Mojave Desert Network
Inventory & Monitoring Program

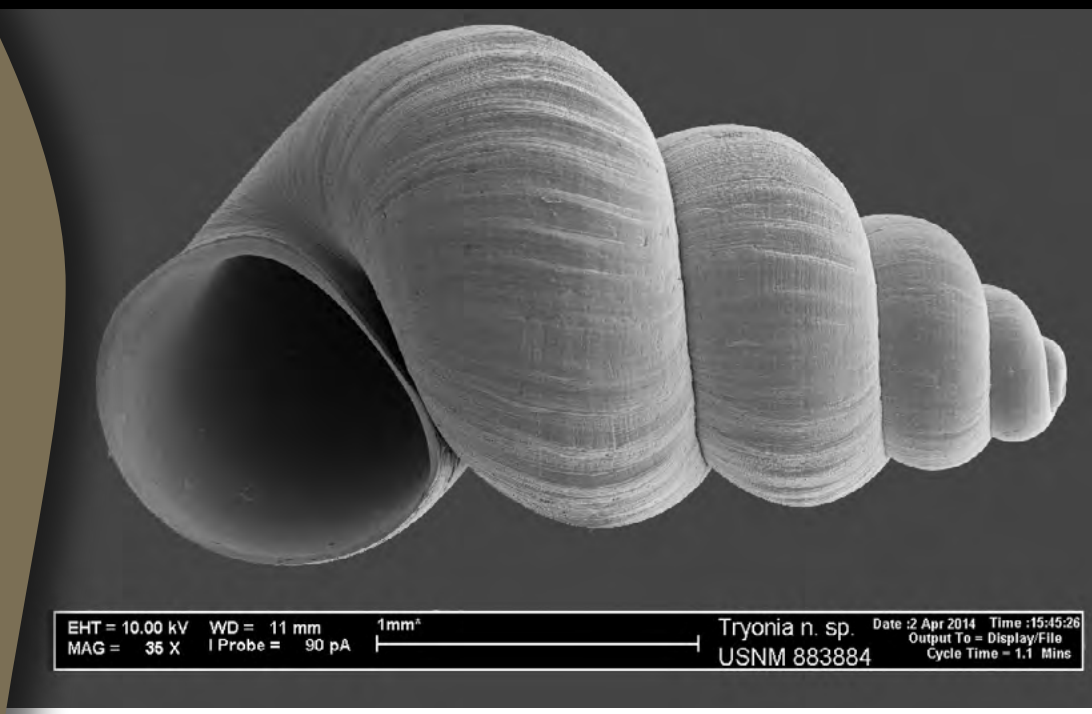
The Oasis

Fall 2014

"In wildness is the preservation of the world."

—Henry David Thoreau

Mojave Desert Network
Inventory&Monitoring



An Electron Micrograph image of a new species of springsnail recently discovered at Blue Point Spring in LAKE (Genus *Tryonia*). The scale bar is 1 mm long.

Springsnails in the MOJN Parks:
Big Discoveries of Tiny Creatures

Springsnails (family Hydrobiidae) are tiny mollusks about the size of a grain of rice. In the Mojave Desert, they are found in permanent springs. There are about a dozen species of springsnails in The Mojave Desert Network (MOJN) parks, with new (previously unrecorded) species still being found. Recently, MOJN I&M brought Bob Hershler of the Smithsonian Institution to Lake Mead National Recreation Area (LAKE) to collect and describe a previously unknown species of springsnail.

Bob Hershler has been a Research Zoologist in the Department of Invertebrate Zoology at the Smithsonian Institution since 1985. His work focuses on the systematics, morphology, aquatic biogeography and evolution of gastropods (snails) in brackish-coastal and freshwater habitats in North America. He has been researching springsnails within the Mojave Desert region since 1978, usually visiting a number of times each year. Bob also assists public land managers by surveying springs for springsnails and helping to clarify the taxonomic and conservation status of springsnail species. In recent years, he has visited springs at Death Valley National Park (DEVA), Great Basin National Park (GRBA), and LAKE. During his visits, he explores springs in hopes of discovering new or previously undescribed species of springsnails. If a new species is found, Bob will collect a sample to take back to his lab, and then he

CONTINUED PG 2

SNAILS CONTINUED

and Hsiu-Ping Liu will synthesize data collected through molecular and genetic sequencing techniques to study the evolution and biogeography of these animals in relation to the drainage history.

Springsnail Monitoring at Saratoga Spring (DEVA)

In the past, much of the Mojave Desert was covered in water. As time went on this water began to evaporate, leaving behind only small pockets of water in the desert we see today. These isolated springs serve as natural water sources in an otherwise dry habitat, providing "islands of life" for these tiny snails. Over millions of years, these isolated springsnails adapted to the conditions of their new environments, evolving into different species. Bob analyzes the DNA of these snail species to determine how they are related to each other and when they split into different species.

There are hundreds of known springs within MOJN park boundaries, but springsnails are present in only a handful of them! This is because springsnails are sensitive to changing environments and require very specific water quality, temperature, and other environmental parameters to survive and reproduce. These species are often found only in a single spring, and thus disturbances to that spring, such as diversion of water, grazing, or invasive species, can result in their extinction.

An exciting new discovery was made recently at Blue Point Spring, located at the northern end of LAKE. Bob has identified three separate endemic species of snails, two of which were previously unknown (taxonomically undescribed) to the scientific community! Once a new species is named and described, it is more likely to receive recognition as a conservation concern. Thus, the discovery of a tiny snail can result in greater efforts to protect the spring they reside in. Bob is currently preparing taxonomic descriptions of the two new species he has found for publication.

What is MOJN I&M?

Mojave Desert Network Inventory and Monitoring (I&M) Program is one of 32 networks of parks established under the National Park Service I&M Division to implement long-term ecological monitoring across multiple park units that share relatively similar ecological attributes. Data collected through this program will help inform resource management decisions.

Parks of the Mojave Desert Network I&M:

DEVA: Death Valley National Park

GRBA: Great Basin National Park

JOTR: Joshua Tree National Park

LAKE: Lake Mead National Recreation Area

MANZ: Manzanar National Historic Site

MOJA: Mojave National Preserve

PARA: Grand Canyon-Parashant National Monument

(click on hyperlinks)

CONTACT US

Nita Tallent
Program Manager
Nita_Tallent@nps.gov
702-293-8856

Jennifer Bailard
Hydrologic Tech
Jennifer_Bailard@nps.gov
702-293-8731

Janel Brackin
Science Communications Officer
Janel_Brackin@nps.gov
702-293-8846

Lise Grace
Biological Technician / Publications Manager
Lise_Grace@nps.gov
360-854-7323

David Gundlach
GIS Specialist
David_Gundlach@nps.gov
702-293-8842

Ryan Hodge
Assistant Data Manager
Ryan_Hodge@nps.gov
702-293-8682

Michael Kearsley
Veg Mapping Coordinator
Michael_Kearsley@nps.gov
928-638-7462

Mark Lehman
Data Manager
Mark_Lehman@nps.gov
702-293-8841

Geoff Moret
Hydrologist
Geoffrey_Moret@nps.gov
702-293-8843

Barbara Nelson
Administrative Support Assistant
Barbara_T_Nelson@nps.gov
702-293-8680

Jean Pan
Network Ecologist
Jean_Pan@nps.gov
702-293-8677

Nathan Patrick
Hydrologic Tech
Nathan_Patrick@nps.gov
702-293-8943

Alex Whalen
Field Logistics Lead
Alexander_Whalen@nps.gov
702-293-8679

Mailing Address:
Mojave Desert I&M Network - NPS
601 Nevada Way
Boulder City, NV. 89005

2014 FIELD ACTIVITY

JANUARY

- Integrated Uplands (IU) implementation at **LAKE** continues

FEBRUARY

- Arid Land Springs monitoring trip to Cottonball Marsh with **DEVA** RM
- BMI sampling and springsnail monitoring at Tassi Spring (**PARA**)
- Veg Mapping Accuracy Assessment starts at **LAKE**
- IU field season wrap up for **LAKE** sites

MARCH

- Arid Land Springs monitoring at **DEVA**
- BMI sampling and springsnail monitoring at Nevares Spring and Travertine Spring (**DEVA**)
- Quarterly Selected Large Springs (SLS) monitoring at MC Spring (**MOJA**), Blue Point Spring (**LAKE**), 49 Palms Oasis (**JOTR**) and Smith Water Canyon Springs (**JOTR**)

- Survey elevations at Blue Point Spring (**LAKE**) with USGS
- First issue of The Oasis published

APRIL

- Arid Land Springs monitoring at **DEVA** (Saline Valley) and field season wrap up
- Vegetation Mapping Accuracy Assessment wrap up at **LAKE**

MAY

- Visit to Blue Point Spring (**LAKE**) with Bob Hershler to collect unidentified springsnails (see front page article)
- Streams and Lakes field season kick-off in **GRBA**
- Spring TC meeting held

JUNE

- Pour concrete for base of snow gauge at Mt. Logan in **PARA**

- Quarterly SLS monitoring at MC Spring (**MOJA**), Blue Point Spring (**LAKE**), 49 Palms Oasis (**JOTR**) and Smith Water Canyon Springs (**JOTR**)

JULY

- IU protocol resubmitted to **PWR**

AUGUST

- Fall TC meeting held

SEPTEMBER

- Quarterly SLS monitoring at MC Spring (**MOJA**), Blue Point Spring (**LAKE**), 49 Palms Oasis (**JOTR**) and Smith Water Canyon Springs (**JOTR**)

OCTOBER

- Lakes monitoring at **GRBA**
- Field reconnaissance with the Veg Mapping Contractor at **GRBA**

DECEMBER

- Quarterly SLS monitoring at MC Spring (**MOJA**), Blue Point Spring (**LAKE**), 49 Palms Oasis (**JOTR**) and Smith Water Canyon Springs (**JOTR**)

- Jennifer Bailard volunteers at Night Sky Event in **PARA**
- Janel Brackin co-facilitates May Operational Leadership Class (**LAKE**)
- Alex Whalen and David Gundlach assist **LAKE** with bacteria sampling effort
- Ryan Hodge assists **LAKE** NR Department with Ponar Sampling
- Janel Brackin co-facilitates June Operational Leadership Class (**GRBA**)
- Janel Brackin attends AED/CPR/First Aid Train-the-Trainer (**JOTR**)
- David Gundlach participates in water quality data collection with **LAKE** Resource Management on Lake Mohave
- MOJN I&M provides letter of support for UWisc grant proposal to NASA, "Assessing Ecosystem Drought Vulnerability across Western National Parks to Advise Adaptive Management"
- Barb Nelson assists Special Permits Unit by providing traffic control for two marathon events at **LAKE**
- Barb Nelson and Ryan Hodge assist Special Permits Unit with traffic control for Silverman Ironman (**LAKE**)

The Spotlight is On…

The Spotlight is on…

Great Basin National Park (GRBA) Superintendent, Steve Mietz! Steve started as Superintendent of GRBA in April 2013.

Steve Mietz

GRBA is unique in that it is the only predominately montane park, as well as the northern-most park, within the Mojave Desert Network. Although located within the Great Basin Desert, GRBA was grouped into the Mojave Desert Network after its establishment in 1986. From the alpine areas to the lower desert canyons, the park has more than 6,500 feet of elevation change, and contains various ecosystem types which differ from those found in the warmer desert parks. Due to heavy winter snow packs, the park has an abundance of perennial streams and six alpine lakes. These unique high elevation lakes are not common in the Great Basin Region, and are monitored jointly by GRBA and MOJN I&M staff.

The MOJN I&M is currently assisting GRBA with water quantity and quality monitoring at numerous locations within the park. The funding of stream flow gauges aids in the establishment of seasonal stream trends that have helped with several park issues regarding water rights. Each fall, the MOJN I&M plans a "lakes week" at the park, where GRBA and I&M staff work together to monitor water quality at all six high elevation lakes. Those involved look forward to the week, and the resulting data supply much needed information on current conditions within these unique lakes. "When up and fully running," Steve said "the I&M program will supply much needed monitoring beyond what can be completed by park staff, which will lead to improved science-based management decision-making. The MOJN I&M has also been of great assistance with other monitoring efforts such as the park's annual BioBlitz and the climate change GLORIA project by contributing funding and staff - improving our ability to host these efforts."

Climate change is high up on the list of challenges that GRBA faces in terms of the management and monitoring of resources. Development of adaptive strategies to address climate change and its effect on park resources is essential for GRBA, as well as the other parks in the Mojave Desert Network. In light of current climate change predictions, such strategies will become increasingly important as land managers implement mitigation from the impacts of climate change upon sensitive resources.

Steve also stated, "Understanding the current status and conditions of natural resources at GRBA is essential for making wise management decisions. While thought of as a remote park, distant from human influences effecting parks near more urban areas, GRBA has been increasingly confronted with complex issues, particularly water related issues, that require an in-depth understanding of the resources as a basis for working with project proponents and cooperating agencies to assure the protection and preservation of park resources. Once up and fully engaged, the I&M program will assist GRBA, and all Network parks, by helping to determine current resource conditions and monitoring trends that will allow park staff to manage the resources effectively."

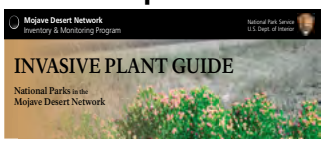
A long-term monitoring perspective can be used to provide an early warning system that triggers the need for management action. Impacts to resources can sometimes be slow and gradual, but over time are cumulative and become large in scale. "Without long term monitoring," Steve stated "one might not recognize what is happening until it is either too cost prohibitive or just too late to reverse."

Dead Lake, Great Basin National Park

PROGRAM UPDATES

PROJECT	PARKS INCLUDED	STATUS
Inventories		
NPSpecies Lists Certification (birds, mammals)	DEVA	Data reviewed by J. Boone. Certified list uploaded to NPSpecies.
	GRBA	Data reviewed by B. Hamilton (mammals). Certified list uploaded to NPSpecies. Data reviewed by G. Baker (birds). Upload to NPSpecies in progress.
NPSpecies Lists Certification (reptiles, amphibians)	DEVA	Data reviewed by J. Boone. Certified list uploaded to NPSpecies.
	GRBA	Data reviewed by B. Hamilton. Certified list uploaded to NPSpecies.
NPSpecies Lists Certification (fish)	DEVA	Data reviewed by K. Wilson. Certified list uploaded to NPSpecies.
	GRBA	Data reviewed by M. Pepper. Upload to NPSpecies in progress.
NPSpecies Lists Certification (vascular plants)	DEVA	NPS staff - D. Kaiser completed review. Certified list uploaded to NPSpecies.
	GRBA	NPS staff - J. Holland to complete review.
	JOTR	List awaiting assignment of certifier.
	LAKE	Contractor – W. Fertig completed review. Upload to NPSpecies in progress.
	MOJA	Contractor – D. Schramm completed review. Upload to NPSpecies in progress.
	PARA	Contractor – W. Fertig completed review. Upload to NPSpecies in progress.
Vegetation Mapping	DEVA	Mapping to begin in FY15.
	GRBA, JOTR	Final reports published in IRMA.
	LAKE	Accuracy assessment by Colorado Natural Heritage Program (CNHP) completed; Final Map and Report in development (BOR).
	MOJA	Contractor – Cogan Technologies Inc. mapping in progress.
	MANZ	MANZ Map and Report published in NRTR series May 2014.
	PARA	PARA deliverables included with GRCA Map and Report – submitted to Vegetation Inventory Program Office.
Monitoring		
Streams and Lakes (S&L)	GRBA	2014 field season completed successfully.

PROGRAM UPDATES

PROJECT	PARKS INCLUDED	STATUS
Selected Large Springs (SLS)	DEVA, GRBA, JOTR, LAKE, MOJA, PARA	Revision of protocol is ongoing – to be resubmitted in January 2015.
Integrated Upland (IU), Soils, Invasive Species Status and Trends 	JOTR	Cooperative agreement awarded to GeomorphIS LLC; Implementation planned for Spring 2015.
	LAKE	47 sites visited, 29 sites accepted, macroplots established, and data collected. Soils analysis contract awarded to Soil Ecology and Restoration Group (SERG), work commences Fall 2014.
	ALL PARKS	Protocol resubmitted November 2014.
Riparian Vegetation, Soils, Invasive Species Status and Trends - Arid Land Springs	DEVA, GRBA, JOTR, LAKE, MOJA, PARA	Solicitation/selection of cooperator to lead riparian ecosystem component in collaboration with water-related protocol lead in FY15.
Riparian Vegetation, Soils, Invasive Species Status and Trends - Selected Large Springs	DEVA, JOTR, LAKE, MOJA, MANZ, PARA	Solicitation/selection of cooperator to lead riparian ecosystem component in collaboration with water-related protocol lead in FY15.
Invasive Plant Species Early Detection	ALL PARKS	Solicitation/selection of cooperator to lead invasive plant species early detection protocol in FY15.
Invasive Species Guide 	ALL PARKS	Template approved by parks August 2014. Park species lists confirmed September 2014. Continued development of species sheets through FY15.
Weather and Climate	ALL PARKS	Station installation continues. MOJN working with NOAA to assume ownership of RCRN station near Meadview in LAKE. Pilot study annual reports in preparation.
Program Management		
Technical Committee Meeting	ALL PARKS	Spring and Fall 2015.
Review and Publication Support provided to network parks	GRBA	Peer review management, formatting, and publication of GRBA Aspen Assessment report in NRR series.
Science Communications		
MOJN I&M Newsletter: The Oasis	ALL PARKS	Fall and Spring 2015 issues of The Oasis will be available to parks, PWR and I&M Division.
Science Communication Strategy	ALL PARKS	MOJN I&M will submit revised science communication strategy pending various planning meetings scheduled for 2015.

The Oasis Recognizes...

Mark Lehman

Mark Lehman, the newest addition to the MOJN I&M Data Management Team! Mark joined the Network as the MOJN I&M Data Manager at the end of August, and is excited to get the ball rolling on his tasks. He will be shepherding MOJN I&M's monitoring data through robust collection, verification and certification processes and on to publication and web-based visualization. He also expects to work closely with park staff to ensure that any relevant data and reports are represented in the NPS Data Store for discovery by resource managers and scientists everywhere.

Mark came to MOJN I&M after nearly nine years of GIS and Data Management work in the National Capital Region I&M Network in Washington, D.C. as their GIS Specialist and acting Data Manager. Mark's education began with an interest in Information Technology, and he completed an M.S. in Information Science from University of Pittsburgh. After working in IT for many years, he became interested in environmental studies and went on to complete an M.S. in Environmental Science at Indiana University.

Having a long-standing interest in conservation, Mark is greatly looking forward to learning about the plants, animals and landscape of the Mojave Desert while working for the MOJN I&M parks. He has loved visiting National Parks from a very young age, and has been to more than 160 national park units across the lower 48! He is inspired by NPS employees' commitment to the Park Service mission, and feels fortunate that he works to help protect some of the most extraordinary places on the planet.

When Mark is not focused on solving Data Management problems for the MOJN I&M, he enjoys biking, hiking, backpacking, photography and watching old movies. He also plans to build a robot in 2015.

Ryan Hodge

Ryan Hodge, MOJN I&M Data Management Assistant. Ryan joined the Network in May of this year and has already contributed much enthusiasm to MOJN I&M Data Management efforts. Ryan will be working closely with the GIS Specialist, David Gundlach, and the new Data Manager, Mark Lehman, to round out the Data Management Team. His favorite aspects of Data Management are database development and web programming, and he has started to and will continue to contribute to both of these areas for the network.

Ryan received his Bachelors of Science degree in January 2010 from Rutgers University in New Brunswick, NJ. He double majored in Evolutionary Anthropology and Ecology and Natural Resource Management. While in school, he worked at a field site in the Gran Chaco ecoregion of Argentina, studying the socioecology of owl monkeys. Being the most tech-savy person on the crew, Ryan assumed a much needed data management role. Realizing the lack of (and the value of) quality data management in scientific studies, Ryan knew he would be most satisfied in a career that involved both data management and scientific research. Prior to working for MOJN I&M, Ryan was the data manager for the NPS Northeast Exotic Plant Management Team stationed at Delaware Water Gap NRA. During this time, he also worked alongside Northeast Temperate I&M Network's Data Manager, Adam Kozlowski, and from then on knew he wanted to work for an I&M.

Ryan enjoys working for the Park Service because of the strong sense of community it provides, as well as the internal culture and organizational values that NPS embodies and promotes. In his free time, Ryan likes to go to concerts and explore the National Parks of the Southwest. He most recently visited Mojave National Preserve and loved the Kelso Dunes area of the park.

Integrated Uplands: Monitoring for Change in Upland Communities

One of the most basic functions of the Mojave Desert Network is to conduct long-term monitoring of key park resources using standard data collection methods. These monitoring efforts will provide park personnel and land managers in the seven park units with information to assist in effective science-based decision-making and resource protection. Monitoring protocols are detailed study plans that explain how data are to be collected, managed, analyzed and reported. They can be considered "instruction manuals" for MOJN I&M monitoring activities: Protocols outline the standard operating procedures (SOPs) required of the field crew to take accurate and consistent measurements of natural resource health parameters. SOPs contain step-by-step directions on how to conduct fieldwork.

The Integrated Uplands (IU) Protocol is one of the MOJN I&M protocols. "Integrated Uplands" refers to the integration of monitoring for upland shrub communities, select invasive plant species, and quantitative and qualitative soil characteristics.

For the IU Protocol, MOJN I&M is establishing 35 spatially balanced plots at each park, with one such plot represented in figure 1. The permanent plots are 100 meters by 100 meters. During a monitoring event, three parallel 50 meter transect tapes are laid out, equally spaced out across the plot, as shown in the figure. Vegetation information such as the diversity and abundance of shrub species and cover of invasive species will be collected

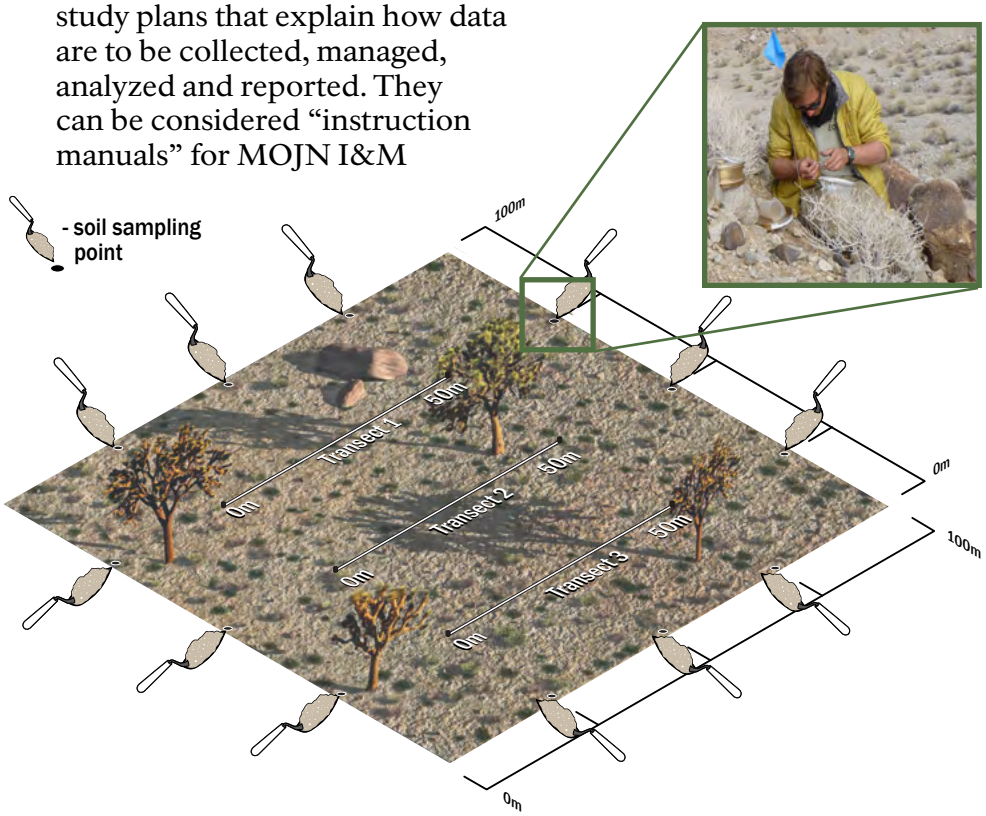


Figure 1: Bird's-eye view of an IU macroplot. Each shovel in the graphic represents a soil sampling location, where a total of 12 soil samples will be collected and tested via the methods outlined in the SOPs.

CONTINUED PG 10

Making IU Possible...

Jean Pan

Jean Pan, the Network Ecologist, has been working for the MOJN I&M since 2010, and has been serving as the Lead for the Integrated Uplands Protocol.

In 2002, Jean received her Ph.D. in Plant Sciences, with an emphasis in Ecology, Evolution and Behavior from Indiana University. Before she started working for the National Park Service, she was a professor at University of Akron, Ohio. Jean's research experience includes topics such as plant-fungal interactions, molecular ecology, and community and ecosystem ecology.

What she enjoys most about working for the Mojave Desert Network is the opportunity to learn about MOJN's beautiful parks, their missions and experience their unique beauty.

The NPS employees she has met are passionate about the mission and the role they play in contributing to that mission, a trait she believes is something we have in common with one another. Jean would like to extend a thank you to all those who contributed to the Integrated Uplands Protocol and helped us successfully and safely work in the parks.

Staffing Changes: Hail and Farewell

Hail...

Mark Lehman and Ryan Hodge

Check out 'The Oasis Recognizes' for information about these two!

Mike Kearsley

After Mindy Trask's departure in August 2014, the Vegetation Mapping Coordinator position became vacant. Mike Kearsley will now be stepping in on a part-time basis to assist MOJN I&M with its vegetation mapping needs. Mike served as the Vegetation Mapping Coordinator for Grand Canyon from 2007 to 2012, and will also be working on GRCA's Backcountry Management Plan EIS. His first order of business will be reviewing the accuracy assessment data from LAKE and getting up to speed with the MOJA mapping work.

Geoff Moret

Geoff has been working for MOJN I&M since 2009, first getting the water monitoring protocols off the ground, and more recently working on weather station management and installation efforts. We are pleased to announce that Geoff has transitioned from a cooperator with the University of Idaho into a permanent NPS employee. He will be continuing as the MOJN Hydrologist, heading up the water-related Weather and Climate protocols. Congratulations on your federal position Geoff!

Barbara Nelson

Barb was hired as the MOJN Administrative Support Assistant in February 2014. Prior to starting with the National Park Service, she served 20 years in the U.S. Air Force before retiring. She has since filled many needed roles within the MOJN I&M - she is currently the Property Manager for the PWR I&M and the purchasing officer for MOJN I&M. She holds a B.A. in Criminal Justice with emphasis on anti-terrorism from Grantham University, Lenexa, KS.

Jennifer Bailard

Jennifer was also a previous SCA intern with us, working as a field tech for Integrated Uplands monitoring at LAKE this past year as well as assisting with Arid Land Springs and Selected Large Springs site visits. She subsequently worked as an interpretation park ranger at DEVA the past four months, and has now returned to MOJN I&M as a temporary Hydrologic Field Technician working alongside Geoff to accomplish various tasks, such as report preparation and macroinvertebrate sampling.

Alex Whalen

Previously an SCA intern for the MOJN I&M, Alex has been hired as the permanent Field Logistics Lead and will be helping to organize and coordinate the MOJN I&M field crews, primarily the Integrated Uplands monitoring crew. He will also work closely with crew supervisors to identify and take care of various fieldwork needs in order to execute a safe and successful field season in 2015 and beyond.

Nathan Patrick

Nate joined the MOJN team in November 2014 from Columbus, OH, where he was an intern with the Ohio EPA. He recently received an M.S. in atmospheric science from Ohio State University, with a focus on hydroclimatology. As part of his M.S. research, he spent three field seasons at GRBA collecting meteorology data and sampling streams and lakes. Nate will be working with Geoff on processing data from the Streams and Lakes protocol.

and Farewell...

Emma Bernard

Emma Bernard started as an SCA Natural Resources intern with MOJN I&M in September of 2013. In her year-long internship, Emma was a part of the IU field crew and assisted with data management needs.

Penny Latham

Congratulations to PWR I&M Program Manager Penny Latham on her retirement October 31, 2014. We thank her for her leadership and guidance in implementing the Inventory & Monitoring Program in the PWR.

Mindy Trask

Mindy Trask departed from her position as the Vegetation Mapping Coordinator in August 2014. We wish Mindy all the best in her future endeavors, and thank her for her contributions to Vegetation Mapping efforts and the Invasive Species Guide.

IU CONTINUED

at every meter along these transects. Information such as this can allow us to determine if species composition is changing over time, or if presence of invasives is on the rise. Figure 1 also shows soil sampling points that are located along the edges of the macroplot. Determining various parameters of soil health can tell us if changing soil is negatively impacting vegetation, or if soil erosion is occurring at vulnerable sites. Numerous photos of the macroplot are also taken, both to document soil erosion and to establish a history of repeat photographs of each site (which allows us to visually document vegetation changes on the macroplot over time). Since re-measurement of each macroplot will occur every few years, data collected over time can provide information about changing plant communities in the face of climate change.

Prior to completion of a finalized protocol, a pilot season was conducted to test out the field methods for the protocol and to determine the value and type of data we would get from the fieldwork. Pilot Reports for each of the six MOJN parks (MANZ had a full implementation season instead) are now available on IRMA. The completion of IU's first protocol implementation season occurred in February 2014 with the establishment of 29 permanent plots at LAKE. Once all parks' permanent plots are established, monitoring will occur in three-year cycles, with two to three parks being visited per year.

Integrated Uplands monitoring efforts will resume in Spring 2015 with implementation at JOTR. If you're interested in participating or observing IU fieldwork in action, contact us and come along with our crew!

Things to Come...

Invasive Species Guide

The Invasive Species Guide is a product that will be provided to the MOJN parks in both hard-copy and digital (editable) form. It will consist of a ring-bound stack of 54 removable species cards, with each card containing photos and a physical description outlining distinguishing characteristics of that species. Pertinent information about the native look-alikes will also be included.

Data Management Working Group

Now that we have a full data management team, they are in the process of creating a Data Management Working Group in order to identify and prioritize data management needs within the network and parks. This group will consist of relevant persons from each park and the MOJN I&M DM team and will facilitate greater communications on various topics relating to data analysis, data certification, and progress that would benefit the Network.

The front side of each species sheet contains descriptive text and photos to assist in identification.

The back side of each species sheet contains habitat information, additional photos, and native look-alikes for comparison.

CLICK HERE!

Please take two minutes and fill out The Oasis survey. We greatly appreciate your feedback.

Subcribe to this Newsletter!

Go to:

http://eepurl.com/5wgDr