

RANGER

The Journal of the Association of National Park Rangers

Stewards for parks, visitors & each other

Vol. 27, No. 2 | Spring 2011

The Unseen Resource | **NPS Underwater**



Letters

Religion and Science

This is in response to Josh Boles' piece "Walking the Walk" (page 17, Interpretation column, *Ranger*, Winter 2010-11). In his conclusion, Boles asks interpreters to "...be on guard to make sure we are not preaching."

I find this statement to be ironic because Boles implies earlier in his writing that a "good friend" of his at an NPS geology park should overcome his personal bias and allow a local minister to present (or should I say "preach") creationism alongside the park's scientific explanation.

First of all, unlike religion there is nothing biased about science. The scientific method is used to prove or disprove hypotheses and determine facts about the natural world. That's it! A personal bias may indeed influence his friend's opinion, but overcoming bias by upholding a dogmatic dictum like "the visitor is sovereign" has nothing to do with the importance of understanding why creationism has no place in a publicly funded NPS visitor center or interpretive program on geology. Doing so would be in violation of the U.S. Constitution. This was the U.S. Supreme Court's ruling in the 1987 case of *Edwards vs. Aguillard* and a federal district court's ruling in the 2005 Pennsylvania case of *Kitzmiller vs. Dover*.

If there are "multiple points of view" that need to be included in a geology talk or exhibit, perhaps legitimate arguments from within geology's scientific community should be included. Creationism is not science. It's religion, and like all religions it should be preached only from the pulpit.

Pete Peterson
Grand Canyon, Arizona

Thank you for your work

I just received my winter e-version of the *Ranger* and I wanted to drop you a quick note, thanking you for your hard work. The great job you have been doing is not limited to the *Ranger*, however. When I first joined ANPR three years ago, I did so because I needed health insurance. You were always responsive to my questions and explained the membership benefits, even reminding me when my next health insurance payment was due. You have always provided me with great service, both as a member of ANPR and now as a board member, and I want to thank you for the time and effort you provide to me, above and beyond what your duties require.

Alec Chapman
Yellowstone, Wyoming

Great edition of *Ranger*

Your Winter 2010-11 issue of *Ranger* was outstanding. I admire your ability to cover all the activities.

John Ott
Layton, Utah

Outstanding Rendezvous issue

The last issue of *Ranger* magazine (Winter 2010-11) was one of the most enjoyable *Ranger* Rendezvous editions in a long time. As one who loves to go to Rendezvous but has not been able to attend the last few, I live vicariously through *Ranger*. Many of the recent past Rendezvous issues have had lengthy articles that were reprints of complete speeches — stuff better left to the website. I longed for the time, years ago, when attendees were assigned to write synopsis articles.

This issue, however, was the most readable in recent memory, with the return of shorter synopsis articles. For those who don't want to follow Rendezvous happenings, there was plenty in this issue to grab their attention — at least two grabber articles, well-written columns and wonderful photos. In fact, the photo pages may well be the most compelling pages in the magazine. I felt so in touch with friends and co-workers through those images; and the extra page of photo contest submissions was absolutely stunning.

I hope this treatment of Rendezvous indicates an editorial shift back to good summaries of events with some articles of general interest. In any case it was a refreshing change.

Ken Mabery
Scottsbluff, Nebraska

Staying connected

You guys do a great job on the magazine. Every time I read an issue I feel connected once again to the good old NPS.

Bob Piontek
Janesville, Minnesota



Share your views!

Signed letters to the editor may be published, space permitting. Please include address and daytime phone. *Ranger* reserves the right to edit letters for grammar or length. Send to fordedit@aol.com or Editor, 25958 Genesee Trail Road, PMB 222, Golden, CO 80401.



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YES! You are welcome to join ANPR even if you don't work for the National Park Service. All friends of the national parks are eligible for membership. We even have special student rates and gift memberships. Join today — online at www.anpr.org or the form in this issue.



ANPR Calendar

<i>Ranger</i> (Summer issue)	
deadline.....	April 30
Tentative theme: Keeping the NPS and ANPR Relevant	

<i>Ranger</i> (Fall issue)	
deadline.....	July 31

Annual Professional Conference & <i>Ranger</i> Rendezvous XXXIV.....	Oct. 10-15, Williamsburg, Virginia
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Ranger (ISSN 1074-0678) is a quarterly publication of the Association of National Park Rangers, an organization created to communicate for, about and with National Park Service employees of all disciplines; to promote and enhance the professions, spirit and mission of National Park Service employees; to support management and the perpetuation of the National Park Service and the National Park System; and to provide a forum for professional enrichment.

In meeting these purposes, the Association provides education and other training to develop and/or improve the knowledge and skills of park professionals and those interested in the stewardship of national parks; provides a forum for discussion of common concerns of all employees, and provides information to the public.

The membership of ANPR is comprised of individuals who are entrusted with and committed to the care, study, explanation and/or protection of those natural, cultural and recreational resources included in the National Park System, and persons who support these efforts.

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Submissions

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Deadlines

Spring issue Jan. 31
Summer issue April 30
Fall issue July 31
Winter issue Oct. 31

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Cover image: Kelp divers at Channel Islands. *Photo by Kelly Moore.* Also by same photographer, page 4.

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President's Message

While out on Shiloh battlefield the other day, observing our resident nesting pair of bald eagles making preparations to raise this year's hatch of eaglets, I found myself thinking much has happened since many of us gathered for the annual Ranger Rendezvous in Bend, Oregon. At the event last fall, we explored new opportunities and strategies to carry our National Park Service into an uncertain future.

It proved a wonderful time of learning, using our collective skills to assist a neighborhood, the city and Oregon State Parks complete a rewarding project at Pilot Butte State Park, and the simple joy of sharing meaningful moments and building memories with dear friends and co-workers. Yet, over this past winter the stark realities of tough economic times have become a reality, imposing serious belt tightening on our beloved National Park System.

Such stressful times are not new to our Service, which has faced shortages of funding, manpower and vital resources throughout its long history of stewardship. As the rhetoric of political debate heats up, legislators call for reduction in the federal workforce, cuts to public programs and consolidation of government agencies. Decisions will carry relevant impact on our mission and our work. Political murmurs again question whether national parks should be managed by the states or perhaps the private sector.

The pressure of a complex and troubling future is upon us. Worldwide, environments, native plants and animals, and the cultural remnants of human history stewarded on public lands face threats. The mass extinction of species on a scale unprecedented throughout the last 5,000 years of human history is a stark reality. Continued degradation of air and water quality encompasses the planet. Entire ecosystems appear poised to collapse or dramatically decline in health, diversity and vitality over the next few decades. The unabated environmental manipulation and resource consumptive behavior of an increasing human population continues to alter the face of our earth.

Yet, there still is time to act — and hope! We are not the first to confront troublesome times in our nation or on this planet. Countless others have made decisions in the face of uncertainty. *Patience* and *perseverance* remain our greatest allies. Belt tightening, workforce reduction and shortages of critical resources necessary to perform our important mission simply challenges our ability to adapt, be creative and work together — with communities, partners, stakeholders and sister agencies — to

make innovative differences in our own times of uncertainty. The decision-making needs of today aren't greatly different than those made in the past. Were not Roosevelt, Muir, Mather, Albright, Leopold, the Adamsons, Goodall and others challenged to make decisions in the face of uncertainty to preserve species, the environment and the cultural remnants of human history? In uncertain times, we can find common purpose in understanding the momentous trials, perseverance and accomplishments of past stewards who also confronted the unknown.

As always, our *mission* remains vital to our nation. The *work* continues and has always been *hard*. *Parks* matter. *Species* matter. *People* matter. The relevant *connections* visitors make daily on public lands throughout the world matter. *We* matter. Each dawn grants another opportunity for employees of our agency and this organization to engage the future and make a difference.

When I find myself seemingly overwhelmed by tough times and issues, I get out of the office and journey into the park. I find comfort in reaching out to the resource, rekindling my understanding of our agency's mission and my relevant role in performing it. These moments provide context to the individual history that carried me into public service, the chance to reflect on what has been accomplished and what can be achieved through hard work and thoughtful service—even in tough times. I find myself engaging the visitor who is exploring the compelling stories of the park. As the voice of the ancient interpreter rises from within, the spark of excitement and enthusiasm that possessed the soul of a youthful buck ranger over a quarter-century ago erupts again in full force. Through these meaningful connections, decision making in the face of uncertainty unveils itself as it has always been — a natural consequence of the shared experience of living life on this earth.

We return to Shiloh's eagles, Hiram and Julia, as they first built their nest in a tall pine on the battlefield. After successfully raising eaglets to full fledge in 2008 and '09, last year's pair died mysteriously in falls from the nest in May. Yet, here are the eagles again preparing to answer nature's biological purpose, rekindling their lifelong bond, courting, mating and now incubating two new eggs. Their lives continue in the face of uncertainty.

I hope you enjoy exploring this issue of *Ranger*, and reading articles that illustrate the value of making informed decisions concerning underwater resources while working in the face of uncertainty.

Stacy D. Allen

NPS Diving History

By Daniel J. Lenihan

Park rangers have led the way in federal agency diving and have a proud and extraordinarily full and diverse diving history.

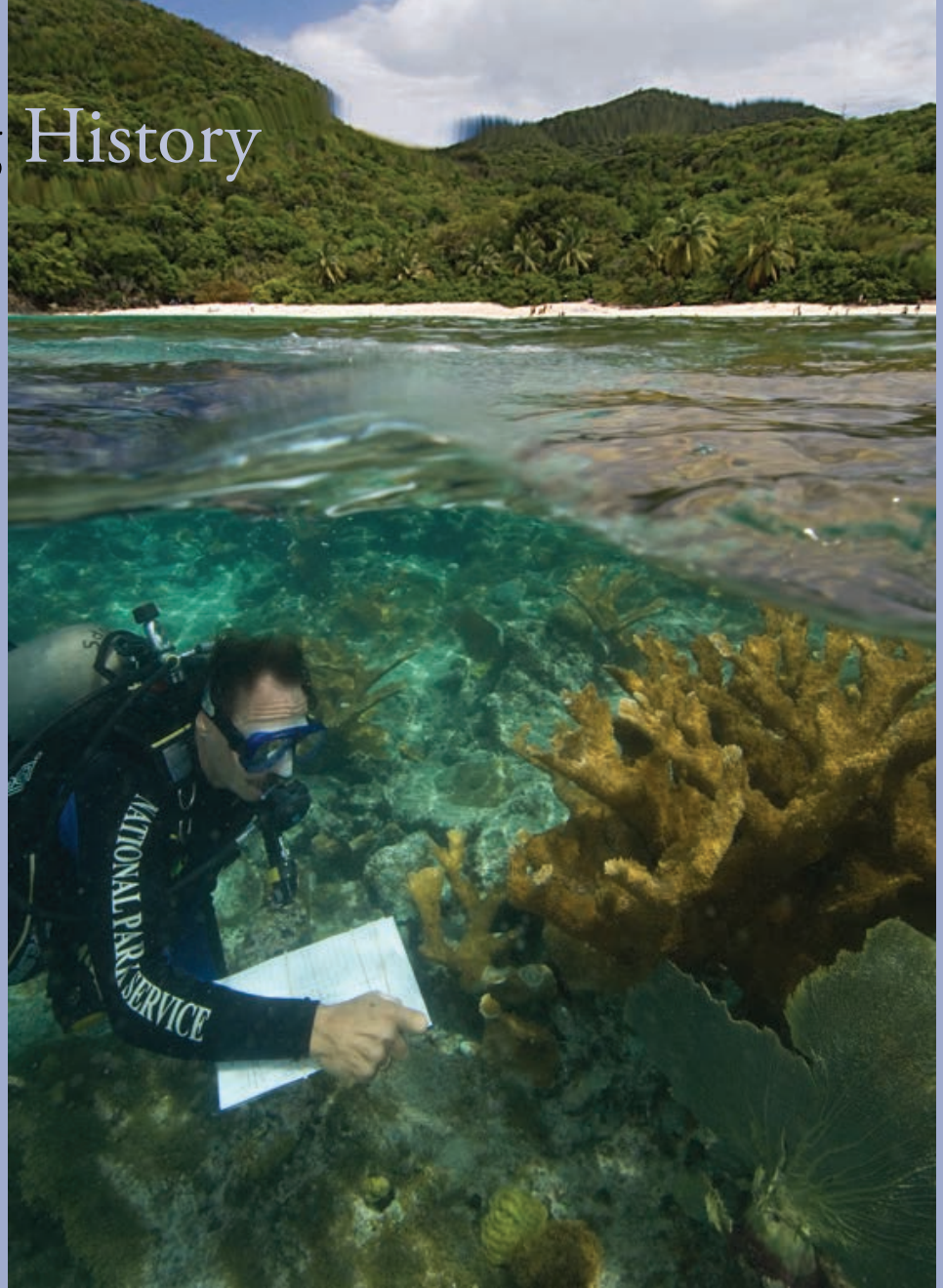
The National Park Service was the first civilian agency to formally adopt scuba diving as a management tool. NPS personnel were trained to dive at government expense as early as 1959 and were on the job by 1960. An NPS diving policy existed by 1963. Today, park rangers and other employees serving in protection, research, interpretation and resource management perform a wide range of diving jobs.

Beginning in 1960, scuba regulators have been added to guns, climbing ropes, and firefighting and rescue gear already in park equipment caches.

Approximately 175 NPS personnel dive as part of the dive program, most as a collateral duty. In the course of a year they recover drowning victims, conduct biological and archeological surveys, and monitor the condition of historic shipwrecks and the health of coral reefs on submerged parklands. They have counted fish and assessed the health of kelp, dived in white shark breeding grounds, conducted surveys of World War II ships sunk in nuclear blasts, undertaken exploratory dives of submerged caves, felt amidst the detritus of New York Harbor for weapons used in crimes, and recovered body parts of drug pushers along the Rio Grande. They've removed boating obstacles with underwater explosives and made dives in high altitude lakes under ice.

Park divers sometimes carry wire cutters in reservoir recreation areas to free themselves from entanglements with trout lines and barbed wire. They've entered inundated dam structures and ranch houses to recover drowned divers and pulled pilots from submerged helicopters in rushing rivers. Others have tracked lobster migrations at night over coral reefs, excavated a Civil War submarine (*HL Hunley*) and accompanied French divers on 200-foot air dives to the remains of the Confederate sub sunk in the English Channel.

NPS divers based in Hawai'i check for accumulation of oil on the overheads of the *USS Arizona* in Pearl Harbor. They also work with media partners to communicate to the public the nature and fragility of agency holdings underwater. They have participated in saturation diving (underwater habitats) since the 1960s,



airborne deployment from helicopters and oxy-arc cutting of steel boating obstacles.

By comparison, newer agencies dedicated specifically to ocean research, such as the National Oceanic and Atmospheric Administration, maintain 50 percent more collateral duty divers and perform nearly twice as many dives in a year. What they do within the scope of their diving mission, however, is more narrowly focused. They are more formalized in their approach and usually more restrictive, which is appropriate for an oceanic research agency. All federal agencies have their own unique culture regarding risk management. The NPS is a protection agency with strong ties to law enforcement, combined with a geographical range and underwater diversity second to none. It has a nearly 100-year tradition in rescue and recovery — a ranger component to its

mission that suffuses the agency regardless of the employee's position description.

Many professions have traditions, few more proudly maintained than that of park ranger: self-reliant, tenacious generalists and risk takers. Many of the most active divers in the NPS program are not technically classified in the ranger series. Some are maintenance personnel, biologists and archeologists; others are park managers. When NPS divers show up to do a job with other agencies they all quickly become "the rangers." This defines any NPS employee engaged in diving and sets a high standard of expectations in much of the nation.

Although park areas in the Virgin Islands, Biscayne, Dry Tortugas and Cape Cod developed localized responses to visitor interests in diving, the units of the National Park System that initially built formal programs

were inland, particularly Lake Mead and Glen Canyon. The focus in those areas was on search and recovery, particularly for the victims of hundreds of drowning incidents in those parks. Death Valley, Lassen Volcanic and Montezuma Well were also the focus of early biological and archeological projects carried out by NPS personnel.

Perhaps the biggest role change of the NPS program since its beginning is that diving has become a scientific, interpretive and facility management tool rather than one more approach to recovering bodies. Still, the greatest cause of death in national parks (aside from automobiles) is drowning, so this function will never disappear. With the addition of research biology and archeology in the late 1960s and labor-intensive maintenance and resources-management dives in the 1970s, the diving program became well integrated into park operations. This was of critical importance because it ensured participants would stay active even when visitation was low, conditions were poor and there was no one to rescue or recover. The NPS dive program of the 21st century has resource management, both natural and cultural, making up nearly 70 percent of all diving activities.

Although parks were not set aside exclusively for their marine values until Glacier Bay in 1925 and the national seashores in the 1930s, major water bodies in the system have always presented unique management challenges. Yellowstone Lake, for example, covers an area of more than 125 square miles. It is almost half the size of Biscayne. Since the NPS mandate has no exclusions for stewardship at the water's edge, advances in diving technology were bound to be noticed by park superintendents. Most will acknowledge that interest in diving came largely from field rangers in park areas confronted with lots of water and lots of visitors. Visitors started diving in the parks and rangers weren't ones to simply watch their bubbles. As with climbing, rangers who learned to dive could directly familiarize themselves with resources they were sworn to protect. In many cases, diving is now a required part of the job that is addressed in the competitive hiring process. In some cases the applicant must be certified as a diving instructor.

The development of the NPS dive program was also a function of the interplay of people — different key figures. Any discussion of diving by older rangers will center on a strong-willed young dive officer at Scripps Institution for Oceanography. Jim Stewart helped the newly burgeoning NPS program standardize its protocols and provided dive training to

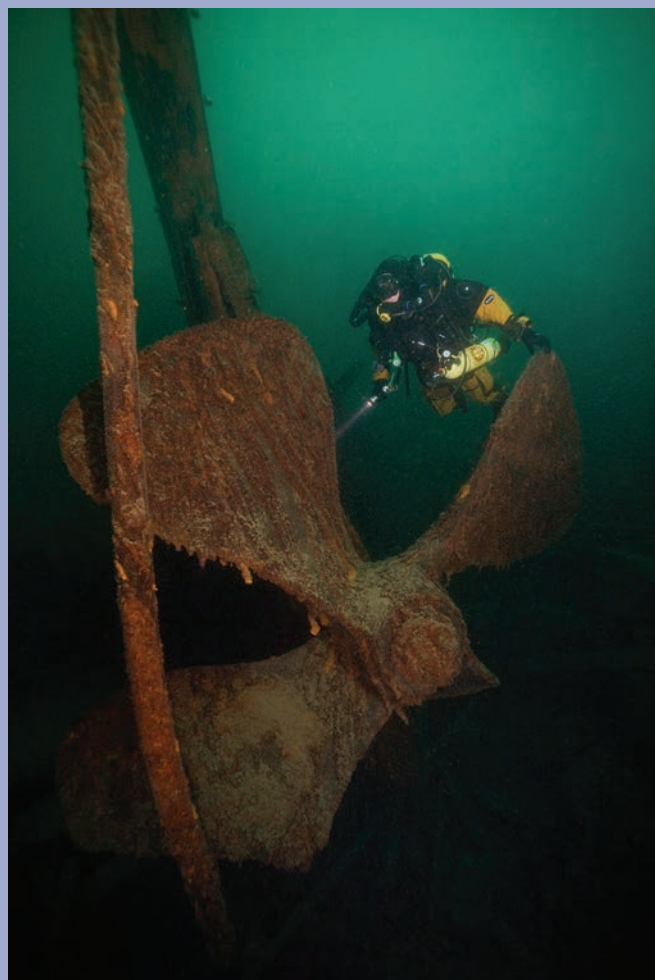
many park rangers. The relationship between Scripps and the NPS was an important and formative one. It reached even to the policy level and affected how the agency defined and managed its program on paper. The NPS dive policy was originally based for a short period on a Navy model, but by the mid-1960s NPS divers had adopted a Scripps model. This latter served as “genesis” for the diving policies of a large number of academic and public service agencies. Park rangers were taken in at the ground floor of this respected institution not because of a huge demand for training or enticing government grants, but because Stewart related well to rangers and took them under his wing.

Jack Morehead, who served as a ranger, then as superintendent of Everglades and Yosemite, and later as regional director of the Alaska region, was trained in diving in 1959. Other rangers, including Jim Randall, followed in the early 1960s. NPS dive teams grew to become an important aspect of the agency's search, rescue and body recovery capabilities. Early NPS biological researchers, such as Gary Davis and Rich Curry, brought not only scientific backgrounds but also a level of diving experience that allowed them to take part in saturation diving, essentially living underwater. In the Tektite (Virgin Islands) and FLARE (Florida) projects, aquanauts saturated their tissues with nitrogen at a particular depth and slowly decompressed over days before coming to the surface.

NPS archeologists weren't far behind the biologists. George Fischer and Cal Cummings ran underwater research operations at Montezuma Well in 1968 and at Fort Jefferson, now Dry Tortugas, in 1971. Fischer hired Dan Lenihan, a graduate student and diving instructor at Florida State University, to supervise NPS diving operations in a shipwreck survey at Gulf Islands National Seashore in 1973. The program was evaluated in the field by the first NPS-certified diving instructor, Don Weir, a law enforcement

ranger from Biscayne. Lenihan eventually developed a specialized NPS dive team called the Submerged Cultural Resources Unit, or SCRU team, still in existence. It's now called the Submerged Resources Center based in Denver. The Service's Pacific West Region has traditionally maintained the largest diving program in the agency. Dave McLean, assistant chief ranger of Lake Mead, pulled regional divers into a highly organized program in the early 1970s. The tradition has kept on today under Dave Stoltz based at Channel Islands.

Besides skin-to-water diving, NPS personnel have used submersibles on several occasions. These are small submarines capable of extreme depth but minimal lateral movement. Those aboard are kept in a “one atmosphere” environment, essentially as if they never left the surface. They can go to great depth and not have to decompress when ascending. Ranger Mark Buktenica went to almost 2,000 feet in a one-man submersible at Crater Lake in 1988. Among other agency personnel who've made these sorts of dives are Larry Murphy, Dan Lenihan, Matt Russell, Dave Conlin and Doug Lentz to the resting place of a Japanese



Some 140 feet below the surface, the huge propeller shaft of the freighter *Henry Chisholm* beckon the experienced diver.

Valerie Martin

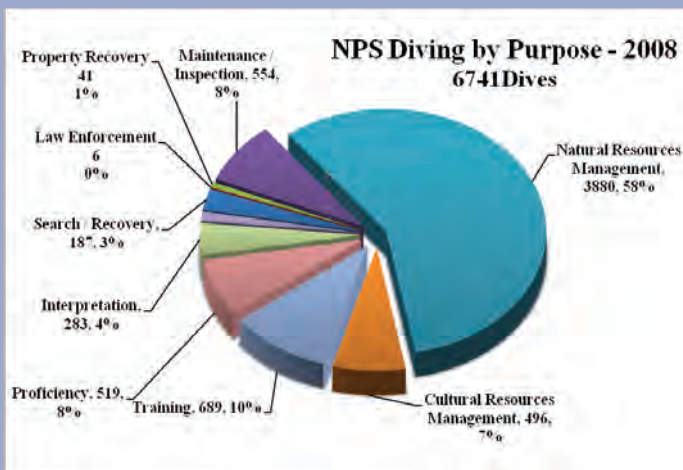
midget sub in more than 1,000 feet of water outside Pearl Harbor. Gary Davis rode to 1,200 feet to study white abalone at Channel Islands. In 2004 NPS archeologist Larry Murphy, working in partnership with NOAA, journeyed almost three miles (14,000 feet) down to the Titanic in a Russian submersible.

In addition to manned submersibles, parks and special diving units in the Service have invested in remotely operated vehicles, a swimming robot with video eyes. They can be sent to the depths to work in support of

divers or to places too hazardous for normal scuba operations. They have become an integral part of the agency's tool kit for responding to underwater needs. Pat Horning, park diving officer at Glen Canyon, has been a prime mover in applying this technology to body recovery efforts. The NPS Submerged Resources Center regularly uses such technology to assess the interior condition of the *USS Arizona* in Pearl Harbor.

Still, the core of all NPS underwater operations is scuba diving. Channel Islands rangers in 1989, in partnership with NOAA, conducted the most comprehensive undercover law enforcement operation on submerged sites in the nation's history. Rangers booked a dive trip with a charter operator who park staff knew was flagrantly flaunting the law regarding looting of antiquities from shipwrecks. The 20 people cited included divers and boat operators with resulting fines as high as \$100,000.

Ultimately, the decision to use scuba as a management tool in the NPS is done on a case-by-case basis. Superintendents and chief




rangers make their decisions based on need, availability of the right staff and comparative cost of using non-Service personnel. Aside from often being the most cost-effective approach for park operations, many managers prize the firsthand familiarity with submerged resources that in-house diving gives their personnel. Some parks have had diving programs continually since 1960. In others, where the need or cost effectiveness of maintaining staff divers is more questionable, there has been an ebb and flow of programs. The number of parks that keep diving programs has changed little in recent years but the specific parks have varied.

Much of the relatively high profile of NPS divers comes from "big-ticket" items such as diving the *USS Arizona*. The heart of the program, though, is the day-to-day diving of rangers and park scientists for resource management, maintaining aids to navigation, monitoring archeological sites and recovering the bodies of drowning victims. The NPS has conducted an estimated 80,000 person-

dives during the past half century. Divers have recovered the bodies of hundreds of park visitors who met a tragic end while visiting the national parks. These recoveries, as any performed by rangers in all circumstances, bring an element of closure to bereaved survivors.

The NPS dive program is unique and has proved extraordinarily productive during its 50-year history. Diving is also clearly a hazardous duty. Aside from its line supervision at the park and regional level, there is crucial oversight provided by the

agency's National Diving Control Board that replied to regional boards in 1992. These divers representing each region ensure the NPS remains compliant with relevant OSHA regulations and unifies the program's direction. In late 2010 the NPS hired its first full-time dive safety officer, Steven Sellers. Again, the philosophy is to allow flexibility at the local level but coherence at the national level.

NPS personnel conduct as many as 7,000 dives a year, providing services to many parks and programs. They are well trained, highly motivated and live in the shadow of a great tradition — the NPS ranger. 

Dan Lenihan, the former chief of the Submerged Resources Center, began his NPS career as a park ranger, archeologist, and diving instructor in 1972 in the Southeast Region. From 1975-80 he ran the National Reservoir Inundation Study to investigate the impacts of impoundment on archeological sites. He then led the Submerged Cultural Resources Unit team in projects until 1999 when he stepped down as chief, but continued to work as an NPS diver through 2006 and an archeologist through 2009. He is working on a history of NPS diving with Butch Farabee.





A Diver's Experience

By Pete Sweger, Isle Royale

Seeing the massive machinery parts of the *Glenlyon* in their natural resting place is a profound experience, says author Pete Sweger.

THE DEAFENING NOISE of the boat's engines leaves us unable to talk, and so we each retreat into the solitude of our own thoughts. I think about the last year of planning and preparation to make this trip possible.

Arrangements happened so long ago that a forecast would have required *The Old Farmer's Almanac*. On a typical day the lake conditions are one- to three-foot waves, which make a boat trip exhausting and a climb up the dive ladder more than a little dangerous.

However, this is not a typical day. The morning's sun reflects off the gently undulating surface of the lake, yesterday's swells grow calmer in the absence of wind. I smile in anticipation of swimming among some truly world-class shipwrecks.

With the Isle Royale Lighthouse in sight, we focus on rigging our dive gear. The methodical assembly and testing of equipment is as much ritual as anything else. This will not be an extreme dive by any means, but going underwater is never to be taken lightly. As I look around at the others, I am comforted to be with friends to whom I trust my life.


The boat noses up to a white, teardrop-shaped mooring buoy. The skipper kills the engines and hoists the dive flag. My dive partner sits opposite of me on the rear deck as we inspect each other's gear. He is a mountain of suit, hoses, gauges and mask, leaving the barest minimum of exposed skin for the icy cold water to attack. Over we go. As I hit the water there is a predictable moment of disorientation: being upside down, looking up into the sun through a swirl of bubbles, and the shock of cold water. While the bubbles clear I check that all my gear is in place and working. Then

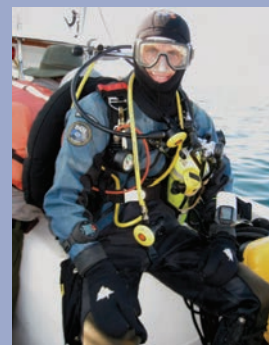
I right myself and see my partner swimming toward the down line.

Letting air out of my buoyancy jacket, I begin to sink and the lake swallows me whole. Now the only sounds I hear are the rush of air from my regulator as I draw breath in, and the cascade of bubbles escaping toward the surface as I exhale. The light of day fades to twilight. Slowly my eyes adjust. Already I can see the steel hull plate used to anchor the mooring line. What remains of the 328-foot *Glenlyon* lay twisted and strewn over a 900-foot stretch of reef ledges as if subjected to the wrath of a furious Manitou spirit. Absent of terrestrial bonds, my mind freely returns to the early hours of Nov. 1, 1924, when 40-mph winds and a rising sea drove this Canadian bulk freighter to seek shelter in Siskiwit Bay. At 31 years of age she was a mature ship, but far from ready to be broken on the previously unnamed reef. In the dark morning hours with the wind howling, her crew must have feared that the water serpent *Mishi-ginebig* was drawing near to crush the ship in its merciless coils.

Temptation beckons me deeper, but our plan takes us up and over the reef within a few feet of the surface. After cresting the reef, I turn to the northeast for several minutes of swimming to the engine. Tiring from the flutter kick, I switch to a frog kick. Is it really this far, or am I in the wrong valley? Uncertainty, doubt and then disappointment weigh on me for wasting precious time underwater. Just then

more wreckage comes into view and we are rewarded with the massive gears and cylinders of the triple expansion steam engine. There is no sign of the wheat cargo, but the electrical generator and fractured engine supports are plain to see. I move along the shaft toward the propeller. Even in Lake Superior's naturally excellent clarity, I have lost sight of the engine by the time we reach the propeller.

We still have plenty of air left, so we head down to the next valley toward other remains of the stern section. I spot individual blades of a propeller, once spares carried on board. And there lies the rudder, an oddly shaped slab nearly a foot thick. My partner signals that it is time to head back to our boat. With reluctance I admit to myself that no amount of time would satisfy the desire to stay and see more. 



Pete Sweger made his first Isle Royale dive in 1969. Two years later he began his service there as a volunteer diver. He became a visitor and resource protection ranger for the NPS in 2004 and has served in six different park areas. He made his way back to Isle Royale where he currently is a field ranger.

Shipwreck Archipelago

By Valerie Martin, Isle Royale


"The sea was terrible, the waves rushing in great mountains over the deck, and every few minutes the despairing shriek of some poor fellow would be heard as he was carried off and lost."

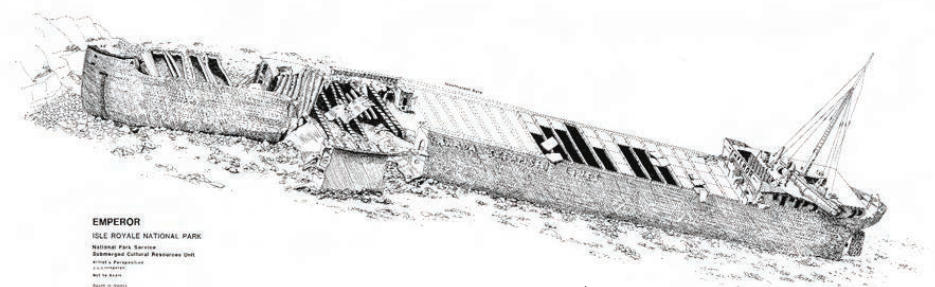
— William R. McCarter, one of two surviving passengers from the wreck of the *Algoma*

After hours battling huge seas, blinding snows and hurricane-force winds, the passenger steamer *Algoma* struck a reef just fifty feet off Isle Royale. Like other ships before and after her, the *Algoma* met her fate on this rugged archipelago ringed by reefs, set amidst a vast inland sea. In days when Lake Superior was the highway for goods and people, Isle Royale was a major landmark and sometimes a deadly obstacle. In times before radar and radio, ships like *Algoma* paid a heavy price for small errors in navigation.

The shipwrecks of Isle Royale tell the story of a developing nation: of energy, confidence and innovation. Growth and expansion were rapidly altering the landscape of America, but our finest technologies, our greatest achievements were no match for the island and the lake. Spanning 70 years, the 10 major wrecks are the most intact collection of shipwrecks in the National Park Service and form a veritable museum, showcasing the evolution of maritime transportation on the Great Lakes.

Isle Royale's wrecks not only encapsulated history they captured stories: the stories of men and women whose experiences with this interface of water and land were profound, sometimes life-altering — sometimes life-ending. They are stories of the consequences of human error and human frailty. They are inherently stories of loss, but they are also tales of courage, honor and resilience. Artifacts found in association with the wrecks speak eloquently about each vessel, daily maritime life and the individual stories of passengers and crew.

As you drop down from the surface into the twilight, you enter another century. Looming shadows of huge pieces of machinery are a testament to changing technologies. Time seems to have frozen here. A jug of milk sits in a galley as if waiting to be poured, a radio silently replays its final tune, and samples of grain packaged in glass bottles are forever enroute to potential buyers. In the silent depths you not only feel the presence of these stories, you relive them. 



▲ A site sketch of the freighter *Emperor* aids in monitoring this nearly intact 525-foot vessel.



◀ Rangers, at work on the package and passenger vessel *America*, monitor and inventory shipwreck sites and maintain a system of buoys in efforts to understand and protect Isle Royale's submerged legacy.

Valerie Martin has worked as a seasonal interpretive park ranger at 11 NPS sites stretching from Hawai'i to Maine. Captivated by the beauty and spirit of the remote archipelago of Isle Royale, she has spent the last 13 summers working and playing there.

Retrospective on Project Tektite

By Gary E. Davis

There I was, in dawn's early light on the beach at Cinnamon Bay, waiting for the vice president of the United States to finish his solitary walk along the water's edge. For six months I had been the Cinnamon Bay campground ranger in Virgin Islands. With Superintendent Joe Brown I had welcomed Vice President Hubert Humphrey to the park on St. John. He had come to contemplate his future after losing the 1968 presidential election.

It was the height of the Cold War. Soviet submarines lurked beneath the sea along America's coastlines. The nation was poised to send astronauts to the moon for the first time. Science was emerging from dusty labs to pursue nature outdoors and engage public interest in an environmental movement. The National Park Service was enjoying the results of Mission 66. The NPS also was pondering the significance of simultaneous program reviews by the National Academies of Science and the Department of the Interior that recommended it incorporate science as a guiding principle.

In the late 1950s, scuba technology, neoprene wetsuits and repetitive dive tables had just made personal ocean exploration possible, and it seemed scientific diving pioneers discovered something new and exciting every day. What a wonderful time for me to be a national park ranger, with a graduate degree in ecology, working in a new ocean park.

The same pioneering spirit and concerns for national security that led visionary national leaders into space also drew them to explore the sea. Jacques Cousteau had just finished his pioneering Conshelf project, exploring the limits of human capacity to live and work on the sea floor. The U.S. Navy was in the midst of its own man-in-the-sea project called SEALAB. Many questions still plagued man's exploration in the sea. What were the physiological consequences of hyperbaric nitrogen saturation? Was saturation diving a practical way to conduct environmental research? How would motivated, working scientists cope with isolation from family and society, and could they function well in such intimate contact

with a few colleagues for extended periods? A group of scientists, engineers and program managers from the U. S. Navy, Interior Department, General Electric Co. and NASA designed Project Tektite to address these critical questions.

How did a park ranger in the Virgin Islands get involved in ocean exploration, and what is a tektite? I began diving in the 1950s in San Diego and used my scuba skills to survey mountain lakes in Lassen Volcanic in the mid-1960s. Tom Hartman, then a ranger at Cabrillo, interviewed me for my first NPS



job. He had just been certified as one of the first NPS scuba divers, and we talked about NPS diving in my interview. When I accepted the campground job at Cinnamon Bay, the park included more than 5,000 acres of submerged lands and coral reefs. Diving would be an important tool for resource protection, management and interpretation, so I applied to the nascent NPS dive program for certification and was accepted.

One day I was assigned to take a group of VIPs around the park to show them places where they might be able to conduct research on coral reefs. They were from the Department of the Interior's Office of Naval Research and Bureau of Commercial Fisheries. We dove on several sites in the park, and they selected Lameshur Bay, a protected cove on the south shore of St. John with a relatively flat area suitable for a base camp nearby.

They planned to place a structure called a habitat in which aquanauts would live and work, with access to the sea, at a depth of 50 feet on the sea floor near a coral reef. The aquanauts would map the reef, study lobster behavior and conduct other ocean research, while they, in turn, would be studied by hyperbaric physicians, psychologists and behaviorists. The habitat was originally designed as a space station and built by GE. A tektite is an object of unknown origin that falls from outer space into the ocean. Since the origin of GE's space station/habitat design was unknown and it was to be applied to a man-in-the-sea project, Project Tektite seemed an appropriate name.

Conceived and initiated in the turmoil of the 1960s, Project Tektite reflected the excitement and urgency of Cold War threats, a space race to the moon and the dawn of a grass-roots environmental movement. Seven aquanauts were trained for the 60-day mission. In late 1968, Navy commander, astronaut and Tektite aquanaut Scott Carpenter had to leave Project Tektite to keep a prior commitment to the Navy's SEALAB program in California. Tektite leaders asked the NPS if I would replace the alternate aquanaut, John Van Derwalker, who had replaced Carpenter.

Personally, Project Tektite highlighted the opening chapter of my career as a park ranger and scientist.

Looking back, with the improved vision of hindsight and the removal of 40-plus years, I can see the project's significance in several ways: personal, professional and national. Tektite opened doors to a world I scarcely knew existed from my graduate school cloister. It was "Big Science" in the sea, with teams of collaborating and competing scientists and managers from a variety of offices and programs. It taught me the values of nurturing conflicting ideas and multiple points of view to achieve challenging, complex and often conflicting goals. I experienced firsthand the essential need for continuous communication and teamwork combined with individual initiative and persistence to address multiple, meaningful hypotheses and to advance knowledge on many fronts. Included were human physiology and behavior, submarine engineering and construction, marine geology, oceanography

and marine biology.

In the end, Tektite demonstrated the practicality of using nitrogen gas mixtures for saturation diving, the feasibility of long-term habitation on the sea floor, the potential of collaboration by scientists from diverse disciplines and institutions, and the value of national parks as environmental benchmarks for study. Tektite showed great potential for sustained submarine observations and intense exploration in restricted areas. It also revealed limitations of such geographically restricted studies and the relatively high costs of providing access to the shallow sea for research.

Nationally, Tektite provided a foundation for additional exploration with both fixed and portable underwater habitats as research tools to complement shore and ship-based facilities. In spite of the excitement generated by Tektite-inspired, aquanaut-led exploration of the coastal ocean, manned submersibles and remotely operated vehicles proved to be more effective tools for learning about shallow seas. Just as manned voyages into far space proved fascinating for the public but unsustainable, undersea exploration has been advanced more by submarines and robots than by aquanauts.

Nevertheless, true learning requires more than just accumulating facts collected by inanimate probes. People need sparks generated by the adventures of aquanaut expeditions to light the fires of human imagination that will sustain exploration of our world's final frontier. Tektite ignited a fire that has yet to be extinguished. That fire continues to engage generations of scientists and the public in ocean research to learn enough about nature to improve the human condition on earth. 🛥

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Courtesy of Tamara Thomsen, Wisconsin Historical Society

Shipwreck Partners and Preservation

By David Cooper, Apostle Islands

It was the result of a chance find on the Internet — a mention of his great-great-grandfather George Lloyd — that led him to this lonely, windswept place. Accompanied by his son, he carried a wreath to pay respects to a man he never met. And, he had taken scuba lessons to make the visit.

A Civil War veteran, Lloyd survived the Battle of Gettysburg only to disappear in a blinding snowstorm on Lake Superior in 1886. He was captain of the schooner *Lucerne*, lost with all hands off Long Island, Wisconsin. His body was never recovered.

The shock of cold Lake Superior water on the face causes the first breath in a scuba regulator to be a long, drawn-out, mechanical gasp. The divers head down the descent line, hand-over-hand, blinking ice water drops out of their eyes as they watch the dark shape of the wreck emerge from the lake bottom. The divers make a gentle landing on the bow of the *Lucerne*, gazing around in wonder at the heavy timbers and large rusted iron object dominating the ship's forecastle.

The bow contains the ship's windlass and capstan, scene of the crew's last battle to set anchors and prevent *Lucerne* being driven ashore. Below the windlass deck lies the dark, cramped V of the crew's quarters, where a jumble of coats, hats, potbelly stove, tools and ship stores marked the men's last refuge before the freezing green waters burst through the *Lucerne's* hatches and seams. Three men made it on deck only to die a slow death, encased in ice in the ship's rigging.

Apostle Islands is a Lake Superior archipelago of great natural beauty: an almost southwestern color palette of red sandstone cliffs and dunes set against the dark greens and blues of forested islands and bays. It is also a place of great maritime traditions, with lighthouses, commercial fishing stations, and the remains of historic shipwrecks scattered throughout the islands.

The shipwrecks of Apostle Islands are managed as a partnership between the state of Wisconsin and the National Park Service. Shipwrecks occur both within and just outside the park. Park visitors and commercial dive charters enjoy visiting these sites, and the stories of the shipwrecks are often closely tied to the stories of the park's historic light stations. In strange twists of historical fate, nearly every Apostle's light station has its own shipwreck story, sometimes involving heroic rescue efforts by lighthouse service personnel.

The park's first shipwreck preservation project began with the discovery of the shipwreck Noquebay off Stockton Island. In 1984 Toni Carrell of the NPS Submerged Cultural Resources Unit (now the NPS Submerged Resource Center) led a team of volunteer divers in the excavation and documentation of the wreck. In addition to being a catalyst for the formation of a park dive team, the Noquebay project also raised awareness of shipwreck management issues at the lakeshore, and

▲ Above, painting of the *Lucerne*, courtesy of Wisconsin Maritime Museum Collection



Remains of the *Lucerne's* forecastle

propelled by a major shipwreck study at Isle Royale, throughout the Great Lakes region.


The state of Wisconsin followed NPS' pioneering work with the creation of a state underwater archeology program in 1988, located at the Wisconsin Historical Society. Partnering with East Carolina University's program in maritime history and underwater research and the University of Wisconsin Sea Grant Institute, a shipwreck survey of the Apostle Islands was initiated in 1990. Mapping and photographic documentation of major wreck sites was accomplished, along with the development of technical reports, waterproof visitor guides and an award-winning website, Wisconsin's Great Lakes Shipwrecks. It was through this website that the family of Capt. George Lloyd learned of the research on the shipwreck *Lucerne* and was invited to visit the shipwreck site.

New partners were added, with the Wisconsin Department of Transportation and the Wisconsin Coastal Management Program supporting the historical society's effort to create a statewide program of maritime trails. This program pairs the shipwrecks of the Apostle Islands with maritime resources, such as mu-

seums, lighthouses, boat tours and waterfront trails, into a linked series of maritime heritage tourism experiences.

Wreck site access has been facilitated by a system of mooring buoys, maintained by local volunteers. Not just for divers, the maritime trail concept appeals to a broader span of recreationalists, from kayakers and snorkelers to family vacationers. Still, the basic work of documenting and preserving shipwreck resources continues. Wisconsin Historical Society has

begun documenting several intact deep-water wrecks in the area, partnering with another nonprofit group, the Great Lakes Shipwreck Preservation Society. Through the work of these two groups, shipwreck preservationists have been able to document new wreck finds and add them to the National Register of Historic Places in an effort to preserve these sites.

Partnership is a theme — no single agency has the funding and resources to accomplish shipwreck preservation goals. Management agencies such as the NPS have found that through a relatively small investment in local leadership and training, like the Noquebay project, organizations and individuals got behind the idea of Great Lakes shipwreck preservation. In a little over 20 years, they have achieved much progress. 

APOSTLE ISLANDS SHIPWRECKS on the WEB

www.wisconsinshipwrecks.org/explore_lakesuperior.cfm

www.maritimetrails.org/discover.cfm

www.nps.gov/apis/planyourvisit/diving.htm

www.wisconsinhistory.org/shipwrecks/

David Cooper served as the Wisconsin state underwater archeologist from 1988-98. He began his NPS career as chief of resource management and archeologist at Grand Portage in 1998 and now serves as cultural resource specialist for Apostle Islands. He has been involved in sport and scientific diving for more than 25 years.

The Missing Ones

By Dan Pontbriand, Isle Royale

The mysterious disappearance of a young couple, Russell and Blanche Warren, in 1929 would haunt their two young sons and descendants for 73 years. The Warrens were last seen driving a 1927 Chevy sedan headed toward their cabin on the Olympic Peninsula. A massive search effort by the Clallam County Sheriff's Department in 1929 failed to find the missing couple.

In the mid-1950s, the story captured the imagination of a local man, Bob Caso, diving the local lakes and coastal areas of the northern Olympic Peninsula.

I met Bob in April 2001. He arrived at Olympic's Storm King Ranger Station lugging an armful of maps and file folders. It was clear that he had a story he needed to tell. Bob and I hit it off immediately, our common link being diving. Bob, then 78 years old, had not been diving for quite a few years but his passion was still burning deep in his heart. He and his friends formed the NEMGORF (frogmen spelled backwards) Dive Club and began looking for the Warrens in 1956. It would turn out that Bob had actually searched the right area but had not gone deep enough due to the limitation of equipment and training.

After hearing him tell the Warrens' story, I was hooked. As a ranger and park dive officer, I felt like I had something to contribute to the cold case. The Olympic dive team decided to use the case as a deep dive training opportunity. Our team splashed for the first of many dives on July 3, 2001, 72 years to the date of the Warrens' disappearance.

The first place we chose was Ambulance Point because of its uncanny likeness to the description of the possible accident location Clallam County Sheriff Jack Pike had given. Everywhere we looked there was evidence of accidents from the past: rusty car parts, fenders, tires, hubcaps. We searched to a depth of about 90 feet but didn't find the Warren car. As months passed and additional dives were made near roadside turnouts, news of our efforts reached the newspapers. This led to the discovery of Blanche and Russell's grandchildren living nearby.

On Saturday, Dec. 7, a clear and beautiful morning, the Olympic dive teams splashed at Ambulance Point near a slight curve in the road. The hope was this was the same "little curve in the road" mentioned by Sheriff Pike in 1929. Visibility was great and the water temperature was approximately 50 degrees. At about 90 feet, the bottom dropped off vertically to an unknown depth. We searched east of the "little curve" at about 70 feet in depth, and in a 6-foot-wide crevice we found a black, glass flower vase. We also located a washing machine lid dangling on the edge of the dropoff. In 1929 the Warrens had purchased a washing machine before leaving Port Angeles. The lid we discovered was from a Norge machine dating to about 1929. Could this actually be the lid from Warren washing machine? The trail was getting hot.


The winter storms of 2002 combined with a lack of sunlight to significantly decrease visibility. Therefore, the team decided to wait until April for the sun to return and water to clear. On Saturday, April 13, two divers splashed with instructions from me to send up a buoy if they found something. About 10 minutes later a buoy popped to the surface. The surface support team had to wait an hour while the divers decompressed, then surfaced with news of what they found. Bob was aboard the dive boat next to me when the divers broke the surface.

They had found the car. I looked at Bob and began to shed a tear. Here was the man who had been searching for the Warrens for nearly 50 years and now we had found the car.

With this discovery, one burning question remained. Were the Warrens inside? The next day our dive team visited the car, at a depth of 171 feet, with a video camera to document the site. With permission of the Warren family who had been with us each weekend and the park cultural resource management specialists, we excavated the inside the car. We recovered a woman's blouse and some personal items, but no human remains. It seemed that another mystery was at hand. Perhaps the Warrens were not quite ready to reveal their secrets.

In May 2004, during a dive to return the personal artifacts to the car, a diver noticed what appeared to be human remains while on a decompression stop at 150 feet. Could these human remains be the Warrens? The Warren family, as usual, was on the shore waiting for the safe return of all divers. We were silent for about five minutes, shocked by the news.

In December 2004, the NPS Submerged Resource Center dispatched a team of three technical divers to Lake Crescent to assist me in confirming and recovering the human remains. During the course of the project, the team located additional remains just below 200 feet while using an ROV to investigate the site. A recovery plan was implemented using mixed gas, site measurements and photography, and specially built lifting containers to keep the human remains in Lake Crescent water until examination by a forensic lab. The bones were shipped to an FBI lab in Alexandria, Virginia, for DNA analysis.

Russell Warren's sister, Emily Helen Warren Mattson, had a daughter, Jessie Wilma Mattson Ewing living in Wisconsin. She provided a biological sample from which mitochondrial DNA was extracted. In December 2005, the FBI lab reported that the two DNA samples were consistent — the bones in the lake were those of Russell Warren. His remains were returned to the family, and in 2009 they placed his ashes at the shore of the lake where he could once again rest near his beloved wife. 



Dan Pontbriand, a 31-year NPS veteran, is the chief ranger at Isle Royale. He oversees the law enforcement, emergency medical services, search and rescue, safety and dive programs.

Seafloor Mapping in the National Park System

By Jeffrey N. Cross

The National Park System plays a critical role in conserving more than 12,000 miles of coast and 2.4 million acres of submerged lands, including beaches, coral reefs, estuaries, barrier islands, glaciers and historic forts and shipwrecks. They are located in more than 80 ocean, coastal and Great Lakes parks across 23 states and four territories. Their beauty attracts 86 million recreation visits per year and generates over \$6 billion in local economic benefits from tourism and recreation.

Managers of ocean and coastal parks face increasing impacts from coastal development, recreational use, terrestrial pollution, invasive species and climate change. However, many park managers have only general knowledge and vague understanding of the nature, extent and condition of submerged resources within their park's boundaries.

Unlike terrestrial units, managers of ocean and coastal parks cannot easily observe their resources. The most spectacular topography and geographic features are hidden from casual view and may only be detected by surveys that are technically complex, logistically difficult and expensive. This explains why submerged resources remain unmapped for the majority of these units.

Since 2008, the Natural Resource Program Center has partnered with the U.S. Geological Survey, NOAA and several states and universities to develop seafloor maps for 13 ocean and Great Lakes parks. These high-quality, habitat maps provide park managers with better information about the location and condition of submerged resources and support resource assessments and management planning. Seafloor maps establish baseline conditions for future monitoring and can inform post-incident (related to storms, ship groundings, oil spills and more) management decisions. In many states, coastal areas beyond park boundaries are being developed, and development is expected to increase in coming decades. Accurate seafloor maps that extend beyond park unit boundaries will help managers identify actions related to increased coastal development.

Golden Gate was one of the first parks to be mapped by this program. Designated as a biosphere reserve by UNESCO, Golden Gate is biologically diverse. It has windswept beaches and cliffs, low mountains, swaths of prairie, live oak woodlands, salt marshes,

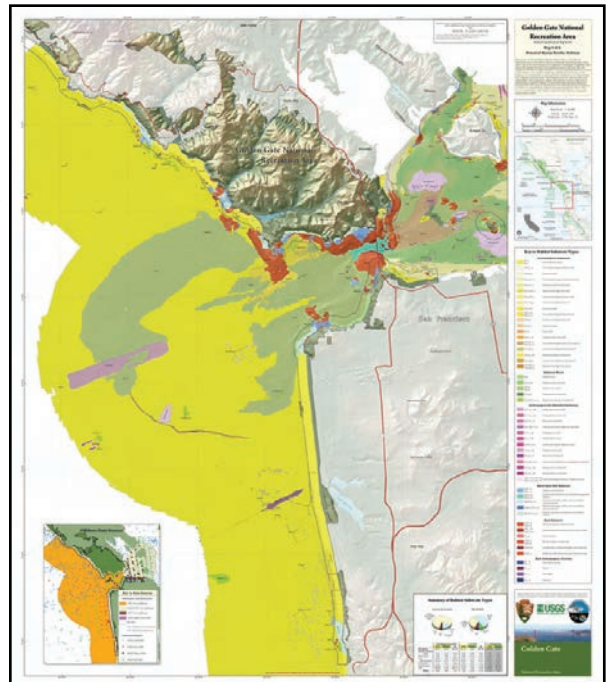
freshwater wetlands and redwood forests. Personnel at the recreation area manage 40 miles of marine coastline and estuarine resources inside San Francisco Bay. The park holds a lease from the State Lands Commission for management of tidelands and submerged lands within the park boundary to 1,000 feet offshore. Seafloor maps for Golden Gate were developed by cooperators from California State University at Fresno, Moss Landing Marine Laboratories and the USGS.

Information about the seafloor in and around Golden Gate was collected with high-resolution, multibeam sonar. Multibeam sonar uses sound produced and recorded through an array of hull-mounted transducers to create high-resolution, three-dimensional images of the seafloor.

The character of marine benthic habitats is closely correlated with geology. Fifty-two habitat types were defined from the interpreted data. They ranged from hard bedrock outcrops on island and mainland flanks, and in some areas of the bay to soft, dynamic bedforms consisting of sediment waves and ripples. Sediments ranged from mud and sand to gravel, pebbles and cobbles. Seventeen anthropogenic features, such as pipelines, bridge abutments, dredged channels, dump sites, were also identified.


The diversity of habitats is higher in San Francisco Bay than in the offshore areas. Along the open coast, 94 percent of seafloor habitats are unconsolidated sediments, including dynamic sediment waves (14 percent); the remaining habitats are hard substrates and anthropogenic features. In San Francisco Bay, 74 percent of the seafloor habitats are unconsolidated sediments, including dynamic sediment waves (49 percent); the remaining habitats are rock outcrops, mixed sediments, and anthropogenic structures and disturbed substrate.

One of the goals of the seafloor mapping project was to identify important benthic habitats that merit protection to sustain the important fisheries. Rock outcrops and rubble are the principal habitats for rockfish and lingcod. The seafloor maps show hard rock and boulder regions within and outside of San Francisco Bay that have textural complexity



suitable for rockfish and lingcod. Charter boat operators report that as many as 40 drift-fishing charter boats compete for position over or near bedrock knobs. Striped bass is the primary target species, but other bottom fishes such as rockfish, lingcod and halibut are also targeted. Dynamic bedforms, such as sand waves, are foraging habitat for juvenile lingcod and migratory fishes. Flounders and other flatfishes, on the other hand, prefer relatively flat, unconsolidated sediments.

The watershed surrounding San Francisco Bay is important habitat for migratory fishes, such as salmon and sturgeon. Sturgeon reside in the bay while salmon are oceanic. Adults of these species transit San Francisco Bay in route to spawning and nursery grounds in the Sacramento and San Joaquin rivers. Benthic habitats, such as the lee slopes of sand waves, allow migrating fish to rest and conserve energy from the strong ebb tides in the bay.

The Golden Gate seafloor habitat maps are the basis for understanding and protecting the park's marine and estuarine resources and support NPS goals for resource stewardship in ocean and coastal parks. 

Jeffrey Cross is chief of the Ocean and Coastal Resources Branch in the Natural Resource Program Center of the National Park Service. The branch provides technical assistance and leadership in natural resource programs to 80 ocean and coastal parks across 26 states and territories. He has served in various resource management positions in the NPS and Forest Service for 10 years.

Underwater Inventorying at Channel Islands

The complex habitat and unique diversity of species in kelp forests require an innovative approach to monitoring.

By Kelly Moore, Channel Islands

The goal for park natural resource managers is to preserve, protect and restore park ecosystems. In order to address the complex and challenging issues facing our parks today, these managers must have access to accurate information on the status and trends of selected resources within our parks.

This information will have multiple applications for management decision-making regarding scientific research, park planning, monitoring design and improving visitor experience. Within the National Park Service, this information is garnered through long-term inventory monitoring programs designed to collect data that will assist with developing appropriate management strategies that are as diverse as the resources themselves.

Channel Islands presents an interesting challenge for a management team because over half of the natural resources are located underwater. At present, technology for sampling kelp forests from the surface is neither accurate nor precise enough to effectively monitor population dynamics of kelp forest communities. Furthermore, the waters surrounding Channel Islands constitute less than 3 percent of California's coastal zone, yet produce about 15 percent of the state's coastal fishery harvests. With this direct harvest impact and the threat of chronic and acute pollution from the mainland and from adjacent offshore petroleum development, there is great potential for major anthropogenic disturbances to the Channel Islands. Consequently, the need for a long-term inventory monitoring program is vital to gaining a better understanding of this important ecosystem and how to manage it appropriately. The complex underwater habitat and unique diversity of species associated with kelp forests require an innovative approach to monitor these natural resources.

Channel Islands stepped up to the challenge in 1982 with the establishment of what has become one of the most successful long-term inventory monitoring programs in the NPS. The Kelp Forest Monitoring Program, or KFMP, has been collecting information on more than 70 species of fish, algae and invertebrates for 28 years. The KFMP provides not only the most extensive data set within the NPS, but it also manages the longest fishery-independent data set along the West Coast of the United States. The information collected by the KFMP facilitates collaborations between Channel Islands and other agencies, including National Oceanic and Atmospheric Administration, California Department of Fish and Game, University of California researchers and others worldwide. These collaborations support an ongoing exchange of information and ideas that influence interagency and interdisciplinary management efforts and assist with the advancement of scientific research. The KFMP has been crucial to the park's success in managing its submerged resources and has advanced our understanding of the natural resources found at Channel Islands.

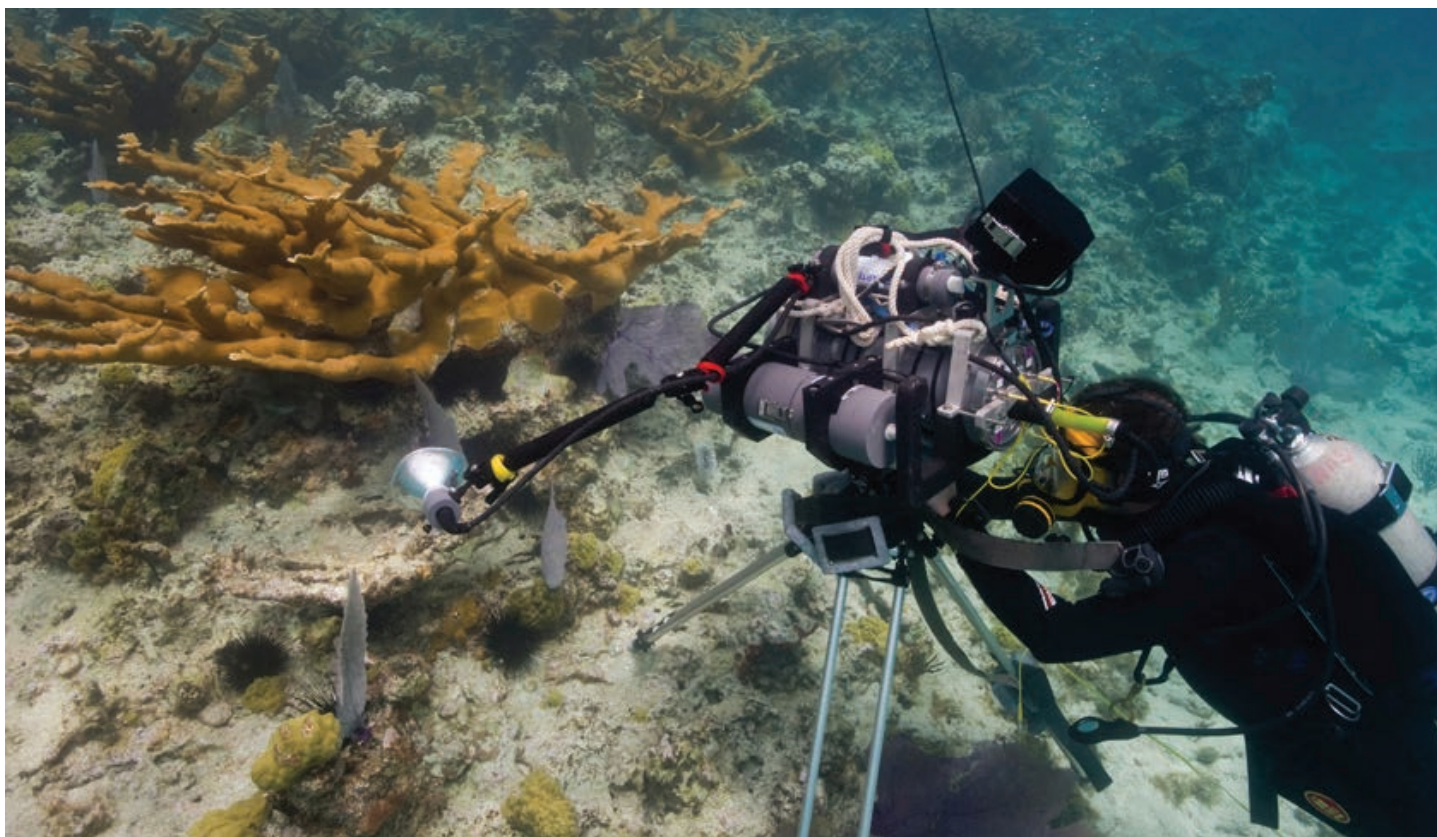
On an annual basis, the KFMP monitors 33 permanent sites located at the five northernmost Channel Islands — Santa Barbara, Anacapa, Santa Cruz, Santa Rosa and San Miguel. The aim of KFMP is to provide information that is relatively free of variation among observers and does not significantly affect the species monitored or the habitat that supports them. The sampling methods are designed to deal realistically with the inherent variability characteristic of kelp forest ecosystems while producing the highest quality data for future analysis. Approximately 10 different sampling techniques are conducted at each site. These techniques collect data on population abundance, distribution, age structure, reproduction, recruitment, growth rate, mortality and

sex composition of kelp forest species. The KFMP also uses underwater photographic equipment to document any visible changes to each site. All 28 years of KFMP video footage will soon be available to view online.

Collecting quality information underwater presents many unique challenges to a monitoring program. Diver safety is always of utmost importance. Diving operations at Channel Islands are often conducted in limited visibility, fluctuating ocean currents, cold water and rough seas. All KFMP staff and volunteers are required to hold an advanced scuba diving certificate from an institution that meets the American Academy of Underwater Sciences diving standards. In addition to being highly experienced divers, most KFMP staff and volunteers have substantial expertise in conducting surveys in kelp forests or similar habitats, helping to ensure both dive safety and data quality. All information is entered into a database based on a ranking system of expertise; this serves as a filter, making certain only the highest quality of information is used. Such strict information management criterion has made KFMP data well respected by managers and scientists worldwide.

Averaging more than 1,000 dives per year, the KFMP is one of the largest dive programs in the country. An estimated 20,000-plus dives have been logged by KFMP divers since the beginning of the program. Underwater inventory monitoring can be physically and mentally demanding, but it is an essential component to natural resource management at Channel Islands. Without a safe and effective dive program, managers would be unable to appropriately preserve and protect the underwater resources at the park. The KFMP dive program has been able to connect park managers with firsthand knowledge of an underwater world most would otherwise never know and has the ability to shape the future of kelp forests for future generations. 🏠

Kelly Moore began her career with the NPS in 2005 as a Student Conservation Association intern at Channel Islands. She currently works as a biological science technician for the Kelp Forest Monitoring Program and has recently earned a student trainee position as park ranger for education programs. She grew up on Santa Catalina Island where she developed a lifelong passion for the outdoors. She enjoys surfing, fishing, swimming, yoga, climbing and hiking around her home in the Ojai Valley.



NPS divers galvanize efforts to conserve ocean parks

By Cliff McCreedy, Washington Office

"I am not a scientist. I am, rather, an impresario of scientists."

— Jacques Yves Cousteau

When he and engineer Emile Gagnon invented the Aqua-Lung in 1943, Jacques Yves Cousteau could not have imagined how this innovative technology, adapted from a simple automobile part, would forever change the boundaries of our experience.

By the 1950s, his trailblazing books and underwater movies were opening two-thirds of the planet — the underwater world — to global audiences. Scuba soon became an indispensable tool for underwater research, law enforcement, military uses and recreational diving.

The National Park Service adopted scuba into park operations in 1960 when it established the first federal civilian diving program. Major scientific advancements in stewardship of submerged resources followed during decades of underwater observations in parks.

During the 1970s and '80s, NPS scientists such as Gary Davis and Jim Tilmant studied kelp forests and coral reefs.

The Vital Signs monitoring program in

use today by 32 Inventory and Monitoring Networks also had its genesis in the kelp forest monitoring protocols.

At Virgin Islands, monitoring by divers in the 1980s revealed that reef fish populations had severely declined and were no better inside than outside the park. Existing territorial and NPS management strategies were failing to sustain reef fish communities. This information greatly contributed to the establishment of Virgin Islands Coral Reef and the expansion of Buck Island Reef as no-take reserves in 2001 by President Clinton.

In 2005, divers for the South Florida/Caribbean Inventory and Monitoring Network responded to the most severe coral bleaching event ever recorded in the Virgin Islands caused by ocean warming. Bleaching occurs when corals stressed by high temperatures lose the microscopic symbiotic algae that provide color, making their tissue transparent and revealing their white coral skeletons. Thousands of hours of underwater observations, using video monitoring protocols developed by NPS and the U.S. Geological Survey's Caribbean field station, showed that corals in their weakened state suffered an outbreak of disease that caused the loss of more than 60 percent of coral cover.

In these and other parks, reliance on the

NPS dive program has steadily increased, and today, more than two-thirds of the 7,000 dives conducted annually are for scientific and resource management purposes. This helps the National Park System fulfill its prominent ocean stewardship role. Eighty-four units on the oceans and Great Lakes, over 2.4 million acres of marine waters and 12,000 miles of shoreline contain centuries of maritime commerce in shipwrecks, lighthouses and museums and conserve underwater resources of tremendous biological and recreational value to the nation. Yet despite advancements in ocean science and management at individual parks, the leadership role of the NPS languished without a national focus. Vegetation maps, species inventories and base cartography on land moved forward under the national Inventory and Monitoring program plan while maps of spectacular landscapes and valuable habitats found under oceans and Great Lakes waters were not prioritized.

The National Park System Advisory Board in 2001 admonished the NPS that stewardship of ocean resources was lagging behind stewardship on land.

Then NPS Director Mary Bomar released the NPS Ocean Stewardship Action Plan in 2006 with objectives to:


1. Establish a seamless system of ocean parks,

- sanctuaries, refuges and reserves.
2. Discover, map and protect ocean parks.
 3. Engage visitors in ocean park stewardship.
 4. Increase NPS technical capacity for ocean exploration and stewardship.

Four regional ocean strategies soon followed. Mike Soukup, associate director for natural resource stewardship and science, created the Ocean and Coastal Resources Branch in the Natural Resource Program Center. It made immediate progress forging interagency partnerships with NOAA and other ocean-concerned agencies, leveraging map-making efforts and providing technical assistance for parks. Congress provided an appropriation of \$1.25 million in 2010 for the national program. Three regional ocean specialists and a marine fisheries biologist were hired to increase servicerwide ocean expertise. The branch influenced the National Dive Control Board and the Safety Leadership Council to reinvigorate diver training and safety, obtain funding and create a national dive safety officer position to support and strengthen park dive programs.

On July 19, 2010, President Obama signed Executive Order 13547 establishing a new National Ocean Policy “to achieve an America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured.”

The policy emphasizes adaptive, ecosystem-based management to respond to climate change, ocean acidification, pollution and overfishing. The ocean and Great Lakes parks need to feature prominently “as geographic areas of special sensitivity in greatest need of ecosystem-based management” under the National Ocean Policy.

Today, the need to harness the collective efforts of the NPS, state and federal partners and gain operational efficiencies is greater than ever in this new era of budgetary constraints. NPS will need to be in the forefront of these efforts. 

Since 2002 Cliff McCreedy has served as marine resource management specialist in the Ocean and Coastal Resources Branch, duty stationed in Washington, D.C. Before that he was chief executive for Oceanwatch, a nongovernmental organization. He also was appointed to congressional staffs in the House of Representatives and Senate, and as congressional liaison at the U.S. Environmental Protection Agency where he received the Silver Medal for Superior Service. He has a bachelor's degree from Drew University.



John Broward

Underwater wonders of the national parks


A new dimension of the visitor experience

“AMERICA’S BEST IDEA,” our national parks, includes our “Best Kept Secrets.” Those of us who wear the green and gray know this to be true. These secrets include the least-traveled trails, the best views and remote backcountry campsites rarely used by drive-through visitors. Perhaps nowhere in our National Park System is this more true than the underwater world within our parks’ boundaries — treasures set aside for future generations don’t end at the water’s edge.

The NPS has always strived to create a visitor experience that educates while it engages. With advancements in technology, how we communicate our message of resources stewardship, diversity and protection should evolve. Not all resources within our national parks are accessible to all individuals, nor should they be, but inability to climb or dive should not result in alienation from this part of our heritage. For the past four years, the NPS Submerged Resources Center, or SRC, has had a formal partnership with the Advanced Imaging and Visualization Laboratory at Woods Hole Oceanographic Institution to create a new path in how our visitors experience the resources within our national parks, especially those underwater. Together we have developed the infrastructure to bring three-dimensional, high-definition video content to the NPS.

The initial concept was to produce underwater educational documentaries that allow outreach and education experience in local schools, conferences and partner forums. To accomplish this, the SRC developed portable 3D-HD video systems, housed in custom-built shipping containers. The next step was to work with interpretive park rangers to bring underwater resources in 3D to a wide variety of audience outside the traditional visitor center environment.

A SRC/Woods Hole production team spent nearly 10 weeks during 2010 acquiring underwater 3D-content with the support of diving rangers, park management and volunteers. From the endangered elk horn corals of Virgin Islands to the pristine reefs of Dry Tortugas; the massive shipwrecks of Isle Royale to the kelp forests of Channel Islands; and the geothermal vents in Yellowstone to the submerged B29 Superfortress aircraft in Lake Mead, this production has captured spectacular resources within the boundaries of the National Park System underwater world.

With educational productions currently underway at World War II Valor in the Pacific, Lake Mead and Dry Tortugas, the SRC/Woods Hole partnership has changed the way the public will experience the underwater world of the national park sites. 

— Brett Seymour

Mysterious Waters

By Ivy Kelley, Everglades

Abowsprit gazes intently into the clear water of Florida Bay as she perches on the front of a paddleboard. She's about 7 years old and sharing some time with her gondolier dad who advances the craft with smooth, even paddles. Their skin reflects a golden glow as they slide into the sunset. It's a warm winter evening in paradise.

I smile and wave, with a silent resolution to enjoy more evenings by the bay. I walk to the end of the dock. The explorers now peer into the tangled trees of the shore. Do they see birds or perhaps an iguana? Whistling feathers fly over my head, and I raise my camera to snap a cormorant as it hurries home to roost. I know that my lens won't do justice to the picture in my mind.

Then, I notice it. Something large, dark and alive is far out in the flatwater of Florida Bay. Floating, slowly sinking, now gone. Then, up again! The pattern is repeated at a leisurely pace; apparently the creature is in no hurry. There's a new eruption — could that be its head? Surely that isn't a manatee, and it's too broad to be a crocodile snout. It's just too far away to tell.

A loud motor cranks up to the west, and a 30-foot open fisherman swiftly rounds the mangrove shoreline, just outside the buoys that mark a no wake zone. Crowded around the console, the boaters shout a conversation over the engine's roar, but I can't understand what they're saying. I think of how easy it is to eavesdrop when it's quiet on the water.

The evening revelers approach my curious monster. Oh, no! Have they spotted it, too? Do they mean it harm? It has wisely disappeared. I anticipate their motor's slowing gears and the slap of water on the bow, but instead they pass it by, no doubt heading to noisier nightlife.

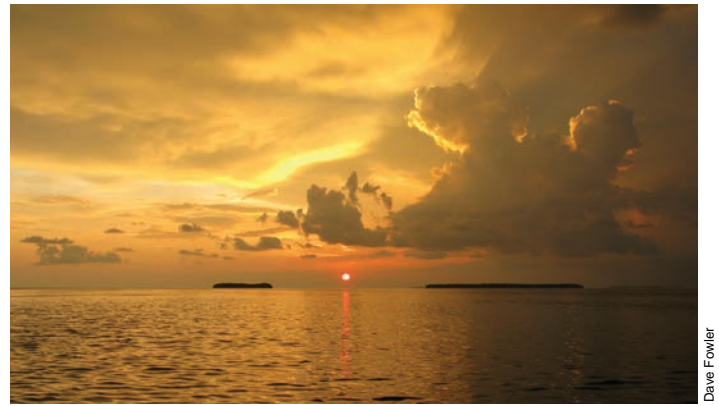
The boat's graceful wake reflects the pink-orange light. Long, low waves spend the last of their energy marching into shore, sneaking under the mangrove leaves as the sunlight fades. The water returns to a velvety calm.

Yes! There it is again — a broad, shallow, dark object barely cresting the water. Is that another part of the creature breaking the water a few feet behind? Maybe a tail — or is it another creature? I run to the shore and grab my binoculars. When will I learn to keep them with me? Back again on the dock, dark is falling in earnest now. To the north I see the blinking lights of planes as they queue up and drift into Miami.

I strain into the binoculars. My eyes can no longer adjust. Even in peripheral vision, the dark one eludes me. I turn to walk back up the dock. Brrrraack! A great white egret flaps his dismay as we both jump back. Intent on a mystery, I had ignored the shuffle of arriving feathers. Tomorrow, I'll be more observant!

It's now been a week since the mystery sight,
I'm down at the dock looking every night,
Searching the sea as the sun is still glowing,
Still there is part of me happy not knowing,
For if all of our mysteries are factually solved,
How can our imagination evolve?

As I unwind at the dock after a day's work, I think of rangers in other parks and how lucky we are to enjoy and sometimes live in many of the country's natural treasures. I think of rangers out West and know that someone will be watching the otherworldly glow of the sun on rocks and cliffs this evening. I remember how trees in New England looked like they were on fire in the fall sunlight. Now there are many sites sleeping under snow. Record breaking snow!



"My" dock is in Key Largo, where Everglades property is the site of the Florida Interagency Science Center, a partnership that allows scientists from a variety of organizations to conduct research on Florida Bay. The center is currently undergoing a significant update with the installation of new lab and dorm facilities.

Everglades, most often noted for its "river of grass," also protects most of Florida Bay, a 1,000-square-mile estuary that separates mainland Everglades from the Florida Keys. Average water depth in Florida Bay is about three feet, and its lush seagrass beds and underwater mangrove roots provide shelter for a time to juveniles of most of Florida's popular game fish and invertebrates. Bottlenose dolphins, manatees, crocodiles and alligators all have found a home in its waters.

The ecological resilience of Florida Bay has been tested by nearly a century of human development that now has diverted most of the freshwater flow once nurturing its waters. Its 200-plus mangrove islands provide nesting and feeding habitat for dwindling populations of birds, including the roseate spoonbill. The bay relies more than ever on rainwater to dilute increased salinity that has taken its toll on seagrass and other "producers" at the bottom of the food chain.

In one of the world's largest cooperative efforts to try and save an ecosystem, the Comprehensive Everglades Restoration Plan seeks to re-establish historical flow and timing of south Florida waters. Visitors to the northernmost areas of Everglades began noticing changes in 2010 as bridge construction on Tamiami Trail commenced. At the same time, an important water-level adjustment project broke ground just outside the park's main gate near Homestead.

Watching these first steps is heartening. Maybe this investment will result in larger ecological dividends than we expect. Maybe the lessons of the Everglades will help save another natural area. Maybe long-term monitoring data will reveal trends and answers we've yet to recognize.

For as much as we've learned from our progress and mistakes, nature will always throw in a surprise. Like the mystery I watch for in Florida Bay. 🛶

After earning a degree in marine biology at Troy State University, Ivy Kelley began her ranger career at the Corps of Engineers' Alabama River Lakes in 1979, and later traveled the Mobile District as a hydrologic technician. She continued in that field at USGS in Tallahassee. However, she realized her favorite days were those spent interpreting. A master's in education from Florida State University led to work at the Florida Bay District of Everglades. When not on the water in Florida Bay, she can be found snorkeling the reefs of the Keys and exploring backwoods on road trips with family and friends.

Life, Death & Forgetting Your Lines

Museum theater flourishes at Klondike Gold Rush

By Stephanie Steinhorst, Klondike Gold Rush

On any given Wednesday in the summer, Skagway, Alaska, is a small community of 800 hardy Alaskans, 9,000 cruise ship passengers, one eclectic national historical park and two people lost in time.

Twice daily you might have the opportunity to eavesdrop on the dramatic events of 1898 from the perspectives of Clare Boyntan and George Harvey. Both of these new “stampeder” have set out to Dawson City in the Yukon Territory in hopes of finding rich gold claims. Their trips haven’t been easy, but they are determined to make it out of Skagway alive. Both will risk con men, avalanches, freezing temperatures and more than one brush with death before reaching their final destination.

These wild tales of the North Country aren’t merely the stuff of campfire lore. They are the stories being told by park rangers in a new set of interpretive programs at Klondike Gold Rush.

Created in 1976, Klondike Gold Rush is made up of 22 historic structures in the downtown area of Skagway, the townsite of Dyea, and portions of the White Pass and

Chilkoot trails. The park plays a central role in the community, but an alarming amount of visitors stopping in for the day fail to recognize that they are experiencing and using a unit of the National Park System. These are the circumstances that led to the creation of a new interpretive program.

Surrounded by dozens of businesses, costumed tour promoters and guides, not to mention the crush of thousands of people, the presence of a uniformed ranger has become even more essential in identifying the park. The park’s interpretive staples are hourly guided walks that take visitors over the wooden boardwalks and into the past while discussing the once colorful, dangerous and deceptive gold rush boom town of the 1890s.

Due to the challenging environment and the importance of establishing a ranger presence, our living history interpretation has had to adapt and balance with our traditional programs. While a first-person, character-led tour could effectively bridge the two forms, the reality is that a costumed tour could be confused with many of the for-profit tours. That leaves the main venue for living history confined to our auditorium spaces or areas clearly inside a park facility. The auditorium has proven the perfect place for a new, minimalist museum theater program.

Inspired by Colonial Williamsburg’s Revolutionary City programs and other museum theater productions, the goal was to create a scripted set of scenes relating the true experiences of people on the Klondike Gold Rush. “Stampeder Stories: Tales from 1898” was created in 2009 as a pilot program.

Initially, it was envisioned as a set of scenes performed by rangers in period clothing throughout the day and at various locations, similar to the Revolutionary City format. The stories would explore the lives of two people arriving at Skagway, departing over the trails, and their lives upon reaching Dawson City. After some trial performances, changes were made to the script to lengthen the dialogue and attach more meaningful character conclusions. We chose to feature the same historic figures of Clare Boyntan



Stephanie Steinhorst

Ashley Bowman and Andrew Gertge

and George Harvey, both individuals who left detailed written records of their time in the Yukon. The imaginary dialogue expresses the many themes of the gold rush, including hard economic times, adventure, freedom, humor and courage, and a bit of fear.

The format of “Stampeder Stories” more closely resembles a traditional auditorium program. Before the presentation a uniformed ranger introduces the scenes, covers basic safety messages and explains the setting for the performance. The costumed characters sweep in and begin a 30-minute conversation exploring and comparing aspects of their travels. At the end, Clare and George part ways, but each character will individually return to center stage and relate what happened to them after their meeting in Skagway.

This first-person recounting gives the audience closure as they find out about the later lives of the characters. It smoothly blends the historic present of 1898 with the historic future after the gold rush. The program closes with the raising of the theater lights and the “ranger-role players” returning to introduce themselves and answer any questions about the characters and history.

As anyone who does living history knows, there’s always a certain amount of improvisation during performances. That definitely applies to this program. While it is scripted, lines can easily be forgotten. As both the author and one of the performers, I am one of the worst for remembering my exact lines.



Cynthia Von Halle

Stephanie Steinhorst and Bruce Dansby

This makes for a challenging performance for my scene partner. When mental lapses occur, it is up to the ranger-role players to valiantly continue the dialogue. It might be a little daunting while it's occurring, but when you begin to simply talk about the historic topics there is freedom in using the script merely as a guideline. A script is beneficial when you have staff turnover and need programs you can hand to new performers each season. Changing the lines, ad-libbing and sometimes plain misspeaking are realities of a museum theater program. We are not trained actors, and so it might never be Broadway caliber, but as interpreters we honestly like telling stories and making connections with our audiences.


Each season we attempt to get better visual representations in clothing and props yet still allow for the history to speak for itself. Our stage setting and props aren't complicated and consist of a few wooden crates and bags. This minimalist approach makes the production affordable and portable, and we could stage it in many different locations.

The mission of our museum theater pro-

gram has been to breathe life into the events that once defined a region, and give people an opportunity to experience another style of historical interpretation. Many members of the visiting public are delighted to experience something beyond an impersonal film, and seem genuinely involved in the stories of Clare and George. Their concern for the lives and legacies of these historic figures keeps us constantly amazed at the depth of emotional connection people can form in just a short time.

For interpreters, performing as historical figures forces us to consider a different world view and makes us ask the difficult questions about how people respond to life and death circumstances. We must take on these historic personalities with all their virtues and flaws and allow their words to speak. We attempt to be respectful to the authentic figures and endeavor to connect visitors back to the resources. Our programs give us the chance to explain the wealth of archival resources that national parks can hold. Ideally we remind people that the stories of George and Clare

could be anyone. Every family has a story to tell, and by preserving those records and historic artifacts the story might come alive again.

Stampeder Stories is still a largely experimental program. It was seen by nearly 1,000 park visitors last summer. The ranger-role players have increased to four participating rangers, and there are plans to create other scripts to tell additional stories from our archives. We will emphasize reaching into the primary sources and resurrecting the lives of these courageous individuals while creating a vehicle for the creative expression of historic realities. Our programs will not shy away from the difficult topics of life and death and all the struggles in between. While we might not always remember our lines, we still will find ways to tell the stories. 

Stephanie Steinhorst currently splits her seasonal career between Klondike Gold Rush and Scotty's Castle in Death Valley. She will graduate in December with a master's degree in history from New Mexico State University.

A path to permanency

By Dianna McKeage, Thomas Edison

It can be a long and winding road trying to get permanent status at the National Park Service, but it can and does happen. I am living proof. I recently started my first permanent position at Thomas Edison.

The journey began in 2003 when I was hired as a trail worker at Acadia. I spent four seasons there, moving up the ladder and loving life. I thought I was going to land a term position and live the rest of my days out on Mount Desert Island. As time progressed I realized one recurring, hard truth: the positions you hope and think you'll get don't often come through.

I became discouraged and decided to break out of my comfort zone and leave Maine. I took a winter laborer position at Mount Rushmore. It was a significant drop in wage grade, but I was ready for a change and happy to find winter NPS employment.

Waving goodbye to the Black Hills of South Dakota, I then moved to the desert steppe habitat of Idaho to work at Hagerman Fossil Beds as a park guide. After being asked to stay for my third consecutive season, I took an interpretive ranger position at Tallgrass Prairie National Preserve. From there I went to Bryce

Canyon, next to Organ Pipe Cactus, and last summer to Denali as a interpretive park ranger. Then I was called by Thomas Edison National Historical Park.


Throughout these eight years I was steadily applying for permanent NPS positions. I sent out hundreds of applications. Sometimes I would make the certification to be considered, and once in a blue moon I would actually get an interview. Alas, I was never actually offered a permanent position, until last summer.

If you add up the years I worked seasonally, you're probably thinking, "Holy smokes, that's a long time to wait. I certainly won't wait that long!"

I said and thought those things, too. There are many times I contemplated giving up and finding a career in the private sector.

After really thinking about it, I couldn't name any other organization or job that I would rather be doing. I love the NPS. Our parks are the most special, sacred places we have. And you and I work in them! We get to see them on a daily basis and know them intimately. I am never happier than when I am in a national park. How could I ever do anything else?

It's taken a long time to get where I am now, and it wasn't for lack of trying or passion. I know you must be aware of the various challenges we all face trying to get into the system.

While you are waiting for your permanent job to come, take a few minutes to look back at your life. I bet you will smile when you think about all of the amazing places you've been, the fascinating people you've met and the exciting stories you have to share. Keep applying for those permanent jobs, stay up on the latest trainings, books and technology. Remember to enjoy the journey. 

Dianna J. McKeage spent her childhood in Lisbon, Maine. She graduated with a bachelor's degree in parks, recreation and tourism in 2003 from the University of Maine. She is a park guide at Thomas Edison National Historical Park.



“If you do what you’ve always done,
you’ll get what you always got.”

— Mark Twain

The power of being professional

By Eric S. Trogdon

When you put on the uniform, you are a representative of all park rangers — past, present and future. Do them the honor of protecting the status of the uniform and what it represents. How you conduct yourself while wearing it leaves a lasting impression that can last a lifetime.

I was 8 years old when my dad took me to the Great Smoky Mountains National Park. There I met my first park ranger. I don’t remember his name or his face, but I remember how he made me feel and how he interacted with my dad. We listened, we learned and we felt better about ourselves and parks from having spent time with this imposing figure in his broad-rimmed hat, pressed shirt and polished boots. I knew then that I was going to be a park ranger when I grew up.

Park rangers have diverse responsibilities, from being an interpreter of natural and cultural history, posing in family photos, picking up garbage, and keeping law and order in parks. In every interaction, regardless of the situation, it is essential to be professional. I want to share what I have learned to get better outcomes and increase our level of professionalism.

I am often brought in to do presentations, seminars and coaching on “Stay Sane, Find Your Game.” It is an interactive program that helps professionals learn triggers that lead to conflicts and potentially disputes. While it is impossible to cover everything in my program, here are some practical tips that will help you remain sane while you find your own game.

1. Know yourself. Conduct an internal inventory of all your own triggers. These are actions or words that can set off negative emotions and cause you to react too quickly. A conflict starts internally as a result of all your knowledge and experiences that you bring to each interaction.

If you know and understand your triggers, then you will be better prepared to handle the interaction. It isn’t about profiling others, it is about profiling yourself. Know the types of things, situations and behaviors that act like fingernails on a chalkboard to you.

2. Control your emotions. When you find yourself in a dispute involving yourself or the people you are interacting with, keep your own emotions in check. This is why I say it’s a game. Keep your cool by knowing how you are going to handle the situation in advance.

If you keep to a plan of action, then you’ve won the game. As an example, have you ever heard “I pay your salary!”? My preplanned response is a pause of a few seconds, then in a calm and sincere tone I respond, “You are right. You do pay my salary.” Then move the conversation back to the situation by saying, “What I am hearing you say is . . . and I see that this is important to you.” You are acknowledging their “pain” and attempting to clarify the situation in hopes of finding a satisfactory outcome. Staying away from emotional thoughts during a situation helps you stay focused on the skills and techniques that prove you are a professional.

3. Ask open-ended questions. These are questions that can not be answered with a simple yes or no. If an irate person has to give a descriptive answer, they have to shift their thinking and access parts of their brain to be calm and respond coherently. Encourage detail and clarification to require thoughtful answers. Don’t ask “Did you drive here?” Ask “How did you get here?” The technique of asking open-ended questions isn’t easy to learn, but it is essential to make it a habit. A great way to practice is with your family. Make it a game to get your family members to share more information than they realize. This will open channels of communication that are important in your personal life, but will also make it easier to apply these well-practiced skills during your professional life.

4. Slow it down. When you are in a volatile situation it is important to find a way to pace the confrontation in a way that will prevent it from escalating. When you arrive on the scene, although you may not know what is going on, you have to be perceived as being the solution. One way to get a quick win in the game is to slow down the pace, and you can easily do this with the Power of the Pause. Pause several



seconds before you respond, speak slowly and find places to pause during your response. This is another game skill that needs lots of practice and will be honed over time. It is hard to slow down if you are emotional. First use the pause to check yourself for emotional triggers and push them aside. Deal with your emotions later. Pause to get control of yourself. Pause to formulate a response. Pause to punctuate a point. Pause so that you can speak distinctly and clearly so that others will listen.

5. Listen and don’t interrupt. When you pause, it can be infectious and others will pause in response. Don’t use their pause for you to jump in. Use it so that they know you are listening. Sometimes just listening will wear down the irate person you are interacting with. When they get tired, they become calmer. Again, you will be perceived as the professional problem solver.

Part of becoming professional is about making positive changes as your career progresses. When you find a successful technique that works 80 percent of the time, keep using it and perfect it. You will get the desired outcome you want. This is not just about finding solutions, it is about the perception of being professional while you conduct your many duties and responsibilities in the time-honored uniform.

The impression of the park ranger uniform stayed with me as I performed my duties as a county park ranger and then a police officer. I remembered the lesson I learned as a young

boy with my dad in the park. I learned the power and the responsibilities of wearing the uniform. Everyone is remembered for their actions. Responding professionally perpetuates the park ranger legacy. It shows the respect we have for the uniform and the people, the park and the profession we are honored to serve.

Practice these five techniques to create your own legacy like the uniform. See you in the park! 🚒

ANPR member Eric Trogon founded and manages an international organization that specializes in mediation, facilitation and professional presentations. He has helped professionals in government, education, professional associations and law enforcement and has been recognized for his work in conservation, hostage negotiations and professional presentations. He has held positions as zoo keeper, naturalist, park ranger, police officer and police hostage negotiator. From 2006-2008 he also served as executive director of the Ontario Parks Association and later served on the association foundation's board. He has a master's degree in public administration, and certifications in mediation and crisis negotiation. He holds citizenship in Canada and the United States. www.erictrigon.com

ANPR ACTIONS

Board of Directors election

ANPR member held elections for officers and various board positions following the annual Rendezvous last November. New members elected are Paula Alexander, secretary; Jennifer Champagne, treasurer; Jan Lemons, board member for internal communications; Jessica Korhut, board member for professional concerns; Amy Gilbert, board member for special concerns; Alison Steiner, board member for strategic planning; and Jason Allen, board member for seasonal perspectives. We welcome them to the board and look forward to their contributions to advancing advocacy for parks, employees and the people we serve.



Program coordinators selected for 34th Rendezvous in October

With only a little arm twisting by the president, two coordinators will develop the event program for the 34th Ranger Rendezvous scheduled in mid-October in Williamsburg, Virginia (see page 25 for more details). The co-

chairs are Brian K. McCutchen, superintendent of George Rogers Clark, and Ashley E. Berry, supervisory park ranger of Shiloh. Planning is now underway. Both coordinators are seeking volunteers to assist with event/program planning, event functions and activities, and working at the Rendezvous on program tasks and member services. More information will be announced via the website and through member e-mail.



Contracts extended for business manager, editor

The board unanimously approved formal contracts with Teresa Ford to continue management of the ANPR business office in Golden, Colorado, through 2011, and as editor of *Ranger* magazine and website coordinator (www.anpr.org) through 2012.



Exploring promotional partnership

ANPR has been contacted by Spark Marketing and Promotions, working in conjunction of Warner Bros. Pictures, to explore the possibility of organizing a promotional partnership with the home DVD release of the film "Yogi Bear 3D." The movie was popular with families nationwide during the past holiday season.

The partnership would involve organizing a sweepstakes project in which Sparks Marketing and Warner Home Video would provide prizes and partner directly with ANPR to promote an initiative or outreach program our organization would choose to support, draw public attention upon or raise donations for. The promotion partnership has general board support. Alec Chapman, board member for fundraising activities, has been tasked to explore what is necessary to arrange for and administer the proffered promotional sweepstakes.

One idea is to target the needs of the NPS search-and-rescue program. This program provides public education on the frequency of SAR incidents within the parks, the increasing costs of SAR, outcomes and stories from past SAR events/incidents, and most importantly, public awareness/educational tips for being safe in the parks.

The promotion would permit interested parties to link to another site to learn more about the NPS SAR program, and how to make partnership donations to search-and-rescue programs around the country. The sweepstakes idea could provide an avenue for ANPR to promote our award-winning DVD, "Lost but Found, Safe and Sound." It is designed to show children, ages 4-12, what to do if they become lost in remote areas such as parks or forests. □

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The Professional Ranger

Administration

Playing the Budget Waiting Game — *"All things come to him who waits, provided he knows what he is waiting for."*

— Woodrow Wilson

This quote strikes me as the perfect summation of what it has been like this year to await word on an appropriations bill for the National Park Service.

As you are reading this the NPS may or may not have an approved budget from an appropriation bill. The continuing resolution was set to end March 4, and what would happen next was anyone's guess. We have waited through several continuing resolutions hoping for a budget that hasn't come — and it sure would be nice to know what we exactly are waiting for.

There are predictions that there will be assessments for the travel ceilings, information technology needs, and human resources implementation needs. The agony of not knowing exactly what your park's budget will look like almost half way into the fiscal year is beginning to take its toll. The signs of nervous waiting for any word on the 2011 NPS budget can be seen everywhere. The wait is hard. We don't know what the final budget will contain, whether it will be more or less than was expected. So we wait. The budget personnel in the parks must act on advice from their regional offices and

park leadership on how to plan for a budget no one has seen yet. Budget personnel have been busy programming and scrutinizing all details of what they can logically and frugally predict for their expected budgets. There might be some wringing of the hands, daily scrutiny of e-mail for any word of wisdom from the regional or WASO offices, and frantic running of the budget cost projection tab in AFS3.

When we finally receive news of an approved budget, the experience can be compared to playing a board game. As with any game you are unfamiliar with, you first should read the directions to ensure you understand all the rules and regulations before playing the game. You must assemble all of your playing pieces and players. You may need to organize your bank and arrange any playing cards you will need. Your game might have a dealer. Similar to the comptroller in a regional office, the dealer is responsible for doling out the game pieces, such as playing cards or funding. Some cards may be held close and kept out of play for awhile, yet others are easily relinquished to the game. Your game strategy certainly depends on how you make playing decisions that can lead to obligations and sacrifices during the game. The game allows for every player to have a turn, and in some cases, collaboration is needed with other players to successfully stay in the game. Just as a game will come to a natural conclusion, so must the budget year come to an end. Putting the game away takes some attention to detail and taking care to account for the game pieces, just like closing the books at the end of September. Good sportsmanship can be demonstrated by thanking your fellow players and, of course, the dealer. The game can be shelved temporarily but it will be October before long, and we better be ready to roll the dice again in 2012. □

— Michelle Torok, Saguaro

Why write for *Ranger*?

- Shares ideas; say it where 1,200 readers will see it
- Viability for your thoughts and issues
- Improves your writing skills (peer reviewed)
- Adds "published writer" to your résumé
- Be creative beyond day-to-day government writing style
- Professional recognition among your peers

We are looking for good articles/ideas in these areas:

- Philosophical/ethics discussion
- "News you can use" events from which we all can learn
- Topics of interest to park employees (i.e. housing)
- Travel of interest to park employees
- New technology/new ways of doing business
- Special places — discoveries you've made
- Photos, photos and more photos!

Contact the editor or editorial adviser for more information or with your ideas:

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Interpretation

David Larsen's Legacy — The field of interpretation lost one of its most endearing teachers and practitioners when David Larsen, interpretive training manager for the National Park Service, passed away unexpectedly in January.

I had the privilege of hearing him speak and facilitate at several interpretive workshops and conferences over the past eight years. Each time I found his insights and passion for interpretation inspiring. He taught me that our job as interpreters is both an art and a science. He also taught me to support and promote interpretation as a serious profession.

"We are all interpreters" was a statement I recently heard a chief ranger make at a seasonal training that included administrative staff, law enforcement rangers and maintenance staff. Everyone in the audience smiled and quietly nodded their heads.

At first I smiled and thought it was a harmless remark meant to express the need for solidarity among the staff. As I continued to contemplate it, I realized how the remark expressed ignorance about the profession of interpretation. It implied that anyone can be an interpreter: It's easy! If you can talk, you can be an interpreter.

I should have stood up in jest that day and made a similarly ludicrous statement like: "We are all law enforcement rangers." Even more unbelievably, I could have stated: "We are all doctors." It would have been fascinating to hear the audience's instant outpouring of criticism to such a ridiculous claim. So why didn't anyone react critically when the chief ranger made the remark about interpreters that day?

How would you have reacted to the remark?

Why would a chief ranger make this remark? The answer is because of the erroneous belief that interpretation is not a profession. It's just something a group of park employees do occasionally, in addition to opening and closing visitor centers, giving directions to park visitors and emptying trash cans. What is stunning about this belief is that it's probably widespread within the agency. How else can you explain the apathetic reaction from the diverse audience that day?

The defining hallmark of any profession is rigorous training, evaluation and certification. The law enforcement and medical professions have this hallmark, and David Larsen dedicated his career to creating the same for our profession. We can honor his legacy by challenging the mistaken belief that "we are all interpreters," and more importantly, by holding ourselves accountable to the hallmark of our profession.

This requires active participation in the NPS Interpretive Development Program and the NPS-Eppley Institute Certificate Program, developing an interpretive "culture of evaluation" through consistent coaching by supervisors and peers. It also should call for our park superintendents to require that all candidates who apply for future chief of interpretation vacancies be certified in IDP competencies and have a proven track record of fulfilling the five tenets of the NPS Interpretation and Education Renaissance Action Plan.

As professional interpreters, we should expect nothing less. □

— Pete Peterson, Grand Canyon

Protection

Cooler than Astronauts — As United States park rangers, we have the best job on planet Earth. A bold statement, but in order to recruit and retain outstanding rangers, we have to take a bold stand regarding our profession, our agency, our parks, our comrades and ourselves.

College graduates today have a wide array of options in terms of professions to pursue. In order to compete with these other options, *attract* graduates and *keep* them for the long-haul, we must show them right out of the gate that being a ranger is hands-down the coolest job anyone could ever ask for.

What makes our job so sweet? Here's the tip of the iceberg. We get paid to:

- Be members of the world's most premier conservation work force.
- Protect and preserve the very heritage of our nation.

- Be part of something bigger than ourselves.
- Be part of something that has been called "America's best idea."



- Physically work out, on the clock, for three hours per week.
- Go to the shooting range.
- Paddle and operate watercraft.
- Go on climbing patrols, ski patrols and horse patrols.
- Fly in helicopters, and some fortunate few get paid to rappel from them.
- Serve on dive teams.
- Go on backcountry patrols.
- Go whitewater rafting.
- Work where others go when they want to spend time away from their own workplace.
- Work in places where the American flag is flown, and get the honor of raising and lowering it.
- Be part of a global brotherhood and sisterhood of law enforcement officers, firefighters, emergency medical workers, search-and-rescue technicians and resource protection professionals.
- Gain the rewards of physical, mental and emotional challenges.
- Help people in need, sometimes when they're at their lowest point.
- Some of us might even have the chance to save a human life.
- Have the chance to help bring into the world a newborn human life.
- Fight fire, light fire and manage fire, including the countless perks and benefits that come with the firefighting profession.
- Bear witness to the unfolding of a thousand different dramas in the natural world.
- Travel to various NPS areas for training, special assignments and new duty stations, experiencing a wide variety of our national heritage along the way.
- Be the recipients of some of the best professional training offered anywhere.
- Provide others with high-quality training.
- Carry a firearm everywhere we go.
- Have opportunities among the ranger ranks to serve in positions that bestow upon us the glory, honor, responsibility and sacrifice of command.

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- Exercise the discretion as officers of the law, and during our careers we have many opportunities to exercise said discretion with our visiting public.
- Shoulder an enormous burden of authority, a synonym for “power,” which enables us to deeply influence other lives.
- Wear a shield over our hearts.
- Get the camaraderie that is born from being part of an extended national family

of the highest caliber people I’ve ever known in any setting.

For all these reasons and more, national park rangers have the best job on Earth.

I’ve heard folks argue that astronauts have cooler jobs than us. Nonsense! Our job is at least as cool as theirs, if not cooler. Besides, they don’t really count because part of the time they’re not even *on* planet Earth! □

— Kevin Moses, Buffalo National River

Resource Management

Administrivia or serious shake-up? NPS staff in many disciplines might ask that about the news, beginning this year, that the Servicewide Comprehensive Call for funding proposals will have significantly less stovepiped sources to choose from.

For more than a decade, natural and cultural resource specialists have had various special funding pockets in which to compete with other parks and regions. The Natural Resource Protection Program included a broad category, but it also had pockets of funds to address threatened and endangered species, disturbed lands restoration, and a resource protection category emphasizing law enforcement. In addition to the umbrella CRPP fund source, cultural resources had even more special offerings aimed at cultural cyclic maintenance, historic structure stabilization, the Servicewide archeological inventory program, backlog cataloging of museum objects, improvement to museum collection facilities, and requirements of the Native American Graves Protection and Repatriation Act. These funds helped parks tackle numerous meaningful needs over the years, but arguably left unfunded other worthy projects that did not qualify under the relatively narrow criteria outlined for each fund source.

This year the National Leadership Council reduced the number of fund sources from 57 to 20. It combined cultural and regular cyclic maintenance, and pared the resource categories to just two — one for natural and one for cultural resource projects. The NLC asks that funding proposals address parks’ highest priorities — a sound, simple concept, and potentially a time-saver, since the myriad different resource fund sources each tended to have different criteria that proponents were required to address to help reviewers rank projects against the competition.

As of this writing, field staff await clarification of such questions as “will very large projects compete with quite small requests, though each might be the submitting park’s highest priority?” and “will natural resource projects still be reviewed at both regional and WASO levels, or will whatever funding is available be distributed for regions to allocate, as has previously existed with cultural resource fund sources?”

Parks, inventory and monitoring networks, and service centers are also struggling with how to accomplish planned work of both a recurring and project nature under tighter guidance to reduce travel expenditures. While staff and managers surely support serious examination of discretionary travel, I hear concern that travel ceilings will prevent backcountry crews from being able to conduct regular monitoring, patrols and complete trail projects. There also is concern that staff from regional offices, WACC or historic preservation centers will be unable to travel to parks to complete funded projects involving teams or on-site rehabilitation of archives, objects and buildings, particularly in the West where long distances often separate parks from specialists in central offices.

Under the new direction of Associate Director Stephanie Toothman, the Washington office recently distributed a survey asking for input on what’s working well and not so well in cultural resources stewardship. I look forward to hearing the results and plans for renewed direction, even in tight budgetary times. □

— Sue Consolo Murphy, Grand Teton

ANPR Reports

Membership Services

New vision plan, RX benefits — ANPR has negotiated a separate vision plan, with Ameritas, that comes with a discount to Walmart pharmacies. Sign-up details are posted on ANPR’s website or contact Teresa Ford (fordedit@aol.com) for information.

This plan is slightly more per month than our existing Aetna vision coverage (\$4.36 vs. \$4.96) but the annual benefit is \$150 instead of \$100. We need 10 ANPR members to sign up for the Ameritas plan before it goes into effect. Members then will be eligible for Walmart’s prescription discounts.

Professional liability insurance — Are you interested in coverage for professional liability? We are investigating the possibility of offering a discount on this type of coverage. Stay tuned for details on the website and Facebook.

Pro-deals popular — More than 200 members have signed up for pro-deals on outdoor products through our agreement with ProMotive.com. Maybe you still aren’t aware of this great benefit. Check the winter 2010-11 issue of *Ranger* or e-mail Teresa Ford (fordedit@aol.com) for an invitation necessary to join the ProMotive team.

— Liam Strain, Gateway

Kudos List

These people have either given a gift membership to a new member or recruited a new member or an old member to return to ANPR. Thank you for your membership help.

Monica Magari	Mike Anderson
Canyonlands HR	Stacy Allen
Jason Allen	Tracy Pinter
Melanie Faria	Cathy Buckingham
Dr. John Lisco	Lisa Eckert
Annette Ross	Teresa Ford
Jason Allen	Valerie Naylor
Kale Bowling	Marten Schmitz
Jan Lemons	Ruth Lewis
Alec Chapman	Kathy Dimonte
Meg Weesner	Mark Herberger
Don Clark	Ian Williams

Mentoring Program

Demand high for mentors: Please join ANPR’s facilitated mentoring program as a mentor. We continue to match protégés with mentors, but we need your help. If you’re an experienced park employee (in any discipline) and want to share your knowledge with a new member, sign up now. A form is at www.anpr.org/mentor.htm.

— Bill Pierce, flamingo12az@aim.com

Fundraising Activities

As your board member for fundraising activities, I like to keep you apprised of my activities. Since my last update ANPR has been approached by Warner Bros. Home Video about participating in the upcoming video release of "Yogi Bear 3D." If this partnership happens, you will hear about it in the next couple of months (see ANPR Actions, page 19).

I am following up with previous board members who held this position regarding projects they worked on. I continue to go through the 2010 Revitalization Report and Recommendations that were directed toward my position, specifically looking into the Combined Fund Campaign and coming up with possible partnerships for direct sales or advertising in *Ranger*.

I participated in all board activities/motions, voted in the election of new board members, gifted new memberships and responded to people interested in becoming park rangers via ANPR's Facebook page. If you have any fundraising ideas or suggestions on possible partnerships ANPR could form, please contact me (information is on the back cover of *Ranger*).

— Alec Chapman, Yellowstone

Seasonal Perspectives

As the new board member for seasonal perspectives, and on behalf of the ANPR Board of Directors, I am proud to welcome two of our newest members, Brian Hogan and Jason Dunning. They are recipients of a new leadership award at Skagit Valley College's Parks Law Enforcement Academy.

Hogan was a cadet during the winter 2010 academy, while Dunning was a cadet during the fall 2010 academy. Chosen by the academy's commander and paid for by a private donation from a former graduate and ANPR member, this award recognizes an individual from each academy class who exhibits outstanding leadership with a one-year membership in ANPR.

If you are interested in helping to expand this award program to other seasonal academies, please contact me at rangerjallen@gmail.com.

— Jason Allen, Joshua Tree

Retirement

90-Year Anniversary of NARFE — In 1921 14 retired civil servants met to discuss the economic plight of federal retirees. The Civil Service Commission was established in 1883 by the signing of the Pendleton Act, but did not include any provision for retirement. Decades later, the first retirement law was signed in 1920. Following this, a group dedicated to improving the status of federal retirees met and formed NARFE.

Working to improve retirement benefits, early successes were increased annuities for those already retired and the establishment of survivors' annuities. World War II brought about significant changes in legislation for the increased federal work force and the 1948 Retirement Act in which NARFE played a major role.

Over the years, NARFE has published a monthly magazine (originally a biannual publication). The information in "Retirement Life" is timely and informative for all active and retired federal employees. A question-and-answer section compiled by Retirement Benefits Service Department staff is particularly interesting.

A primary goal of NARFE was reached in 1960 with the enactment of the Retired Federal Employees Health Benefits Act. Other revisions have included adjustments in COLA and Social Security. In the 1970s, the Civil Service Retirement Fund was stabilized and several revisions added. In the '80s, when the need for a new retirement system emerged, NARFE and other federal and postal organizations led the effort in developing FERS, the Federal Employees Retirement System. This same leadership helped to create The Long-Term Care Security Act of 2000.

Presently NARFE continues to monitor and prevent any reductions to federal civilian retirement or health benefits. Other improvements include being a rehired annuitant without offset of annuities, an improved TSP and crediting unused sick leave toward retirement.

Even though NARFE's name may change, the mission remains the same — to enhance and protect the benefits of federal workers, retirees and their survivors. Membership is open to all active and retired federal employees (see www.narfe.org). □

— Frank and Kathy Betts, Retired



ANPR member Jeanette Melen, Katmai

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By Tony Sisto

International Affairs, ANPR

ANPR transfers funds for IRF attendance at Congo meeting

The Democratic Republic of Congo hosted a VIP meeting in mid-January in Kinshasa to summarize and submit recommendations and a strategic plan for efficient protection of biodiversity in the country's five UNESCO world heritage sites. The meeting was chaired by UNESCO and the Democratic Republic of Congo government. IRF was specifically invited to attend and to make a presentation speech.

Prime Minister Adolphe Muzito was the guest of honor but the meeting involved many VIPs, including ambassadors, ministers and representatives from the IUCN, USAID, World Wildlife Fund, the World Bank, and other regional and local NGOs.

Wayne Lotter, IRF vice president, agreed to attend, and IRF sought funds for his travels. ANPR contributed funds from its IRF Friends

Fund savings account. Funds also were committed from IRF; the PAMS Foundation (www.pamsfoundation.org) of Tanzania; the Country-side Manager's Association of England/Wales; the Protected Areas Worker's Association of New South Wales, Australia; the Victorian Rangers Association of Victoria, Australia; and an anonymous contributor from Australia.

The main objective of the Congo VIP strategy focused on finding a long-term solution for problems threatening the management of the five World Heritage sites, including:

- Illegal occupation by local residents in the park
- Illegal exploitation of the natural resources
- Insecurity inside and outside the park areas
- Ignorance of the value of natural world heritage
- Killing of wildlife and park rangers

I will report on the results of the meeting, and IRF resulting actions, in the next *Ranger*.

Update on ANPR international funds

Several years ago ANPR established accounts to represent our Association's commitment to international ranger efforts. One is named the IRF Friends Fund savings account and includes generous contributions from ANPR members and supporters. It has been available to assist ANPR members in attending IRF World Ranger Congresses. We also have helped rangers in Latin American countries attend these and other conferences where an IRF presence is considered important by the IRF board, and rangers otherwise wouldn't be able to attend.

ANPR established a second, more specific international account to support the activities of the Thin Green Line Foundation (www.thingreenline.info). This foundation is committed to providing financial and other assistance to families of rangers killed in the line of duty. These funds eventually will be transferred to the TGL Foundation upon the finalization of a memo of understanding between the

(continued on page 28)



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NPS photo

Left, a parade in Yorktown. Below, the Yorktown battlefield.



Courtesy of Greater Williamsburg Chamber & Tourism Alliance

Program organizers need your help at Rendezvous in Williamsburg, Va.

Williamsburg, Virginia, offers more than 400 years of history as the setting for ANPR's 34th annual professional conference and Ranger Rendezvous set for Oct. 10-15.

Planning organizers are beginning to work on the program, training courses, a community service project and more. As is the tradition, there also will be fun times worked in.

The Crowne Plaza Williamsburg at Fort Magruder (www.cpwilliamsburghotel.com) is the conference headquarters. Daily room rates are \$89 for a standard room allowing up to four people in the room. The occupancy tax is about 10 percent.

The closest airports are Williamsburg/Newport News, 20 miles away; Norfolk, 45 miles; Richmond, 45 miles; and Dulles, west of Washington, D.C., 150 miles.

Williamsburg is a major tourist destination and includes attractions such as Colonial Williamsburg and Busch Gardens. Restaurants, shopping and diverse entertainment are near the Rendezvous headquarters. Colonial National Historical Park, which consists of

the Jamestown site and the Yorktown sites connected by the Colonial Parkway, is easily accessible.

This year is the 150th anniversary of the start of the Civil War. This may be a starting point to create a theme for conference and Rendezvous.

In the historic area of Colonial Williamsburg, open daily, you are welcome to participate in day and evening programs, and visit sites and learn firsthand about more than 20 historic trades. The area also includes the reconstruction of an 18th-century coffeehouse and Revolutionary City-themed programs.

For more information about the Williamsburg area, visit the Greater Williamsburg Chamber & Tourism Alliance at www.visitwilliamsburg.com to begin planning your trip.


Photography contest

ANPR once again will sponsor the popular photo contest for members. You may enter up to two unframed images, no larger than 8 by 10 inches, of national or international park sites.

Check the Web for more details

As Rendezvous organizers begin to plan the program agenda and other details, please visit www.anpr.org

Members who want to help with the overall effort should e-mail the Rendezvous program coordinators: Brian McCutchen, bkmccutchen@gmail.com, and Ashley Berry, asheball@yahoo.com.

It is a big effort to stage the annual Rendezvous, so all help will be appreciated. 

All in the Family

Send your news to Teresa Ford, *Ranger* editor: fordedit@aol.com or 25958 Genesee Trail Road, PMB 222, Golden, CO 80401. You also can send All in the Family news and update contact information at ANPR's website: www.anpr.org. Go to **Member Services**.

ANPR life member **Dennis L. Carruth** is the new superintendent of Pecos. He also will serve as the general superintendent of Fort Union and as the NPS representative to the Northern Rio Grande National Heritage Area. Previously he was the superintendent of Aztec Ruins, and before that, served as the first superintendent of Nicodemus. He and his spouse, **Anne R. Coupland**, are relocating to the Santa Fe area.



ANPR life member **Leonard F. Dams**, the fire and aviation officer for Inter-mountain Region, died Dec. 5, 2010,

after a battle with cancer. He had more than 30 years of service with the NPS. A skilled veteran firefighter, he began his firefighting career on the fire crew of the Grand Canyon North Rim "Longshots" in 1978. Over the years he worked at Everglades, Glen Canyon, Shenandoah and Grand Teton. His immediate family survivors are wife **Jenny** (Hinson), Park Facility Management Division, WASO; and sons **Cody**, 17, and **Dylan**, 15. The family requested that donations be made in Len's name to the Wildland Firefighter Foundation (<https://www.wffoundation.org/Donation.asp>) or to 2049 Airport Way, Boise ID 83705. Friends also may donate blood in his memory.

Jan Kirwan, has moved to New Mexico where she is the superintendent of Mesilla Valley Bosque State Park just outside Las Cruces in

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Welcome (or welcome back) to the ANPR family!

Here are the newest members of the Association of National Park Rangers:

Gigi Amerman	Borger, TX	Chris Lemons.....	Hot Springs, SD
Jessica Andrews	Petrified Forest, AZ	Richard Lewis.....	Converse, TX
Elliott Anuta	Vernon Hills, IL	G. Deak Lundlee.....	Tucson, AZ
Ashley Berry	Juka, MS	Jeff Mailley	Hurricane, UT
Kenneth Bigley.....	Los Alamos, NM	Brian McCutchen.....	Vincennes, IN
Jennifer Bollinger	Bellville, OH	Gary McGinnis	Sykesville, MD
Todd Bolton.....	Smithsburg, MD	Jason Mumford	Boise, ID
Alex Brun.....	Denver, CO	Matthew Mumford	Townville, PA
Joseph Davis.....	Savannah, TN	Jake Ohlson.....	Gustavus, AK
Rayna Duggan	Irving, TX	David Olson.....	Denali Park, AK
Jason Dunning.....	Gunnison, CO	Matthew Phillipson	Latham, NY
Mickey Fearn	Washington, DC	Benjamin Polloni.....	North Falmouth, MA
Sheri Forbes	Oakland, CA	Edgar Rae.....	Boise, ID
Jennifer Frost.....	Wawona, CA	Steve Ross.....	Grand Coulee, WA
Ross Garlapow	Dillon, CO	Ina Ross	Seattle, WA
Mimi Gorman.....	Joshua Tree, CA	Scott Ryan.....	Los Alamos, NM
Katlyn Grubb.....	Medford, OR	Brett Shockley	Laurel, DE
Amy Hammesfahr	Lewes, DE	Tessa Smith	Shaver Lake, CA
Eric Hanninen	Manassas, VA	James Smouse.....	Moab, UT
Brian Hogan.....	Philadelphia, PA	Wendy Sweet	Makawao, HI
Barbara Hoppe.....	Yellowstone, WY	Brian Tarpinian	Three Rivers, CA
Salvatore Iodice	Gilbert, AZ	Spirit Trickey	Little Rock, AR
Shelton Johnson	Yosemite National Park, CA	Josh Wentz	Gary, MN
Terra Kemper	La Pine, OR	Erik Wiita	Del Rio, TX
Duane Lammers.....	Keystone, SD	James Wright.....	Gainesville, VA

the town of Mesilla. She is "having a blast; it's so great to be back in land management."

Life member **Sandy Kogl** died Sept. 13, 2010, at her home in Talkeetna, Alaska, after a long struggle with amyotrophic lateral sclerosis, or ALS, also referred to as Lou Gehrig's disease. Sandy's experience with sled dogs led her in 1975 to Mount McKinley (now Denali) National Park's kennels where she was hired to revitalize the program, improve the breeding and renovate the facility. While there she authored the book, "Sled Dogs of Denali." In 1987 she graduated from FLETC, and was appointed Denali's backcountry supervisory park ranger until her retirement in 1995. She mentored many seasonals over the years.

Meg Weesner, chief of science and resources management at Saguaro, retired Jan. 31 after 34 years of federal service. She started her career in 1975 as a lifeguard at Glen Canyon. She also served as a winter interpretive volunteer at Rocky Mountain, then as an interpreter at Glen Canyon and Joshua Tree.

She attained permanent status in 1977 with the Forest Service, first as a technical editor in Utah, then as a public affairs specialist in eastern Oregon. After a stint in graduate school at the University of Idaho, she moved to Joshua Tree to work in fire management and law enforcement. She graduated from FLETC

in 1984 and was accepted into the second class of resource management trainees. She completed the training program in 1986 while stationed at Delaware Water Gap, then moved to New River Gorge in West Virginia.

She was selected as the division chief for science and resources management at Saguaro in 1991. In retirement she plans to stay in Tucson where she has family ties. She also plans to travel more and work with nonprofit conservation organizations. She is a life member of ANPR and has been active in the organization for many years. □



Reunion planned in August at Dinosaur

Dinosaur alumni — park rangers, naturalists, maintenance workers, park brats and others — are invited to a reunion Aug. 26-28 at Dinosaur. Reunion organizers include those who lived there when the old quarry building was dedicated in 1958. They want to gather again to welcome in the new viewing facility, scheduled for completion this spring. Some of these folks haven't seen each other since the early 1960s. For more information, contact Leslie Spurlin at kapaahu@juno.com or (970) 245-8327.

Fall Fund Campaign for 2010

ANPR members gave generously to the annual Fall Fund Campaign from October through December 2010. The total of \$7,888.49 nearly matched the amount of the previous year. Funds will be used for ANPR's operating costs in 2011. We appreciate the outstanding support.

Ranger Level — under \$25

Maria Banuelos Connell
Joe Brand
Mariah Cosand
Kathy Dodd
Jeffrey Gerbic
Casey Horrigan
Bridget Macdonald
Nick Poulos
Brian Spang
Patrick Sullivan
Carol Coy
Allen Etheridge
Roger Goldberg
Jerry Kasten
Robert Laine
Christopher Davis
James Clark
Jason Mumford
Benjamin Polloni
Ronald & Sherri Ramseyer
Steve Ross
James Wright

Big Bend Level — \$25+

Maria Abonnel
Bob Bryson
Jennifer Champagne
Steve Hurd
Gary Kaiser
Jim LaRock
Jeanette Meleen
Christina Mills
Jason & Tracy Pinter
Noemi Robinson
Al Veitl
John & Joanne Stockert

Grand Canyon Level — \$50+

Jerry Case
Deny Galvin
Rebecca Harriett
Warren Hill
Steve Mark (in honor of Bruce Black)
Carol Hegeman & Paul Shevchuk
Jon Paynter
Rick Smith
John Stockert
Kirsten Talken-Spaulding
Cheryl & Steve Thede
Nancy Ward
Gregg Fauth & Jenny Matsumoto
John J. Reynolds

Shenandoah Level — \$75+

Warren Bielenberg
Jonathan Lewis
Ken Mabery
Christina Mills
Nancy Wizner

Yosemite Level — \$100+

Vaughn Baker
Mary Bradford
John Case
Alec Chapman
Walt Dabney
Mitchel Fong
Dan Greenblatt
Katharine Hartley
Fred & Debbie Koegler
Scot McElveen
Bruce & Georjean McKeeman
Gregory Mockoviak
Johann Ott
Noel Poe
Ed Rizzotto
Bill Sanders
Shiloh NMP Staff & Eastern National
Employees (in memory of ANPR President
Stacy Allen's mother, JoAnn Allen)
Ron Sprinkle
John "J.T." Townsend
Bill Wade
Lee Werst

Everglades Level — \$200+

Scott Chapman
Tim Duncan & Ruby Newton
John Fabian (\$250, in gratitude to ranger
Mark O'Neill of Olympic for helping to find
his dog)
Barbara & William Justice
Dick Martin
Meg Weesner

Yellowstone Level — \$500+

Deanne Adams & Tony Sisto
Stacy Allen
Butch Farabee
Wendy Lauritzen

These people donated to ANPR (a total of \$870) in 2010 before the Fall Fund Campaign began:

Dennis Young
Wendy Lauritzen
Virginia Thiel
Allison Herrmann
Alex Muir

(continued on next page)

Life Century Club Members

Life members who contribute an additional \$125 are recognized in the [Second Century Club](#). [Third Century](#) membership can be attained by contributing an additional amount to bring your total life membership to \$500; [Fourth Century](#) membership can be attained by contributing an additional amount to bring your total life membership to \$750; [Fifth Century](#) to \$1,000; and [Sixth Century](#) to \$1,250 or more.

If you are a life member, consider raising your contribution to the next level.

Second Century Club

Glen Bean	Tomie Patrick Lee
Tony Bonanno	John Mangimeli
Jim Brady	Colleen Mastrangelo
Paul Broyles	Bruce & Georjean
Rod Broyles	McKeeman
David Buccello	Jack Morehead
Patricia Buccello	Rick Mossman
Michael Caldwell	Aniceto Olais
William Carroll	Tim Oliverius
Cliff Chetwin	Bill Pierce
Bruce Collins	Tom Richter
Bruce Edmonston	Jean Rodeck
A.J. Ferguson	Bryan Swift
Hal Grovert	Mark Tanaka-Sanders
Dr. Russell Clay	Dale & Judy
Harvey	Thompson
James Hummel	Victor Vieira
Craig Johnson	Karen Wade
Margaret Johnston	Philip Ward
Ron Konklin	Kathy Williams
Bob Krumenaker	Janice Wobbenhorst
Mary Laxton	Phil Young

Third Century Club

Erin Broadbent	Jonathan Lewis
Carl Christensen	Dan Moses
Kathleen Clossin	William Quinn
Rick Erisman	Edward Rizzotto
Maureen Finnerty	Teresa Shirakawa
Rebecca Harriett	Barry Sullivan
Steve Holder	Pat Tolle
Mary Karraker	Bill Wade
Dave Lattimore	Nancy Wizner

Fourth Century Club

Deanne Adams	Jay Liggett
& Tony Sisto	Scot McElveen
Vaughn Baker	Rick Smith
Deborah Liggett	

Fifth Century Club

Stacy Allen
Butch Farabee

Sixth Century Club

Wendy Lauritzen
Dick Martin
Bill Wade

IRF Update *(continued from page 24)*

foundation and IRF.

Fund balances, as of Feb. 18, 2011, are:

IRF Friends Fund (general international funds)..... \$2,000.06

IRF Ranger Dependents Fund (committed to TGL Foundation)..... \$5,354.05

In late January, the IRF Friends Fund was used to reimburse ANPR for a \$2,000 loan to the Bolivian Ranger Association for hosting the Sixth World Ranger Congress in 2009.

ANPR's international engagement and assistance continues our group's 20-year commitment to sharing with the international community our knowledge, skills and resources. It also allows ANPR members to share and learn from the vast experience of rangers from around the world.

Thanks to all of you who have contributed time and money for these international efforts. Your support is crucial.

I encourage all members to consider supporting ANPR in its international endeavors by contributing to these funds. In particular, the IRF Friends Fund allows more flexibility for ANPR to engage in a variety of international activities and support, including TGL Foundation activities. If you have questions, please contact me. Travel well. □

Tony Sisto can be reached at tsisto47@aol.com.

Fall Fund Campaign & 2010 Donations

(continued from previous page)

David Reynolds
Clifford Collier
Lester Kloss
Christina Mills
Judy Visty
Cindy Orlando
Mary Walters
Jonathan Rhodes
Jan Kirwan
Clifford Marsom
Don Boucher
Thomas Bumbra
Erin Carroll
Patricia Bean
Dan Abbe
Michael Bilecki
James O'Donoghue
Kate Zullo
John Ott
Kate Sullivan
Bryan Pettryl
Katharine Hartley
Rachel Adler
James C. Lee III
Dr. Russell Harvey
Catherine Maginnis
Mariah Cosand
Ron & Sherri Ramseyer
Erin Broadbent
Carol Petricevic
Robert Dunnagan

Whether you're at the bottom of the ladder or climbing to the top . . . you're welcome to join ANPR's mentoring program.

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MEMBERSHIP APPLICATION — Association of National Park Rangers

☐ New Member(s) ☐ Renewing Member(s) Date _____

Name of ANPR member we may thank for encouraging you to join _____

Name(s) _____ 4-letter code of park / office where you work _____

(Retiree=RETI, Former NPS Employee=XNPS, Student/Educator=EDUC, Park Supporter=PART)

Address _____ Home phone _____

City _____ State _____ Zip+4 _____ Personal e-mail address _____

ANPR will use e-mail as an occasional – but critical – communication tool. We will not share your information with any other organization. It is our policy not to conduct ANPR business via NPS e-mail or phone.

Type of Membership (check one)

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current & former NPS employees or volunteers

- | | Individual | Joint |
|-----------------------------|-------------------------------|--------------------------------|
| • Seasonal/Intern/Volunteer | <input type="checkbox"/> \$45 | <input type="checkbox"/> \$85 |
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not an NPS employee or representative of another organization

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ACTIVE (all NPS employees/retirees) ASSOCIATE (other than NPS employees)

- | | |
|---|---|
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OR life payments made be made in three installments over a three-year period. Rates are \$850 per year for individual or \$1,025 for joint. If full payment isn't received by the third installment due date, the amount paid shall be applied at the current annual membership rates until exhausted. At that point the membership will be lapsed. Check here if you want to make payments in three installments _____.

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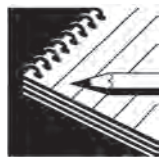
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or visit ANPR's website: www.anpr.org and
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