

# Voices for Nature

News from the Friends of the Florida Keys National Wildlife Refuges



Cover photo: Colleen Fuller

Spring-Summer 2025 • vol 6 • issue 1

Crocodile Lake • National Key Deer • Great White Heron • Key West

## 50 YEARS OF NWR CONSERVATION, UNRAVELLING BEFORE OUR EYES

In this newsletter, we strive to point out the positive impacts nature has on our lives, along with the intriguing animals, plants, and ecosystems that create our one-of-a-kind four Florida Keys National Wildlife Refuges. But today, for a moment, we first have to address current events: our cherished wild creatures and ecosystems of the Keys, and the 856 million other acres protected by the National Wildlife Refuge System (NWRs), are facing grave threats.

Recent laws and policies, rollbacks of environmental safeguards, and mass firings of scientists and public lands stewards have dealt a blow to keeping our precious public lands intact. The irony is that 2025 marks the 50th anniversary of the US National Wildlife Refuge Association, which is the national Friends group for the NWRs. Since January, there has been a 20% reduction in Refuge staff nationwide due to firing, resignations, early retirements, and unfilled vacancies. While all of this is happening, wildlife is being left behind.

Staff shortages are jeopardizing the monitoring of endangered species, such as red wolves in Coastal North Carolina

(NWRs), and undermining decades of restoration work for seabird habitat at Kilauea Point NWR in Hawai'i. At Camas NWR in Idaho, state lawmakers are proposing to seize conservation land, which could set a dangerous precedent for all Refuges. Meanwhile, at the remote Johnston Atoll NWR, home to more than a million seabirds, the US Air Force is proposing a rocket landing zone.

"These little remote oceanic islands are all that's left for them," the NWR Association president recently said. "We've invested a lot of money as a country to bring back wildlife to these places."

Unfortunately, these examples are not isolated (editorial con't on page 5)

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## A WORD FROM THE BIG BIRD

Hello Nature Lovers,

There is an old Chinese curse that goes “may you live in interesting times.” Lately, I’ve been feeling cursed in just that way. For me, and for many others, these “interesting times” stem from the rapid pace and inconsistency of actions being taken — or hinted at — by the current Federal administration. Wearing my “friend of the Refuges” hat, what concerns me most is the erosion of our reliance on science and the shift in policies toward development and exploitation, rather than conservation and an appreciation for the fragility of the planet. We who value our public lands need to pay attention and speak up when they are threatened.

I encourage you to stay informed and take the actions you feel appropriate. Most importantly, let

your elected officials know how important public spaces are to you. For more ways to get involved, visit the Coalition of Refuge Friends and Advocates website: <https://coalitionofrefugefriends.com>.

On the bright side, spring is here — a time of renewal and fresh beginnings. As I write this, I can hear cardinals singing their little hearts out. And that makes me happy. I’ve also rediscovered that getting out into Nature is a very good way to clear your head. So take a walk, go for a bike ride, breathe in some fresh air, and find your refuge.

— Kathy Rhodes,  
Florida Keys Wildlife Society Chair



## FLORIDA KEYS WILDLIFE SOCIETY

We are the official friends group of the Florida Keys National Wildlife Refuges, a non-profit 501(c)(3) organization whose mission is to support the Keys’ four NWRs — Crocodile Lake, National Key Deer, Great White Heron, and Key West — through education, non-adversarial advocacy, volunteerism, and fundraising.

The National Wildlife Refuge System, within the U.S. Fish and Wildlife Service, protects wildlife and habitat on more than 150 million acres of land and water from the Caribbean to the Pacific, Maine to Alaska. Refuges improve human health, provide outdoor recreation, and support local economies. For more on NWRs, see [www.fws.gov/refuges](http://www.fws.gov/refuges).

The mission of the USFWS is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. They are known for scientific excellence and stewardship of lands. For more, see [www.fws.gov](http://www.fws.gov).

### Florida Keys Wildlife Society:

Nature Store: 30587 Overseas Hwy., Big Pine Key, FL 33043. Mailing: P.O. Box 431840, Big Pine Key, 33043; 305-872-0645; [www.FloridaKeysWildlifeSociety.org](http://www.FloridaKeysWildlifeSociety.org); [info@FloridaKeysWildlifeSociety.org](mailto:info@FloridaKeysWildlifeSociety.org)

### Nature Center:

30587 Overseas Hwy., Big Pine Key, FL 33043

### Board of Directors & Staff

Chair: Kathy Rhodes  
Vice Chair: Dawn Loftus  
Secretary: Colleen Fuller  
Treasurer: Jackie Nobili  
Past-Chair: Robert Keeley  
Directors: Clark Boggs, Susie Shimamoto, Ed Rhodes, Melissa Depinet, Elaine Feitel; Newsletter: Karuna Eberl.

We encourage all nature lovers to get involved with Team Wildlife. Your help goes a long way. For volunteering and membership, see page 16. © June 2025, Florida Keys Wildlife Society.



GOOD NEWS FROM  
THE REFUGES

## IT'S BEEN A BIG YEAR ALREADY!

OUR SOLUTION TO THE PRESSURE ON PUBIC LANDS?  
LET'S DOUBLE DOWN TO HELP MORE PEOPLE SEE HOW PRECIOUS OUR  
FLORIDA KEYS NATIONAL WILDLIFE REFUGES REALLY ARE.

And it's working! National Key Deer Refuge was voted fourth best Refuge in the USA Today's 2025 Readers' Choice Awards! Thanks to all who voted. Here's what USA today wrote about us:

*“This wildlife refuge is set on 9,200 acres of the lower Florida Keys and is home to the Key deer, an endangered species and the smallest subspecies of white-tailed deer in North America. Visitors are also likely to spot brown pelicans, wintering raptors, Atlantic bottlenose dolphins, alligators, and green and loggerhead sea turtles on the beaches, depending on the season. If you stop at the Nature Center in Big Pine Key, the staff can direct you to the best trails, drives, and hikes, and let you know which species are currently populating the refuge and where to look for them.”*

Photo: Colleen Fuller



## WELCOME NEW BOARD MEMBERS

**JACKIE NOBILI: TREASURER** My husband and I moved from Connecticut to Big Pine in July of 2001. I have been a bookkeeper for over 40 years and the last place I worked at was Big Pine Tax Service, which is where I met Kathy Rhodes, the Chair of our organization. I was doing FKWS bookkeeping before I volunteered to be the Treasurer this year. When I moved to Big Pine I wanted to get involved in the community, mostly the wildlife. The first few years I helped with a few dolphin strandings, plus a stranding of 28 pilot whales in 2003. Now that I am retired, I am excited that I have more time to volunteer for an organization that is a steward to our beautiful islands and wildlife. I look forward to helping.



## MELISSA DEPINET

I have been volunteering in the Nature Store for at least seven years. I also volunteered on the Nature Center side for about five years, some of those while the Visitor Center was in the Winn-Dixie shopping plaza. I am excited to be joining the board and hope to work on increasing the number of FKWS members so that we can increase our support of the Refuge.

I enjoy learning new things and like the challenge of accomplishing a goal. As far as what I like about Keys nature, it's definitely the birds, butterflies, and plants. I like to go on hikes throughout the Refuge, and love to stumble upon a new flower, recognize a butterfly, or watch a group of white pelicans flying overhead.

I am a snowbird and spend about six months in Ohio — the warmer ones of course! While there, I volunteer weekly as a butterfly monitor and help to maintain the native flower garden at a county park. Being out in nature brings me great joy and peace!



## HERE'S SOME OF WHAT WE'VE BEEN UP TO SINCE FALL 2024

The Refuges and FKWS have been involved in 45 events, reaching around 1,700 people. Some highlights:

- Educational presentations, including our science/outdoor lecture series, and an event at Croc Lake for 5th graders.
- Annual NWR Week special events, including a native plant giveaway and bird walk (2025's will be October).
- A volunteer appreciation trivia night, which included recognition certificates, prizes, and quality time together.
- Monthly environmental education programs for a local home-school community of approximately 30 people, where the Refuges promote the understanding of natural resources and the significance of the Refuges and USFWS.
- FKWS board member lectures at Lower Keys Women's Club, and hosting a booth at Pennekamp native plant day.
- Community education programs with county libraries, to raise awareness of wildlife and natural resources.
- Community outreach at Halloween Trunk-or-Treat in Key Largo, Gigantic Nautical Flea Market in Islamorada, and Safe Boating Day at Ocean Reef.
- The Refuges acted as a Regional STEM Fair Judge for Monroe County Schools, engaging with over 100 students from 5th to 12th grade across the Keys.
- The Refuges also partnered with the University of Florida IFAS program to host the Master Gardeners of Monroe County Plant Clinic twice a month, fostering local community engagement at the Nature Center.
- Photo club, beach clean-ups, and invasive species removal.
- Supporting veterinary key deer treatment.

## THANK YOU ED "DUSTY" RHODES

For the last seven years, Ed has volunteered double duty as both a board member and the treasurer of FKWS. This year, he stepped down as the latter, handing over the financial duties to Jackie Nobili. But don't worry, we can't get rid of him that easily. He's still on the board, and will be bringing his jovial charm, contagious laughter, and Hemingway beard to many future FKWS and Refuge events. Thank you, Ed, for all you have done and continue to do. We couldn't have done it without you. Well, maybe we could have, technically, but we sure wouldn't have wanted to.



## PHENOLOGY & SECRET SPRING IN THE KEYS: NATURE MUSINGS FROM RANGER KATY

Take a moment to reflect on the seasons. Do you envision the leaves showcasing a vibrant autumnal display? Or perhaps you think of the daffodils heralding the arrival of spring with their bright blooms? The study of these seasonal changes is known as phenology.

Phenology helps us understand the intricate connections in nature. For instance, as the leaves begin to bud, we notice an increase in the activity of caterpillars and pollinators. With this surge in life, neotropical birds arrive in impressive numbers, so much so that their migrations can even be tracked on weather radar! Consider the white pelican, the ultimate snowbird, departing the north before the lakes freeze and returning only as they thaw.

Coming from North Texas, I've observed that the sand bass begin to run just as the rosebuds bloom. These examples of

seasonal change are numerous and fascinating. In a place like the Florida Keys, the concept of seasons can sometimes feel elusive. However, understanding phenology provides a wonderful way to reconnect with these natural rhythms.

On a more artistic level, I like to think of it as "telling time with nature," where each seasonal event acts as a cog in the clockwork of our ecosystem. By recognizing these patterns, we can better appreciate the beauty and complexity of the world around us.

This issue of the Voices for Nature I invite you to think about your own nature clock. Can you think of more examples of secret spring? Maybe it's the annual visit of the purple gallinule at Blue Hole. Or your favorite spot to go looking for tarpon as they migrate?



## MANGROVES GET A SHOUT-OUT AROUND THE WORLD

Mangroves growing from the Florida Keys to Indonesia now have their global day in the spotlight. UNESCO has officially designated July 26 as International Day for the Conservation of the Mangrove Ecosystem. Mangroves, here and elsewhere, are a vital natural defense against hurricanes and shore erosion, provide critical habitat for countless marine life and birds, and work overtime as carbon storage heroes.

Sadly, more than half of mangrove ecosystems are at risk of collapse by 2050, according to a recent global study. But we're getting better at understanding why we need to help preserve and restore them, plus actively doing it. One shining example is Shenzhen, China, whose restoration plan included ceasing development around mangroves. Their efforts resulted in a near doubling of their mangrove cover. In 2024, Shenzhen also established the world's first international mangrove center.

Here in the Keys, mangroves line more than 1,800 miles of shoreline — stretched out, that's just a few hundred miles short of the drive on U.S. 1 from Key West to the other end of the road in Fort Kent, Maine. And of course, we love our mangroves for the joys they bring us while kayaking and fishing, plus providing food for the Key deer, protection and nursery habitat for marine species including lobsters, crabs, and juvenile fish, and so much more. Thank you, mangroves. You deserve the celebration!

**Mangrove photos: Karuna Eberl**



## SCIENCE & CONSERVATION IN JEOPARDY: KEYS REFUGES LOSE TOP TWO MANAGERS

While there have been a lot of Keys Refuges highlights this year, there are also some lows that we need to share. The Keys Refuges were not spared a loss in personnel. Deputy Project Leader Greg Boling and Project Leader Chris Eggleston have both elected to take the early-retirement offer from the administration. Their last day was April 18th. In response to a question about how FKWS can be of most help going forward, they encouraged support of Refuge Manager Jeremy Dixon (now acting Project Leader) and Ranger Katy, and reaching out to elected officials with advocacy.

Their departure puts a lot of pressure on the small remaining staff, which means the Refuges and FKWS could really use some more volunteers, especially to keep the Nature Center and Nature Store staffed. The Center is important for teaching visitors about Keys ecology, including school groups, and the Store is vital to fund the efforts of FKWS.

There is also some good news this year: Lower Keys biologist Heather is still here. And while Upper Keys biologist Isabella was let go due to her probationary status, she has since been re-hired. The refuge's administrative assistant is also staying, plus two bio-technicians will be joining for the summer, and a second law enforcement person will be hired.

## THE FAWN IS ON! PLEASE HELP US KEEP KEY DEER BABES SAFE

Please keep your distance from does and their fawns. Mothers are teaching youngsters where to find food, and if they learn to beg from people, rather find natural foods, they may have a difficult life ahead.

If you are lucky enough to see a fawn, please do not approach. Avoid interacting with them during this important period of maternal bonding and care.

Mothers will commonly leave their fawn alone for long periods, up to 12 hours. This does not mean the fawn has been abandoned, rather it is a strategy to protect it from predators.

Please also be on the lookout as you drive Lower Keys roads. Youngsters, especially newborns, are unpredictable and will run in any direction when scared or romping about. Please follow posted speed limits and pay attention. Finally, please keep dogs leashed in Key deer habitat. As a reminder, it is illegal to touch, feed, or transport Key deer. If you spot an injured, distressed, or dead Key deer please

make your first call to FWC Dispatch at 888-404-3922, ext. 1 for Monroe County. Thanks for your help and for spreading the word!

**Photo: Colleen Fuller.**



## EDITORIAL, CONTINUED FROM PAGE 1

incidents, but rather symptoms of a larger unraveling, where at best, public lands are treated as disposable, and at worst are seen by a handful of individuals as a way to singularly profit off of (and too often degrade) land that belongs to all of us. In the Keys, we sometimes love our feeling of isolation and independence, but just as the health of our reef has consequences well beyond our waters, the health of seabirds and wolves affect our corner of the world — because we are all part of one Earth system.

But, the good news is that most people do actually care about nature. So what can we do?

Rise to the occasion — this newsletter is filled with highlights of Keys nature lovers doing just that!! Join public lands friends groups, including the Florida Keys Wildlife Society. With mounting staff shortages, volunteers are more vital than ever to keep nature centers open and help

with habitat restoration, cleanups, and so much more. (On page three, you'll see some of what FKWS and our rock-star volunteers have accomplished already in 2025.)

Consider supporting national friends groups, too, like the Coalition of Refuge Friends and Advocates, the National Wildlife Refuges Association and the National Parks Conservation Association, who fuel advocacy and media efforts. Call your elected officials to let them know you stand with nature, and that you wish to keep nature intact for future generations, vs. exploiting land and waters for short-term profits. And when it comes time, vote for nature.

Please join us in the defining cause of our times, to protect the NWRs and defend the future of public lands. Together, we can make a difference. We have to, because the other path is irreversible, and it will not be a pretty one.

— Karuna Eberl, newsletter editor

## MEET A SCIENTIST: HUGE SNAKES VS. TINY RODENTS

SHAUNA SAYERS STUDIES IMPACTS OF PYTHONS ON THE KEY LARGO WOODRAT AND COTTON MOUSE

Thanks in part to growing up near the entrance to Shenandoah National Park, Shauna Sayers has always had an interest in animals. She had considered being a veterinarian, until she landed a summer internship at Pea Island NWR in North Carolina doing hands-on fieldwork with shorebirds and sea turtles, plus leading canoe tours and other public education activities. After earning her B.S. in biology from Virginia Tech, she worked out west as a seasonal technician at Lassen Volcanic National Park, where she deployed remote cameras, banded birds and surveyed for American pika.

“After that job, I had actually applied to be the Key Deer technician in December of 2022, and I ended up being the second choice, but it all worked out because Crocodile Lake was looking for a technician!” she says.

Sayers was officially hired last January, then later offered a fully funded master’s position studying the Key Largo woodrat and Key Largo cotton mouse. Now she’s a student and graduate research assistant at Southern Illinois University, working in the Keys on her research this spring and summer.

We caught up with Sayers to learn more about her research.

**Q: What have you found or are hoping to learn?**

**A:** My project focuses on the impacts of invasive Burmese pythons on the endemic, endangered Key Largo woodrat and Key Largo cotton mouse. I aim to estimate both of their current population sizes and compare them to population estimates collected prior to the python’s apparent establishment and increasing prevalence since 2017. Additionally, I will be looking into how pythons may have shifted the dynamics between cotton mice and

**Above, Sayers with a sub-adult woodrat; right, remote camera image of a woodrat; facing page top, Key Largo woodrat in a tree; facing page right, Sayers holding a woodrat. Photos: Adar Reed.**

woodrats, such as reduced co-occurrence between rodents that is decreasing the competition for resources.

For my fieldwork, I am conducting a mark-recapture live-trapping effort and deploying remote cameras at supplemental woodrat nest structures across North Key Largo. The cameras are set using one-minute time-lapse along with motion trigger and stay at each nest for around 14 days. Time-lapse is used to increase the detection rate of pythons because they rarely trigger the motion/infrared sensors on remote cameras. Each camera produces around 22,000 images, so I am using a machine learning program, Megadetector, that sorts through images and separates them into wildlife present and absent. We have detected one python so far!

**Q: How are you liking being in the Keys?**

**A:** I love the Keys! I had never been down here before this. Croc Lake is such a diverse and unique refuge, not at all what I was surrounded by growing up. I have had such a great experience working for Jeremy Dixon, refuge manager, and alongside the

other technicians and volunteers here. I’ve met some great friends through this job. I’ll forever be thankful for my time here and the people I’ve met.

**Q: Do you have a favorite moment here so far?**

**A:** My favorite moment so far would have to be working with the crocodile hatchlings last July. They are the coolest,



and we got to be on the news, so I got five seconds of fame. A close second is when we dug for a week or two trying to capture a python that had eaten two collared opossums (another interesting M.S. research project going on at Crocodile Lake led by Arya Sanjar). We had been working so hard to dig that python up, and every time we dug, he would move a couple of feet. It was such an adrenaline rush to finally catch him, and know our hard work paid off.

**Q: Why is this research important?**

**A:** Studying the impact of invasive Burmese pythons on the Key Largo woodrat and cotton mouse populations is vital for conservation efforts in the Keys. This project will add to long-term monitoring data that is used to track changes in woodrat and cotton mouse distribution, aid in habitat and population management, as well as the removal of non-native invasive species. By combining the efforts of nest camera surveys and live trapping, a thorough analysis can be used to determine distribution, abundance, trends, and habitat preferences, as well as assess the impact of invasive species. Overall, this study will contribute to our understanding of how Burmese pythons affect these two endangered, endemic species, and provide insights to effective conservation management strategies in Key Largo.



## UPDATE: FURTHER SCIENCE ANALYSIS, PLUS A NEW KEYS CRITTER JOB FOR SHAUNA

We had interviewed Shauna last year, so we reached out to her again this year to see what had changed. She responded:

I’ve been analyzing and writing my thesis in Illinois this past fall and spring, and just finished up defending my thesis. Since we last caught up, my analyses have changed slightly, but the overall focus of understanding Key Largo woodrat and cotton mouse trends over time in response to invasive species remained the same.

I used live-trapping data collected between 2017 to 2024 to estimate changes in population densities for both species. These results show woodrats declining over time, coinciding with the apparent reproductive establishment of the Burmese python in 2016.

In comparison, cotton mice experienced an increase in population density from 2017 to 2022, with an eventual decline in 2024. While woodrats and cotton mice had divergent responses in their density estimates from 2017 to 2024, I found no interactive effect of woodrat abundance impacting cotton mice. However, I did find a significant negative effect of invasive black rats on cotton mice.

Overall, the results of my thesis further our knowledge on the density, interactions, and habitat use of Key Largo woodrats and cotton mice.

I look forward to the next step of publishing both chapters of my thesis and to my continued involvement with woodrat and cotton mouse conservation, as I am once again Keys-bound. I have accepted a position as the Wading Bird Research Specialist with Audubon at the Everglades Science Center in Tavernier!

This position will be mainly focused on capturing, banding, and tracking roseate spoonbills as well as deploying remote cameras at their nesting locations across the Florida Bay and Everglades. I am very excited for this new opportunity and to continue contributing to long-term research in the Keys.



## REFUGE RODEO: CLEAN-UP ON WOMAN AND BALLAST KEYS REMOVES MORE THAN A TON OF TRASH

In January, volunteers from the Florida Keys Wildlife Society helped Reef Relief remove garbage from two islands in the Key West NWR. All together, 22 volunteers from various organizations removed 2,860 pounds from Woman and Ballast Keys. Debris removed included tangled trap line, buoys, beverage containers, derelict traps, and a kayak. Since there was extra room on the boats, a few bulky items that had been waiting for the chance to get off of Ballast Key were also removed, including an old satellite dish.

The event was made possible by Tow Boat US Key West, Key West Harbor Services, Dawn to Dusky Charters, and Aquaholics Charters, who all donated staff and boats for the event. Additional support came from Waste Management, the City of Key West, U.S. Fish and Wildlife Services (USFWS), Florida Fish and Wildlife Conservation Commission (FWC), and Lagerheads Beach Bar, which provided a hand cart for offloading debris from the sea wall.

FKWS also helped with financial support: specifically with refreshing sodas and food for volunteers. Reef Relief Assistant Executive Director Dora DeMaria gave a particular shout-out to FKWS board member Susie Shimamoto for coming up with the idea and helping with the on-site logistics.

This event was deemed the “first annual Refuge Rodeo,” which means if you’re bummed you missed it, you can jump in on the fun next year. All of Ballast Key and much of Woman Key are closed to the public, so besides helping wildlife, volunteering provides a rare chance to set foot on these two intriguing islands.



## KALANCHOE SCHMALANCHOE: VOLUNTEERS JOIN TO REMOVE INVASIVE PLANTS

Volunteers removed several large patches of *Kalanchoe spp.* that were growing near vital cactus habitat in the National Key Deer Refuge. Kalanchoe — aka flaming Katy, Mother of Thousands, and Mother of Millions — is native to Madagascar and parts of Africa, but has become a popular landscape and container plant in Florida. Here, it can spread quickly, damaging ecosystems and crowding out native plants, including our native cacti.

In honor of Mother’s Day, the task force removed 32 42-gallon bags of the plant. The goal was to reduce its spread to the cactus hammock and improve habitat for the endangered Key tree cactus (*Pilosocereus robinii*) and the endemic and critically imperiled *Opuntia abjecta* and *Opuntia ochrocentra*. The removal was spearheaded by the Florida Keys Invasive Exotics Task Force, which includes Monroe County, Florida Fish and Wildlife Conservation Commission, The Nature Conservancy, and USFWS staff and volunteers.



Left: Volunteer group shot, photo Beth Bergh/ Monroe County. Above: Kalanchoe growing before the removal, photo Heather Stewart/FWS.

## BIG PINE KEY CLEAN-UP: VOLUNTEERS MAKE A BIG DENT ON A DIRTY SHORELINE

Fifty participants cleaned up over 3,000 pounds of plastic, rope, and traps from the coastlines of the National Key Deer Refuge in April. The haul was a joint effort between Coastlove, the Florida Keys Wildlife Society, Florida Keys National Wildlife Refuges Complex, Save-A-Turtle of the Florida Keys, and Monroe County Sheriffs Office. Thanks everyone for your hard work and making this a big success!



## BE A VOLUNTEER SUPERHERO: SOLVE OUR SHORTAGE AND HELP NATURE HANDS-ON

The Refuges volunteer program has included approximately 40 volunteers so far this year. That’s in addition to dozens of FKWS volunteers, who help with everything from answering questions at the Blue Hole to handing out native plants, cleaning up beaches, and giving runners water during the Run With Key Deer. And now, both FKWS and the Refuges need volunteers more than ever. Volunteers are critical in all areas of our work but we can particularly use some help staffing the Nature Store and Nature Center on Big Pine Key. FKWS would also really love to find someone to chair our fundraising and advocacy committees. Doing something hands-on is the best medicine, and on this grassroots level, you can truly make a big difference. Email us today: [info@FloridaKeysWildlifeSociety.org](mailto:info@FloridaKeysWildlifeSociety.org).



## THE FIRST WILDLIFE REFUGE WARDEN: ARTICLE COURTESY USFWS SOUTHEAST REGION

Meet Paul Kroegel - Defender of brown pelicans, the first federal wildlife warden in the United States, and owner of one fantastic mustache. Our story begins in the late 1800s, when Paul’s family settled in Florida. Paul grew up watching the brown pelicans and other seabirds nest on a small island nearby, better known as Pelican Island. This time period was a tumultuous time for our avian friends, who were hunted excessively for their feathers. Demand was driven by a need for



large feathers to adorn plumed hats – the very height of fashion. Brown pelicans and many other bird species nearly became extinct. As Paul watched the bird populations decline near his home, he took an active role in their defense. When plume hunters approached, Kroegel sailed out, putting himself between them and the avian residents of this small island. In addition to physically defending the birds, Kroegel worked hard to spread the word about Pelican Island and its need for protection. Dr. Frank Chapman, an ornithologist, joined Kroegel’s crusade. Their combined efforts caught the attention of President Theodore Roosevelt, who was persuaded to take action. By this time, Pelican Island was the last known brown pelican rookery on Florida’s east coast. On March 14th, 1903, Roosevelt convened his cabinet and declared Pelican Island as the first federal bird reservation (a.k.a. the First National Wildlife Refuge). Paul was appointed as the nation’s first wildlife warden, with a salary of \$1/month. In the 121 years since then, over 570 National Wildlife Refuges have been designated throughout the United States.

## EVENTS: LAUGHS, BIRDS, KAYAKS, & MORE!

Refuge week (last October) had a great showing this year. The Native Plant Giveaway was a great success on Saturday the 19th! Thanks to all who came out for their native plants and for being here to learn more about how they play a vital role in supporting biodiversity. They provide food and shelter for insects, which in turn, support other animals and plant species. And an especially big thank you to First Horizon Bank, who supplied the food for the event. The bird/nature walk with Ranger Katy was also a big hit.

Photos thanks to FKWS volunteers.



## WILD, WONDERFUL FLORIDA KEYS: LECTURE SERIES

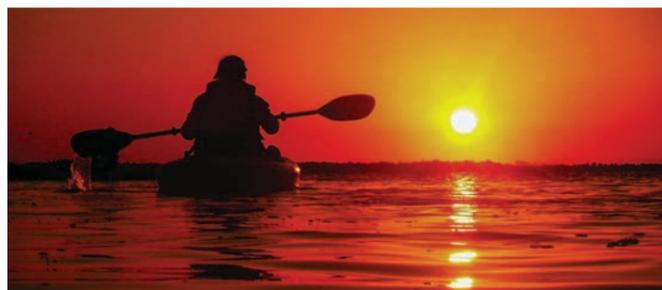
Between November 2024 and April 2025, the Nature Center hosted a monthly lecture series with local environmental experts, which left attendees awed by the natural world and empowered to take meaningful conservation action.

- Nov. 14: Melody Tuschel, Recycling Coordinator, Monroe County Solid Waste Management
- Dec. 12: Corey Malcolm, Lead Historian for Monroe County Public Library's Florida Keys History Center
- Jan. 9: Kristie Killam, Retired Florida Keys Refuge Ranger and Wildlife Photographer
- Jan. 30: Heather Stewart, Biologist, Florida Keys National Wildlife Refuges
- Feb. 27: FKWS Photo Club, Phil Dodderidge, President of the photo club, and Colleen Fuller, FKWS board member
- April 10: Celia Leto, Manager, Mote Coral Reproduction Laboratory on Summerland Key
- April 23: Kirsten Hines, author, wildlife photographer, and conservationist

## FULL MOON KAYAKS: A PERENNIAL HIT!

The Full Moon Kayak program, sponsored by FKWS and Capt. Bill Keogh/Big Pine Kayak Adventures, continued its allure. In 2024-25 it ran from October through May. March saw the largest attendance in memory, with 28 guests and nine guides. "The weather was great," said organizer Marianne Shepperd. "At least one person saw a swimming crab, mating horseshoe crabs, a ray, small barracuda, baby snapper, a trunkfish, and a Key deer."

Photos: Brewster Rhoades.



## RUN WITH DEER 5K SEES RECORD ATTENDANCE - AGAIN!

THANK YOU SPONSORS FOR BEING A VOICE FOR NATURE!

This year marked the 9th Annual Run With Deer 5K, and for the third year in a row it broke attendance records. This year 301 people registered (210 runners and 91 walkers), which was up from 259 participants last year. Forty-seven volunteers also made it possible. Thank you, volunteers!

The race, organized by the Florida Keys Wildlife Society, is a family favorite, with runners of all ages. Around 130 hailed from the Lower Keys, and the rest from locations afar. It was a particularly great event thanks to record sponsorship from community businesses, all of which goes to support FKWS. Historically, the event used to draw around 100 participants, but since event coordinator Jody Krieger took on the task, it has truly blossomed. Thank you, Jody, for all that you do for the community and Keys nature! Next Year's 10th Annual Run with Deer is scheduled for February 14, 2026. Come join us!

Photos thanks to FKWS volunteers.



# RUN with DEER 5K

## Thank you to our sponsors

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Refuges Artists — Photo Challenge

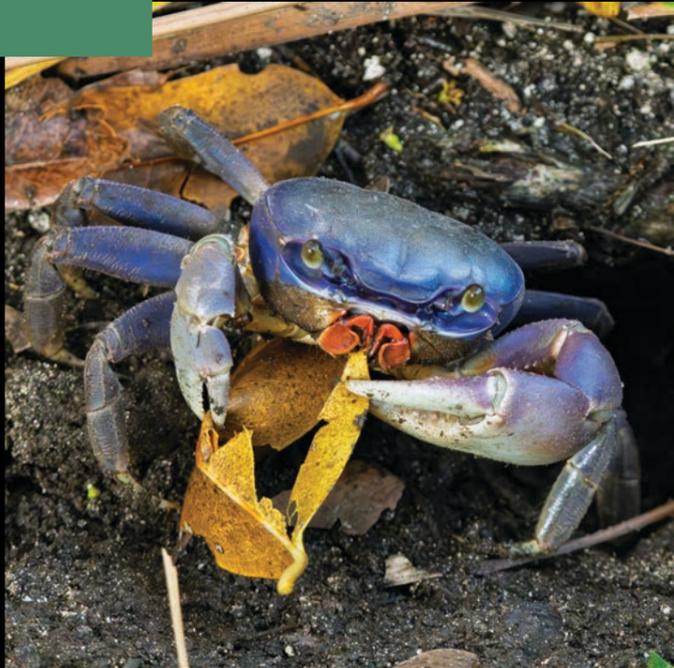


Tri-colored heron, Philip Dodderidge;  
Schaus' swallowtail at Croc Lake, Susan Natale;  
blue land crab having a snack, Joe Natale.

The Florida Keys Wildlife Society Photo Club meets monthly at the Nature Center on Big Pine Key. Join us in person, or email for more info: [info@FloridaKeysWildlifeSociety.org](mailto:info@FloridaKeysWildlifeSociety.org). Please put "photo club" in the subject line. If you would like to submit images for consideration for elsewhere in this newsletter, email newsletter editor Karuna Eberl, [karuna@WanderingDogCreations.com](mailto:karuna@WanderingDogCreations.com).



Reddish egret, Ann Haack;  
Cooper's hawk, Colleen Fuller;  
full blood moon, Kristie Killam;  
spiderwebs in the fog, Doug Mader.



## Nature Store Highlights

# TREAT YOURSELF, OR A FRIEND, TO NATURE STORE GIFT!

SUPPORT WILDLIFE & LOCAL ARTISTS, GET COOL ECO-GEAR, AND COME HANG OUT

We have a huge assortment of books, field guides, t-shirts, stuffed animals, hats, cards, postcards, games, puzzles, and more. All proceeds benefit your four Florida Keys National Wildlife Refuges. Come on in and pick up some goodies for your nature-loving friends and family, all for a good cause.

Highlights include SPF moisture-wicking shirts, so you can stay sun-safe while exploring the great outdoors and gardening; plus canvas shopping bags with images from local artists.

We're also proud to offer a large selection of local books for every reader, which focus on nature, conservation, native plants, and the history of the Florida Keys. The perfect gifts for curious minds and passionate readers. And don't forget

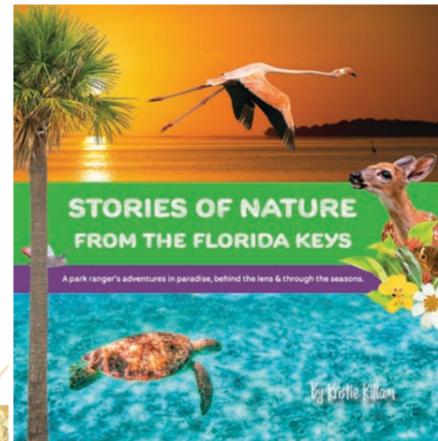
## WE NEED VOLUNTEERS!

We're always looking for passionate nature enthusiasts to join our team of volunteers. If you love the idea of supporting your local National Wildlife Refuge and meeting people from all over the world, consider volunteering with us. Whether it's helping out at events like Native Plant Day or assisting in our store, there are plenty of ways to get involved.

For more information, stop by the Nature Store or message: [info@FloridaKeysWildlifeSociety.org](mailto:info@FloridaKeysWildlifeSociety.org)

to check out retired Ranger Kristie Killam's new book, *Stories of Nature from the Florida Keys: A Park Ranger's Adventures in Paradise Behind the Lens and Through the Seasons*.

We're excited to help you find the perfect gifts and get involved with our volunteer opportunities this season!



THE NATURE STORE

30587 OVERSEAS HIGHWAY  
BIG PINE KEY, FL 33043

OPEN WEDNESDAY-SATURDAY  
10:00 AM TO 3:00 PM.

STOP IN TO SAY HELLO  
AND SUPPORT YOUR LOCAL  
WILDLIFE REFUGE.



## FLORIDA KEYS NATIONAL WILDLIFE REFUGES

Crocodile Lake National Wildlife Refuge on Key Largo protects the habitat of the American crocodile. It is also home to the endangered Key Largo woodrat and hundreds of other species. The butterfly garden is open to the public. The rest of the refuge is closed to the public, but there are volunteer opportunities and special events for those wanting to experience it. 10750 County Road 905, Key Largo, FL 33037.

Great White Heron and Key West National Wildlife Refuges are accessed only by boat, and encompass the shallow-water habitats of the Keys backcountry. Kayak past mangrove islands, tidal sandbars, and of course great white herons, found only in south Florida. For information, visit the Nature Center on Big Pine, 30587 Overseas Highway.



Follow us on Facebook & Instagram.  
Tag your Florida Keys National Wildlife Refuges photos  
@FloridaKeysWildlifeSociety



## MEMBER UP: WILDLIFE NEEDS YOUR VOICE, WE NEED YOUR \$\$

SOMETIMES WE JUST HAVE TO BE BLUNT ABOUT IT. THESE ARE UNUSUAL TIMES. PLEASE, BECOME A MEMBER. THERE IS SO MUCH TO DO TO HELP PROTECT THE KEYS WILDLIFE AND ECOLOGY.

These are uncertain times, in which we could certainly use your help. This would be a great time to become a member, renew, or make a contribution to our endowment. There is mounting work to be done in the four Florida Keys National Wildlife Refuges. There are invasive species to chase down, habitats to restore, and woods and beaches to clean up. There are scientists trying to understand how to protect our iconic Keys' species, visitors and locals to educate, and kids whom we can help fall in love with nature. Much of this work is only possible because of the financial contributions of our community.

We are a 501(c)(3) charitable organization, so donations are tax deductible. The Florida Keys Wildlife Society works as a "friends" group to the refuges, which means all of our fundraising goes directly to supporting the work being done there. And we mean all of it, since we are volunteers.

You can participate by becoming an individual member, or a business sponsor. Donations can be made at [www.FloridaKeysWildlifeSociety.org](http://www.FloridaKeysWildlifeSociety.org) (there's a button on the homepage). The FKWS (formerly known as FAVOR) has been supporting the refuges through education, non-adversarial advocacy, volunteerism, and direct funding of various refuge projects since 1997.

Chances are if you are taking a hike, or boating in the backcountry, you are enjoying the natural marvels of the Keys that the Refuges are helping to protect.

Join Team Wildlife.  
Be our change.  
Thanks!



## WILDLIFE SOCIETY ENDOWMENT FUND

The Florida Keys Wildlife Society opened an endowment with the Community Foundation of the Florida Keys. The permanent fund will help ensure support to the four Keys' National Wildlife Refuges for decades to come. If you would like to be a supporter and make a tax-deductible donation to the fund, mail checks to CFFK, 300 Southard Street, Suite. 201, Key West, FL 33040, with "Florida Keys Wildlife Society" in the memo or attachment. Gifts of stock, real

estate and retirement accounts are also welcome. For more information, contact Elizabeth Brown at 305-809-4995 or [Elizabeth@cffk.org](mailto:Elizabeth@cffk.org).



The National Key Deer Refuge protects many endangered species of both plant and animal, such as the iconic Key deer and the Lower Keys marsh rabbit. It also protects endangered pine rocklands habitat. Many hiking and kayaking opportunities are found in the Refuge, including the shortest nature walk of all, about 20 feet to the Blue Hole, a unique naturalized freshwater quarry with nesting birds and alligators. Visit the Nature Center for interpretive learning and advice on bird and deer watching, and check out the adjacent Nature Store for gifts and books. 30587 Overseas Highway, Big Pine Key, FL 33043.

## INVASIVE SPECIES ALERT: ARGENTINE TEGU LIZARD SPOTTED IN KEY LARGO

If you are traveling in North Key Largo and Card Sound Road, be on the lookout for Argentinian black and white tegu lizards. If you see one, take a picture, if possible, and report the sighting to 888-IVE-GOT1. Public help with sightings is crucial for slowing their spread. Your vigilance makes a difference!

The first tegu in the Keys was spotted on March 4 in North Key Largo, but there have also been reports of them on the Stretch. They are voracious predators, which can arrive by land or water, and pose a grave threat to American crocodiles, Key Largo



woodrats, and other vulnerable Keys creatures.

The first wild tegu was spotted in Homestead in 2008 and they're now well-established in South Florida, the Everglades, and beyond. People keep them as pets, but they were added to Florida's prohibited species list in 2021, with current owners being exempt.

They can grow to 3 feet long and weight up to 8 pounds. Look for them in disturbed habitats, like forest clearings and roadsides. FWC recommends against trying to capture one, as they have bad tempers, sharp teeth, and claws.

## BE A VOICE FOR NATURE & TEAM WILDLIFE

### MEMBERSHIPS TO THE FLORIDA KEYS WILDLIFE SOCIETY

Not a card-carrying Friends member? Join or renew today, by emailing [members@FloridaKeysWildlifeSociety.org](mailto:members@FloridaKeysWildlifeSociety.org). Annual memberships are available for Individuals (\$25) and Families (\$50). Fill out the form online at [FloridaKeysWildlifeSociety.org](http://FloridaKeysWildlifeSociety.org), or just mail us with your name, email, phone, address, and check to Florida Keys Wildlife Society, P.O. Box 431840, Big Pine Key, FL 33043, or stop by the Nature Store, at 30587 Overseas Highway on Big Pine Key.

Your membership benefits include: discounts at the Nature Store, advance registration for events held by FKWS, newsletters, and a warm fuzzy feeling. To contribute to our endowment, contact Elizabeth Brown at 305-809-4995 or [Elizabeth@cffk.org](mailto:Elizabeth@cffk.org).

### YOUR MEMBERSHIP SUPPORTS

- Scientific projects
- Citizen science
- Educational programs
- Research activities
- Community outreach
- Intern study programs
- Nature center exhibits
- Healthy wildlife and ecosystems



Volunteer, Please!

### SUPPORT WILDLIFE

Volunteers are the lifeblood of the four Florida Keys National Wildlife Refuges and the Florida Keys Wildlife Society, contributing over 7,000 hours per year, and ensuring the protection of many native and endangered species, such as Key deer, Key Largo woodrats, and Schaus' swallowtail butterflies, and their habitats. Our activities are split between running the organization behind the scenes and being in the public eye, so there's an opening for just about every taste, skill, and schedule. You can help:

- In the Nature Center, store, or Blue Hole on Big Pine Key.
- With native plants.
- On a clean-up, outdoor festival, or other event.
- Plan events for public outreach and education.

- Get the word out on our social media sites.
- Write articles about nature and the Refuges.
- Increase membership and pledge campaigns.
- Maintain our member database and emails.
- Plan fundraising events and PR efforts.
- Help find and write grants.
- Join a committee, like Nature Store, fundraising, or communication.
- Or make up your own job.

For info on how to be part of Team Wildlife, email or visit: [VOLUNTEER@FLORIDAKEYSWILDLIFESOCIETY.ORG](mailto:VOLUNTEER@FLORIDAKEYSWILDLIFESOCIETY.ORG) [FloridaKeysWildlifeSociety.org/Get-Involved/Volunteer/](http://FloridaKeysWildlifeSociety.org/Get-Involved/Volunteer/).