

SEASON END REPORT
CRABTREE MEADOWS
JUNE 7-OCTOBER 15, 1999

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A. GENERAL OBSERVATIONS

CONTACTS

Backpacker/Day hiker—3,412

Stock—198 animals contacted though more used the area. This number included pack and saddle horses and mules—no burros or llamas. Commercial 55% (primarily Cottonwood Pack Station, also Rock Creek Pack Station, Bishop Pack Outfitters and Sequoia and Kings Canyon Pack Trains). Administrative 30% (Kern Trail Crew, Kern Ranger, Military overflight trip). Private 15%.

START OF SEASON—Rangers arrived in the backcountry in late June after two weeks of training. Snow pack was light and melted early. Reported snow pack for the eastern Kern River drainage was between 60 and 70%. Access due to snow free passes and low water crossings was early, particularly for Mt. Whitney climbers. There was significant evidence of backpacker use prior to the arrival of NPS staff.

LAW ENFORCEMENT—Violations addressed in the patrol area include countless contacts regarding vegetation damage, also improper food storage, pollution of water sources with soap, garbage left in campsites and fire pits, campfires in closed areas, abandoned property, resource damage in stock camps and golfing from atop Mt. Whitney. Successfully utilized on the spot service projects and education again this season. Service projects primarily involved garbage collection, removal of fire pits and site rehabilitation under Ranger guidance. This generally meets with positive response and allows the backcountry traveler an active role in caring for our National Park. Canine visitors continue to sign into the Mt. Whitney summit register though I met none this summer. Hunting patrol was conducted in the Rock Creek area in October. No sign of hunters entering the park along the southern boundary was observed.

CITATIONS—One violation notice was issued to a packer from Cottonwood Pack Station for littering in the hanging gardens area near Bearpaw Meadows on the High Sierra Trail.

MEDICALS—Many minor medicals were treated at the Ranger Station and around the patrol area including numerous foot injuries and blisters, strained ankles, strained knees, lacerations (including a sliced off finger tip of a well known bass guitarist), and several cases of altitude illness.

TRANSPORTS—One stock evacuation was initiated for a backpacker with mild AMS. A teenaged boy was transported by air from Crabtree Ranger Station to Southern Inyo Hospital for SOB and symptoms of altitude illness. A backpacker with an injured knee who was unable to walk was transported by air from Crabtree Ranger Station to Southern Inyo Hospital. A backpacker with persistent vomiting was transported from Rock Creek Lake by air to Southern Inyo Hospital. A stock evacuation had been initiated for this patient, however he became weak and dehydrated, unable to stay upright on horseback. Ultimately it was determined that he was having a reaction to an iodine cartridge in his water filter. A backpacker suffering altitude illness on the west slope of Mt. Whitney was assisted on foot over to Trail Camp on the east slope where he was reunited with his party and taken to Lone Pine. A member of the administrative military overflight trip was transported by air from Lower Crabtree Meadow to POV in Lone Pine with an irregular heart rhythm. During patrols on Mt. Whitney, numerous air transports were observed on the east slope of the mountain and reportedly Inyo Search and Rescue and military units handled some rescues from the summit of Mt. Whitney involving altitude illness.

FATATALITIES—A Pacific Crest Trail hiker fell in the vicinity of New Army Pass in early June and ultimately died from injuries while waiting for rescue. A hiker died from a heart attack on the East Side of Mt. Whitney near Trail Camp in mid-summer. A hiker was found dead near Consultation Lake in September. The Crabtree Ranger was not directly involved with any of these incidents. A visit was made the site of last season's fatal accident on the North Slope of Mt. Whitney and some personal items were recovered. Some items remain, currently encased in hard ice, which may be recovered next summer if there is a mild winter, potentially including a camera sought by the individual's family.

SEARCHES—Put on notice several times of hikers overdue in the Mt. Whitney vicinity. All searches were quickly resolved when the parties were located on the East Side of the mountain. Assist with a search in the Chagoopa Plateau/Kern Canyon area for a member of a Sierra Club party who became separated from his party overnight. The individual was located after one day. Searched in the Arctic Lake area and along the Crest for climbers who never met with a friend as scheduled. With the assistance of an Inyo National Forest Ranger, it was determined the party had departed the backcountry. Reunited a Boy Scout who had made wrong turn at a trail junction on the John Muir Trail and inadvertently hiked down to Junction Meadow rather than continuing on to the Crabtree Ranger Station.

WEATHER—Winter snow pack was low (60-70% of average in the eastern Kern) and melted early. All passes were accessible without special equipment in June. The summer was mostly very warm and dry. Daytime temperatures into October were 70's and overnight to 40F. No snow had fallen by late October in the high country.

FIRES—One human caused fire burned 1.2 acres at the Wallace Creek/John Muir Trail junction in mid-October. A gas stove flame ignited grass during a period of high temperatures, low humidity and gusty winds. The fire burned mostly meadow grasses and fifteen lodgepole pines along the meadow edge.

B. USE PATTERNS

BACKPACKERS—The area was accessed early due to favorable trail and water crossing conditions. Upon arrival food and garbage were found in all area food storage boxes from Lower Rock Creek Crossing to Wallace Creek. Sign was also found of bears having obtained human food in Lower Rock Creek early in the season. Visitation was steady throughout summer into fall with weather remaining warm into October. On the final patrol to Mt. Whitney in mid-October nearly 100 visitors were met. The summit register continues to indicate use on the mountain throughout the winter season. The primary use in the patrol area continues to be the Mt. Whitney/John Muir Trail corridor, which saw intense pressure this season, likely due to favorable weather and trail conditions. Hikers are funneled into the Crabtree/Guitar Lake/Mt. Whitney corridor from nearly one dozen Park and National Forest trailheads. Crabtree Creek and Upper Wallace Creek saw moderated use during the August peak. Backpackers continue to use the established campsites and food storage box locations almost exclusively. Use patterns at Guitar Lake are discussed separately in Appendix A.

STOCK—Meadows opened as scheduled. They were considered “normal” but tended toward dry due to the melting pattern. Use was concentrated at Lower Crabtree Meadow initially, as it was better able to tolerate impacts in early season. This meadow is consistently drier than Upper Crabtree Meadow from which use was initially diverted, however the opening dates of these meadows is currently tied together. Stock use was steady from the dates the meadows opened through into late September. High use was seen at Wallace Waterfall Meadow, Lower Crabtree Meadow and particularly Upper Crabtree Meadow. Use of the patrol area was primarily Cottonwood Pack Station and Rock Creek Pack Station. Wallace Waterfall Meadow was open from 40 stock use nights which were to be self-regulated by local commercial outfitters and split amongst them. This system failed entirely. All four of the commercial pack stations used the meadow. (Due to poor communications with the wilderness office, the exact number of stock use nights available was not determined until late in the season for Rangers to halt the over utilization.) This “self limiting” will need overhaul. The commercial pack stations compete with each other for business and are not apt to limit themselves in cooperation, successfully. Lower Whitney Creek saw very limited use (2 animals for a couple nights-private/commercial). Lack of clarification regarding the animal number limit in both Crabtree Meadows saw twenty head using the meadow per party in some instances. Some regulations read fifteen head or more, others simply state a fifteen head limit. This needs to be sorted out.

Cooperation in the field with packers was good when they were contacted in camp—the camps were subsequently left in good condition. When this “in camp” contact did not occur with specific concerns discussed, camps were often noticeably impacted upon departure. One notable exception is the use of a hitch line (used properly or at all). When hitch lines are used, there is often a gap in understanding as to why they are being used. In turn, the hitch lines are frequently placed through the middle of tent sites, too close to tree bases or in the midst of a stand of smaller trees. Damage to the resources ensues. Typically the horse droppings are not removed and scattered from these hitch line sites. This has been the case with both commercial and administrative packers. The private users typically use exemplary Leave No Trace practices in camp. At Crabtree Meadows, due to the sheer volume of visitors, backpackers and stock users are utilizing the same campsites. When camps are left clean this situation is congenial. We need to help make the “Why” connection with our repeat administrative and commercial users, through literature and specific training. We now have a stock use Leave No Trace aficionado as our lead packer, we should put his skills and enthusiasm to use here.

Sandy Meadow and Upper Crabtree Meadow were added to the Residual Biomass Sampling program this year. Lower Whitney Creek and Wallace Waterfall Meadows continue to be monitored.

Two mules and two horses were lost from Upper Crabtree Meadow in early July, never to be seen again. Extensive searching took place on foot, horseback and by airplane. There potentially have been 400+ stock use nights in the Crabtree area this year which are unaccounted for.

ADMINISTRATIVE—The Kern Trail Crew stayed with 12 animals at Sandy Meadow for approximately 9 nights in early September. They worked on rock fall on the Mt. Whitney trail, a dry rock privacy screen for the toilet on the summit, sawed rounds for the winter snow survey wood supply and assisted in moving the outhouse building for the new pit toilet which was dug for the Ranger Station. An administrative –military overflight trip spent a night at Lower Crabtree Meadow. The party included the Park Superintendent, Chief Ranger, Assistant Secretary of Interior, various military and NPS folks, also the Kern Ranger. The ongoing problem of military overflights was discussed and experienced first hand, as numerous low flight occurred during the course of their excursion. The Plant ecologist, Resources Planner and Fire Planner visited the area, looking mainly at the meadows and becoming familiar with the Mt. Whitney corridor.

COMMERCIAL—Several guided trips to Mt. Whitney passed through Crabtree including Sierra Club, SNHA, A-16, REI and Yosemite Mountain Guides. A-16 and REI ran bi-monthly trips through the area, the former from Horseshoe Meadow, the latter via the High Sierra Trail. These groups are typically well organized and in compliance with regulations. Several guides were contacted leading from 1 to 7 clients up Mt. Whitney on routes up the East Face, Mountaineers Route and also the trail from Whitney Portal.

C. NATURAL RESOURCES

BEAR ACTIVITY—There was sign of bear obtaining human food in Lower Rock Creek in early season before Rangers arrived in the field. One bear was sighted at Lower Crabtree Meadow in mid-season walking through the camps. Shortly afterward bear scat was found at Lower Crabtree containing garbage. The Kern Trail Crew reported a bear in their camp at Sandy Meadow. Bear proof panniers were in use and a storage box was brought in and no food was obtained. Second hand reports were received throughout the summer of bears obtaining food at Wheelbarrow Camp north of Forester Pass. There was a notable increase in canister use this season, though many of these visitors continue to camp at food storage box locations. Occasionally the canisters are stored inside the boxes. This is another instance where we need to help the visitors understand the “why” of food storage in our educational information.

WILDLIFE—Again this year, a northern goshawk persisted in chasing the Crabtree Ranger along the spur trail to Lower Whitney Creek Meadow, away from its nesting area. Two hawks were sighted at one time. A bighorn sheep ewe and two lambs were reported to be seen by three parties in early August at the lake southwest of Diamond Mesa—they may live yet! A short tailed weasel was spotted romping under the Crabtree Ranger Station. The marmot family living next to the Ranger Station had a brood of six this year.

VEGETATION—Residual Biomass Monitoring was conducted at Lower Whitney Creek, Upper Crabtree, Sandy and Wallace Waterfall Meadows. Met with Plant Ecologist in September and looked at all of the above meadows. Added Sandy Meadow to the RBM to monitor impacts of Trail Crew use and added Upper Crabtree due to signs of impact with high use. Discuss the ongoing concerns regarding the location of the Trail Crew camp at Sandy Meadow. The camp is directly above the headwater of a spring and the stock are kept during the day and turned out in this area. The Plant Ecologist felt the situation could be improved and impacts averted if the stock were kept on a flat granite bench 100 meters down stream from the current site.

D. CULTURAL RESOURCES

PREHISTORIC SITES—Visited several sites at “Sheep Camp” on the Tyndall Plateau and found them intact.

HISTORIC SITES—The Mt. Whitney shelter had the window broken out of the “public” side of the building. This was replaced and a spare windowpane of lexan is now kept in the NPS side of the shelter. The doors on both sides of the building are functioning well and the shelter is otherwise in good condition. The NPS side of the shelter was further stocked with rescue supplies including water, food, stove and additional sleeping bag and pad.

E. BACKCOUNTRY FACILITIES

CABIN—A snow survey crew spent three nights at the Ranger Station in September and installed a metal roof. The appearance of the cabin is improved and presumably will be leak free for years to come. One item now needed to accompany the new roof is a roof ladder to enable cleaning the stovepipe. It is presently hazardous to walk on the roof with the slick surface. A new pit was dug for the outhouse which was moved in the fall. The roof crown was replaced on the outhouse building to prevent leaking. Solar powered fluorescent lights were permanently installed in the front and back rooms of the Ranger Station.

SIGNS—Temporary signs were installed for summer around the patrol area regarding trail work/blasting in the Kern Canyon and East Side of Mt. Whitney and missing stock. All signs were removed in the fall. Permanent signs are in good condition. The new location of the sign at the Mt. Whitney junctions seems to have helped somewhat with hikers missing the junction and coming down the West Side of the mountain inadvertently—but not entirely.

F. TRAILS

TRAIL ACTIVITIES—Work completed by the Trail Construction Crew along the summit traverse held over the winter despite numerous rock falls on the West Side of the mountain. The Kern Crew removed rock fall from the switchbacks and built a dry rock privacy screen for the summit toilet. The Crabtree Ranger completed some early season maintenance including rocking the trail and cleaning water bars.

PROBLEM AREAS—While rock fall was removed from them Mt. Whitney switchbacks, several parts of the trail are now only 10" wide due to erosion below the trailbed and slides from above. Additionally one switchback end was obliterated entirely and needs to be rebuilt, as it eroded already this season. Much good work has been completed on the Mt. Whitney trail (both east and west sides) during the past two seasons, however there are reroutes and walls which need to be rebuilt so that this heavily used trail will continue to function well.

1. John Muir Trail between Crabtree Ranger Station to above Guitar Lake—Areas of erosion due to water flow on trail, deep gullies and two sections with triple trail from steady erosion. Reroute, fill gullies.
2. Pacific Crest Trail between Lower Crabtree Meadow and the Mt. Whitney Junction—Seep is still a quagmire in late season of a dry year. Needs reroute Or large causeway.
3. Timberline Lake—Water flows on trail that in places is 12" from the lake shore. Causeway or reroute. Below Timberline lake is another seep which

stays wet though a dry year. Causeway or reroute.

G. CAMP AREAS

CONDITIONS—Camps seeing the most use in the patrol area continue to be those with food storage boxes and at Guitar Lake. The frequent use is readily apparent in soil compaction, erosion, disappearing vegetation, garbage, feces, rocks blackened by fire and depletion of dead and down wood. This dry season was particularly unforgiving as the impacts on trampled grasses was highly evident. While there was a notable increase in canister use, these backpackers continue to camp at the established/impacted sites. An example of the intensely concentrated use: a campsite next to the food storage box at Crabtree Ranger Station is in use nearly every night from July through September with an average of 4 campers per night though at times as many as 15. This equates with a minimum of 400 campers using the same backcountry site in a single season—the results are evident.

Rock walls are persistent in camps above treeline in the vicinity of Guitar Lake. Effort was taken to reduce their number and define camps here throughout the summer. Service projects were conducted with two Boy Scout troops, worked with two backpacking groups and had assistance from VIP's Yemm and Schaffer. This met with limited success, they continue to be built. Many campers in this area walk only 3 miles that day and have excess energy.

SANITATION—A pit toilet was installed for public use in the vicinity of the Crabtree Ranger Station camps. This made a significant difference in the quantity of fecal matter and toilet paper needing to be reburied in the camp area. A good improvement. Human waste continues to be a problem in the Guitar Lake area and the benches above. In this alpine area there are a handful of suitably secluded locations to go to the bathroom. They are used repeatedly each season, year after year, and the fecal matter and toilet paper do not readily decompose. There are too many overnight users in this area for their impacts to be absorbed.

Additionally, backpackers often don't seem to care how they leave their deposit. Toilet paper is routinely abandoned, frequently on the surface and fecal matter itself is occasionally deposited without attempt to bury it. This situation is ripe to be addressed. The numbers of backpackers permitted into the west side of the "Mt. Whitney Zone"—which nearly always entails a night spent in the vicinity of Guitar Lake needs to be reduced. There are at least ten trailheads funneling backpackers into Guitar Lake (Pacific Crest Trail, Happy Isles/Tuolumne Meadows, Franklin Pass, Cottonwood Pass, New Army Pass, High Sierra Trail, Bubbs Creek, Shepherd Pass, Kearsarge Pass, Whitney Portal). Numbers were compiled again of overnight visitors at Guitar Lake (See Appendix A). If numbers are not reduced here, we need to reconsider a toilet to accommodate the concentrated camping. It will alleviate some of the problems at Guitar Lake. The toilet on the summit of Mt. Whitney was willfully destroyed prior to the Ranger's arrival in early season. It is once again functioning. The wood privacy screen was destroyed and has been replaced with a dry rock wall screen.

Additionally, an extra "honey bucket" is now stored in the NPS side of the summit shelter so that the toilet may remain functional when the bucket becomes full. As of mid-October the bucket was ½ full. A barroom odor pervades the traverse from Trail Crest to the summit where toilet paper and feces are continually found. This is another indication of excessive use.

FIRERINGS—Three sided fire pits are maintained in most areas and persistently collect garbage from hikers who would otherwise not dream of littering.

FIREWOOD AVAILABILITY—Firewood availability is low in all of the main camps with food storage boxes. Hopefully a more conservative fire limit is forthcoming with the Wilderness Management Plan at 10,000' for the Kern drainage, below treeline. Visitor opinion ranges between surprise that they can have a fire (they all enter from areas with lower fire limits—Kaweah drainage, Kings Canyon, Golden Trout and John Muir Wilderness Areas). To wanting to burn garbage in the fire pits. Nearly no one plans to use fires to cook with; all carry a stove of some sort.

FOOD STORAGE—Compliance is high and easy with many food storage boxes in the patrol area. Saw an increase in canister use, however these users still camp at box locations. Used a kevlar canister, provided by the manufacturer, and was very impressed with its lightweight and non-bulky design. Countless visitors were interested in this new canister and willing to pay dearly.

H. PERMIT SYSTEM

TRAILHEADS—As mentioned in "Sanitation", the permit system is not protecting the Mt. Whitney Zone from unacceptable impacts. Over ten major trailheads funnel into the area and the numbers are too high to provide sustained use over the years and protect the resources.

ISSUING OFFICE—Permits received by mail, which most out of the East Side are, go uninspected so that visitors have little idea of NPS minimum impact practices. It is very unfortunate that the direct contact with a Ranger has been omitted from the permitting process. With the Inyo National Forest reclaiming their permitting, they should consider issuing in person again. Otherwise, our printed educational material is virtually wasted. We need to improve communication with field personnel working out of the East Side issuing offices.

I. COMMUNICATIONS

To say communications were poor this summer would be generous. At times they were non existent. It is no longer possible to consistently communicate via radio from the Crabtree Ranger Station as it was in 1998. Medical evacuation traffic had to be relayed through other field Rangers. Medical consultation with University Medical Center was forgone. General discussion of common issues

among field personnel was abbreviated. Clearly the radio shop is trying to repair the system. However, it is still unreliable.

I. NEEDS FOR NEXT YEAR

- | | |
|-------------------------------------|--|
| --Wildlife Observation forms | --EMS run sheets |
| --Bear forms | --Paint |
| --Sponge | --Brushes |
| --Metal dish scrub | --Rollers |
| --2 Rubbermaid washbasins | --Trays |
| --Electrical tape | --10 burlap sacks |
| --Duct tape | --small plastic bags |
| --Strapping tape | --large plastic bags |
| --Thumbtacks | --Stainless steel stovetop kettle |
| --Foam ear plugs | --Matches, strike anywhere |
| --Stainless steel pots | --2 Denatured alcohol |
| 1,2 & 3 Quart | --Good chopping axe |
| --Ink pens | --In line fuse for light |
| --Good chair (Report was found | --12/14 gauge stranded lamp wire |
| from 1940's in which a Ranger | --Vegetarian food for summit pack |
| stated his biggest problem was | -- <u>Place Names of Sierra Nevada</u> |
| lack of a decent chair to sit in at | -- <u>Freedom of the Hills</u> |
| the end of the day). | -- <u>Dictionary</u> |
| --Restuff Feathered Friends | --Digital camera |
| sleeping bag | |

J. RECOMMENDATIONS

- Separate Upper Crabtree Meadow from "Crabtree and Whitney Creeks" opening date. Move Upper Crabtree back 3 weeks.
- Meet with Cottonwood Pack Station personnel at beginning of season to discuss conditions.
- Meet with NPS and FS Trailhead Rangers at beginning of season to coordinate activities.
- If the Forage Guide is to continue to be printed annually, include pertinent regulations such as the limit at Wallace Creek Waterfall Meadow. Commercial packers use this as their guide.
- Reduce numbers of overnight campers at Guitar Lake or install a toilet.
- Paint interior and floor of Ranger Station.
- Lower fire limit to 10,000' so that it is below treeline.
- Weekly radio summary of parkwide trail conditions and pertinent information to improve communications between Sequoia and Kings Canyon field Rangers.
- Remove Lower Whitney Creek drift fence, as it is no longer used.
- Clarify head limit at Upper and Lower Crabtree Meadows. Notify all pack stations if it is to be enforced at 15 head.
- Remove Mt. Whitney shelter.

- Digital cameras for use in field as they seem effective and highly accessible.
- Conduct a Leave No Trace stock camping session with Jim Harvey.
- Training with packers on the "why" of the regulations so that impacts are minimized.
- Wash bivy sack
- Create some sort of forum for visitor complaints received in the field. Visitors bring concerns and complaints to the attention of Rangers daily regarding everything from military overflights to crowding to food storage boxes. Visitors are encouraged to pursue their concerns, yet from their perspective they have passed information on to a Ranger and are done with it.

APPENDIX A USE AT GUITAR LAKE

Numbers of overnight users at Guitar Lake were gathered for the second consecutive summer. In instances where the number for a given day was gathered before nightfall or if only a portion of the Guitar Lake area was included in the count, the number for the day is accompanied with a "+" to indicate that the actual overnight total is likely higher. The Guitar Lake area includes Guitar Lake itself and two benches with water along the Mt. Whitney trail between Guitar Lake itself and the base of the switchbacks going up to Mt. Whitney. Camping occurs along this whole route. In recent years visitors were specifically encouraged to use the benches beyond Guitar Lake in an attempt to disperse use in the area. These benches are now mentioned in a recent guidebook and appear in various places on the Internet (a popular source of hiker information). The entire area is alpine with minimal vegetation. The benches above Guitar Lake now show significant signs of impact with garbage, feces, rock walls and diminishing vegetation. This area is at least as sensitive to impact, if not more so (it is 500' higher), than Guitar Lake. Visitors are no longer overtly encouraged to use the benches above Guitar Lake, however use remains high. A gap in data collection occurred in September while the Crabtree Ranger was out of the area for training.

<u>DATE</u>	<u>AT GUITAR LAKE</u>	<u>ON BENCHES ABOVE</u>
6-29	14	3
6-30	20	9
7-12	22	7
7-15	3	5
7-16	4	8
7-24	17	5
7-28	28	8
7-29	21	26
8-11	52	+
8-14	63	+
8-15	61	+
8-19	65	13

8-20	49	12
8-23	56	+
8-24	34+	+
8-25	53+	+
8-26	18+	+
8-27	14+	+
8-28	19+	+
8-31	7	8
9-1	8	6
9-2	30+	+
9-3	24+	+
9-16	22+	+
9-17	14	9
9-19	27+	+
9-20	12+	+
9-21	13+	+
9-30	4+	+
10-1	4+	+
10-8	0	0
10-9	2	0