



2018 California Parks Training and Conference

Coming March 4 through Mar 8, 2018
At Tenaya Lodge, Fish Camp, CA



The Park Rangers Association of California's 2018 California Parks Training and Conference will be returning to the Tenaya Lodge, just outside the south entrance to Yosemite National Park. The conference will be held March 4 through March 8. Look for more information in the coming months. If you are interested in presenting at the conference in our Public Safety, Interpretation or Park Operations/Resource Management Tracks please contact me at matt@calranger.org and I will put you in touch with respective track chair.

For reservations follow the link or call the 800 number.

[Click Here to Make an Online Reservation](#)

Guests unable to use our online reservation system can make their reservation by calling (800) 635-5807, Option #1 and identify they are with the PRAC 2018 Conference, or using the group code 3199G4 to receive the group rate.



Under the Flat Hat

by Matt Cerkel

For this article, I'm going to do something different, a look inside my patrol pack and a gear review. Perhaps I should have called it "Inside the Ranger's Pack." As a park ranger for the Marin Municipal Water District I spend a good percentage of my patrol time on foot. Many of locations are only accessible on foot, sometime an hour or more from the nearest vehicle access, so having a good patrol pack is, in my opinion, essential. Over the years I've used a variety of backpacks for my patrol packs, for the past year I've been using the Adapt Pack which is from Mil-Spec Monkey in collaboration with Tactical Tailor. I picked the Ranger Green color for the pack, although the Foliage Green or Coyote Tan would also work well for a park ranger patrol pack.

I found the Adapt Pack to be the perfect patrol pack, it's mid-sized with a cargo capacity of about 1179 cu. in. and lightweight at 1.75 pounds. It has a sleeve for a hydration system, a main compartment with two pockets, a front compartment, a front loop Velcro ID panel, and front shock cord rig for secure items like a jacket. I like the pack so much I often use it off-duty for hiking or mountain biking.



Front of the MSM Adapt Pack



Rear of the MSM Adapt Pack



Inside the main compartment of the MSM Adapt Pack

As for what I carry in my patrol pack. In my main compartment, I carry a small EMS bag, epi-pens* (one adult, one child), flagging tape, a small folding saw (for clearing smaller downed trees and branches from trails), and two flexi-cuffs. I also sometimes carry, a Camelbak tactical cover (which is reversible one side foliage green and the other signal orange), a water filter and pump, travel tripod and my personal camera (a Sony RX10M3). I use a two-liter Camelback with Camelbak mil spec tube in Coyote Tan. In the front compartment, I mounted a MSM General Purpose Insert and I carry a SAM split, CPR mask, leather work gloves, spare batteries (AA, AAA, CR123s), a Black Diamond Storm headlamp, a small tape measure, signal mirror/whistle, monocular, dry bag with food (energy bars, energy blocks, and trail mix), two light sticks, and seasonally a hat cover for my flat hat. Other items I carry on or with my patrol pack include Maxpedition clip-on phone holster for my GPS unit which is mounted to my sternum strap, Copquest 2"x6" PARK RANGER loop velcro ID panel, and Sea to Summit 10L trash dry sack (which takes similar sized trash bag liners and is perfect for pick up trash, included dog poop bags, along trails).

(Continues on next page.)
THE SIGNPOST

Under the Flat Hat

(Continued from page 2)



Contents of my patrol pack



Adventure Medical Kit Explorer Exterior



Adventure Medical Kit Explorer Interior



Copquest 2"x6" loop velcro PARK RANGER ID panel on Ranger Green backing with Gold, Reflective White and Tactical Black lettering. A flexible and mission specific way to ID your pack.

As an EMT I want to carry a small EMS pack and related supplies, so besides the epi-pens, SAM splint and CPR mask I also carry an Adventure Medical Kit Explorer kit. It is lightweight and well stocked and organized for the typical medical aid I may encounter while on foot or away from my vehicle. The only change I made to the kit was adding an emergency blanket, coban-type wrap tape, a SWAT-T tourniquet, a Sharpe marker, a space pen, and Marin County EMS patient assessment forms.

I feel my current patrol pack set up is nearly perfect and the best I've had in my 22-year career as a park ranger. I want to carry the supplies my experience tells me I might need, but in a lightweight, compact pack. I also wanted the pack to be flexible, with room for additional gear, as needed. The Mil-Spec Monkey Adapt Pack is the best patrol pack that I have ever used and I highly recommend it. Besides Mil-Spec Monkey, there are many other great patrol pack manufacturers including: Tactical Tailor, First Spear, 5.11 Tactical, LA Police Gear, and Camelbak. So there are now many choices to choose from and there is a patrol pack out there that will meet your needs.

*Marin County EMS EMTs are authorized to administer epi-pen for anaphylaxis and under medical consult severe asthma

Summer is here!

by Mike Warner

Summer is here, and with it comes a whole host of problems for park rangers. With school out for most families and better weather for the foreseeable future, many people will flock to our parks and preserves to recreate and relax. As park rangers, our first two goals are to protect the park from the people and the people from the park. One of the biggest issues we have this time of year for both visitors and park is heat exhaustion and heat stroke.

Many members of the public and even some of us frequently forget the importance of staying well hydrated. As temperatures rise our bodies are working overtime to keep us cool. Drink a bottle of water while on your way to the Ranger Station before you start your shift. If you get a call, try to drink some water while in route (if it's safe to do so). The only way to tell if you are well hydrated is by the color of your urine, the more yellow it is, the less hydrated you are (See chart 1 below).

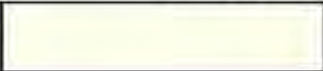





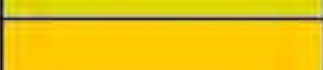

Another important variable is exposure to the sun itself. Remember to apply sunscreen to all exposed areas of skin, and if you can, wear a hat. Summer days are a perfect time to break out the straw flat hat, which are perfect to get the sun rays off of you. In weather at or under 85 degrees you should be taking a 10 minute shaded rest every 50 minutes. Anything hotter than 85 degrees should be 20-30 minutes of shaded rest for 30-40 minutes of exposure. I have included a US Army chart to hydration / sun exposure given different workloads (Chart 2).

Finally, recognize signs of heat exhaustion and heat stress. Heat exhaustion is the lesser emergency of the two and generally has the following symptoms: Faintness or dizziness, skin is cool / pale / clammy, excessive sweatiness, nausea/ vomiting, muscle cramps, and a rapid but weak pulse. If you encounter someone with symptoms of heat exhaustion, move them to a cool or shaded place, an air conditioned cab of a truck is perfect. Continue encouraging them to drink

water if the patient is maintaining consciousness. Apply cool compresses or have them take a cold shower if possible and safe to do so.

Heat Stroke is an emergency, immediately activate additional resources by radio or call 911 for assistance. Symptoms usually include the following: Throbbing headache, absence of sweating, skin is hot / dry to touch (Body temperature may reach higher than 103 degrees), nausea / vomiting, and patient may lose consciousness. Rapid cooling and rapid transport must take place to prevent serious damage to the brain and other organs.

The key to avoiding heat exhaustion and heat stroke is to keep yourself well protected from the sun's rays and stay hydrated. Remember to take care of yourself first so you can help protect others in your park this summer.

| AM I HYDRATED? | | |
|--------------------------------------|--|---|
| Urine Color Chart | | |
| 1 |  | |
| 2 |  | If your urine matches the colors 1, 2, or 3, you are properly hydrated. |
| 3 |  | Continue to consume fluids at the recommended amounts. |
| <hr style="border: 2px solid red;"/> | | |
| 4 |  | If your urine color is below the RED line, you are |
| 5 |  | DEHYDRATED and at risk for cramping and/or a heat illness!! |
| 6 |  | YOU NEED TO DRINK MORE WATER! |
| 7 |  | |
| 8 |  | |

Work/Rest and Water Consumption Table

Applies to average sized, heat-acclimated soldier wearing BDU, hot weather. (See TB MED 507 for further guidance.)

| Easy Work | Moderate Work | Hard Work |
|---|--|--|
| <ul style="list-style-type: none"> • Weapon Maintenance • Walking Hard Surface at 2.5 mph, < 30 lb Load • Marksmanship Training • Drill and Ceremony • Manual of Arms | <ul style="list-style-type: none"> • Walking Loose Sand at 2.5 mph, No Load • Walking Hard Surface at 3.5 mph, < 40 lb Load • Calisthenics • Patrolling • Individual Movement Techniques, i.e., Low Crawl or High Crawl • Defensive Position Construction | <ul style="list-style-type: none"> • Walking Hard Surface at 3.5 mph, ≥ 40 lb Load • Walking Loose Sand at 2.5 mph with Load • Field Assaults |

- The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hrs of work in the specified heat category. Fluid needs can vary based on individual differences (± ¼ qt/hr) and exposure to full sun or full shade (± ¼ qt/hr).

- **NL** = no limit to work time per hr.

- **Rest** = minimal physical activity (sitting or standing) accomplished in shade if possible.

- **CAUTION: Hourly fluid intake should not exceed 1½ qts.**

Daily fluid intake should not exceed 12 qts.

- If wearing body armor, add 5°F to WBGT index in humid climates.

- If doing Easy Work and wearing NBC (MOPP 4) clothing, add 10°F to WBGT index.

- If doing Moderate or Hard Work and wearing NBC (MOPP 4) clothing, add 20°F to WBGT index.

| Heat Category | WBGT Index, F° | Easy Work | | Moderate Work | | Hard Work | |
|---------------|----------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|
| | | Work/Rest (min) | Water Intake (qt/hr) | Work/Rest (min) | Water Intake (qt/hr) | Work/Rest (min) | Water Intake (qt/hr) |
| 1 | 78° - 81.9° | NL | ½ | NL | ½ | 40/20 min | ½ |
| 2 (GREEN) | 82° - 84.9° | NL | ½ | 50/10 min | ½ | 30/30 min | 1 |
| 3 (YELLOW) | 85° - 87.9° | NL | ¾ | 40/20 min | ¾ | 30/30 min | 1 |
| 4 (ORANGE) | 88° - 89.9° | NL | ¾ | 30/30 min | ¾ | 20/40 min | 1 |
| 5 (BLACK) | > 90° | 50/10 min | 1 | 20/40 min | 1 | 10/50 min | 1 |

For additional copies, contact: U.S. Army Center for Health Promotion and Preventive Medicine Health Information Operations Division at (800) 222-9699 or CHPPM - Health Information Operations@apg.amedd.army.mil.
For electronic versions, see <http://chppm-www.apgea.army.mil/heat>. Local reproduction is authorized.
June 2004



CP-033-0404

SIGNS OF HEAT EXHAUSTION

Mild headache, lightheadedness

Cool, pale skin (heavy sweating)

Nausea, vomiting

Muscle cramps, fatigue, weakness



SIGNS OF HEAT STROKE

Throbbing headache, confusion, seizure, irritability, or altered/loss of consciousness

Oral body temperature of 104°F and above; dry mouth

Hot skin

Nausea, vomiting

Many signs of heat exhaustion can overlap with signs of heat stroke. When in doubt, call 9-1-1.

WHAT TO DO

MOVE to a cooler place

COOL with ice/cold water and lay down

DRINK cool water or sports drinks

CALL 9-1-1 if symptoms last longer than 1 hour

CALL 9-1-1 IMMEDIATELY

MOVE the affected person to the shade or cooler place

COOL the affected person with immersion in cool water or by placing ice packs on the neck and groin areas

www.health.mn.gov/heatplanning

MDH Minnesota Department of Health

www.health.mn.gov/heatdata

Marin Municipal Water District's Park Rangers Celebrate Their Centennial

by Matt Cerkel

Back in December I wrote about the history of the Marin Municipal Water District's (MMWD) park ranger program, which was established on February 23, 1917 when MMWD's board approved a plan to hire patrolmen for the district's watershed lands on Mt. Tamalpais to oversee fire patrol, firefighting and enforcement of rules and regulations. The plan stipulated that patrolmen wear uniforms and supply their own horses.

Though horses are no longer a requirement, today our rangers are still patrolling the mountain as the watershed's peace officers, wildland firefighters, EMTs, search and rescue specialists, naturalists and ambassadors. To mark the centennial, filmmaker Gary Yost has produced a film called "A Day in the Life of a Watershed Ranger." Watch the video and learn more about our ranger program at:

<https://vimeo.com/220217533>

MMWD also marked the centennial by issuing a special centennial park ranger badge. The MMWD park rangers will be authorized to wear the badge through June 2018. The badge honors the heritage of the MMWD park ranger program by including the original job title of Patrolman on the top banner of the badge and Est. 1917 on the lower banner of the badge.





Rare Plant Species Spotlight

by Mike Warner

Late May and early June brings about a spectacular wildflower bloom on the serpentine-rich northern slope of Ring Mountain Open Space Preserve in Tiburon, California. It is made extra special by the presence of several rare and native plant species. The Tiburon Mariposa Lilly, *Calochortus Tiburonensis*, is one of these unique plants. The Tiburon Mariposa Lilly is only found on the Ring Mountain Preserve, and by 1984 had dwindled down to approximately a couple hundred plants. Following the protection of the 637 acres of the upper reaches of the mountain by the Nature Conservancy, their populations began to rebound.

In 1995, control of the preserve was partially deeded over to the Marin County Open Space District. Now with full public access to these rare plant populations it became a challenge to facilitate education of the public but also protect the plants from the misuse of the preserve

Through highlighting the existence of these rare plants, especially the Tiburon Mariposa Lilly, which for most visitors was the most recognizable of these rare species, the park ranger staff could help root their enforcement of the preserve rules. The Tiburon Mariposa Lilly and its fragile but recovering population became the example of what the rules were there to protect.

A more recent study concluded there are now approximately 30,000 to 40,000 individual plants. The enforcement of preserve rules has worked. Is there a rare plant or special population in your park or preserve that you can tie into your enforcement activities? Take a look around and see what natural resources you can use to help you protect your park as a whole.

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Submissions can be mailed to David Brooks, 560 Hillcrest Dr., Ben Lomond, CA, 95005. INFORMATION CAN ALSO BE SUBMITTED BY TELEPHONE AT (831) 336-2948.

Submission deadlines ARE THE 15th of FEBRUARY, April, JUNE, AUGUST, OCTOBER, AND DECEMBER.

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