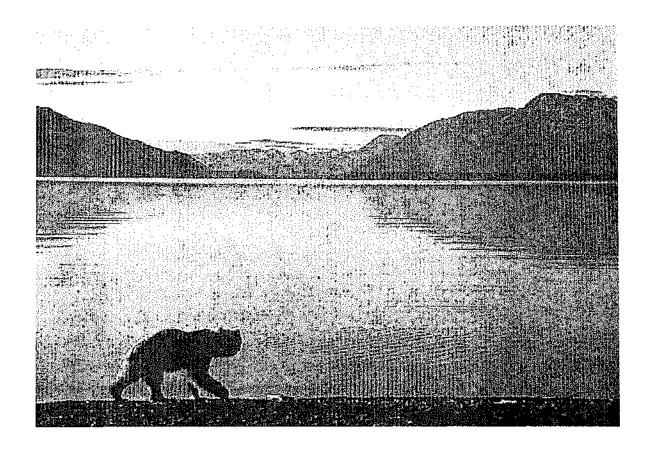
# "Bush-planes, and paddles, and bears, Katmai!" Ritt Kellogg Grant Application



Tim Barker Dan Goodnow Julie Megler Laurel Schoenbohm Erik Wortman

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# INTRODUCTION



"I can never forget my sensations at the sight which met my eyes...and looked down the valley, for there, stretching as far as the eye can reach... were hundreds - no thousands - of little volcanoes. It was as though all the steam engines in the world, assembled together, had popped their safety valves at once and were letting off surplus steam in concert." -Dr. Robert Griggs

Little volcanoes, I might think of us as little volcanoes, five Colorado College students erupting with energy, ideas, and questions. Our energy is poured into activities like ice climbing, running, canoeing, sailing, and backpacking. Our ideas include theories about how the world should be run, what energy source is best, and why sustainability is paramount in the coming years. Our questions range from, "how the heck I'm going to get this girl to go out with me?!" to "What's life like in the Alaskan Backcountry?" The five of us formed this expedition group out of the desire to achieve this feeling and share this experience.

We are constantly making efforts to quell our own eruptions, and thus here we are today, five bursting students focused on answering at least one of the many questions in life, "What's it like spending twenty days in Katmai National Park and Preserve?"

We each bring a set of skills and perspectives to this group. We are not just Laurel, Erik, Julie, Tim and Dan. We are thinkers, questioners, and do-ers.

Although, I have never been to Alaska before, Laurel has been there multiple times, including a Ritt Trip to ANWR. Beyond the knowledge I will gain from working in Alaska this summer, her experiences will be invaluable to me and the rest of the group. Her love for this wonderful place will shine through in everything she does. Erik's planning skills and attention to detail is uncanny. I have absolute faith in his ability to analyze maps, situations, and conditions and make sound decisions regarding the leadership of the group. Julie is calm and collected. She, all throughout planning this trip and during ORC training last year has always shared very calculated and levelheaded solutions to whatever problem arose. When working with our group, her peace will be felt by all of us. Tim is an amazingly positive person, perhaps the most positive person I have ever met. He totes an ever-present chuckle and is always willing to do whatever is necessary to get the job done. This energy which Tim radiates may be the most important asset on our trip. More important than our two Whisperlite International stoves, Tim's spark will help us overcome any challenge along the way. And I- I bring a smile. A smile that will not fade with rain, a heavy pack, or a blistered hand from paddling. A smile that lets all the other members of our group know that we are actually out here, living life... to its fullest.

Each of us bring goals to this expedition. Individually our goals include gaining more backcountry skills, learning about the world we live in, and getting in touch with the natural environment. Collectively, we wish to mentor, transform, and inspire one another. We want to share that indescribable peace and joy we all feel when we live outside. Although we each come from different backgrounds, this trip weaves together our lives, it helps us connect to the web of life.

Will this trip be difficult? Of course. But, are we ready for it? Absolutely. We bring skills and attitudes which will lead us through anything we encounter in this wonderful, unique land. Therefore, the better question might be, is Katmai ready for us?

Sincerely,

Katmai Bound

#### HISTORY

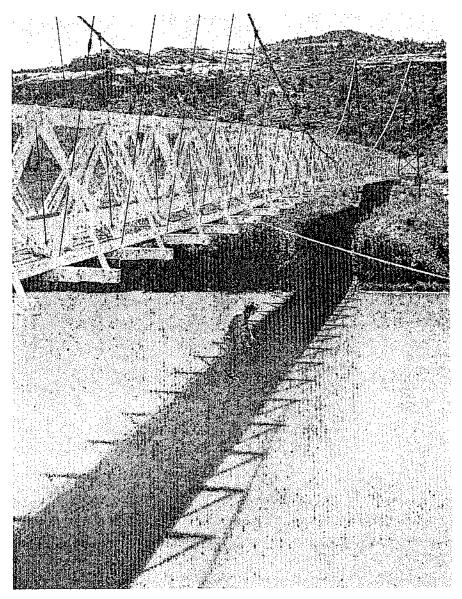
Katmai National Park and Preserve holds a tremendous amount of geologic, biologic, and archeological interest, which is one of the reasons why we chose to explore this specific park. We designed our routes to include the most captivating and interesting areas of the park. The last stretch of the backpacking section of our trip will be through the Valley of Ten Thousand Smokes. On June 6, 1912, the aforementioned valley was created by Mt. Novarupta in a three day eruption. The eruption had ten times the force of Mt. Saint Helen's eruption in 1980. The eruption of Greece's Santorini in 1500 B.C. is the only eruption to displace more volcanic matter than Novarupta. Up to 700 feet of volcanic deposits covered forty square miles of terrain in the valleys of Knife Creek and Ukah River. Gas and steam from the heated ground was released through holes and cracks that developed in the volcanic ash and deposits. On July 31, 1916 Dr. Robert Giggs, a botanist, led the fourth National Geographic expedition through the Katmai Pass to see the previously unexplored valley. The Dr. Griggs' quote above, led to the official naming of the valley. The discovery of "The Valley of Ten Thousand Smokes" developed world interest for the area, and as a result Katmai was established as a National Monument in 1918 and a National Park in the late 1970s.

The canoeing section of our trip runs through the Brooks River National Historic Landmark portion of the park. It is known as North America's highest concentration of prehistoric human dwellings (about 90). Only about 5% of the park's archeological sights have been studied. Archeological studies in the park have been extremely significant in discovering the human history in Katmai National Park and Preserve and recovering the almost lost history of the Pacific Eskimos. From the late 1700s to 1867 (when America purchased Alaska) Russian fur traders inhabited the area for trading and missionary activities. As a result they destroyed much of the Pacific Eskimo culture and "Russianized" the many of the natives.

Biological interest in the park is endless. Katmai is especially well known for its grizzly bear and salmon population. The wide variety of birds in Katmai is also remarkably fascinating. The coast, lakes and marshes provide great nesting sights for birds such as bald eagles, hawks, and owls.

Our main goal for this trip is to take full advantage of the expedition as a teaching and transforming experience. Through awe, struggle, frustration, and joy, we will grow infinitely as individuals and as a group. We believe this park is the most exquisite location to do so. The geological change in this park happened in a flash, it is appropriately reminiscent of the change we all go through in four short years of college.

Timothy B. Barker



PERSONAL STATEMENT

I discovered my love for the outdoors early in my life through the waters off the rocky coast of Maine. As I have grown older, my love for nature and the environment has flourished due to being fortunate enough to explore much of the United States and the beauty within it. I have found magnificence in not only the ocean, but also in the mountains, lakes, deserts, rivers, glaciers, and streams that make up this country. Colorado College has allowed me to further explore the outdoors and has had a monumental influence on my motivation to see and experience everything that this world has to offer. Alaska's raw beauty and vast wilderness has inspired my desire to explore and experience this land in person.



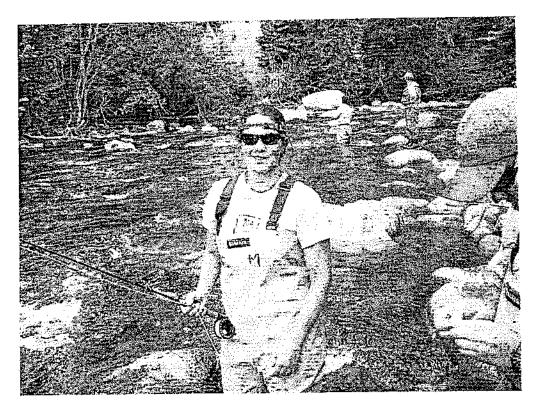
PERSONAL STATEMENT

For eight summers I was a camper at a camp in Northern Michigan. Set on Lake Michigan and surrounded by gorgeous woods and huge sand dunes, this camp was the backdrop for my love for the outdoors. I can remember canoeing each summer on the multiple rivers around the camp and not realizing how wonderful a place camp really was.

Then one summer, it clicked, I was forced onto a backpacking trip along the Lake Superior Coast in Canada. I had never been backpacking before and as a result, I was scared. But, I went along anyway and as we began to put down the miles, the views became more and more inspiring. The terrain constantly changed and each section of the trip had it own wonderful aspect. From almost tundra like ground, to completely deciduous forests, to chains of islands and cliffs, the trip was the most phenomenal one I had ever been on. This is when I decided I loved being outside.

From then on, I made spending time outdoors a priority. I began to canoe more seriously and I took up rock climbing in lieu of football. In fact, the strong outdoorsy community at CC is one of the things that drew me to the school. Some of the members of that outdoorsy community include the folks I plan to spend some seriously fun times with this summer. Erik, Tim, Laurel, and Julie are absolutely wonderful kids. They are supportive, intelligent, and inspiring. I think we each bring essential perspectives and skill sets to this trip. It is destined for success.

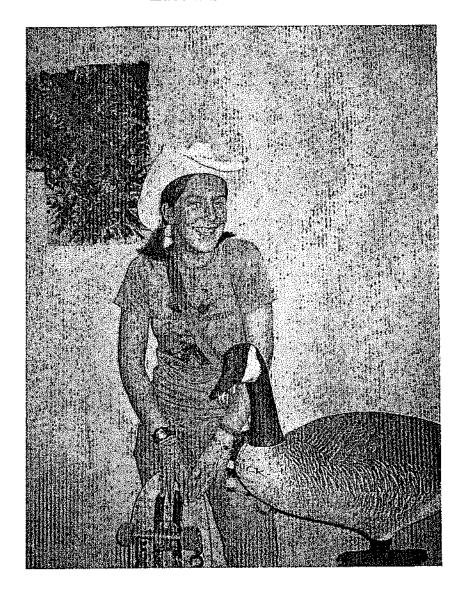
# Julie Megler



#### PERSONAL STATEMENT

It all started in eighth grade with my earth science class. I had an incredible teacher and friend, James Schmidt, who catalyzed my passion for the outdoors. During the summers after eight and ninth grade he offered school trips where we drove from Michigan to the West coast to study the geology of many national parks. Each student was assigned an area of geologic study to research. As a mentor James and I developed friendship, so he assigned me Mt. Rainier his favorite site. After weeks of driving l found myself closely observing a patch brilliant wild flowers at the mountain's base. 1 briefly looked up and saw two men with ice axes strapped to their packs. Hiking in plastic boots I watched them step beyond the path and onto the snowfield I was prohibited to explore. I couldn't believe them when they told me they were heading for the summit. Three years later I stared up at the stars from Camp Muir about to strap on my crampons, put my avalanche beacon on, and head with my rope team to the top of Mt. Rainier. That summer was my first real backpacking and mountaineering experience. I learned something about life that many people forget or never realize. I realized how simple life really is, and how its simplicity is what is so beautiful about it. At times I become distracted and totally consumed with the chaos of school and work. An extended period of time in nature allows you to fully appreciate everything that surrounds you. With every outdoor experience I return with a new perspective on life, but after time it slowly fades as I become consumed in my daily routines once again. For me one of the most rewarding things about being in the outdoors is being reminded of what's really important in life. Allowing me to fully love and embrace myself.

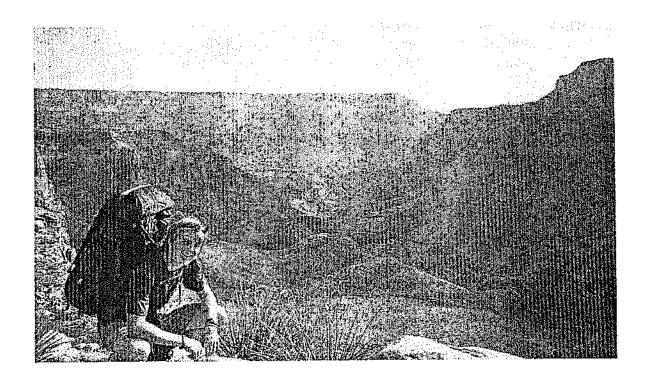
# Laurel Schoenbohm



#### PERSONAL STATEMENT

My love for the outdoors and nature has shaped my life. My most treasured moments as a child involved running around in the woods of a small farm in Indiana. I would come back hours late for dinner with mud-spattered, torn, and worn clothes, with excitement and happiness pasted on my sun-freckled face. Today I still spend every moment that I can out in the woods, and am orienting all my career goals towards becoming a field biologist. Fighting for environmental causes is also a large part of my life, as I want to protect the land and wilds that I love. These passions in my life are reflected in the following resume. I only wish I could more fully express how much my experiences in the backcountry and woods have shaped the person I am today.

#### Erik S. Wortman



# PERSONAL STATEMENT

I am not sure whether the spirit of adventure that propels me to pack up and live out of a backpack makes me subhuman or superhuman, but it is a yearning I noticed at a very young age. In the name of progress, globalization has brought, by the hand of technology, "civilization" to the most remote corners of the earth. It is my desire to explore one of the last truly inaccessible, untouched frontiers left in the world, Katmai National Park, Alaska. Since childhood Alaska has been a place of dreams; a place with towering snow capped peaks, calving glaciers, vast oceans, intricate waterways, and dense virgin forests teeming with wildlife. It is my hope to utilize the skills I have both absorbed and been taught to discover the unique geological and biological aspects of this region on the Alaskan Peninsula.

#### ITINERARY

#### Travel

Arrive in Anchorage on Friday, August 6, 2004

Fly from Anchorage to King Salmon on Sunday, August 8, 2004

Fly from King Salmon to Kashvik Bay on Monday, August 9, 2004

#### Backpacking

- Day 1 (Aug. 9): Drop off at Kashvik Bay (map 1)
- Day 2 (Aug. 10): Kashvik Bay to behind Atmo Mountain/Alagogshak Creek (6 mi.) (map1-2)
- Day 3 (Aug. 11): Atmo Mountain/ Alagogshak Creek to Martin Creek (10 mi.) (map 2)
- Day 4 (Aug. 12): Martin Creek to below Observation Mountain (4 mi.) (map 2)
- Day 5 (Aug. 13): Below Observation Mountain to behind Observation Mountain (3 mi.) (map 2)
- Day 6 (Aug. 14): Observation Mountain to between Mount Cereberus and Falling Mountain (5 mi.) (map 2-3)
- Day 7-9 (Aug. 15-17): Layover days (map 3)1
- Day 10 (Aug. 18): Between Mount Cereberus and Falling Mountain to the mouth of Valley of Ten Thousand Smokes (Lethe River) (5 mi.) (map 3)
- Day 11 (Aug. 19): Lethe River to behind Buttress Range (4 mi.) (map 3-4)
- Day 12 (Aug. 20): Buttress Range to Three Forks Overlook, bus to Brooks Camp (2 mi.) (map 4)

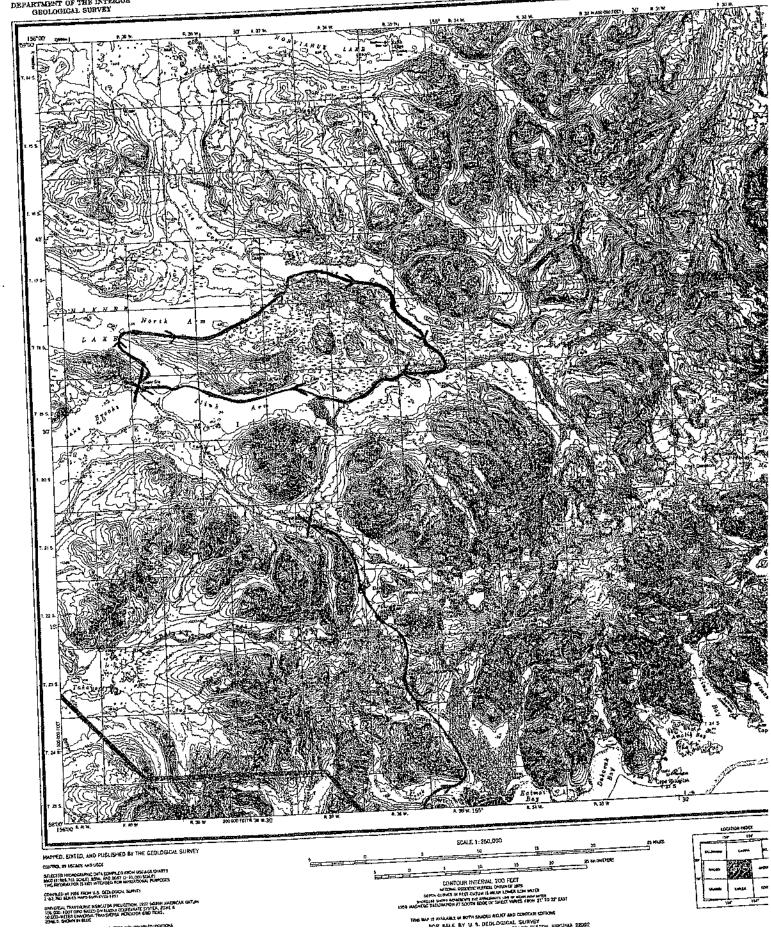
#### Canoeing

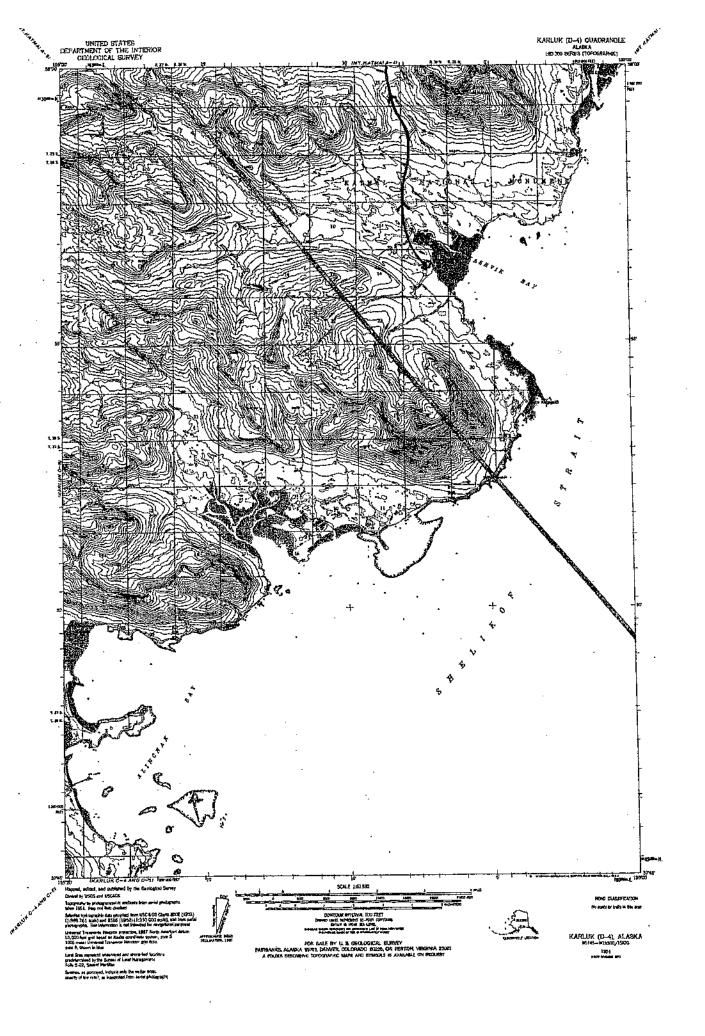
- Day 1 (Aug. 21): Brooks Camp to South shore of North arm of Naknek Lake (13 mi.) (map 5)
- Day 2 (Aug. 22): South shore of North arm of Naknek Lake to portage from North Arm of Naknek Lake to Lake Grosvenor (12 mi.) (map 5-6)
- Day 3 (Aug. 23): Portage to South shore of Lake Grosvenor (2 mi. portage and 5 mi.) (map 6-7)
- Day 4 (Aug. 24): South shore of Lake Grosvenor to inlet to Savonoski River (10 mi.) (map 7)
- Day 5 (Aug. 25): Inlet to Savonoski River to end of Savonoski River/Iliuk Arm of Naknek Lake (15 mi.) (map 7-6)
- Day 5 (Aug. 26): Iliuk Arm of Naknek Lake to North shore of Iliuk Arm of Naknek Lake (10 mi.) (map 6)
- Day 7 (Aug. 27): North shore of Iliuk Arm of Naknek Lake to Brooks Camp (8 mi.) (map 6-5)

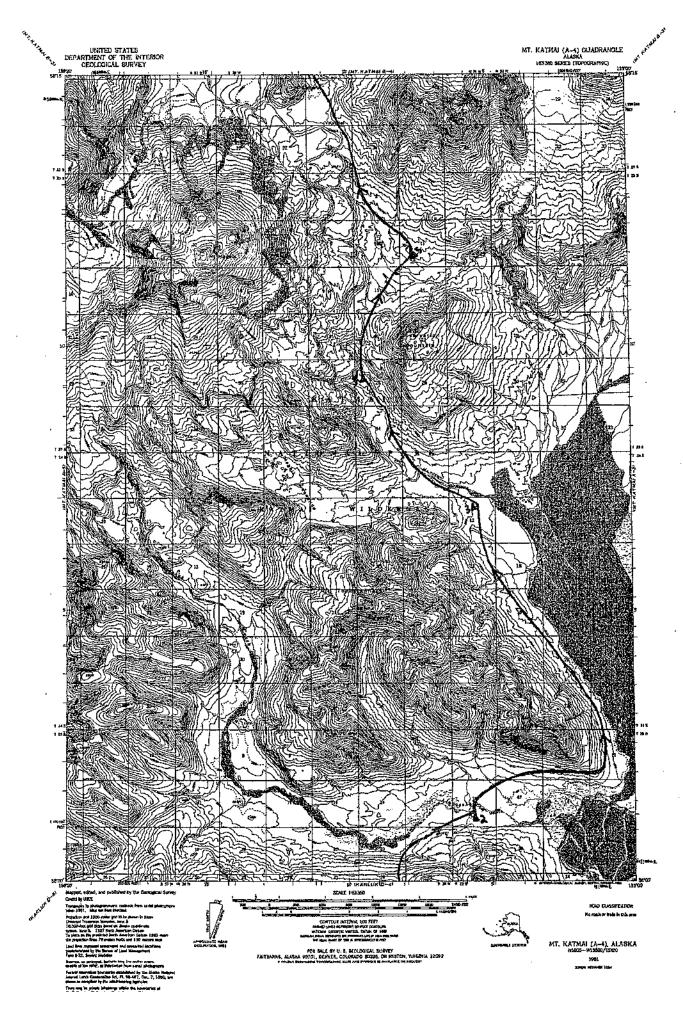
#### Travel

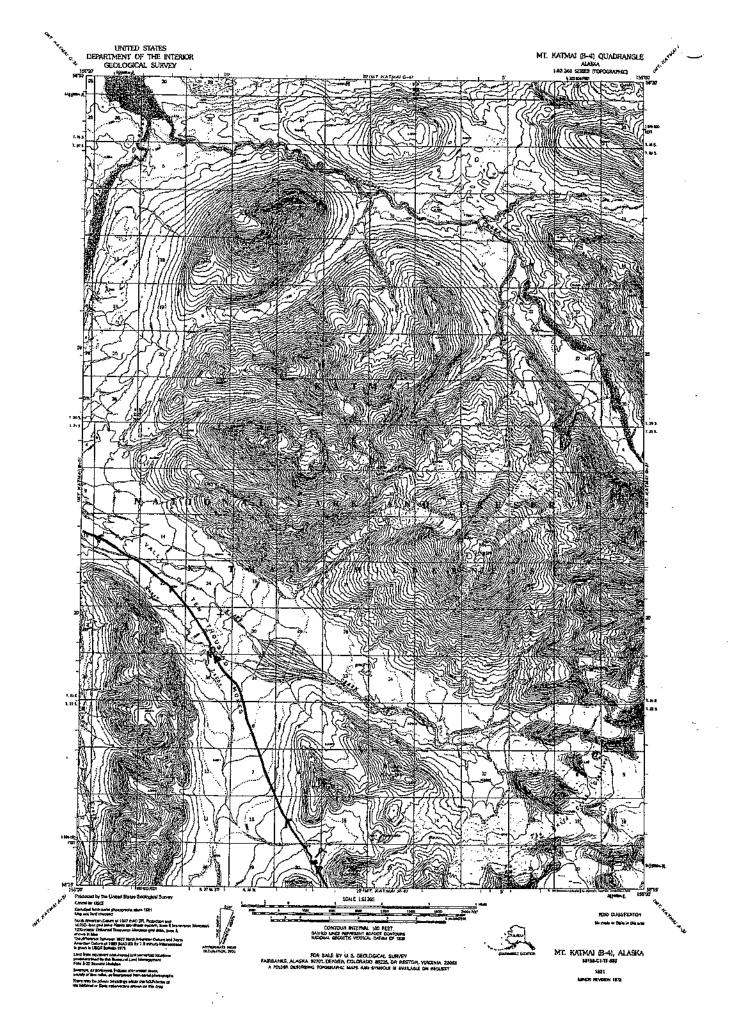
Fly from Brooks Camp to King Salmon to Anchorage on Saturday, August 28, 2004

<sup>&</sup>lt;sup>1</sup> This is a tentative itinerary...due to the unpredictability of weather, river crossings and rugged terrain there may be some delays. The layover days have been added as a safety measure. If necessary, we may need to hike and makeup lost ground on these layover days.











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# SAFETY CONSIDERATIONS & PRECAUTIONS

As a group, one of our main goals for the trip to be is as safe and intelligent as possible. We fully understand the risks that go along with a twenty-day trip into the Alaskan backcountry and feel that our past experiences and knowledge can help us prevent any unexpected dangers. We plan to take all the proper precautionary measures, such as carrying all the proper gear, educating ourselves about the area and the water through which we will be traveling, taking classes in water safety, and continually making safe and smart decisions throughout the trip.

Preparedness will be our biggest asset as we enter Katmai National Park and Preserve. We plan to be in optimal physical condition, carry amble food, and enter the woods with the most knowledge possible of the dangers that we may encounter while in the backcountry.

Below are several conditions, animals, and elements we may encounter while in Katmai National Park and Preserve.

#### Bears

- Katmai National Park and Preserve contains North America's highest known population of brown bears.
- We will use our knowledge of bears and bear safety to prevent any other possible bear danger.
- We will carry bear spray and bear canisters to protect us in the event of an interaction with bears.
- The noise created from five hikers will be at our advantage while trying to avoid brown bears.
- When hiking, we will whistle, clap, and carry one cow bell in an attempt to avoid contact with brown bears.
- The Park does not allow firearms in the backcountry. Therefore, we will not be carrying a firearm to protect us from bears.
- We plan to cook 100 meters downwind from our campsite and carefully clean the cooking site as well as the dishes when we are finished.
- We also plan to keep our bear canisters at least 100 meters away from our campsite during the night.
- Each person will carry clothing strictly for cooking. This set of clothing will be kept with the food throughout the duration of the night.
- When going to the bathroom, we plan on using the buddy system to be as safe as possible.
- We are fully aware of the measures that need to be taken when encountering a bear and plan on practicing these skills before entering the backcountry.

#### Salmon Runs

- Katmai National Park and Preserve is home to brown bears because of its massive salmon population, therefore it is important for us to fully understand when and where the salmon runs take place.
- The peak of the "sockeye salmon run" takes place in the month of July. The salmon return in September for the "spawn out" period.

- We will enter and exit from Katmai National Park and Preserve in the month of August, so will not be in the Park for the peak of the salmon runs.
- We will be flown into the coast where bears reside. Here, the bear feast on fish, crabs, and shellfish. We will be extra careful and cautious when entering the Park from the coast.

### River & Stream Crossings

- During our trip into Katmai National Park & Preserve, we will have to make several river and stream crossings. Our most technical crossings occur at the Knife River, the Windy River, the Katmai River, and the Alagagskak River.
- All of our river crossings will be completed early in the morning in attempts to cross the rivers while the water levels are low.
- Water levels are relatively low in August. Glacier runoff is most intense in late spring and by August water levels are significantly lower.
- We will be carrying rope for the most intense river crossings and plan to set up a belay system in order to make the crossing as effective and safe as possible.
- The belay system will allow a person who has fallen into the water to lay limp with their feet downstream while in the water and the force of the river and rope pull them back to the shoreline in a pendulum fashion.
- While crossing the river, we will all have our packs loose and unbuckled in the event that somebody gets submerged and needs to relieve themselves of their pack.
- For large and swift river crossings we will use the team-crossing technique. The team will form a line with the strongest lead member holding a pole for balance, breaking the current for the rest of the line. While the team crosses the river in unison parallel to the current, each team member supports the member in front of them.

#### Water Safety

- As a group, we all have large amounts of experience on the water, including rafting, sailing, canoeing, and kayaking. Therefore, we all feel comfortable on the water.
- We will wear life jackets and carry a throw bag with us at all times while on the water.
- We will wear durable shoes while portaging or loading canoes.
- We will carry extra paddles in case one is lost or broken.
- In the event that a canoe does flip, we understand and will practice the two techniques (canoe over canoe and the deep-water swamp) used to recover canoes.
- Flat Water safety courses are available, and several members of the group plan on taking these courses if need be.

#### Weather

- The summer in Katmai National Park and Preserve is normally cool with a temperature of 60° F during the day. The average temperatures in August range from a high of 61.7° F to a low of 46.5° F.
- The average precipitation for the month of is 3 inches.
- In August, we will have about 19 hours of daylight each day.
- We will be completely prepared for all types of weather and will carry the gear necessary to keep us warm, cool, dry, and comfortable.
- We will carry extra food in the event that we are laid up for a couple days due to inclement weather.
- We will carry two three-season tents in order to be properly prepared for the elements.
- We will carry sleeping bags that are rated to at least 0° F.
- We may encounter heavy winds of 50 mph or higher on the valley floor and we plan on carrying goggles to keep debris and volcanic ash from our eyes and face.
- When pitching tents in these high wind areas, we will make a point to find proper protection from the wind.

### **Emergency Protocol**

- As a group, we will be carrying one satellite phone.
- We plan on leaving an itinerary, route plan, and emergency contact numbers with the park rangers at the Katmai National Park headquarters.
- Emergency numbers-
  - Katmai National Park Headquarters- 907 246 2105
  - King Salmon Police Department- 907 246 4222
  - o King Salmon Clinic- 907 246 6155
  - o Air ambulance/Anchorage Regional Hospital- 907 258 3822
  - Anchorage State Troopers- 907 279 5050 & 1 800 770 5050

### **Group Info**

We will all have completed Wilderness First Responder (WFR) or Outdoor Emergency Care (OEC) with CPR certification as well. Three members of the group have completed Colorado College's ORC training, which focuses on hard and soft skills needed in the backcountry. As a group, we feel we will be prepared and ready for any event we may encounter while in the Alaskan backcountry.

Because group dynamics are so important for a successful trip, we will climb a mountain together in Colorado before we leave. This will allow us to better understand each other's weaknesses and strengths.

#### **FOOD**

Due to such high strenuous activity, our food menu has been planned very carefully in order to ensure we get enough variety in our diet to provide us with a sufficient amount of carbohydrates, protein, and fats. For optimum performance we have planned a diet made up of approximately 50-70% carbohydrates, 20-30 % proteins, and 20-30% fats. These ratios have been proven to be optimal for mountaineering (Graydon 67). We have planned to bring lightweight foods because we will have to carry 12 days worth of food at a time. We will re-supply at Brooks camp to last us for the remaining 8 days. During strenuous exercise, one may burn up to 6,000 calories per day (Graydon 67).

Ration planning done according to NOLS backcountry wilderness standards.

- 2 pounds per person per day for warm to cool days and nights when hiking with full packs.
- 2 pounds per person per day yields 3,000 to 3,500 calories and is ideal for moderate to active work days.

Below is the entire poundage needed for five people over 20 days.

- Trail Food- 35 lbs
- Dinner- 32 lbs
- Breakfast- 28 lbs
- Milk, eggs, margarine, cocoa- 24 lbs
- Cheese- 22 lbs
- Flour & Baking- 13 lbs
- Sugar & Fruit Drinks- 12 lbs
- Soups, Bases, Desserts- 9 lbs
- Meats & substitutes- NOLS use occurs in 2.25-2.5 lb rations

#### Total poundage minus Meat- 175 lbs

- Each person will have to carry a total of 35 lbs of food over the 20 day duration.
- We will carry 21 lbs. of food for the first portion of our trip and 14 lbs. from Brooks Camp thereafter.

Each member will carry approximately-

- 7 lbs of Trail Food
- 6.4 lbs of Dinner goods
- 5.6 lbs of Breakfast goods
- 4.8 lbs of Milk, eggs, margarine, & cocoa
- 4.4 lbs of Cheese
- 2.6 lbs of Flour & Baking goods
- 2.4 lbs of Sugar & Fruit Drinks
- 1.8 lbs of Soups, Bases, & Dessert
- Meats & Substitutes

#### MEALS

#### Breakfast

Oatmeal

0.5 cup oatmeal 1.5 cups hot water honey to taste

Cold Cereal

1 cup cereal 1.5 cups water

3 Tbs. powdered milk

Hash Browns with Cheese (serves 2)

1.5 cups hash browns

hot water

4 to 5 Tbs. margarine

1 Tbs. margarine

1 Tbs. onion

0.5 cups cheese cubes or

grated

salt and pepper to taste

Basic Omelet (serves 1)

1 heaping Tbs. powdered

1 heaping Tbs. powdered

1 heaping Tos. baking

mix

0.5 cup cold water

1 Tbs. dried onions

1 to 2 Tbs. margarine

3 Tbs. potato pearls

0.3 cup cheese

I tsp. soy sauce

#### Cinnamon Rolls

3 cups baking mix

1 to 1.5 cups water

0.75 Tbs. cinnamon

0.25 cup raisins

0.25 cup nuts

3 Tbs. margarine

0.5 cup brown sugar

extra flour for rolling

#### Basic Pancakes

2 parts baking mix

1 part flour

enough cold water for a

pourable batter

dried fruit/chocolate to

taste

#### Trail Foods/Lunch

Nuts

**Dried Fruits** 

Crackers

Cookies

**Energy Bars** Peanut Butter

Cheese

Meat

Bagels

Tortillas

Drink Mixes

#### **Dinners**

Spooz-olé (serves 3 to 4)

6 cups water

2 to 4 Tbs, dried green and red peppers

1 to 2 base packs

2 to 3 cups pasta (other

than spaghetti)

2 cups instant refried or

black beans

1 Tbs. dried onion

1.5 tsp. black pepper

1 Tbs. garlic

1 Tbs. oregano

1 Tbs. chili powder

0.3 to 0.5 lb, cheddar or

jack cheese

# Lisagna Whiznut Variation

(serves 3)

0.5 lb. pasta (other than spaghetti)

2 base packs

1 heaping Tbs. dried

onion and 1 Tbs. garlic

powder

0.5 cup dried tomato

powder

spices: 0.5 tsp. salt, 2 tsp. oregano, 2 tsp. basil, 0.5

tsp black pepper, 1 tsp.

vinegar

4 rounded serving

spoons flour

2 heaping tsp. baking

powder

1 rounded Tbs. powdered eggs

1 rounded Tbs.

powdered eggs

0.75 to 1 lb. of cheese

#### Spicy Beans and Macs (serves 4)

2 cups refried beans

5 cups of water

2 to 3 cups pasta (other

than spaghetti)

1 Tbs. dried onion

2 to 4 Tbs. dried green and red peppers

salt, black pepper, garlic. oregano, and/or chili to

# Dinner Continued2...

taste

1 base pack

1 Tbs. margarine

cheddar of jack cheese

#### Rice in Nut Curry Sauce (serves 2)

1 cup rice

1 Tbs. margarine

2 Tbs, raisins or dried fruit

2 Tbs. chopped almonds or other nuts

1 tsp. curry powder

dash of cumin

2 tsp. soy sauce

cayenne or hot sauce to taste

#### Gado Gado Spaghetti (serves 2 to 3)

0.5 lb spaghetti or ramen noodles

4 cups water

3 Tbs.  $\pm 1$  tsp. oil

2 Tbs. sunflower seeds

1 Tbs. dried onion

0.5 Tbs. base

3 Tbs. brown sugar

1 tsp. garlic

0.5 tsp. black pepper

0.5 tsp. hot sauce

0.75 cup hot water

3 Tbs. vinegar

0.25 tsp, garlic

2 cups water

1 tsp. soy sauce

1 tsp. vinegar

1 Tbs. dried onion

2 tsp. curry

0.5 Tbs. base

#### Sauce:

1 cup white sauce

1 tsp. brown sugar

3 Tbs. soy sauce

3 Tbs. peanut butter

0.5 Tbs. dried onions

2 to 3 Tbs. dried peas and carrots or mixed vegetables

<sup>&</sup>lt;sup>2</sup> This meal plan is a five day rotation. We will repeat this menu four times while in Katmai National Park and Preserve.

# FOOD BREAKDOWN

Food Type	Price Per lb./oz./ea	Amount in Package	Cost \$ Per Package	# Needed	Price \$
		041	16.87	1 box	16.87
Snickers	0.35 bar	24 bars	6.47	6 lb	12.94
Summer Sausage	0.14 oz.	3 lbs.	7.04	2 bags	14,03
Jerky	0.59 oz.	3-4 oz.	5.58	5.25 lb	49.32
Tuna	0.20 oz.	4 cans/7 oz. ea	6.88	1package	16.74
Soup	16 oz.	42.3 oz.	8.87	1 package	16.74
Soup	5.25 lb.	1 lb 11 oz.	2.74	18 lb	49.32
Elbow Noodles	.03 oz.	6 lbs.	4.33	10 10	49.02
Rotini	.03 oz.	6 lbs.	3.68	1 package	3,68
Ramen	.10 ea	36 packs/3 oz. ea	12.62	0.5 L	2.1
Olive Oil	.12 ea	3 L	3.96	10 lb	1.58
Flour	.16 lb.	25 lbs.	4.38	5 lb	4.38
Potato Pearls	dl 88.	80 oz.	9.16	3 lb	1.1
Sugar	.02 oz.	25 lbs.	2.12	5 lb	2.65
Brown Sugar	.03 oz.	4 lbs.	3.88	70 oz	3.88
Minute Rice	.06 oz.	70 oz.	5.76	9 lb	6.76
Quaker Oats	.75 lb.	2 @ 4.5 lbs. ea	7.23	4 packs	14.46
Granola	.12 lb.	2 packs/30 oz.	4.88	•	2.44
Pancake Mix	.49 lb.	10 lbs.	10.37	5 lb 1 lb	2.44
Honey	.13 oz.	5 ibs.	6.34	5 lb	6.34
Chunky Peanut Butter	1.27 lb	2, 40 oz	3.88	2 lb	2.28
Hot Chocolate	1,14 lb	54 oz	5.78	3, 18 count	5.78
Tea	.11 ea	3, 18 count	7.87	3, 16 Count	1.78
Dried Milk	1.78 lb	22 qt	2.99	2 lb	2.99
Cheerios	1.71 lb.	28 oz.			2.99 6.87
Apricots	2.29 lb.	48 oz.	6.87 5.99	3 lb 2 lb	2.99
Chocolate Chips	1.59 lb.	60 oz.	5.99 4.87	2 lb	4.87
Craisins	2.43 lb.	32 oz.	6.08	2.5 lb	6.08
Almonds	2.43 lb.	40 oz. 5 łbs.	14.44	2.5 lb	72.2
Cheddar Cheese	14.44 ea		2.98		5.96
Tortillas	.10 ea	30 count	2.98	2 packages 2 packages	5.96 5.96
Bagels	.25 ea	12 pack	5.74	z packages	5.30
Oreos	.17 oz.	52.5 oz.	5.88 5.88	2 lb	2.24
Lemonade	.07 oz.	34 qts.	5,26 5,26	4.5 lb	5.26
Raisins	1.17 lb.	. 72 oz.	5,20	עו ט.ד	5,20
Dried Fruit	4 E E 116	7.07	1.99	1 lb	4.55
Couscous	4.55 lb.	7 oz.	4.88	1 lb	1.4
Peanuts	1.40 lb.	3.5 lbs.	6.67	Infinite	6.67
M&M's	.13 oz,	52 oz.	9,87	1 ib	3.36
Cashews	.21 oz.	46 oz.	7.66	1 box	7.66
Granola Bars	.22 ea	35 count	8.13	1 box	8.13
Chewy Bars	.17 ea	48 count	5.83	heap loads	Karma
Gummy Bears	.06 oz.	6 lbs.	9.87	1 lb	2.88
Mixed Nuts	.18 oz.	56 oz.			
Cheese Mix	.86 ea	1.5 oz.	1.29 2.14	9 oz 9 oz	7.74
Tomato Mix	1.33 ea	1.5 oz.			12,84 2.7
Falafel	2.70 lb.	10 oz.	1,69	1 lb	
Hummus	4,51 lb.	6 oz.	1.69	6 oz	1.69
Polenta	4.51 lb.	6 oz.	1.69		

Dehydrated beans	3.98 lb.	8 oz.	1.99	2 lb	7.96
Vinegar	.03 oz.	32 oz	.77	.5 lb	.20
Dehydrated eggs	.50 oz.	4 oz.	2.05	1 lb.	8.20
Dehydrated potatoes	.32 oz.	5.3 oz.	1 <i>.</i> 69	2 lb.	10.20
Brownie Mix	1.83 lb.	20.5 oz.	1.89	4 lb.	7.32
Margarine	.12 oz.	1 <del>6</del> oz.	1.87	3 lb.	5.61
Vegetables (Natural High)			1.95	6 packs	11.70
Base	7.84 / 100 count	25 count	1.96	Í pack	1.96
			Total	172.125 lb. <sup>3</sup>	465.43

<sup>&</sup>lt;sup>3</sup> NOLS ration planning is a suggestive guide. We have decided to modify some of the foods and their corresponding amounts. Most importantly however, is the total poundage. This is compatible with the recommended guidelines of 2 pounds per person per day.

#### GEAR LIST

Symbol key: We own all gear listed except those things denoted by, ~= we'll rent, -= we'll be buying, += will by provided by our outfitters

#### While hiking ...

Big, burly Packs

Waterproof Boots

Gaiters

Comfy camp shoes

Wool socks/ liners

Sunglasses

Warm bat

Fleece layer (top to bottom)

Thermal layer(s) (saving weight ≠good smells)

- long sleeve Capilene, short sleeve Capilene, Capilene bottoms

Gloves

Goggles (for strong winds in the Valley of Ten Thousand Smokes)

Sunhat

Sunscreen

Shell jackets/pants

Water bottles (2 each)

Nylon cord (for river crossings)

Bug spray

Camera and film (to take pictures of the enormous bugs attacking us)

Nature identification book (Laurel is our trip biologist)

Cow bell -

#### On the river...

Sandals

Throw line +

Dry bags -

Paddles (6) +

Lifejackets (6) +

Canoes (2) +

#### Bedding down for the night...

Sleeping bags and sleeping pads

Tents (2)

Head nets for bugs

Personal toiletries

~contacts, glasses, toothbrush, toothpaste – (note: Tim does not currently own toothpaste)

Nylon cord

Feminine hygiene products

Headlamps with extra batteries

Notebook and pen

A good book to read (as long as it's light!)

Birthday suit (note: Dan will spend most nights and mornings in one of these)

#### Food prep and ahhhh...after food prep...

Whisperlite International stoves (2)

Large fuel bottles (4)

Set of pots (2)

Leatherman (1 each)

Spare clothing for cooking

Spatchula and ladle

Fishing gear (yum, yum!)

Dromedaries (2)

Pot grips

Spice kit (Provided by Peabody's restaurant)

lodine

Water filter -

Matches

Lighters (4)

Trash bags and Ziploc bags

Bear line (for hanging food)

Trowel -

Whistles (whistle while you work...) -

Bandanas

Hand Sanitizer

A big smile

#### Emergency Equipment and Bear Safety gear...

Bear spray -

Emergency blanket

Bear canisters ~

Satellite telephone (to let our mom's know how awesome the trip is going) ~

Beefy First aid kit

(1) Backcountry first Aid book, (1) CPR life mask, (3) Nitrile gloves, (1) 5 ½" EMT shears, (1) sterile scalpel, (15) patient assessment forms, pencil, (3) resealable waterproof bag, (4) safety pen, (1) SAM Splint Jr 18" flat,(1) tweezers, (1) 12cc irrigation syringe, (1) antimicrobial towellete, (6) antiseptic towelettes, (3) double antibiotic ointment, (1) Green Soap scrub sponge, (1) Iodine solution ½ oz, (2) sepp tincture of benzoine, (1) sterile cotton tipped applicator, (1) 2"x3" second skin, (4) 2"x3" moleskin, (8) 1"x3" fabric bandage, (1) 1"x10 yards adhesive tape, (1) 2"x3" micro thin dressing, (4) 3"x3" sterile gauze pad, (3) 3"4" Telfa non-adherent, (3) 3"x4 yards conforming gauze, (1) 3"x4 ½ yards elastic bandage, (3) 5"x9" combine dressing, (3) knuckle bandage, (1) steri strip wound closure, (2) 3 Acetaminophen (2 pk), (3) Diphenhyramine (antistamine) (2 pk), (3) ibuprofen (2 pk) Additional medicines Vicodin, compozine, epinephren pens, limotil, and antibiotics

#### Other miscellaneous stuff...

Repair kits (tents and stoves)

Compass and maps, and GPS locator in a waterproof case (GPS = Julie's Christmas present)

Sewing kit

Duct tape

Snow seal (for our boots)

# ENVIRONMENTAL CONSIDERATIONS

The national Leave No Trace education program has designed techniques to minimize social and environmental impact of backcountry visitors. These practices are summarized in the 7 Leave No Trace principles:

- Plan ahead and prepare.
- Camp and travel on durable surfaces.
- Dispose of waste properly.
- Leave what you find.
- Minimize use and impact of fires.
- · Respect wildlife.
- Be considerate of other visitors

Katmai National Park is a pristine wilderness that has experienced very little human disturbance. A primary goal of our expedition is to minimize impact, and also foster new ideas on how humans can travel through wilderness areas without disturbing the environment.

First of all, the presence of animals, brown bears in particular, is a very real concern for our group. The remoteness of the park has created a unique environment in which very few animals have experienced human contact, meaning they haven't begun to associate humans with food. Therefore it is our responsibility to uphold the boundary between bears and humans by using bear canisters and hanging food more than 10 feet off the ground.

The entirety of our expedition will be spent off trail, as Katmai National Park has two marked hiking trails totaling less than five miles in length. When traveling cross-country we will make every effort to hike on durable surfaces (rock, sand, gravel, snow, pine needles, or dry grasses) to prevent vegetation damage and erosion. Our group will spread out while hiking off-trail so that we do not create new trails. It is equally important to camp on durable surfaces, avoiding fragile areas that take a long time to heal. To minimize our impact on wildlife and other hikers, we will use backcountry gear and clothing that are natural earth-tone colors, like green, brown, tan, or black. Lastly, while hiking, we will practice "negative trace," which includes packing out others trash that we find along our journey as well as our own.

At our campsites, we will uphold very specific Leave No Trace ethics, because we believe that "good campsites are found, not made." We will always camp farther than 200 feet from any water source. All human waste will be buried in "catholes" 6 to 8 inches deep and no less than 200 feet from any water source. All toilet paper and plastic or cotton feminine hygiene products, trash, and food scraps will be packed out. Dishwater will be filtered and then sprayed no less than 200 feet from any water source. In order to prevent the spread of disease, biodegradable soap will only be used to wash hands after defecating and before cooking, no less than 200 feet from any water source. Katmai National Park does not allow fires, therefore we will use stoves for the duration of the expedition. Also, instead of fires at night, we will use head lamps and candles for reading, writing, and group activities. Camp sweeps are a critical part of expedition behavior, as it is important to make sure our site and travel route look as though they had never been traveled. We will remove all evidence of our stay by inspecting our site for

trash or misplaced gear before leaving a site, knowing that a lost glove can make the rest of the trip miserable.

All of these ethics are important to uphold because Katmai National Park has thus far escaped the grasp of civilization, and we wish to leave no signs of human influence. We will think about our every action and how it could potentially impact the land. At all times, our group will abide by the saying, "take only pictures, leave only the lightest of footprints, and bring home only memories".

# BUDGET

	Total Cost	Cost Per Capita
Travel Air Travel Round trip from Anchorage to King Salmon (commercial flight through Katmailand)	\$1675.00	\$335.00
One way from King Salmon to Kashvik Bay (chartered flight on Katmailand float plane)	\$750.00	\$150.00
One way from Brooks Camp to King Salmon (private flight on Katmailand float plane)	\$415.00	\$83.00
Land Travel One way bus from Three Forks Overlook to Brooks Camp	\$255,00	\$51.00
Water Travel Canoe rental	\$480.00	\$96.00
Total	\$3575.00	\$715.00
Food Backcountry Food	\$465,43	\$93.09
Food Drop Fly from King Salmon to Brooks Camp at \$0.40 per pound	\$27.54	\$5.51
Total	\$492.97	\$98.60
Expedition Gear Bear Canisters	FREE!	FREE!
Satellite Phone Rental	\$139.00	\$27.80
Maps	\$80.00	\$16.00
Bear Spray (2 canisters)	\$82.75	\$16.55
Total	\$301.75	\$60.35
Publishing Printing	\$70.00	\$14.00
Total	\$70.00	\$14.00
Sponsorships Peabody's Restaurant Birmingham, MI	<\$250,00>	<\$50.00>
GRAND TOTAL	\$4189.72	\$837.94

#### **BUDGET** Measures to Reduce Costs

Sponsorships1

Peabody's Restaurant

Birmingham, MI

<\$250.00>

<\$50.00>

-Prospective-

REDICO Developers, Inc.

Southfield, MI

**Grand West Outfitters** 

Colorado Springs, CO

Mountain Chalet

Colorado Springs, CO

Osprey Packs, Inc.

Cortez, CO

Natural High - Richmore Corp.

Irvine, CA

(wholesale price on some food)

Hussey Seeding Co.

Portland, ME

**Dinghley Press** 

Bangor, ME

**Dietz Associates** 

Kennebunk, ME

North Atlantic Fisheries

Portland, ME

**Huttigg Building Products** 

Manchester, NH

Jansport

Appleton, WI

Total

GRAND TOTAL

<\$250.00>

<\$50.00>

<sup>&</sup>lt;sup>1</sup> In an effort to minimize costs, we have begun to apply for numerous sponsorships. Before confirmation, most prospective sponsors have requested a copy of the completed grant application.