah".

Joy seems to be the only one enjoying this as she is out wandering around in it and dancing up and down a little.



Old farts not enjoying the rain.



Joy



This log was cantilevered and bouncy. Both Dick and George fell back at the same time. You had to be there...



Marsha said, "This was our last evening and the best camp, too. It was near high tide and it had stopped raining so everyone had all their stuff spread out."



Clockwise: Bernie, George, Dick, Dave, Joy, Marsha, Tim

**Sunday, July 24:** About 6PM last night the rain stopped and this morning we wake to a beautiful day. We paddle about 14 miles to Campsite Eight at Reef Point; it takes all fourteen miles to find a stretch of shore suitable for camping and probably the only site along this stretch of the island.

Dave hooks a fish along the way but loses it; George catches a good size salmon which we cook for dinner and have some left over.

**Monday, July 25:** This is a great paddling day, it is warm and sunny with a mild wind and we are headed home. We paddle eight miles across the channel to the Tongass Narrows on the west side of Revilagigedo Island, which is where Ketchikan is located, and then up the channel back to the harbormaster.



George Ottenhoff's fish



Our route takes us past all of the working ships, coast guard ships, cruise liners, and a lot of small boat activity up and down the channel.

This stretch is also used by the float planes taking cruise people on tours of Misty Fjords; they take off and land right next to us. When they are lined up to land I swear they are coming right at us and will land right on top of us, but they don't.





Last day, heading into Ketchikan ready to go home...

...AND THEN, THE TRIP HEADS SOUTH, OR NOT

After we land Tim checks his phone messages and hears a message from his wife, Kathy. Our July 27<sup>th</sup> return ferry is *cancelled* due to mechanical issues. (We later found out it seems to happen a lot.)

So now what to do? The Alaska Marine Highway System's option is to transfer our return reservation to the next sailing a week later, August 3. But there is no guarantee the ferry will be ready, although another will be available the following day. This means spending another seven or eight days in Ketchikan at the height of tourist season without a room reservation. Room and board would be very expensive and a number of people have commitments they have to get back to.

Dave's experience in shipping his company's fans turns out to offer the solution, as there is a container shipping company next to the ferry landing. Dave gets the information on sending the boats and gear to Seattle where a truck will haul them to his shop in Boulder. If we cancel our ferry reservation and get a refund, we can apply it to the cost of a plane ticket to Seattle. After considering the cost options we all agree with Dave's plan.

Our next issue is where will we stay for two nights. Our original plan was to camp on Pennock Island but people are ready for a dry, warm room. We find a hostel we can stay in for \$25 a night per person and it's located in the area of the ferry which is convenient.

But what will we do with the boats? The harbor-master solves that for us by allowing us to stow four boats on the docks on racks they had just installed and stow the other four boats behind their office; all of them will be locked with cables.

After arranging for two nights lodging and boat stowing I pick up our wheels and gear we had stowed at another hostel. We finally have everything settled and we head for our hostel. Later, settled in and cleaned up, we meet for a really nice, but expensive, dinner.



**Tuesday, July 26:** Big day today as we have to take care of getting the kayaks loaded, cancel our ferry reservation for next week and book our flights to Seattle. A really big issue on our list is to hit the laundry and do lots and lots of laundry. Being the very capable and creative RMSKC members that we are we get all of this done in good order.



The biggest challenge is figuring out how to pack the kayaks and gear in the container so that nothing gets damaged during transportation. One of the issues Dave reminded us all about before we left Colorado is that we have to be flexible on these types of trips, and that certainly applies here.

But we get it figured out and get all done in time to do some sightseeing in Ketchikan. People kind of take off in different directions to explore items of interest such as Creek Street (home of the brothels until 1953), shops, museums, totem poles or the funicular tram (a sort of diagonal elevator).



**Wednesday, July 27:** Pretty straightforward day today. After breakfast we take the local ferry across the channel to Gravina Island where the airport is located; we have an uneventful flight to Seattle and then a shuttle back to Bellingham and a cab ride to the ferry landing where our cars were parked. I for one am really glad to stop traveling for the day! We get a nice dinner and get a room in the Bellingham Lodge which is where we stayed our first night before we left on July 15.



Thursday, July 28: Start driving home or to the next destination.

Thursday, August 11: Our kayaks arrive at Dave's and we can pick them up.

### THAT WAS OUR PADDLE TO ALASKA

We all agreed that the trip was challenging, wonderful, exciting at times, educational and we all used muscles we hadn't used in a while.

I know I will remember all the great times I had and the wonderful people I shared them with and I will soon forget the less than great times we endured.

We now have a better idea of all the work involved in planning and executing a trip of this magnitude and we have something to think about if another opportunity arises. Or, perhaps once is enough and now we can just check it off our bucket lists.



Dave's radio



Dave setting up his antenna

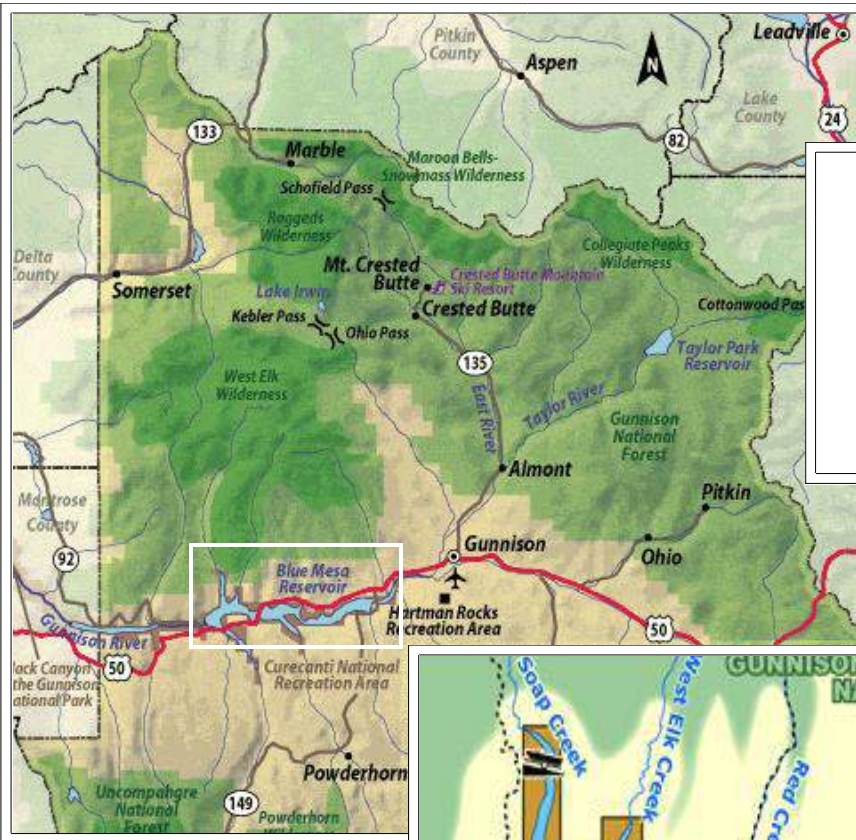


Article and planning documents by Jud.

Photos by Bernie, Jud, Joy, Tim, Marsha and Dave.

Many thanks to Marsha for her extra help with sequencing and captions.





# BLUE MESA RESERVOIR

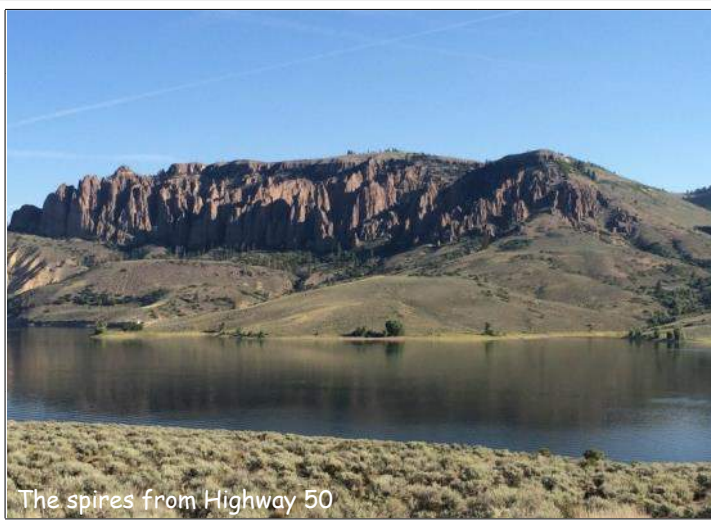
AUGUST 12 to 14, 2016

By Gregg Goodrich

Blue Mesa was memorable for the great expanse of sage, the beautiful rocky spires and the huge lake.



It is the second largest lake completely within Colorado. We barely touched all the possible areas to paddle.



The spires from Highway 50

On Saturday the four of us did the Lake Fork arm. It was very beautiful, and too large to get it all in one day. We saw a Bald Eagle on the way out, so that was both Eagles on one trip. Julie and Marlene then did the Soap Creek arm on Sunday.

On the next page is a combined list of the birds that Ann and I had for Friday, Saturday and Sunday.

Ann Troth and I paddled up the Soap Creek arm on Friday before Marlene Pakish and Julie Rekart arrived. The rocky spires there are just amazing. We saw two juvenile Golden Eagles and two adult Golden Eagles on that arm. The juveniles were calling and calling for food. Way cool!





Here are Gregg's totals. The day-by-day bird reports with specifics about the locations, paddling conditions and more can be found at:

<http://ebird.org/ebird/view/checklist/S31076200>

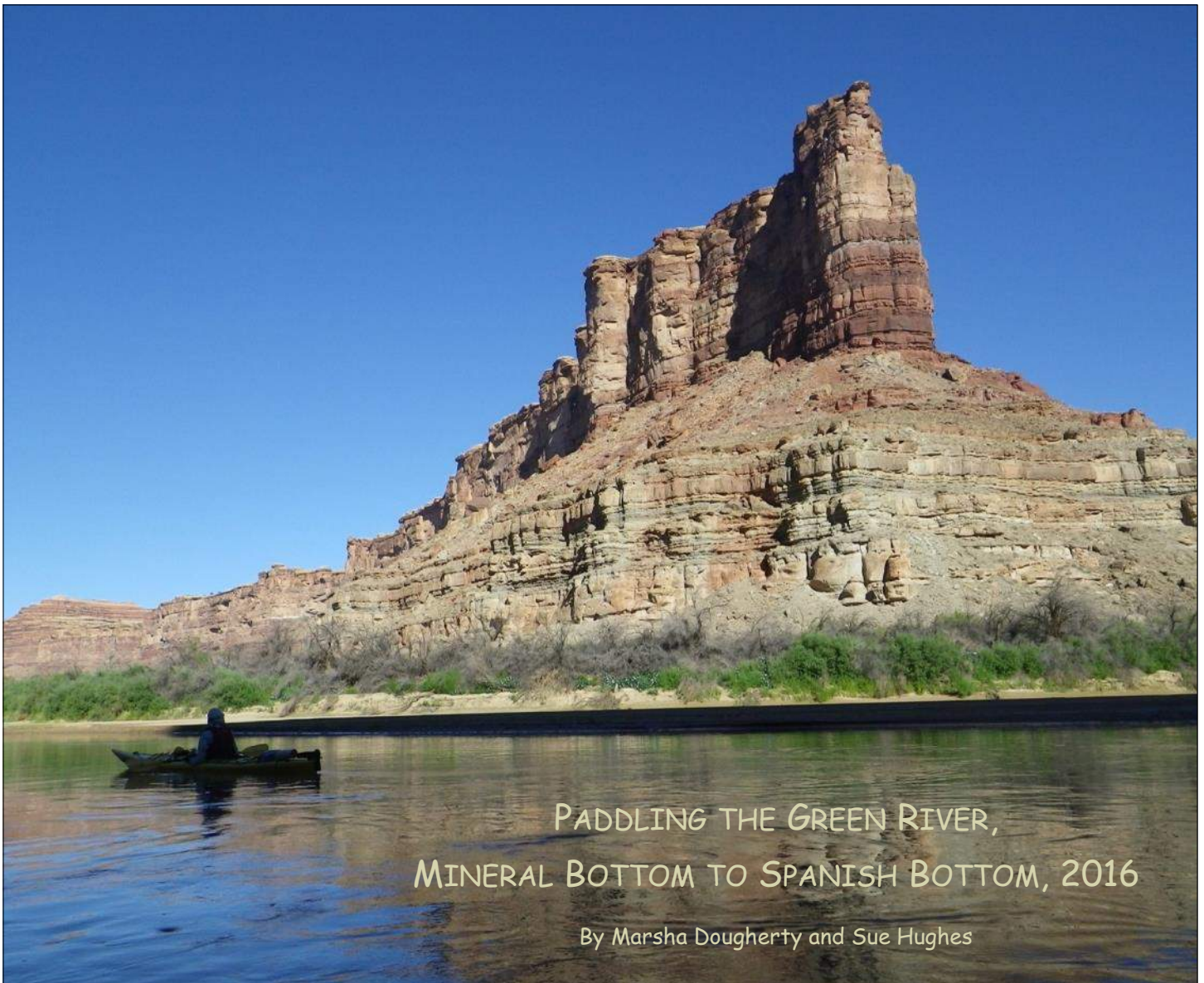
<http://ebird.org/ebird/view/checklist/S31083030>

<http://ebird.org/ebird/view/checklist/S31097851>

### BLUE MESA RESERVOIR—SAPINERO AREA, GUNNISON, COLORADO

Bald Eagle 1	gull sp. 2
Barn Swallow 1	House Wren 1
Black-billed Magpie 5	hummingbird sp. 1 (probably BTHU)
Black-capped Chickadee 2	Lark Sparrow 1
Brewer's Blackbird 10	Mountain Bluebird 3
Broad-tailed Hummingbird 1	Red-tailed Hawk 2
California Gull 20	Rufous Hummingbird 1
Cliff Swallow 4	Sage Thrasher 4
Common Merganser 24	Song Sparrow 1
Common Raven 6	Spotted Sandpiper 7
Double-crested Cormorant 1	Steller's Jay 3
Franklin's Gull 1	tern sp. 1
Golden Eagle 4 (2 adults 2 juv.)	Turkey Vulture 1
Great Blue Heron 2	Wilson's Warbler 4
Green-tailed Towhee 4	





## PADDLING THE GREEN RIVER, MINERAL BOTTOM TO SPANISH BOTTOM, 2016

By Marsha Dougherty and Sue Hughes

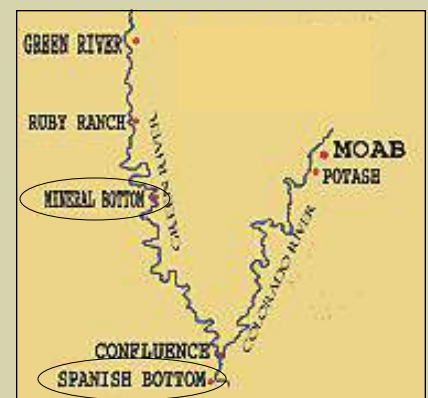
RMSKC members Sandy Carlsen and Harold Christopher, Marsha Dougherty, Sue Hughes, Brian Hunter, Jud Hurd and Trip Leader Tim Fletcher spent a week kayak camping on the Green River. Tim had canoed the Green many times and had done the Mineral Bottom to the Spanish Bottom section just a couple of weeks earlier; he was a wonderfully knowledgeable and easy-going guide.



The glass boats were loaded last and suspended so they wouldn't get scratched.

### DAY ONE, 8-28-2016:

The group gathered at Tex's Riverways in Moab, paid the last of the shuttle charges, and watched as Devin expertly loaded their boats and gear onto a trailer.



They headed west and down a steep and winding third-world road to the put-in at Mineral Bottom.



As they were driving away Sue learned there had been a change in the line-up for Powell Houseboat IV, which was to start just a week after the Green River paddlers would get back. They searched for cell reception to let RMSKC organizers at home know it needed to be figured out before then, but they didn't get through. At the last minute they sent a text to Anna Troth, who forwarded it to Clark who handled the situation; the roster was all settled by the time they returned to phone service seven days later. Thanks, Anna and Clark!



The scene as people loaded their boats was chaotic and the put-in was steep but they were paddling downstream before lunchtime.

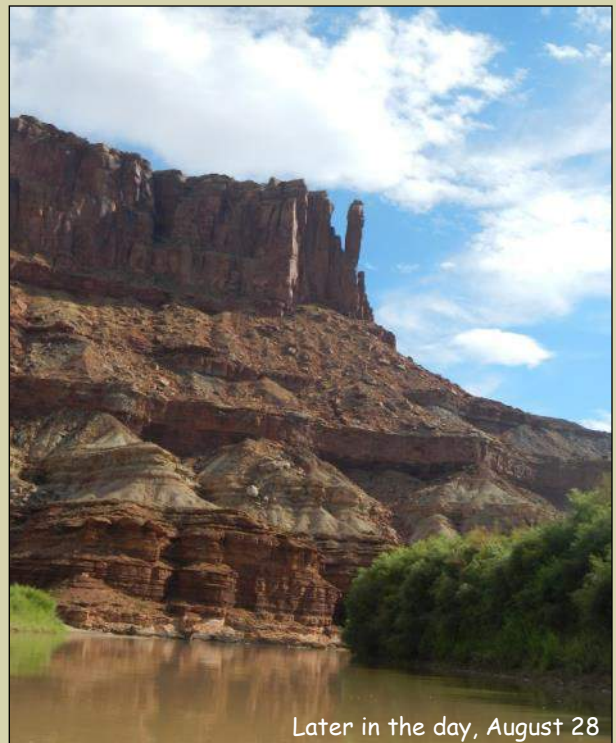


They had some trouble staying together the first day, but appointing a sweep and changing that person every hour or so kept them effortlessly within hailing distance of each other for the entire rest of the trip. That made Safety and Instruction Coordinator Brian Hunter very happy.

They paddled 10.8 miles to their camp on a large island at river mile 42.3 on river right just before Fort Bottom. It was slightly damp and buggy, but thankfully those were the only mosquitoes they encountered on the whole trip.



Midday, August 28



Later in the day, August 28





Marsha, Jud, Sandy and Harold at the watch tower overlooking Fort Bottom at Mile 48.5

**DAY TWO, 8-29-2016:** In the morning they ferried across the river and talked to two fellows in a canoe who were doing the same stretch. Some of the group hiked up to an ancient masonry tower on the top of a butte that looked down on the tight loop in the river. It had wonderful views in all directions. Then they all checked out the remains of a cabin closer to the water.



Brian in the window of the outlaw cabin at Fort Bottom



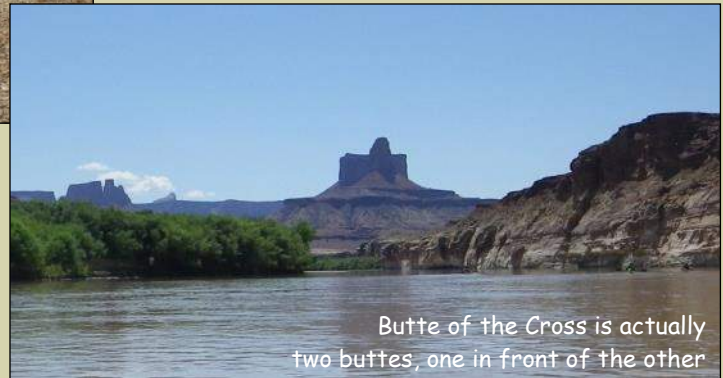
View from the top of the hill

Before noon they were back on the river. They took off NNW but in no time had rounded the bend and were going ESE. There are very few straight sections on the Green.



Sandstone with wave ripples caught in it

They paddled on, going from BLM land into Glen Canyon NRA and then into Canyonlands NP. After lunch, the Butte of the Cross, mentioned by John Wesley Powell in 1869, came into view.



Butte of the Cross is actually two buttes, one in front of the other

By early afternoon they'd reached Anderson Bottom at river mile 31. They got out and walked across a field to a curious place where someone had blasted (and cleared away the rubble) to make a room in the side of the cliff. The park service still stores old signs in a cave there from the years when they had an annual festival and campout called the Friendship Cruise.



Later that afternoon they went through the first small riffle without a hitch, but it did make people realize how much of their gear wasn't tied in. [There are more photos from Day II on the next page.]

They made camp on a large sunny dry sandbar along Bonita Bend at river mile 31. Dry and sunny meant no bugs, but it was hot, so they all went swimming for the first time on the trip. They paddled 10.9 miles for the day.





Day II: Jud on the first riffles they encountered



View from the second night's campsite



Early morning, Day III

**DAY THREE, 8-30-2016:** The group had a busy morning. They saw two ruins on river left and one ruin after the wash on river right.

They took pictures of the Sphinx at mile 27 and visited with Marilyn, the only other paddler besides the fellows on the day before that they saw the entire week. Jud earned his Ruin-Spotting badge.



The Sphinx



They met Marilyn on the river. She had come all the way from Green River, Utah. She took out with them a couple of days later.



Marilyn's rubber boat



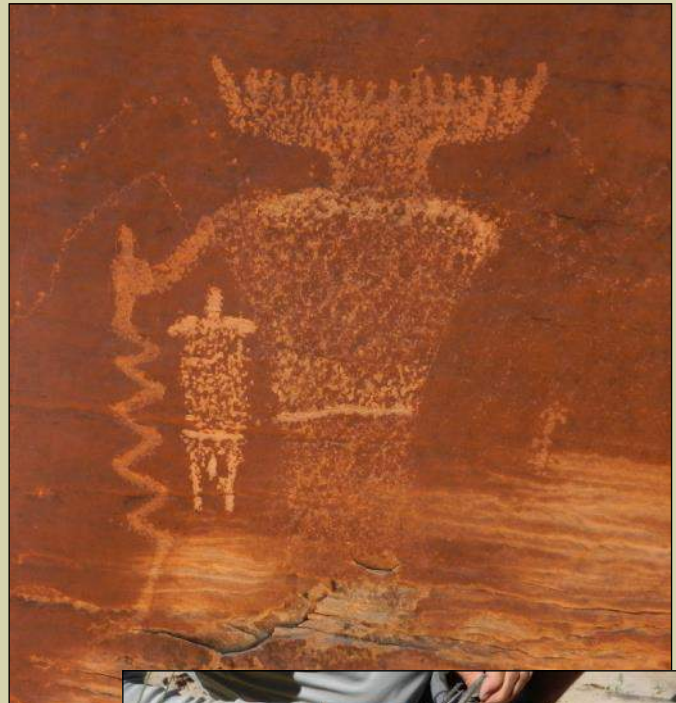


Sandy, Harold, Tim, Jud, Brian and Marsha looking for the car-shaped rock that had petroglyphs

In the afternoon, before Turks Head, they took a walk on river right to see some very good petroglyphs. The directions were vague and the hike was longer than they'd thought it would be, a mile and a half each way, but the stone art was well preserved and worth the trek. Tim got the prestigious Hike Motivator award.



Ha-ha: the car-shaped rock only looks like a car from the back side



On the way back Sue's sandal disintegrated. Brian saved her sole by sewing it back on with supplies from his well-stocked repair kit. [When she got home she learned that Chaco would re-sole them for lots less than a new pair.] Brian was named Best Prepared Camper.

They paddled to mile 21 and camped on river left at a pretty campsite about which there was some initial discussion. There was a breeze but it was still pretty hot. They set up the sun shades and everyone swam in the river and washed up. They paddled 10.8 miles for the day.



Brian sewing Sue's shoe



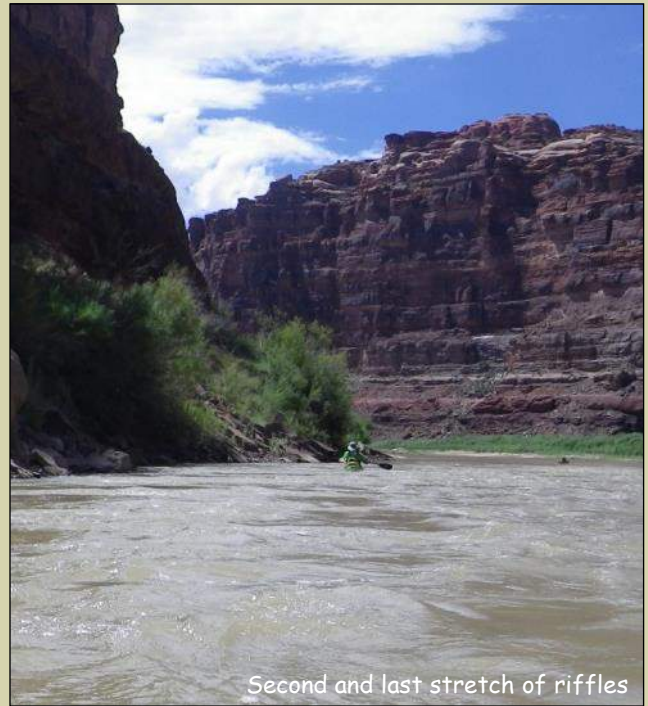


**DAY FOUR, 8-31-2016:** They paddled to Horse Canyon. The river was divided by a sandbar island and the entrance to the canyon was in a shallow curve on river right. Five of the group walked up to the first turn, Harold and Sandy went up to the next corner and then everyone came back and joined the others.

They scouted the left fork of the river thinking there might be rocks with the river being kind of low. They saw only one big rock to maneuver around. They ran through it one at a time but there were no unexpected rocks.



Walking into Jasper Canyon



Second and last stretch of riffles

They paddled to mile 12 and had lunch, and then on to Jasper Canyon at mile 9.5. The group landed in the mouth and walked a short way but the path was blocked so they paddled down 100 feet or so, landed again and walked up to the Anasazi house they were looking for.

They camped at mile 8 on a medium-sized sandbar island, swam, washed clothes and fixed dinner. It was a lovely evening and people sat out and looked at the stars. It had been a 14 mile day.



Sue, Jud, Sandy, Harold, Marsha and Tim in front of the ruin in Jasper Canyon







Water canyon

**DAY FIVE, 9-1-2016:** They broke camp and paddled to Water Canyon where they went on a very nice walk in a moist and shaded canyon with a pool and a small waterfall.

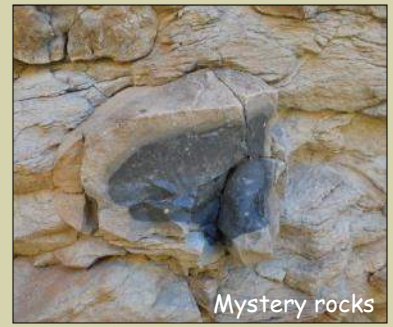
The waterfall could be climbed up to the next level if the water in the pool had been high enough to swim to the edge. But it was too low this time and they couldn't go any farther. The canyon was full of sharp red pieces of jasper, a vein of clay and strange rocks with dark interiors embedded in the sandstone. Once again, they wished they'd had a geologist along.



Jasper



Clay drying like pots



Mystery rocks

They paddled on to the confluence and into the Colorado River to the camp registry where Tim signed in for them. They paddled almost twelve miles that day.



View of the Doll House section of Canyonlands National Park from just past the confluence.



Trip leader Tim Fletcher signing the camp registry on the Colorado

They camped at Upper Spanish Bottom, Colorado River mile 213.5. It was a sweet spot with separate tent sites in the trees.

There was a terrific sunset but it blew like crazy and rained during the night. Brian saw a ringtail cat lurking in a tree.





Upper Spanish Bottom, where most people camped back in the trees



Sue using Harold's very handy collapsible rubber bucket to wash her boat.

**DAY SIX, 9-2-2016:** In the morning everyone washed their kayaks inside and out so they wouldn't get the jet boat dirty and packed their gear to be ready to load when Devin arrived to whiz them back up the Colorado to Moab.

When he appeared, right on time, the canoe guys and Marilyn were already on board. He complimented the RMSKC group on their clean boats and everything got stowed away in a flash.



Then he quickly and professionally directed how the people on the boat were going to handle the drama of the day: a fellow on the next sandbar north had broken his leg and needed to be evacuated.



Devin explaining the plan



It had been a long night

Devin cut loose one of the metal seat tops to use as a litter. Some of the people on the jet boat would be lifting the man onto it. Others would position coolers under it as support while the final move to the boat was formulated, and *everyone else*, he clarified strongly, could be most helpful by just watching quietly.

It went without a hitch, and they saw sights on the way back that they hadn't seen on the Green.



Rowdy rafts with naked lady blow-up dolls on the Colorado





When they got to the take-out they watched as Devin and his sidekick loaded the jet boat onto a semi, and then they rode back to Moab on Tex's school bus.

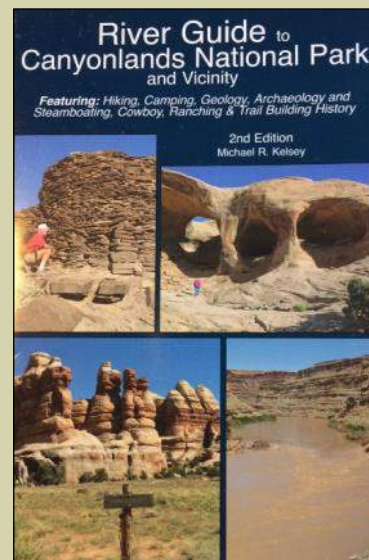
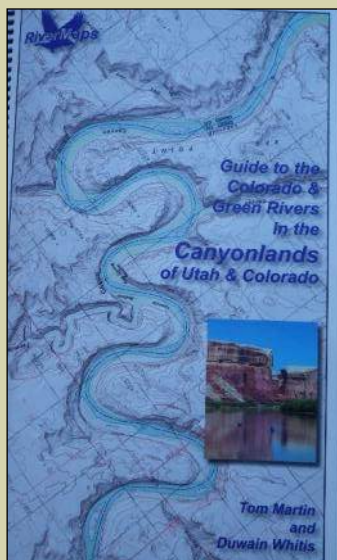
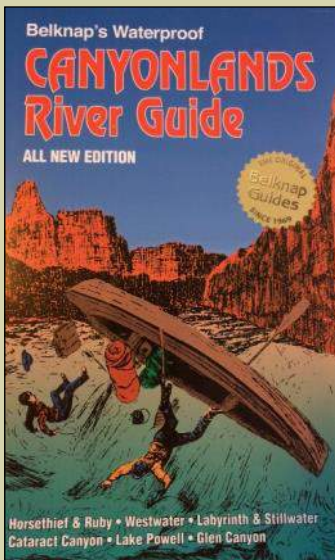
They put their kayaks on their cars and went to Milt's Stop & Eat, Moab's oldest restaurant, for chocolate malts. Brian and Sue passed out RMSKC business cards.

Sandy and Harold spent the night in town at Pack Creek Campground, which they recommend. Everyone else took off for home. They all agreed it had been a wonderful trip with an especially knowledgeable leader and a super group of people.

DETAILS:

The total cost for Tex's shuttle charges and the National Park Service permit fee was a very reasonable \$209 a person. Tex's is a first-class operation; everyone was highly competent, professional and personable.

Several group members had *Belknap's Canyonlands River Guide*, which is on waterproof paper and when protected in a Ziploc bag was not damaged by being carried under a spray skirt strap or bungee. Tim used Martin and Whitis's *Guide to the Colorado & Green Rivers in the Canyonlands of Utah & Colorado*, which had more detailed maps. Michael Kelsey wrote the book people use for Lake Powell. His *River Guide to Canyonlands National Park and Vicinity* provides the same sort of resource for this area's history and memorable stories.



Photos in this article were taken by Harold Christopher, Sue Hughes, Brian Hunter and Jud Hurd.



Panorama from the top of the watchtower bluff at Fort Bottom, Day II



# LAKE POWELL HOUSEBOAT IV

September, 2016

The participants were:  
Dave Hustvedt, Marty

and Clark Strickland, Anna Troth and Gregg Goodrich, Jen and George Ottenhoff, Sue Hughes, Brian Hunter, Marsha Dougherty, Joy Farquhar and Harold Christopher. Everyone, members new to house boating with RMSKC and people who'd gone many times before, enjoyed the usual week of good company, paddling and food.

**DAY ONE**, Sunday September 11: The group motored about 40 miles up from Bullfrog, farther than RMSKC houseboats had ever gone, past Good Hope Bay to park the boat at Trachyte Canyon [A].

The land at the far end of the lake was flatter and more open than the canyons closer to Bullfrog. The water level had changed recently and the shores were muddier than any encountered on previous trips.

**DAY TWO**, Monday, September 12: Everyone paddled out into the main channel and up toward Hite Marina. A group split off and headed back. The others explored small but interesting canyons on both sides, but because of the wind did not go far enough to see the marina.



Paddling out of Trachyte Canyon



In the main channel heading toward Hite



The water in the main channel was more like the Colorado River than Lake Powell: definitely too silty to filter or make drinkable with a UV SteriPEN, but it could have been treated with the club's new P&G system for flocculating and purifying. [Read Brian's article about flocculation and the P&G product on pages 47-56.] Both groups experienced gusty winds and hard paddling to get back to the houseboat.

**DAY THREE, Tuesday, September 13:** The morning was still windy. Dave decided to stick around Trachyte Canyon to fish. Marty, Sue and Jen paddled to the far end of the canyon, which wasn't as far as the map, which had been drawn at a higher water level, made it appear. It wasn't the fabulous Lake Powell canyon paddling that they were hoping for, and the wind made getting the mile or two back to the boat a bit scary and a lot of work, but they had a good time. A slight break in wind seemed like a good time to take selfies.



Marty



Sue



Jen

The rest of the group went across the channel to explore the right arm of White Canyon. Before going in they stopped at an alcove on the right which would be a great campground for houseboat and tenting with lots of shelves and level spots.



Rock Tower at the entrance to White Canyon

They were amazed as they entered to see some spectacular rock formations. The most notable was nicknamed "The Battleship" by Anna and Gregg. As they paddled farther up the canyon the water was thick with red mud and as they neared the end it became apparent that the wind waves were mixing the shallow water at the end. They heard a lot of thunder but didn't see any lightening. Round trip they paddled 10.26 miles.



Battleship Rock, White Canyon



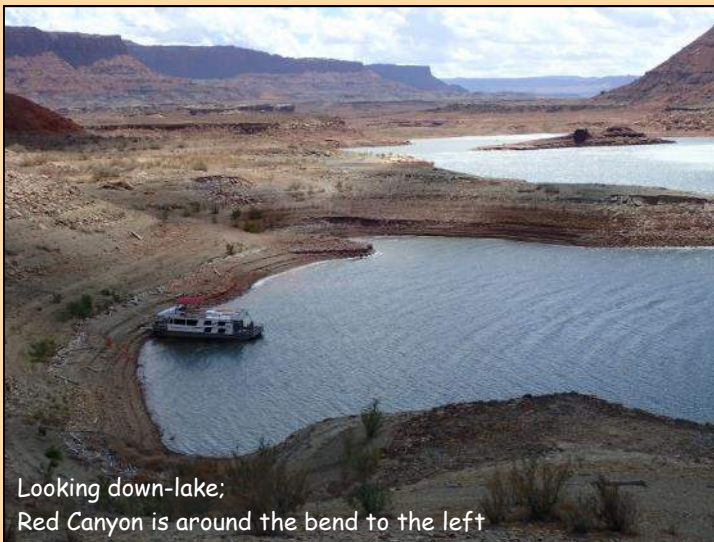
Joy admiring Battleship Rock



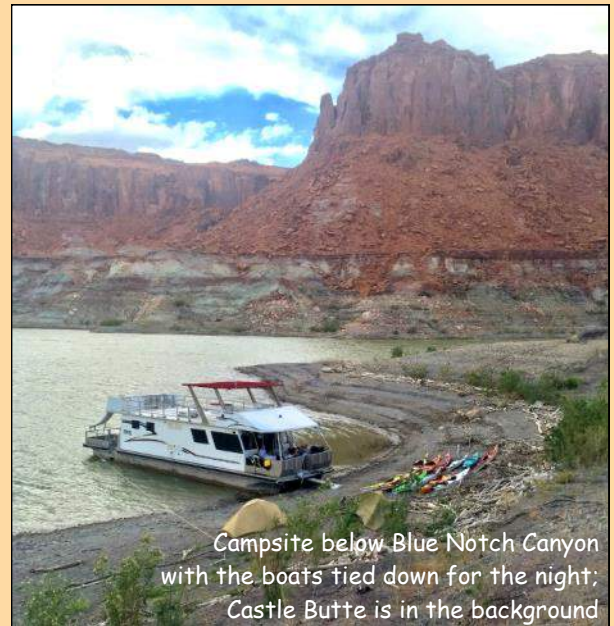


Looking across to Castle Butte

DAY FOUR, Wednesday, September 14: They packed up and moved the houseboat down around Castle Butte [B] at the north end of Good Hope Bay to moor in front of Blue Notch Canyon. There was a four-wheel drive road and campsites up on the hill; several people took hikes back into the area to explore or go birding.

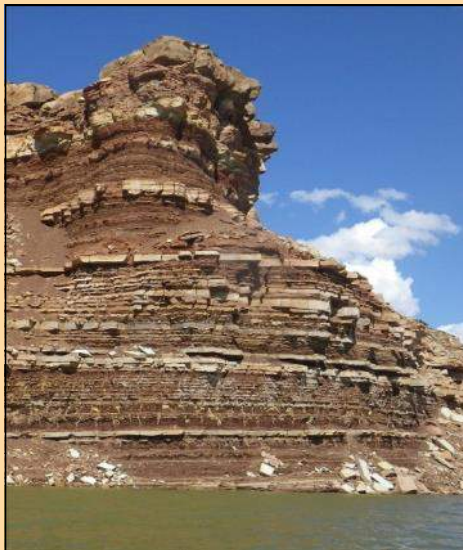


Looking down-lake;  
Red Canyon is around the bend to the left



Campsite below Blue Notch Canyon  
with the boats tied down for the night;  
Castle Butte is in the background

Marsha, Sue and George paddled south, out to see what was around the corner in this boot-shaped part of the bay. Some of the rocks were amazing, and there was lots of wave-print sandstone. Paddling home was a windy struggle, but the wind and the waves made for a few minutes of good surfing right before they reached the shore.







Ancient wave patterns captured in the sandstone



Then the generator went out. That meant they were really roughing it: no microwave for breakfast bacon and no blender for margaritas with their tamales. Brian used his DeLorme Inreach 2-way satellite communicator to get a message to his son to call the marina, but no repair boat arrived that day. They used his JetBoil to make the glaze for the evening's dessert and they sat out around a lovely fire after dinner.



Rum cake is a houseboat tradition



DAY FIVE, Thursday, September 15: The group decided to explore the shores going north from the houseboat toward Castle Butte but again, the map of the area showed more small canyons than there proved to be.

Anna, Gregg, George and Sue went back to look at the draws on the way to Red Canyon. They hiked a couple of miles into the canyon and found some petrified wood and more birds than they thought they would.



Gregg looking for a bird in Red Canyon, where some of the rocks weren't very red





Sue picked up trash and wondered about the chocolate-colored rocks.



Ticaboo Canyon

The rest of the group paddled across the channel to explore Ticaboo Canyon.



DAY SIX, Friday, September 16: The boat was moved again, past a pump-out station where the house boating newcomers learned about that process. Check out Gregg's video of Marty's energy working the pump: <https://drive.google.com/open?id=0ByETq77Zd-xeZHNzcXFJQjvUMW8>

Unfortunately they clipped a propeller as they were pulling into their last campsite [C] on river right between Warm Springs and Sevenmile canyons.

They worked together to replace it: Harold in his kayak doing the grunt work at water level, with Marsha holding his boat steady and lots of advice coming in from above. The boat had come equipped with a replacement part, but not the tool needed to prepare it for installation, making the whole collection of engineers and bystanders frustrated and cranky.



Marsha, Harold, Dave, George and Clark

Brian made more calls to relay to the marina and almost everyone paddled off across the channel to explore Cedar Canyon, staying together like pros. Brian said, "Cedar Canyon was a scenic paddle of moderate length. It was short enough that several members went on to paddle Warm Springs Canyon just opposite Cedar on the way back to our boat. There were several houseboats parked in Cedar and we stopped briefly to talk to some people who were interested in my Greenland paddle. The group paddled at an easy pace and stopped to catch some shade





and hydrate under an outcrop. There was a towering butte at the end where we got a group photo taken by Harold. Gregg spotted a striped white and black moth floundering on the water that we photographed for him to try to identify back home.

Gregg wrote, "I remember Cedar Canyon because I was impressed with the safety conscious attitude of

our safety man, Brian. He had us cross the channel as a group so we were more visible to boat traffic. Then he had us go single file through the Canyon again to allow boat traffic clear passage.



Jen, Joy, Harold, Marty, Gregg and Anna



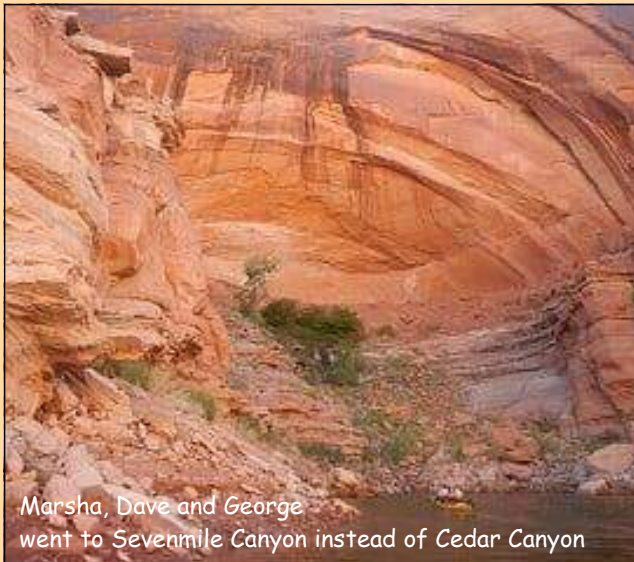
"Then he let me lead the group which I really enjoyed. I think it is a good thing to get members into the different roles of a group paddle.

"Brian rescued this pretty moth in the Canyon. Safety extends to our insect friends as well. Good birds on that paddle were Great Blue Heron, Rock Wren and Canyon Wren. Also Ann reminded me of the Spotted Sandpiper we had at the very end of the Canyon. We got a very cool up-close look at it."

Dave Leatherman, a birding friend of Gregg's, identified the moth. He wrote, "That looks to be the Hera Buckmoth (*Hemileuca hera*). Larval food plants are a couple types of sagebrush. Adults such as you found do not feed. Members of this genus are called "buck" moths because they tend to fly in autumn during deer hunting season. It is in the silk moth family, as are some of its bigger, better known relatives like cecropia, polyphemus, luna, etc. Beautiful creature, indeed. I like your idea of positioning it on a map where you found it." <http://bugguide.net/node/view/100806>

A smaller group followed the shore up to Sevenmile Canyon and explored back in both arms. The repair boat did not come while either group was gone, further frustrating the two who had remained behind to wait for it. When the main group returned the two who had been waiting, and a couple others, went around the corner to the end of Warm Springs. The legendary Lake Powell canyon paddling improved everyone's outlook. It also helped that the repairmen with the needed tools replaced the prop while they were gone.





Marsha, Dave and George went to Sevenmile Canyon instead of Cedar Canyon



George in Sevenmile Canyon

The moon was full that night, and they knew that nearby Warm Springs was a short canyon. It seemed ideal for a moonlight outing, and Anna Troth was convinced to bring her flute. Here's a recording of the music of the flute and the night sounds: <https://drive.google.com/drive/folders/OByETq77Zd-xeLTB2SDIYeHhSNIU>



The end of Warm Springs Canyon by day

The light from the moon, once it got down into the canyon, was bright enough to paddle without headlamps and the flute's echoes on the high walls were magic. Everyone who went said it was a bucket-list experience they were so glad they had been able to have.



DAY SEVEN, Saturday, September 17: The moon was still out when Sue, Brian and Joy got up early to check out Sevenmile Canyon. Everyone else took their time to pack and get ready to head back to Bullfrog.

It had been a different trip: more wind and mud than usual, and fewer deep-walled canyons to explore, but they all enjoyed the good-humored company, delicious dinners and the paddling as much as the people on earlier trips had.



DETAILS: They "traded" the cost of the broken propeller for the inconvenience of three days without electricity. The total for the boat rental, insurance, gasoline and the shared evening meals came to only \$327 per person for the whole week.

BIRD REPORT FROM GREGG: We had a total of 29 species with the highest numbers for species being American Coot at 318. Next were the Clark/Western Grebes at 61. We had 34 Common Ravens, 29 Turkey Vultures, 16 Double-crested Cormorants and 12 little Rock Wrens to round out the species that were in double digits. The bird of the trip for me was the Parasitic Jaeger that Clark and I saw on the way back from White Canyon, my second favorite canyon to Warm Springs.

Thanks to you all for helping us get on very cool birds right from the front of the boat as we were docked. Where I swore there would be nothing without trees, we had Yellow Warbler, Orange-crowned Warbler, Spotted Towhee, Rock Wrens and Canyon Wrens! Thanks to Harold for the cool photo of the Osprey which we later found again on a paddle. In summary, good birding for a desert habitat.

The last morning they also saw a big-horned sheep! That was a first for RMSKC paddlers at Lake Powell.



Captain-in-Training Clark Strickland with Captain Dave Hustvedt



Relaxing while the wash dried



Harold, Clark, George, Marsha, Dave, Jen, Marty, Sue, Gregg, Anna, Joy, and Brian

Photos in this article were taken by Harold, Marsha, Sue, Gregg and Brian.

The map on the first page was adapted from *Belknap's Canyonlands River Guide*.



# PRECIOUS WATER: DRINK ENOUGH AND MAKE SURE IT'S CLEAN

By Brian Hunter

Water is the most important resource on earth. It is necessary for every form of life and it's the only thing that's fun to kayak in!

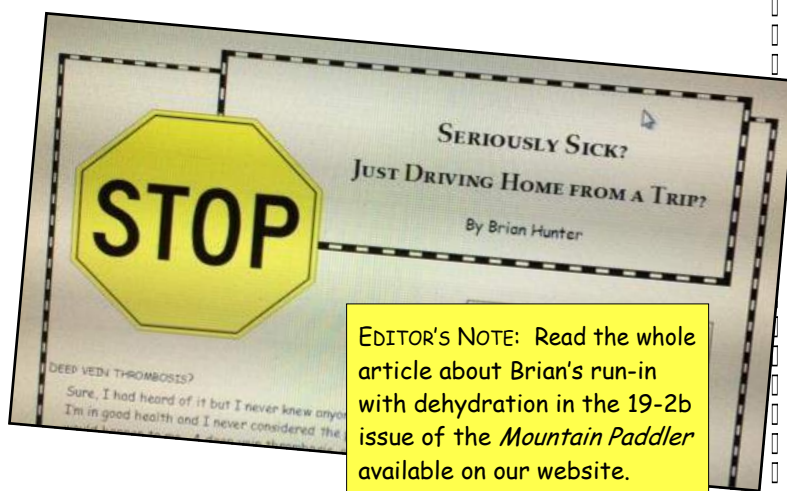
Not enough water is always a problem. Remaining hydrated is vital to human health, especially healthy kayaking, but adequate water can be challenging in other ways, too.

## MONITOR YOUR H<sub>2</sub>O INTAKE

One problem is just not consuming enough while on a day paddle. Unfortunately, I have seen fellow kayakers not drinking while paddling simply because elimination of that water can be awkward. I know at least four occasions when, for whatever reason, dehydration has caused complications for RMSKC members. One of them happened only a few months ago; read about it on page 11 in this issue.

I made that mistake, not while paddling but on the drive home from an 8-day paddle on Lake Yellowstone in 2011. I became dehydrated during the long ride which resulted in a dangerous and extremely painful blood clot in my right calf.

In addition to a DVT, as we get older dehydration can also cause heart palpitations/arrhythmias, confusion, dizziness, sluggishness, muscle cramps, inability to sweat (which causes heat illness) and fainting: all bad things to happen while paddling.



## WATER, WATER EVERYWHERE, BUT...

About 71% of the Earth's surface is water, excellent for kayakers. About 97% of that water is salt water in the oceans, still good for kayakers. Only about 3% is fresh water, but 2% of that is frozen in the north and south poles, or in the atmosphere or in living organisms. [The average well-hydrated adult is about 60% water and human blood is about 92% water.]

That leaves less than 1% as fresh water in lakes, rivers and underground—still enough for decades of fun paddling. But most water good for paddling is not good for drinking unless it is properly treated, which is a problem for people in small boats on long camping trips.

## HOW CAN WE MAKE WATER DRINKABLE?

There are many reasons that fresh water is not drinkable. Beginning with the issue that needs to be dealt with first, water may contain suspended solids that must be removed. Those solids are classified as settling or



non-settling. Larger particles that settle or can be strained out are not much of a worry but smaller particles, called silt, can be a greater concern. The water in the Green, San Juan and Missouri Rivers ranges from merely murky to the color of brown paint, depending on rainfall and the watershed that feeds the river. That's a problem!

Silt, the non-settling solid, is made of very small particles of quartz or feldspar that carry a negative charge causing them to stay suspended in water. The negative charge makes the particles stay away from each other and Brownian motion [the erratic random movement of microscopic particles in a fluid, as a result of continuous bombardment from molecules of the surrounding medium] helps to keep them in suspension.

When the number of suspended solids, called turbidity, increases it will render any filtering or purifying device nonfunctional. If the water available to you is murky it may clog the filters of your portable filter leaving you high and dry. Allowing the water to settle overnight may be sufficient, but in the case of visibly cloudy water a flocculant [a substance that promotes the clumping of particles] is usually needed to settle those tiny charged particles.

Potassium aluminum sulfate (alum) is used in pickling to make the pickles crispier, in baking powder, makeup and deodorant. It is also the oldest chemical used as a flocculant. The Egyptians reportedly used alum as early as 1500 BC to reduce the visible cloudiness in water. Ferric sulfate is also used as a flocculant; it works in the same manner as alum but the iron in ferric sulfate is heavier and settles quicker. Ferric sulfate can also remove some heavy metals. [Read more of Brian's research about using alum as a settling agent in the addendum to this article.]

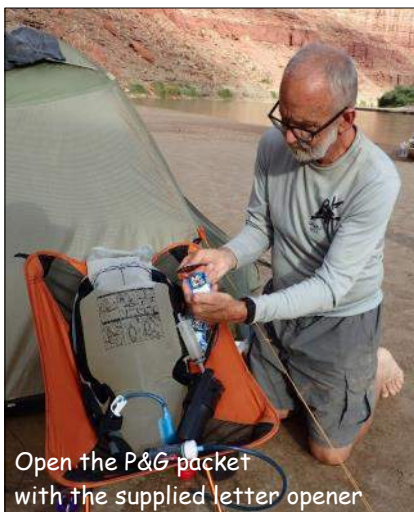
EDITOR'S NOTE: Brian's original interest was the use of alum to flocculate silt out of water so that it could be filtered.

As he researched formulas for that technique he learned of a product offered by Proctor and Gamble that not only streamlines flocculation but also adds chemicals which go beyond simple flocculation to actually purify the water.

### FLOCCULATION IS A TWO STEP PROCESS

Here and on the next page are photos of Brian using Proctor and Gamble's Purifier of Water bladder and chemical packets to flocculate the silt out of water from the always muddy Green River.

The first step is coagulation in which the negative charge of the suspended solids is overcome by the positive charge of the flocculant. In this stage, microflocs are formed which are invisible to the naked eye. Mixing is needed to disperse the flocculants and cause the suspended particles to collide promoting good coagulation.



Open the P&G packet with the supplied letter opener



Empty the powder into the 2.5 gallons of raw water



Roll the top down several times and buckle it up





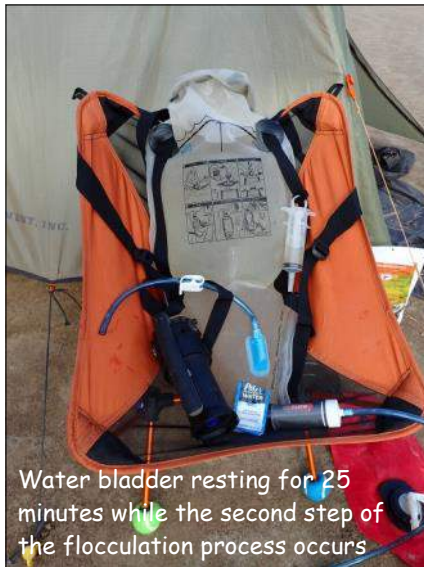
If no trees or other supports are available, use the backpack straps to mount the bag on your back and do the Twist #1



Twist #2



Using any method, agitate for five minutes to mix the powder into the water



Water bladder resting for 25 minutes while the second step of the flocculation process occurs

Flocculation occurs in a second step as the microflocs come into contact to form large visible flocs that settle out of suspension. This step can take from a few minutes to several hours.

Proctor and Gamble's system says let the mixed water rest for a another 25 minutes, after which the silt and other suspended matter will be settled on the bottom of the bag and the water is ready to drink. If the water is yellow, discard it and try again; flocculation has not occurred.

So now you have the suspended particles in your water gummed together and settled to the bottom, but you are not done. Although the P&G system has a purifier in it, the flocculation itself only removes silt; it does not make water safe to drink. Flocculated water may be almost clear, but it is not safe yet.

### CLEAR ENOUGH TO FILTER, BUT STILL CONTAMINATED ENOUGH TO MAKE YOU SICK

Fresh water supports many forms of life other than kayakers, four of them are of particular interest to us. When ingested, these small organisms often cause disease.

**Protozoa** are small single-cell, hard shelled parasites that form cysts and can give us lots of grief. When ingested, protozoa can be fatal or make folks think they will die. Some of the most common protozoa are amoebae, giardia, lamblia and cryptosporidium. Protozoa are about 1- 15 microns in size and can be filtered out of a water source.

**Bacteria** are well known for their ability to reproduce quickly, especially in warm water that contains nutrients. Some bacteria in water that cause disease when introduced to humans are E-coli, salmonella and cholera. They are about .2- 5 microns in size and can usually be filtered out of water.

**Viruses** are small packets of chromosomes that have no metabolism and can only reproduce by invading a living cell, where they hijack the cell's metabolism and do their damage.



Some common water-borne viruses are hepatitis A, Norwalk virus and rotavirus. Viruses are very small (.02 to .2 microns in size) and can't be effectively removed with filtration. Filtered water that is free of protozoa and bacteria can still contain viruses. UV or chemical treatment of filtered water is needed to eliminate these tiny dynamos of disease.

Lastly, there are also **worms and other parasites** that can just be seen by the naked eye. These are easily filtered out, but are often resistant to either chemical or UV treatment.

#### FOUR OPTIONS FOR DEALING WITH MICROORGANISMS AND WHAT EACH METHOD DOES:

After you've strained out the big pieces and settled out the silt, you are ready to use one or more of the following four options for dealing with protozoa, bacteria, viruses and worms: filtering, chemical treatment, boiling and ultraviolet light treatment.

#### FILTRATION

There are two main types of portable water purification systems. Those labeled "microfilters" only remove protozoa and bacteria; systems labeled as "purifiers" filter out protozoa and bacteria *and* eliminate viruses in a single step. Popular filter systems such as Katadyn, Platypus, Sawyer and MSR will remove protozoa and bacteria but will not remove viruses because of their very tiny size. [Find specs. on MRS's new *Guardian Water Purifier* at the end of this article.]



Brian safely filtering flocculated water through his Katadyn Vario microfilter

#### **Ceramic Microfilters** (only remove protozoa and bacteria, not viruses):

- Have long life and can be cleaned in the field.
- Require more pumping effort
- Some have silver ions that retard bacteria growth during storage

#### **Fiberglass Microfilters** (only remove protozoa and bacteria, not viruses):

- Have high flow rates with low pump effort
- Some can be reversed flushed
- Are lightweight
- Have lower capacity than ceramic filters
- Some contain replaceable activated carbon cores

#### **Activated Carbon Filters** (do not remove protozoa, bacteria or viruses):

- Remove certain chemicals and improve taste and smell
- Are simple to replace in some filters
- Have a relatively short useful life after the first wetting

Filtration systems can get confusing; some have multiple layers of filtration. For example, the Katadyn *Vario* starts with a pre-strainer followed by a ceramic microfilter<sup>1</sup> followed by a fiberglass microfilter followed by an activated carbon filter<sup>2</sup>. [<sup>1</sup>Repositioning the ceramic filter takes it out of the filter path to reduce pump effort and increase water flow but may reduce the life of the fiberglass filter. The ceramic filter catches particles that would clog the fiberglass filter and those particles can be removed from the ceramic filter in the field. <sup>2</sup>The activated carbon has a shorter life than the fiberglass filter itself, but is easy to replace.]



To further confuse filtration, there are four common methods of getting water through a filtration system: pump systems, gravity systems, squeeze bag systems, and sucking systems like Life Straws.

**Filtration Tips:**

- Always choose the clearest water, avoid water that is cloudy or tan colored.
- Avoid letting the intake touch the bottom because lots microorganisms live there.
- Avoid the shoreline where water is lapping and stirring up sediment, especially in an onshore wind.
- In still water, try to get the intake down a few feet because the bacteria count is lower in the cooler water.
- Still water allows for more settling of suspended solids but it may be stagnate and support more pathogens.
- Never allow the filtered water outlet to touch contaminated water.
- If pumping gets difficult your filter may be clogged with debris like silt and fine algae. If your system has a pre-filter, replace or clean it. If the main filter is reverse flushable, do so. If these do not apply it's time to use your spare replacement filter.

**CHEMICAL TREATMENT**

**Chlorine** (sodium<sup>3</sup> hypochlorite) is the most common chemical means for killing or deactivating pathogens found in water. A common form of chlorine is Clorox. One drawback is that liquid chlorine solutions lose potency during storage in as short as six months but dry chlorine versions, often in tablet form, can have a shelf life of several years. Regular Clorox bleach can be used to sterilize filtered water in the chart below, which was taken from the *Clorox*<sup>®</sup> brand website: <https://www.clorox.com/dr-laundry/disaster-preparedness-purifying-water/> [<sup>3</sup>Calcium hypochlorite can also be used.]

Using the amounts in the chart, allow the treated water to stand for 30 minutes. Properly treated water should have a slight chlorine odor. If there's no chlorine odor, then you need to repeat the treatment. Just add the same amount of bleach and wait for another 15 minutes. Check again for the chlorine odor before drinking the water. Note that you should only use Clorox<sup>®</sup> Regular-Bleach or new Concentrated<sup>®</sup> Clorox that was purchased in the last four months. Do not use any of Clorox's other fancy new bleach products meant for fabric.



Amount of Clear Water	Amount of Clorox <sup>®</sup> Regular Bleach	Amount of New Concentrated Clorox <sup>®</sup> Regular Bleach
1 quart	2 drops	2 drops
1 gallon	8 drops	6 drops
2 gallons	16 drops	12 drops, or 1/8 teaspoon
5 gallons	40 drops	30 drops

**Iodine** is also effective against most pathogens except cryptosporidium, the leading cause of water-borne disease in the United States. [UV light and boiling are more effective at treating Cryptosporidium than chlorine.] Iodine leaves a bad taste (for both drinking and cooking) and can stain plastic water containers. These disadvantages make chlorine the better chemical choice, except that iodine has a longer shelf life.



## UV EXPOSURE

Exposure to **Ultraviolet Light** renders pathogens incapable of reproducing by damaging their DNA and RNA. Since pathogens must reproduce in the host to cause disease, UV is an effective way to make water safe to drink. UV is more effective against cryptosporidium and giardia than either chlorine or iodine.

However, UV exposure is only effective in clear water! Cloudy or turbid water must be settled or filtered before UV treatment is used because suspended solids shield pathogens from the UV rays and they scatter the ultraviolet light, reducing its effectiveness.

The only manufacturer of pocket-sized UV devices I have found is *SteriPEN*<sup>1</sup>. Prices of *SteriPEN* devices have come down, now they can be found for less than \$50. They are perfect for international travel to deactivate viruses and should be taken on road trips at home, too. Pocket-sized UV devices can only treat one quart at a time but they take only 90 seconds per treatment. [Heads up: some of their units require Li 123 photo batteries which are very expensive and can be difficult to find; other units work on AA batteries, which is a better choice.]



## BOILING

Boiling is the oldest method for making water safe to drink. This technique is not well suited to kayaking as it requires fuel, time and a large vessel to treat enough water. Boiling a quart at a time would need to be done at least four times a day based on the one gallon a day that's recommended. However, in place of other options, boiling is a viable Plan B.

According to the CDC water must be boiled for at least one minute at sea level, longer would not hurt. Since water boils at lower temperatures, when at higher elevations boiling times must be increased. Above 6500 feet boil water for at least three minutes. Because many RMSKC adventures are at higher altitudes, two to three minutes of a slow rolling boil is a good option.

## TO REVIEW:

- A. It is vital that you drink enough water to avoid dehydration. If you experience any of the symptoms listed at the beginning, let someone know right away before it becomes a catastrophe! Never try to tough it out.
- B. The three basic steps to make raw surface water safe to drink in order are:
  1. Settle suspended solids. In some waters this is not necessary, although even if water looks clear it may not be and could still clog your filter.
  2. Kill the protozoa, bacteria and larger parasites by filtration or chemical means.
  3. Treat for viruses and pathogens that go through the filter step.

### EDITOR'S NOTE:

On the following pages is supplemental information about some of the issues, processes and equipment that Brian has mentioned in this article.



## STAYING HYDRATED

A sedentary person should drink about an ounce of water per pound of body weight. If you are working hard and sweating you need more! How to recognize if you are dehydrated:

- It you are thirsty and craving a drink you are already dehydrated.
- Urine color and smell also indicate your state of hydration. If it's clear to light yellow and has only a slight odor you are probably hydrated. Although some medications and foods change the color of urine, if yours is dark yellow and noticeably stinky you are already dehydrated. Dark smelly urine and being thirsty are just like the check engine on your car! You need to take action right now so drink up some purified water.
- A skin pinch test can also show if you are dehydrated. With your hand flat, palm down gently pinch some skin on the back of your hand and hold it for three seconds. If the wrinkle stays when you let go are dehydrated and if it quickly disappears, you are more hydrated.

Dehydration video: <https://www.youtube.com/watch?v=Po5KuSnAn2s>

## FILTERS

Trying to filter water that is cloudy or very turbid is risky business. Clogging a filter can leave you stranded without water which could be a life threatening situation. Of course you know to always have a spare new filter because one = none and two = one.

- [https://www.katadyn.com/downloads/katadyn/broschueren/katadyn\\_water-guide\\_en.pdf](https://www.katadyn.com/downloads/katadyn/broschueren/katadyn_water-guide_en.pdf)
- <http://www.outdoorgearlab.com/Backpacking-Water-Filter-Reviews>
- Katadyn's *Vario* filter replacement videos: <https://www.youtube.com/watch?v=auZXTL-kkfU> and <https://www.youtube.com/watch?v=KoPAxePRHW8>

MSR has released the *Guardian Water Purifier*. This \$350 device will remove particles down to .02 microns which includes viruses. It will backflush with each full pump stroke to help reduce filter clogging. It uses an "advanced hollow fiber" filter in which the fibers are arranged in a straight line, not a "U" shape commonly used in hollow fiber filters. This eliminates freeze damage that occurs in some hollow fiber filters. At 2.5 liters per minute the *Guardian Purifier* is amazingly fast for such a small-sized filtration device.

- Be aware of the Integrity Test for the *Guardian Purifier*: <https://www.youtube.com/watch?v=sh7sTMMdJSY>
- Video of *Guardian Purifier* field use: <https://www.youtube.com/watch?v=GkqdwABDMss>

## USING SIMPLE ALUM AS A FLOCULLANT

There is a fair amount of information about using simple alum to settle silt and suspended solids from surface water. The problem is that the advice on the web is widely divergent! One web source states, "The suggested dosage of alum is 1/5 of a teaspoon per gallon." <https://www.nps.gov/grca/planyourvisit/safe-water.htm>

Another source (<http://www.paddling.net/guidelines/showArticle.html?858>) states, "Add about a tablespoon [the measurement isn't critical] of alum per gallon of water." The part in brackets is grossly incorrect. One

tablespoon per gallon seems like quite a lot to me so I made a clear water solution of that strength and it had a detectable but not overpowering bitter alum taste. Since I used clear water, none of the alum settled out of solution with the floc. Perhaps it is likely that in heavily silted water no alum taste would remain due the alum taken out of solution with the silt. I have read reports that noodles become gummy when cooked in alum treated water. The organic whole wheat spaghetti I cooked in alum treated water was slightly stickier but tasted no different than the same pasta cooked side by side in untreated tap water.

The amount of alum required is affected by many factors; some are:

- Too much alum lowers the pH which slows or halts flocculation. Alum flocculation works at a pH of about 5-8. The pH of surface water is affected by things like acid rain, carbonates in the soil of the watershed feeding the river or lake, and tannin in the water. Too much alum also makes the water taste and smell bad for both drinking and cooking.
- Higher turbidity (more silt) requires more alum.
- Colder water flocculates more slowly.

In my personal tests with alum I treated moderately silted water that was delivered to my door from Green River State Park in Green River, Utah. I found that dissolving the alum in warm water (alum does not dissolve well in cold water) to be much better than dumping the dry powder directly into the water to be settled.

After making several tests with different amounts of alum I found that half a teaspoon per gallon did an acceptable job of flocculation and did not leave an alum taste. I stirred in one direction for three minutes. (Some directions say mix in only one direction, suggesting that mixing in a random fashion could cause the microflocs to shear apart reducing coagulation.) Very small flocs began to form at the end of the three minutes. (Depending on the amount of flocculant and the water's silt content, this step can take from a few minutes to several hours.) There were still small suspended flocs in the solution that made filtering necessary after two hours of settling.

Advantages of alum:

- Can be purchased at most super markets in the spice section
- No expiration date.
- Inexpensive (I used McCormick, 1.9 OZ, \$3.00)

Disadvantages of alum:

- Some experimentation to get the dose right may be required
- Like any simple flocculation, the water must be filtered and treated for viruses and pathogens that get through the settling step

### PROCTOR & GAMBLE'S FLOCCULATION PRODUCT

The guess work using alum has been taken out of the picture with the introduction of Proctor & Gamble's *Purifier of Water* packets. [Note: These packets also include chemical purifying agents and are marketed as a complete water treatment.]

I made three tests with P&G *Purifier of Water* packets which worked perfectly.

The four steps for this product are:

- Measure 2.5 gallons of water to treat
- Dump the packet of powder into the water and stir rapidly for 5 minutes
- Wait for 25 more minutes for the chlorine and potassium permanganate to disinfect the water
- If the water is clear (not yellow or cloudy) and floc is on the bottom, carefully decant through a cotton cloth from mixing container into vessels for use. Consume within 24 hours or use for cooking and washing.





### Advantages of P&G's Purifier of Water:

- Reliable
- Easy to use
- No testing to find the correct dose
- Decanting P&G treated water directly into dromedary bags or Nalgene bottles is quick and simple.
- P&G has a socially responsible marketing focus for this product: "DayOne Response will provide purification packets to people in need with some of the profits from US sales. For every DayOne Waterbag purchased we donate a year's

**The Power of Clean Water Can Help Transform Lives**

For over 10 years, the nonprofit P&G Children's Safe Drinking Water Program has been transforming dirty water into clean water for people in developing countries. Now you can experience this amazing water purifying process at home with your family!

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Go to [www.csdw.org/csdw/activity](http://www.csdw.org/csdw/activity) to find out more about this fun family activity and how you can help us share the power of clean water!

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Based on a 2011 study.

Partners: P&G, Children's Safe Drinking Water, B&W, Nestle Waters, GIC, Sogefi, DDM.

The Children's Safe Drinking Water Program is a charitable fund managed by the United Nations Foundation. For more information about the Program, visit [www.csdw.org](http://www.csdw.org).

worth of clean drinking water for a child in need through the P&G Children's Safe Drinking Water Program (CSDW). For every Purifier of Water 12-pack purchased, we donate 120 liters, and for every Purifier of Water case of 240 packets purchased, we donate 2,400 liters." <https://dayoneresponse.com>

### Disadvantages of the Proctor and Gamble product:

- Slightly higher costs
- 3-year shelf life. Remember the packets you receive may be nearly expired when you get them.
- Not readily available at your local super market

A video about the Proctor & Gamble's Purifier of Water: <https://www.youtube.com/watch?v=p3e-52MkXbM>

### Some links to articles and videos on flocculation:

<http://wildernessvagabond.com/gcescalante2011/Alum%20treatment.pdf>

and <http://www.gcrq.org/bqr/7-4/water.htm> These papers are more precise than the others, and describe some tests to determine the best dose of alum for current water conditions.

[https://www.youtube.com/watch?v=5uuQ77vAV\\_U](https://www.youtube.com/watch?v=5uuQ77vAV_U) Excellent video about water quality and flocculation.

<https://www.youtube.com/watch?v=G9BY69KnzoU> Basic procedure: Add 1-1.5 Oz (vague measurement) of alum to a quart of clean water. Add 2 caps full (extremely vague amount) to 5 gallons of silty water. Stir for a few seconds and let stand for 30-45 minutes.

<https://www.youtube.com/watch?v=jv-5yJXpUyO> Basic procedure: Add about  $\frac{1}{2}$  teaspoon of alum (in this video he sprinkles in a vague amount of alum but no actual measurement was made). Stir in one direction for a minute or so and let stand for an hour or two.

<https://www.youtube.com/watch?v=WsfWeLApRIO> Short demonstration of flocculation of high turbid water.

Photos for this article  
by Marsha Dougherty



EDITOR'S NOTE: Brian sent a copy of this article to Jason Noah, Director of Business Development for DayOne Response, the people who make the DayOne Waterbag that Brian used. Jason answered with a couple of points that he wanted to be sure we understood. He wrote, "Thanks for sending the article! Glad you were able to put it all together. It looks great. I just have a couple comments:

1. Be sure your readers know that the DayOne Waterbag (and DayOne Response as a whole) is not owned by P&G. The product is not a P&G product, and we are not a P&G company. The purification packet, however, is Procter & Gamble's. DayOne Response is the exclusive North American distributor of the P&G Purifier of Water packet, as selected by P&G. The Waterbag is proprietary to DayOne Response.
2. Additionally, I know you mention toward the end of the article that the P&G packet includes a chemical purifying agent to kill bacteria and viruses in addition to the flocculent, but I would suggest noting that earlier in the article. I think it currently reads as if the packet pulls out turbidity, the filter takes care of bacteria (and the floc if it makes it there)...
3. Also, the floc remains below the filter (because of the design of the Waterbag) so under normal circumstances, the filter will not see the floc either."

DayOne's website has more information about how their bag, used with P&G's chemicals, works. Check it out; they have a fabulous product for paddlers on muddy water or people in disaster areas: <https://dayoneresponse.com/>







# KAYAKING IN CROATIA AND THE CANALS OF VENICE

By Sue Hughes



Blue water in  
Kornati National Park

**CROATIA:** My daughter and I spent a week paddling and hiking, based out of Murter, north of Split in Croatia. The countryside along the coast was rocky and often barren, although you could see where people in the past had moved piles of rocks to make terraces to grow olives.

There weren't many birds or the abundant marine life we have in the Pacific Northwest, but the water was amazing colors, and calm and warm.

The kayaking was fun but I liked the mountain parks with good hiking even more. Two of the parks are national treasures with hundreds of waterfalls dropping over limestone and travertine ledges.



Krka National Park; even more amazing are the Plitvice waterfalls



**VENICE:** The city is notoriously full of tourists, but if you enjoy just wandering around and getting lost, and if you visit the main piazzas after dark, it's still magical. One of the days we were there we went kayaking; we took the 4.1 vaporetto from the Canal Grande to La Certosa, an island northeast of the city. The company we used, Venice Kayak, was highly recommended, although our guide wasn't as personable or knowledgeable as the rave reviews on TripAdvisor led me to expect.

We paddled back toward the city, but did not go into the iconic canals that are the Venice many people imagine. We spent most of our time on narrow working-class residential waterways with the motor boats venezianos use as cars or trucks parked by their doorways.

There weren't any gondolas on those backways but we saw ancient churches, the goony lions at the Arsenale that Donna Leon mentioned in *Doctored Evidence* and my favorite, laundry flapping over the water on lines strung between apartments that were centuries old.



The Arsenale was Venice's shipyard during the city's international trading heyday.



Greek lion, dated 6<sup>th</sup> century BC, stolen by the Venetians from Delos



Anna and Sue Hughes





# Dirty Devil to Bullfrog

Early October, 2016

By Anne Fiore

Several groups of RMSKC members have spent time this summer on the north end of Lake Powell and the drainage systems that supply it.

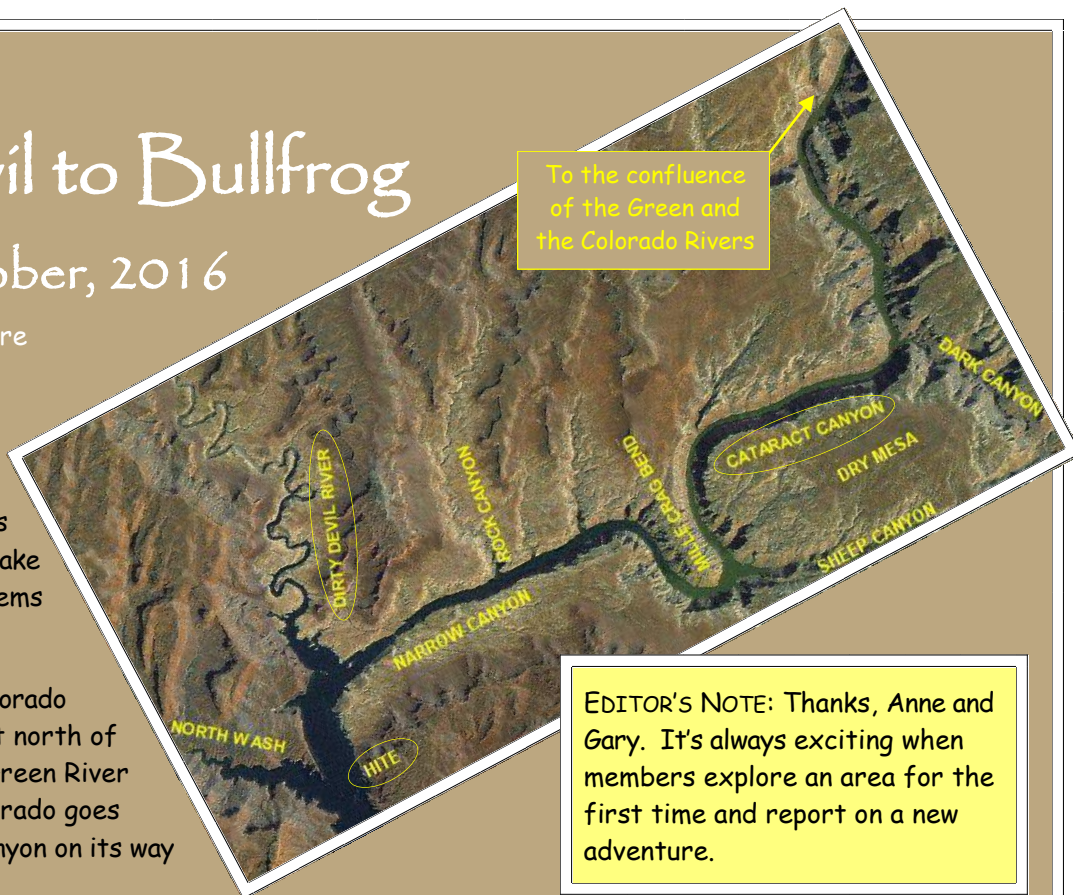
The Green River joins the Colorado River at the Confluence, just north of where the paddlers on the Green River trip took out. Then the Colorado goes through famous Cataract Canyon on its way to filling Lake Powell.

While it is flowing southwest and more like the Colorado River than Lake Powell it is joined by the Dirty Devil River coming in from the north. Continuing as the Colorado it goes past the old Hite Marina at the top of Lake Powell, which at today's water level is high and dry and out of service, and then into Good Hope Bay, where the folks from *Powell Houseboat 2016* spent part of their week on the lake.

Anne Fiore and Gary Cage were itching to explore that far section of Lake Powell beyond Hite where none of us has gone. They organized a 90-minute shuttle, put in just below where the Dirty Devil joins the Colorado and paddled back to Bullfrog Marina. Here are Anne's notes and pictures from their trip:

**DAY 1:** We started at the Dirty Devil put-in and paddled about six miles in a moderate head wind, exploring the North Wash Canyon along the way. [The [map on page 36](#) shows places that Anne and Gary paddled.]

**DAY 2:** We paddled down to Trachyte Canyon then up White Canyon. The day started calm but ended with a moderate wind. Our day ended with watching the moon and Venus and a nice view of the stars.



To the confluence of the Green and the Colorado Rivers

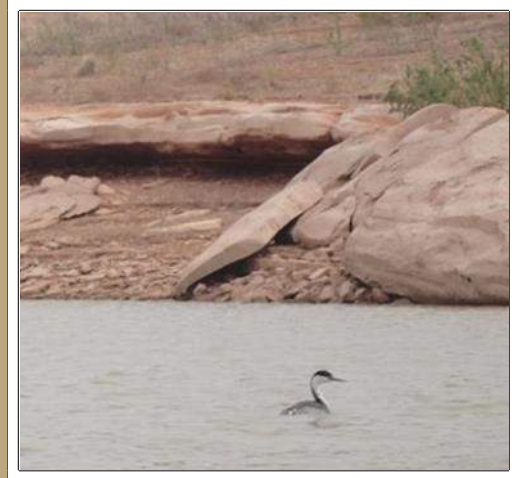
EDITOR'S NOTE: Thanks, Anne and Gary. It's always exciting when members explore an area for the first time and report on a new adventure.







Evening sky on the second day



**DAY 3:** A strong wind came up overnight so this turned into a day of rest and grebe watching.

About 2:00 in the afternoon it calmed enough for us to head up Farley Canyon to its end. At full pool (3700 feet), there is a road and campground at the water's edge. At this level there is what looks like an ATV track down to the water where a couple of boats were parked with a couple of campers parked up higher.



Day Three: Gary built a windbreak for the tent



We hiked up out of the canyon and had a stunning view of a monument valley.



**DAY 4:** The wind calmed down overnight. We got up and headed down to Good Hope Bay and camped in a protected cove below Blue Canyon.

**DAY 5:** We got up early again and headed down lake. At Mile 114 we entered territory that we visited on our outing in 2014.



Our plan was to camp at the same spot between Knowles and Smith Canyons but it turned out the lake is about 10 feet higher than in 2014 and that camp is underwater.

We found a nice spot on the same side about 100 yards up lake and set up camp. We started the day in calm water but the wind came up to a moderate level as the day went on.

**DAY 6:** We had a leisurely breakfast and were on the water by the crack of noon with a moderate tail wind which lessened as the day went on, and reached Bullfrog Marina around 4:30. It was a wonderful vacation.



Gary Cage heading toward Bullfrog

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