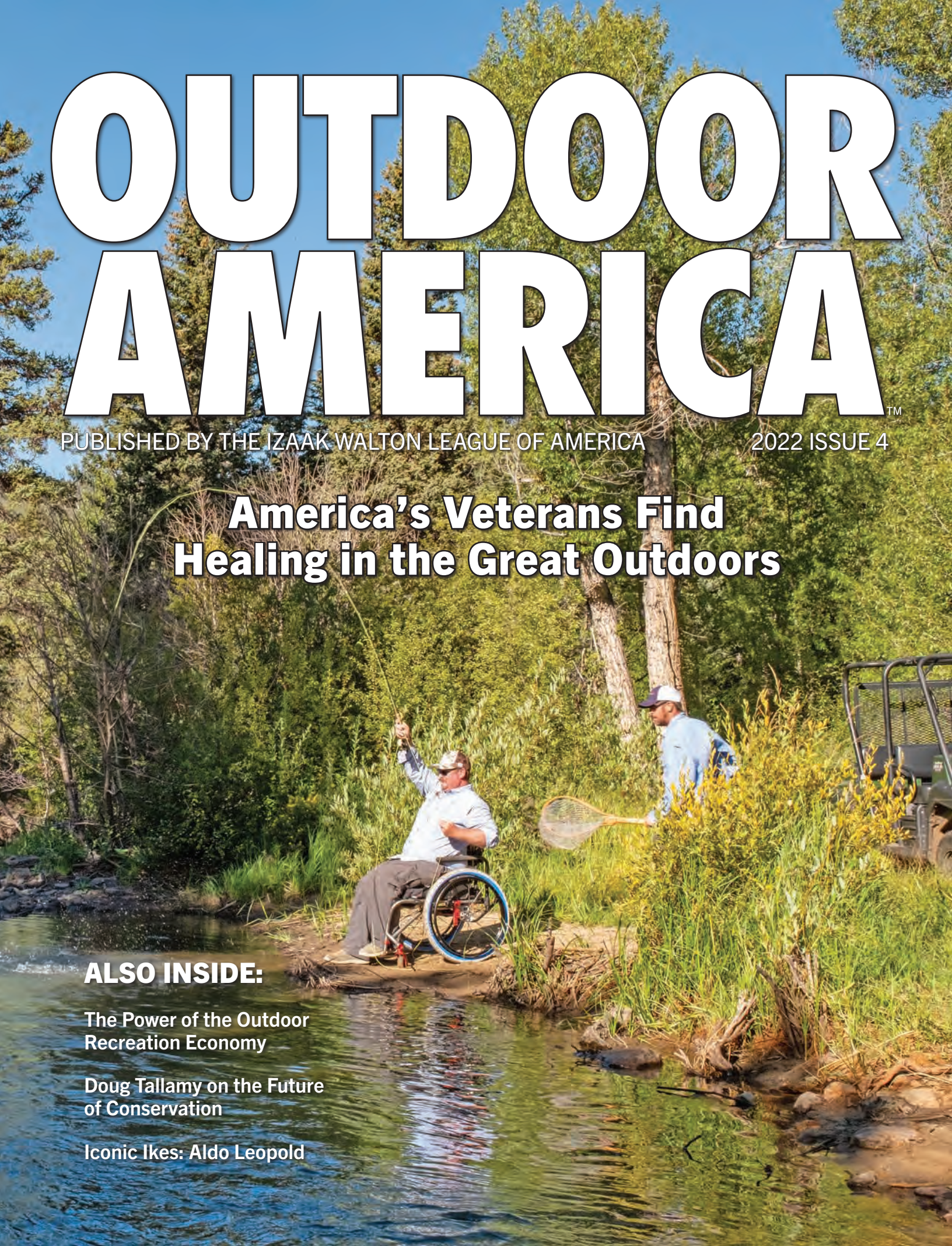
OUTDOOR AMERICA™

PUBLISHED BY THE IZAAK WALTON LEAGUE OF AMERICA 2022 ISSUE 4

America's Veterans Find Healing in the Great Outdoors



ALSO INSIDE:

The Power of the Outdoor Recreation Economy

Doug Tallamy on the Future of Conservation

Iconic Ikes: Aldo Leopold

2022 Year in Review

Thanks to you, the Izaak Walton League continued to rack up impressive conservation victories during our centennial year.

Here's just some of what we accomplished together in 2022.

Growing Sustainable Food

Secured $19 billion to expand conservation, reduce water pollution and combat climate change on millions of acres of farms and ranches

Protecting Wetlands and Clean Water

Filed an amicus brief with the Supreme Court in *Sackett v. EPA* to protect habitat and drinking water

Keeping Common Wildlife Common

Advocated for funding for non-game species

Turning Data Into Action

Linked local water monitoring volunteers with advocacy resources

Engaging the Next Generation of Conservation Leaders

Awarded scholarships to students at the chapter and national levels

Pursuing a Bold Vision for the Future

Launched a plan for our second century to tackle critical conservation challenges

Expanding Participation in Volunteer Science

Engaged more volunteers across the country in water monitoring and community conservation

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ON THE COVER▶ Veteran lands a catch.
Credit: Project Healing Waters Flying Fishing

CONTENTS▶ Veterans in the Team River Runner program in Cincinnati.
Credit: Janet Everhard

ABOUT THE IZAAK WALTON LEAGUE OF AMERICA▶
Founded in 1922, the Izaak Walton League of America is a national conservation organization headquartered in Gaithersburg, MD. Our more than 40,000 members protect and enjoy America's soil, air, woods, waters and wildlife. For membership information, call (800) IKE-LINE (453-5463) or visit our website at www.iwla.org.

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A Rich Variety of Success Stories from Our Members and Chapters

VICKI ARNOLD | NATIONAL PRESIDENT

Fellow Ikes,

This has been a very exciting year for the League. Like many of you, I took some time to look back at the League's accomplishments. I also looked back at some of our chapters' success stories from across the nation.

We have a chapter that has no land and owns no buildings and their membership is growing. They consistently talk the talk and walk the walk. Many of their members did water quality testing long before the League began the Save Our Streams program. And these members are now taking the lead in their communities to show others the importance of clean water.

We have a chapter who helped produce an Olympic gold medalist. Because of this chapter's commitment to engaging new audiences in the shooting sports, a young woman got her start at the chapter and went on to win a gold medal.

We have chapters who because of their commitment to introducing youth to the outdoors hold annual teddy bear hunts and fishing derbies. The success of these programs can be seen not only in the increasing number of young people who participate each year but also by the look of excitement on the faces of the participants as they find that teddy bear or reel in their first fish.

We have chapters who are respectfully introducing landowners to conservation practices that will improve soil health and improve profitability for the farmer.

We have chapters who are working to educate local, state and national leaders on the need to make changes to what is happening to our woods, waters and wildlife—otherwise, we risk the possibility that future generations won't have the chance to experience the outdoor opportunities we have enjoyed.

Each of our members and chapters are part of a team—the Izaak Walton League—and I appreciate the effort each of you make.

While looking at these and many other chapter success stories, I realized how different,

how similar and how important all of these chapters and their activities are to the League as an organization. You may not have the skill it takes to excel in the shooting sports or the confidence it takes to engage a total stranger in a conversation about the changes happening to our environment. But you have to respect the person who does. Each of our members and chapters are part of a team, the Izaak Walton League, and I appreciate the effort each of you make for the team.

As we all continue our unique efforts to take the League into the next century, I look forward to working with each of you.

Thank you for everything you do for your chapters, your divisions and the League.

OUTDOOR AMERICA

THE IZAAK WALTON LEAGUE OF AMERICA

MEMBERS WITH QUESTIONS OR CONCERNS ABOUT LEAGUE POLICIES CAN REACH OUT TO THEIR NATIONAL DIRECTOR. FOR CONTACT INFORMATION, CALL THE LEAGUE'S HEADQUARTERS AT (800) IKE-LINE.

707 CONSERVATION LANE
GAITHERSBURG, MD 20878-2983
PHONE: (800) IKE-LINE

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Address Changes:
Send new address (enclosing old label) four weeks in advance to IWLA Membership Dept., 707 Conservation Lane, Gaithersburg, MD 20878-2983.

IZAAK WALTON LEAGUE OF AMERICA MISSION STATEMENT

To conserve, restore and promote the sustainable use and enjoyment of our natural resources, including soil, air, woods, waters and wildlife.

WWW.IWLA.ORG

DIRECTOR'S CHAIR

Honoring Our Heritage, Embracing Our Future

SCOTT KOVAROVICS | EXECUTIVE DIRECTOR

2022 has been a very special year for the Izaak Walton League. As we enjoy the remaining days of our 100th anniversary, the future beckons brightly.

The anniversary is a celebration of past success and a springboard to the future. We know more has to be done to address serious problems from water pollution to climate change. This summer, League leaders and members adopted a bold vision for tackling these and other challenges in our second century.

As I look ahead, I couldn't be more bullish about what the League, our members and volunteers can accomplish. And I'll tell you why. It starts with the hard work our team has done over the past few years to expand engagement in volunteer science. The hard work to develop policy solutions that get introduced in the U.S. Congress and state houses.

We've laid the foundation for success—and here are just a few examples of how the League will build on our strengths in 2023, and beyond.

The exponential growth in Salt Watch proves more people will get involved with volunteer science when testing is simple and targets problems important to them. Going forward, we will focus more on helping volunteers to use their test results to drive down excessive salt and other chemical use and reduce pollution at the source. That involves advocating for better local policies.

In response to another serious water pollution problem and

We've laid the foundation for success. Here are just a few examples of how the League will build on our strengths in 2023, and beyond.

threat to public health, the League will launch Nitrate Watch in 2023 to test, track and, ultimately, help reduce nitrogen pollution. Factory farms, antiquated sewage treatment plants and residential and commercial properties applying chemical fertilizer are the major sources of that pollution. Nitrogen fuels algal blooms, and peer-reviewed studies document increased risk of certain cancers, including colon cancer, and thyroid disease in areas

with elevated levels of nitrate in drinking water.

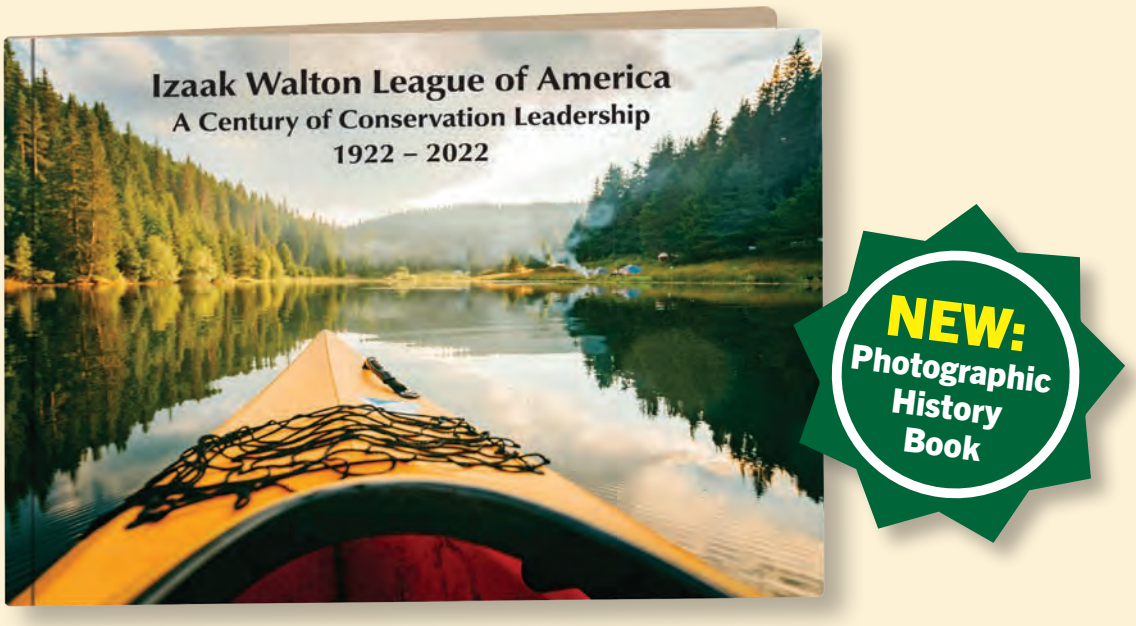
In the months ahead, Congress is poised to debate the Farm Bill. The fact is, this isn't just a "farm" bill, this is a public health, clean water and climate bill. This debate is a once-in-a-generation opportunity to make meaningful policy change that can expand conservation on tens of millions of acres in the future. Our team is prepared to mount an aggressive advocacy campaign to mobilize League members and partners at the grassroots and League staff on Capitol Hill.

By working together on these and other priorities, we will maximize our impact in the first year of the League's second century.

Great Gift Ideas:

New History Book about the League, 100th Anniversary Items

These items make great gifts and giveaways for members, supporters and chapters.



The special-edition book, *Izaak Walton League of America: A Century of Conservation Leadership 1922-2022,* is now available.

Two years in the making, this book displays hundreds of images of people, places and achievements culled from our archives and other sources. This softcover book provides more than 250 pages of historic images, including many that have not been seen in decades. Special appendices list all known chapters since 1922, convention dates and locations, profiles of the 54 founders and much more.

100th Anniversary Items

The full array of 100th anniversary clothing and other merchandise is also available. Shirts, caps, water bottles and other collectibles show off the League's 100th anniversary logo.

More available online!

Get them while supplies last.
View the selections and place orders at iwla.org/shop.

The Future of Conservation

What We Need to Do Now

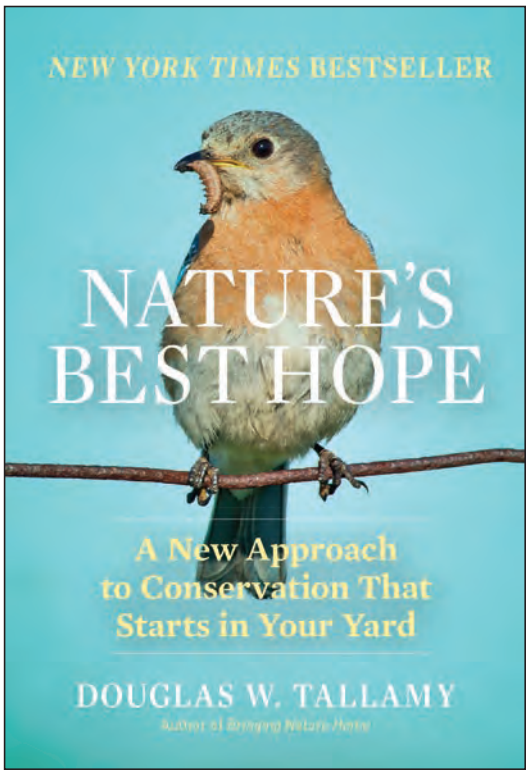
By DOUG TALLAMY, PH.D.

As the Izaak Walton League begins its second century, **Outdoor America** *has asked experts about the coming challenges and priorities for conservation.*

Douglas W. Tallamy is a professor in the Department of Entomology and Wildlife Ecology at the University of Delaware. *A prolific author of research publications, he has focused on the ways that insects interact with plants and their role in biodiversity. We asked Tallamy what will be required of us during our next century of conservation work.*

In my view, if conservation is to be successful in the future, we have to do three things.

School yards and other public places can serve as friendly places for native plants and insects and the creatures that depend on them.



Recognize the Large Role of Small Animals and Plants

Small animals and plants have to be conserved as well as the charismatic megafauna.

In the past, the vast majority of our conservation efforts has been directed at conserving the big mammals: the lions, tigers, wolves, elephants, rhinos, whales, etc. We do need to protect those species, but we also have to conserve the smaller, less charismatic species: the birds, insects, amphibians, reptiles that contribute more to ecosystem function than we think.

And we have almost entirely ignored serious conservation of the plants that are the essential foundation of all ecosystems. That has to change. Every time a species is lost from an ecosystem, no matter how small or seemingly insignificant it is, that ecosystem is more unstable and less productive.

It is biodiversity that runs the ecosystems we depend on.

Foster Healthy Ecosystems Everywhere

We have to start doing conservation outside of parks and preserves, as well as inside of them. For the past century, we have focused primarily on conserved areas, and yet we are now in the sixth great extinction, with enormous global declines in insects, amphibians and birds.

Obviously, our parks and preserves are not big enough to protect Earth's biodiversity. It is biodiversity that runs the ecosystems we depend on, and we need healthy ecosystems everywhere, not just in parks and preserves.

Restore the Land, Starting with Native Plants

We must move our efforts from conservation to restoration. We certainly need to continue to conserve existing natural areas, but we have destroyed ecosystems over such huge areas of the planet that we must now work to restore them as best as possible.

To do this we need to put the plants back, and not just any old plant. Planting a trillion eucalyptus trees in areas outside of Australia—where eucalyptus contributes little to sustaining animal diversity—will get us nowhere.

We must recognize that plants differ widely in their ability to support animals, and therefore we must focus on those relatively few plant species that contribute the most to regional animal diversity.

Doug Tallamy, Ph.D., has written several widely acclaimed books including Bringing Nature Home, The Living Landscape, Nature's Best Hope, *and* The Nature of Oaks.

MARGARET E FISHER, TIMBER PRESS/HACHETTE BOOK GROUP, MICHAEL REINEMER

Smaller, less charismatic species contribute more to ecosystem function that we think. Katydids also contribute sounds to a summer night.

The Future Is Theirs!

The Izaak Walton League builds a brighter future through conservation and engaging Americans in outdoor traditions.

For generations, the League's tireless work and unprecedented success has protected our woods, waters and wildlife—and promoted outdoor recreation in every corner of the U.S.

Through your will, retirement plan, life insurance or trust, you can help continue this legacy.

Plan your gift to the Izaak Walton League and pass along a lifetime of benefits.

Email develop@iwla.org or visit www.iwla.org/support to get started.

Izaak Walton League of America
707 Conservation Lane
Gaithersburg, MD 20878

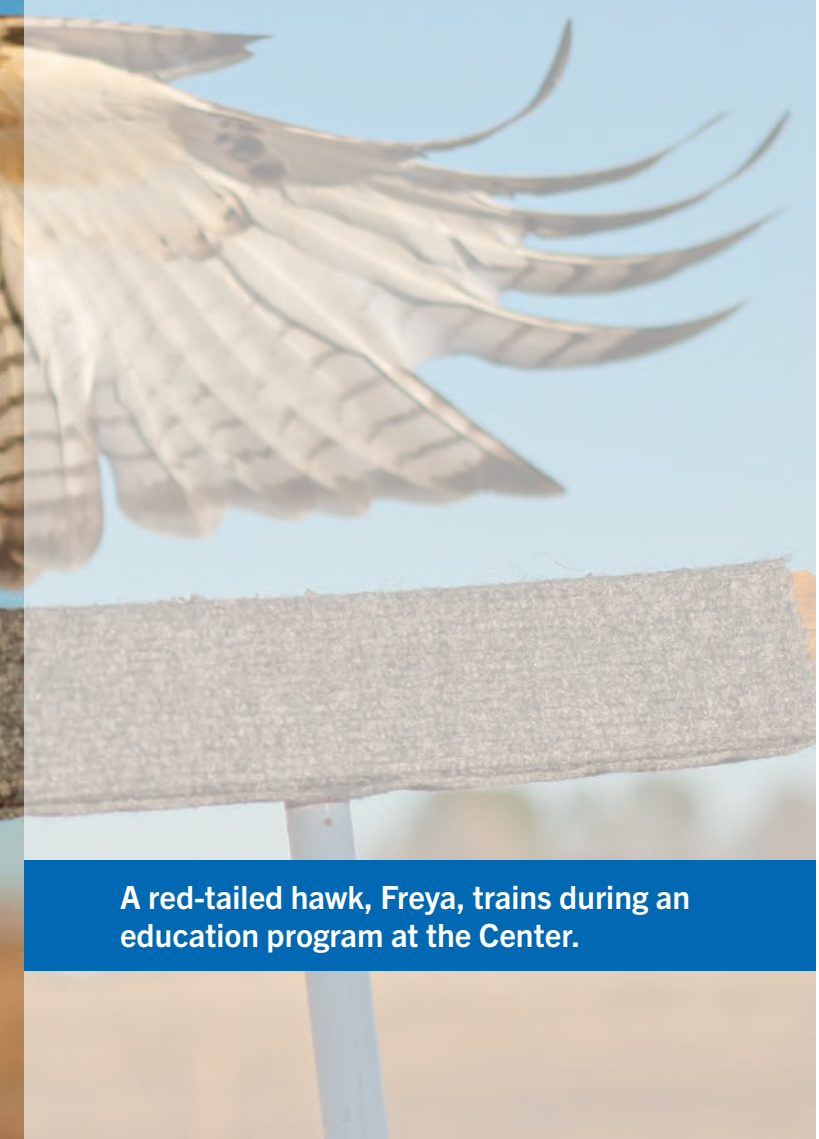
Contact us today for information about including the Izaak Walton League in your will or naming the League as the beneficiary for insurance or other investments.

Center for Injured Raptors Takes Wing

By Jim Petersen

Nothing speaks more to the majesty of the American West than a ferruginous hawk scribing lazy circles in the afternoon thermals, the lightning-quick dive of a peregrine falcon after its prey, or golden eagles soaring where only eagles dare.

South Dakota is home to a large and heterogeneous population of these amazing birds, particularly during the winter months. In fact, the 175-mile stretch of prairie grasslands along Highway 34 between Sturgis and Pierre has been designated by the state's Department of Tourism as "Raptor Alley" due to the high density of the birds along this route.



A red-tailed hawk, Freya, trains during an education program at the Center.

PINE & WILLOW PHOTOGRAPHY

The great raptors still reign supreme in the wild places of our region. But, like most creatures large and small, they have paid a steep price where their range overlaps with humans.

These birds of prey face many threats. They are hit by vehicles. They get ensnarled in barbed wire fences or fishing lines, or they collide with windows. They are the unintentional victims of rodenticides and the deliberate victims of poaching. And of course they suffer from loss or alteration of their habitats. Raptor centers around the country make every effort to rescue, rehabilitate and release our high-flying friends when they are injured.

Unfortunately, such a facility was not available in the Black Hills region of South Dakota until fairly recently. Previously, injured birds discovered by humans would be left to die or had to be euthanized.

Then, 12 years ago, two current members of the **Rapid City Chapter** of the Izaak Walton League of America took on the challenge of saving these wounded apex predators.

Black Hills Raptor Center

The Black Hills Raptor Center (BHRC) was organized with three goals in mind: provide triage, treatment, and rehabilitation for injured raptors; educate the public about these amazing creatures; and contribute to the body of science regarding raptors.

Co-founders Maggie Engler and John Halverson started the education program with four non-releasable raptors housed in mews (small buildings or bird apartments) in Engler's back yard. It's important to note that only raptors whose injuries preclude them from being released back to the wild are allowed to be maintained for educational purposes, according to U.S. Fish and Wildlife Service regulations. The Black Hills Raptor Center has permission, provided on a bird-by-bird basis, to use its raptors in its educational programs.

For years, community outreach was the most outward manifestation of the raptor work by Engler, Halverson and a small army of enthusiastic volunteers. The outreach has taken the form of bringing their "education birds" to all manner of school programs, outdoor and sports expositions, community and church groups, nursing homes, environmental gatherings and events at local, state and national parks.

Participating in more than 100 presentations most years, they have reached tens of thousands of people with their "raptor diplomacy." They have introduced these wild creatures to kids and adults alike in a way that can influence and inspire for a lifetime. And that is their overarching mission, just as it is for the Izaak Walton League—to ensure that people stay connected to nature.

Elise, a red-tailed hawk, has been a BHRC resident since the organization's inception in 2010. A peregrine falcon named Izaak Walton is the most recent arrival. They are currently joined in the mews by Freya, another red-tailed hawk; Phoenix, a ferruginous hawk; Aldo, a great horned owl; Hendrix and Joplin, both American kestrels; Gaia, a broad-winged hawk; and two Eastern screech owls, Big Bad Wolf and Little Red Riding Hoot.

Birds of prey face many threats. They are hit by vehicles. They get ensnarled in barbed wire. And they suffer from loss or alteration of their habitats.

But Engler and Halverson have major plans to greatly increase the number of residents in the BHRC mews, and a massive building program is underway to make their vision a reality.

Expanding the Center to Help More Birds

More times than they can count, BHRC volunteers have rushed an injured raptor on a several-hours' drive to the nearest facility that could treat their wounds, in central or eastern South Dakota. Often, these beautiful creatures did not survive that desperate journey.

All of us involved in the effort hope that will soon change. An expanded Black Hills Raptor Center is making substantial progress toward changing the destiny of the region's raptors on a five-acre nature preserve just east of Rapid City, South Dakota.

THE VITAL ROLE OF RAPTORS

Raptors include eagles, hawks, falcons and owls. In Latin, "raptor" means "to seize or grasp." As birds of prey, raptors have powerful talons, or claws, used for hunting or defense. Their ability to see and hear exceeds humans many times over. Their diet ranges from small mammals and reptiles to insects and other birds.

If the beauty of a raptor in flight is not reason enough to love these birds, consider their roles in ecosystems as apex predators. They are one of our farmers' best friends because of their voracious appetite for mice. A single pair of mice and several generations of their offspring can produce several thousand more mice in a year. Each eats four or five pounds of grain crops during that year and contaminates more with its waste.

We probably don't associate raptors with flood control. But the Cornell Ornithology Lab reports that barn owls and other raptors in Southern California's Ventura County protect dozens of flood-control dams and levees by eating ground squirrels and gophers. The Lab says, "a single gopher can excavate a ton of soil a year, and ground squirrels can burrow more than 30 feet." These networks of tunnels and excavated soil can undermine the strength of earth levees.

The lifespan of raptors in the wild is hard to predict. The Cornell Lab says they may live five or six years, but most do not live beyond their first winter. "This is usually due to predation or starvation. If a bird makes it past their first winter, then locating food becomes their biggest concern."

This great horned owl, Aldo, lives at the raptor center. Owls' fluffy build ensures that their flight is virtually silent, which improves hunting success.

High school volunteer Zora Lone Eagle spends time with Hendrix, an American kestrel, the smallest of North American falcons.

The BHRC must meet extremely specific and rigid requirements regarding facility design and outfitting to obtain the U. S. Fish and Wildlife Service permits that would allow the center to triage and treat wild raptors with the goal of releasing them back to the wild.

Over the previous decade, BHRC has acquired its five-acre parcel, and in the past few years, two of the six buildings designed for the planned complex at the preserve have been erected; a third is being planned for groundbreaking in the spring of 2023.

The Rapid City Chapter of the Izaak Walton League recently provided a donation of $25,000 to lay the foundation for this third building, the Rehabilitation and Research Hub, which will be the "nerve center" of the BHRC campus.

It is the biggest of the planned structures and will house offices, meeting rooms and, most importantly, a complete veterinary clinic. The clinic will include examination rooms, an ICU, labs, a digital X-ray

JULIA KITTELSON; HARMONY MAY

Black Hills Raptor Center co-founder and Executive Director Maggie Engler introduces Freya during a program in South Dakota.

BHRC

FOR MORE INFORMATION

There are many raptor education and rehabilitation centers around North America and the world. While each is unique, all have similar needs and are looking for your assistance. Every skill set is needed and vital in the effort to save these beautiful creatures.

Black Hills Raptor Center
P.O. Box 48
Caputa, South Dakota 57725
Blackhillsraptorcenter.org
(605) 391-2511

Cornell Raptor Center, Ithaca, New York
blogs.cornell.edu/raptors/related/raptor-links/

The Raptor Center, University of Minnesota
raptor.umn.edu/

California Raptor Center, University of California, Davis
crc.vetmed.ucdavis.edu/

room and a surgical suite. The completed facility will meet the primary requirements for the U.S. Fish and Wildlife Service permitting process so that BHRC can begin treating and rehabilitating raptors on site rather than, for example, rushing injured bald eagles across the state to a permitted facility for treatment, as it did on seven separate occasions in one recent 12-month period.

The Rapid City Chapter had engaged with this important work early on with another $10,000 grant during the land-acquisition phase of the project. We will continue to support completion of the BHRC campus and its mission as the final structures are finished—a much bigger mews building, a small education center and a free-flight aviary.

Regional Reach for the Expanded Center

When the BHRC campus is complete, it will provide raptor rescue, treatment and rehabilitation services to a region that includes South Dakota, North Dakota, eastern Wyoming and western Nebraska. It will also provide the resources to train additional volunteers for community outreach.

Like all the environmentally oriented undertakings we at the Izaak Walton League pursue, the work at the BHRC is open-ended and never done. As a matter of fact, the pace of activity at the BHRC will steadily increase as the permitting process is completed, as more avian guests start to arrive on campus and as staff and volunteer numbers expand. The Rapid City Chapter stands ready to continue its partnership with the BHRC in this critical work.

Everyone involved in this endeavor at the BHRC anticipates the day when the first bird fully rehabilitated at the Black Hills Raptor Center—perhaps a bald eagle—is released back to the wild: one of nature's most magnificent creatures given a second chance to take its rightful place in the great web of life.

Jim Petersen, a member of the Rapid City Chapter, is a retired Marine Corps officer and Delta Air Lines pilot who has spent the past 20 years doing volunteer consulting on environmental projects around the globe.

The Perilous State of Our Birds

By MICHAEL REINEMER

Less common today, the rufous hummingbird has lost half of its population in recent decades.

Threats to bird species come in many forms, and loss of habitat is a huge factor.

In October, the North American Bird Conservation Initiative, a coalition of government agencies and nonprofits, issued its "State of the Birds 2022 Report," which noted that bird populations are falling in nearly every type of habitat. (Visit stateofthebirds.org/2022.)

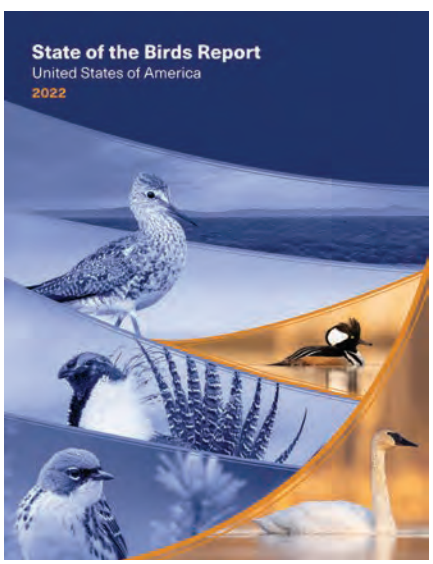
The report found that more than half of America's bird species are declining in nearly all types of habitat.

Grassland birds are among the fastest declining, suffering a 34 percent loss since 1970. The problem is acute in states where grasslands have been developed or converted to agriculture, like Nebraska and Iowa, and in places where trees have encroached and reduced that historic grass habitat.

Seventy species have recently reached a perilous "tipping point," meaning each has lost 50 percent or more of its population over the past 50 years and may lose half of what remains in the next 50 years if nothing changes. Birds that have reached that tipping point include the rufous hummingbird, the golden-winged warbler and the black-footed albatross.

Grassland birds are among the fastest declining, suffering a 34 percent loss since 1970.

Wetland-dependent birds provide one exception to this downward trend. Waterbirds and ducks have increased by 18 and 34 percent respectively since 1970, partly because of concerted efforts and funding over many decades to preserve wetlands—habitat that waterfowl depend on.



AIDAN BRUBAKER, CORNELL LAB

A report published in *Science*

magazine in 2019 reported that the U.S. and Canada have lost three billion breeding birds since 1970, representing about one-quarter of our bird population. (The breeding bird population estimates the number of individuals involved in breeding behavior for a given location and time period, typically nesting season.)

How We Can Help

One of the policy tools that will help reverse declining bird populations is the Recovering America's Wildlife Act. Most of the 70 tipping-point species have been identified as "species of greatest conservation need" in state wildlife action plans, and they would be prioritized for conservation through Recovering America's Wildlife Act funding.

Forest restoration efforts in the eastern U.S. have contributed to stabilization of many other bird populations which had also suffered great losses since 1970. Two birds in particular are showing signs of recovery—the cerulean warbler and the wood thrush.

Cats and dogs that roam freely outdoors also take a severe toll on birds. *Nature Communications* published a paper in 2013 that estimated between 1.3 and 4 billion birds are killed each year in the U.S. by domestic cats, including feral or un-owned cats. The study also found that cats kill between 6.3 and 22.3 billion mammals in the U.S. Off-leash dogs disturb nesting for shorebirds, game birds and others, like the forest-dwelling whip-poor-will.

Year-round, cats should remain indoors and dogs should be kept on a leash during nesting season.

THESE BIRD POPULATIONS HAVE PLUMMETED

Many species have lost half their populations in recent decades. Here is a partial listing of birds from across the U.S. that were once much more common. See the full list at: stateofthebirds.org/2022.

- Bobolink
- Chimney swift
- Eastern whip-poor-will
- Evening grosbeak
- Golden-winged warbler
- Greater sage grouse
- Hudsonian godwit
- Least tern
- Pinyon jay
- Red-headed woodpecker
- Rufous hummingbird
- Saltmarsh sparrow
- Snowy owl
- Western grebe
- Wood thrush
- Yellow-billed loon

IKES IN ACTION

Police Appreciation Day Highlights Recreation and Respect

Judy Danish from the Rockville Chapter greets Zachary Buttrey and Rey from the Montgomery County K9 unit.

Maryland ▸ It was the first week of autumn and the weather could not have been better for the **Rockville (Maryland) Chapter's** Police Appreciation Day at the Chapter's lake in Germantown. We coordinated the event with the help of two community outreach officers from the Montgomery County Police Department District 6. We were pleased to host about 50 police officers from local agencies throughout the day.

The officers came from several law enforcement agencies: Montgomery County Police districts 5 and 6, the Rockville Police, Maryland State Park Police, Montgomery County Sheriff's office and Gaithersburg Police. All expressed amazement and delight to find out about our property.

We were excited when the police cars started rolling in! Some arrived in groups, from two to six depending on their shifts and availability. Those who had just come off shift change were able to stick around long enough to take real advantage of the event. And an off-duty officer brought his four-year-old son.

The grill was operating all day with hot dogs and hamburgers. There was really good chili, bean salad, potato salad and enough homemade desserts so no one went away hungry. The Chapter provided gear for everyone who wanted to try their hand at fishing. It seems that almost everyone who tried fishing was successful. Interestingly, the most successful anglers were the two Maryland Park Police officers who came by.

Besides the food and fishing, the Chapter also provided horseshoes and ladder ball for those who wanted to try their luck—or show off their expertise.

But the most interesting part of the day was just sitting and talking to some of the officers. Getting a real, unfiltered view of life as a law enforcement officer was enlightening. These men and women are dedicated professionals who truly believe in the concept to "serve and protect," but these days they find that their job can be frustrating. They deserve so much better.

Several years ago in appreciation of the dedication of first responders and active military, the Chapter decided to exempt them from the usual initiation fee for new members. We hope to make the Appreciation Day an annual event that will expand on and personalize our own commitment.

Is your chapter interested in organizing a police appreciation event? Contact your local community outreach or service officers to plan and coordinate.

By Joyce Buttrey and Miles Greenbaum
Both are members of the Rockville Chapter.

JOYCE BUTTREY

The Healing Power of the Outdoors for America's Veterans

By MICHAEL REINEMER, Editor

On Wednesdays in the summer of 1946, vehicles packed with soldiers drove from O'Reilly General Hospital in Springfield, Missouri to the Taneycomo reservoir on the White River. The mission: deliver convalescing World War II veterans to the lake for a day in the great outdoors, catching fish.

The trips were organized by Ernie Williams, a member of the **Joplin #31 Chapter** of the Izaak Walton League. He coordinated with Army nurses who traveled with the veterans and Red Cross workers who helped with logistics. Williams' work with veterans was probably not the first and definitely not the last program the League has operated to benefit veterans across the U.S.

In Denison, Iowa, the **West Central Chapter** of the League has been hosting fishing trips for veterans for nine years. In June 2022, the Chapter organized a free week-long trip to fish for walleye at Platte Creek on the Missouri River in Chamberlain, South Dakota. The trip drew about two dozen veterans from Iowa and Nebraska and required a caravan of vehicles and boats. Boat owners and some junior members from the League also made the trip to assist.

The Iowa anglers had some luck landing walleye. Reliving a scene from *The Compleat Angler* where the central character, Piscator, takes his catch to a local alehouse, this band of anglers took their walleye to a restaurant in Chamberlain, which gladly hosted a fish fry for the veterans and their entourage of Ikes.

The League has been working with wounded veterans since at least 1946 when the Joplin #31 Chapter organizing fishing trips in Springfield, Missouri.

Veterans from Iowa and Nebraska successfully landed walleye on their 2022 fishing trip to South Dakota.

IWLA ARCHIVE; WEST CENTRAL CHAPTER, IOWA

The tradition continues in other chapters. The **Lancaster Red Rose Chapter**, in Pennsylvania holds a fishing program for veterans at the Lebanon VA Medical Center. The Chapter partners with the Lebanon County Federation of Sportsmen to provide what the Chapter calls "a few relaxing evenings of fishing." Adam Hostetter, a life member of the Chapter, coordinates that event. The **Rockville Chapter** in Maryland also collected magazines and books and hosted fishing days and other events for convalescing veterans at Walter Reed, the national military medical center in Bethesda, Maryland.

Team River Runner offers paddling events for veterans and their families to promote health, healing, community purpose and new challenges. The League's **Cincinnati Chapter** has worked with Team River Runner and the Izaak Walton League of America Endowment helped fund the purchase of tandem kayaks.

These programs were designed primarily to honor veterans and offer them a chance to enjoy outdoor recreation they might not otherwise have. But over the years, evidence has accumulated that outdoor recreation can serve as therapy for wounded veterans. Some of those wounds are hard to see—and harder to heal.

Some Wounds Are Hard to Heal

In her 2017 book, *The Nature Fix,* outdoors writer Florence Williams says, "Every big war has its signature wounds," from the Civil War to the World Wars, Korea, Vietnam, the Gulf, Afghanistan and Iraq. Terms like "shell shock" and "battle fatigue" were used to describe ailments affecting veterans of World War I and II, respectively. A common condition throughout these wars is what we now call post-traumatic stress disorder (PTSD), which wasn't officially recognized by the Veterans Administration until 1980.

Over the years, evidence has accumulated that outdoor recreation can serve as therapy for wounded veterans. Some of those wounds are hard to see—and harder to heal.

WEST CENTRAL CHAPTER, IOWA

Continuing a decade-long tradition, the West Central Chapter in Iowa recently hosted a fishing trip for veterans.

This kayak outing was sponsored by Team River Runner, a national group that helps wounded and disabled servicemen and women promote health and healing outdoors.

JANET S. EVERHARD, MD.

The American Psychiatric Association says PTSD can occur in people who have "experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, or rape or who have been threatened with death, sexual violence or serious injury." Persisting traumatic memories impair memory and the ability to focus.

Williams says more than one out of four veterans from the Afghanistan and Iraq wars experienced PTSD and that depression typically accompanied the PTSD. Signature wounds from those wars, she writes, are PTSD, traumatic brain injury caused by explosions and sexual assault. A lasting legacy of suffering for hundreds of thousands of veterans.

Outdoor Recreation as a Therapy for Veterans

Project Healing Waters Fly Fishing (PHWFF) is a nonprofit incorporated in Maryland dedicated to rehabilitation, both physical and emotional, for injured and disabled veterans. It was launched in 2005 to introduce wounded service members to fly fishing. The vets in the initial program were at Walter Reed Army Medical Center recovering from combat in Iraq and Afghanistan.

The Project centers its outdoor experience around fly casting and tying, rod building, fishing trips and learning related new skills and abilities, at no charge to the participants. Since it began, the program has expanded nationwide. The Project says, "for many participants, particularly disabled veterans, the socialization, and camaraderie of the classes are just as important as the fishing outings and provide them a new activity."

One tireless volunteer and supporter of Project Healing Waters is Dick Barnett, a member of the **Fredericksburg-Rappahannock Chapter** of the Izaak Walton League in Virginia. For his leadership

with wounded veterans, the League awarded Barnett the Judge John W. Tobin Award in 2016. In a 2017 interview, Barnett described the connection between fly fishing and recovery. "We think it's concentration over an extended period of time that actually has the rehabilitative effect."

An Idaho nonprofit called Higher Ground also provides outdoor adventure experiences for current or former members of the military who suffer from PTSD. In 2014, the group held its first all-women's expedition, an 81-mile float trip down the Salmon River in the Frank Church-River of No Return Wilderness Area in Idaho.

Williams, who accompanied women on the trip, says the goal for experiences like that is to reduce trauma symptoms. "Adventure sports like kayaking provide a laser focus for an unfocused mind, as well as a welcome distraction from unwelcome thoughts." The outdoor adventure, she concluded, was no panacea but definitely helped most of the veterans who made the trip and provided inspiration to continue similar strategies.

In recent years, several other organizations have also sprung up or expanded to meet the demand for veterans seeking a sense of renewal and normalcy after combat deployments. Outward Bound has offered outdoor adventures for veterans for about 15 years.

Sean Gobin served in the Marine Corps in deployments to Iraq and Afghanistan. When he left the military after 12 years as an infantry rifleman and armor officer, he decided to hike the Appalachian Trail which convinced him of the healing powers of the outdoors. In 2013, he founded a group called Warrior Expeditions to help veterans ease their transition after deployments through outdoor activities. He now serves as executive director there, and the group continues to lead outings for vets.

Nearing year 10 of operating Warrior Hikes, Gobin told *Outdoor America,* "We are running all of our Warrior Hike, Bike, and Paddle programs as scheduled. Demand continues to be high and we anticipate supporting another 40 veterans in 2023."

The medical literature reports clear anecdotal benefits of outdoor adventure experiences for veterans, but not a clear cause-effect. Because experiences—the traumas as well as the efforts to recover—vary so much, it's hard to measure the benefits the same way a drug or medical procedure would be tested and studied.

One veteran from a combat deployment in Afghanistan who suffers from PTSD and traumatic brain injury told me that an extended camping trip into the nation's western back country was—for him—far more effective than the medications he had been prescribed by a physician.

For its part, the Izaak Walton League and its members have been on the front lines of volunteers who have helped generations of veterans to reconnect with the great outdoors—and perhaps improve their health and outlook on life in the process.

THE COMPLEAT ANGLER: A RESPONSE TO TRAUMA?

Historian Marjorie Swann has written extensively about the life of Izaak Walton, who first published his famous fishing book, *The Compleat Angler,* in 1653. During the decades before writing the book, Walton's wife and eight of his children died. As an Anglican and active supporter of the royalist cause during the English civil wars (1640-1651), Walton faced threats and danger throughout a prolonged period of violence and upheaval.

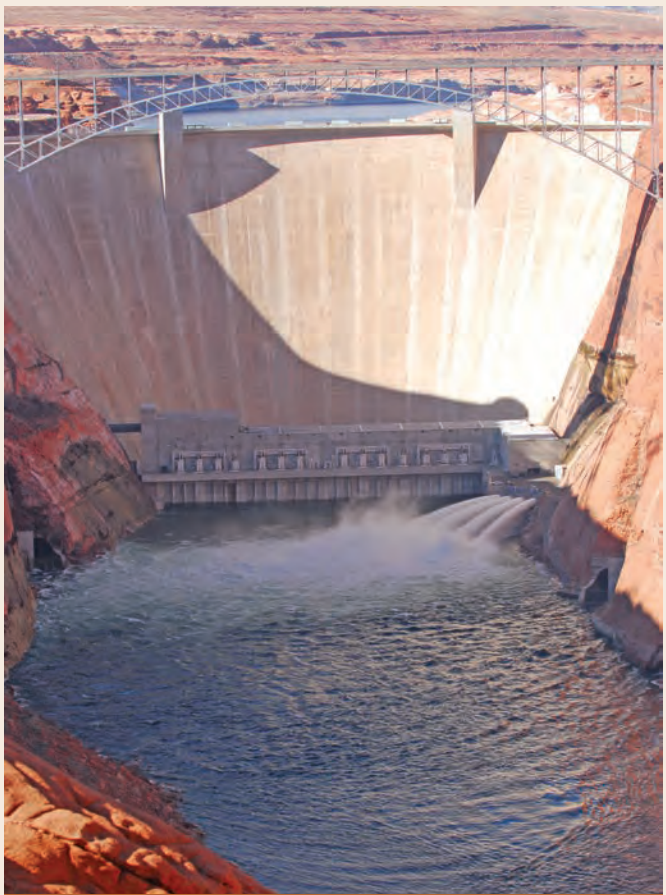
In her introduction to the 2014 Oxford University edition of the *Angler,* Swann describes Walton's book as "his artistic response to trauma, a search for meaning and hope in the wake of terrible anguish" and his attempt to answer the question: How should we live?

"As a survivor of war and heartbreak, Walton turned to the natural world for his answer to this question and in the process created one of the most important, formative environmental texts in the English language."

POLICY PULSE

Climate Crisis Threatens Every Aspect of American Life, Report Warns

By JARED MOTT, Conservation Director



ANNE PHILLIPS USGS

A thirsty Colorado River feeds Lake Powell which supplies water to the Glen Canyon powerplant in Arizona. Further loss of water could affect power for 4.5 million Americans.

The latest draft of the National Climate Assessment paints a dire portrait of how life in America has already been impacted by accelerated climate change and how perilous it might become unless urgent action is taken.

The document represents the fifth installment of the National Climate Assessment, a congressionally mandated report produced by the U.S. Global Change Research Program. The draft was released in November, ahead of global leaders gathering in Egypt for the United Nations Climate Summit (the 27th Conference of the Parties, or COP27). It will be finalized next year.

Some of the report's key takeaways:

U.S. Warms Faster than the Global Average

Earth has already experienced warming of a bit more than 1 degree Celsius (1.8 degrees Fahrenheit), but the U.S. is warming faster than the global average. To limit warming to 1.5 degrees Celsius (about 2.7 degrees Fahrenheit), the U.S. must reach "net-zero" carbon emissions by 2050. To reach this goal, our emissions must fall by six percent each year. But over the course of less than two decades, between 2007 and 2019, emissions fell just 12 percent.

Climate Disasters Are Getting Worse

The impacts of the climate crisis—like extreme heatwaves, historic drought, catastrophic wildfires and intensifying tropical cyclones—are already being felt throughout the United States today. But they will continue to get more intense so long as emissions rise.

The report's authors write that these types of disasters will become even more frequent and severe unless immediate action is taken to drastically limit emissions that contribute to a warming climate. And these disasters are becoming even more costly.

"In the 1980s, the country experienced on average one (inflation-adjusted) billion-dollar [extreme weather] event every four months," the draft report states. "Now, there is one every three weeks, on average."

Hits the Most Vulnerable the Hardest

The draft report says that the effects of climate change are felt most by communities that are "already overburdened, including Indigenous

peoples, people of color, and low-income communities," creating a cycle of worsening inequality.

These disproportionate outcomes will exacerbate historical discriminatory policies like redlining and displacement of disadvantaged communities into the least-valuable, often low-lying areas that are more prone to flooding, extreme heat and air pollution.

Threatens Everything Americans Hold Dear

The effects of climate change will cut to the core of the American dream.

"The things Americans value most are at risk," the report says. "More intense extreme events and long-term climate changes make it harder to maintain safe homes and healthy families, reliable public services, a sustainable economy, thriving ecosystems and strong communities.

"Many of the harmful impacts that people across the country are already experiencing will worsen as warming increases, and new risks will emerge."

Exacerbates the Water Crisis

The report lays out how droughts will continue to become more frequent and more intense due to rampant burning of fossil fuels.

"Recent droughts have strained surface and groundwater supplies, reduced agricultural productivity, and lowered water levels in major reservoirs, threatening hydropower generation." In Arizona, reduced water from the Colorado River flowing into Glen Canyon threatens electricity supplies to 4.5 million Americans in the Southwest.

Immediate action can still greatly improve our outlook and blunt the worst impacts of a warming planet.

The country's aquifers are also threatened as they become "vulnerable to over-pumping" and other water sources are depleted.

Drought is also hitting Americans in the pocketbook. "Between 1980 and 2021, drought and related heatwaves across the country caused $291.1 billion (in 2021 dollars) in damages," the report says.

Displaced Populations, Drag on the Economy

A worsening climate crisis will displace millions of people, ushering in a new era of forced migration. Factors like rising seas in Florida, wildfires in California and more frequent flooding in the South will lead to future migration within the United States.

Climate change is also expected to "reduce midcentury global economic output by 11 to 14 percent, or about $23 trillion," according to the report.

Improvement Is Possible and Imperative

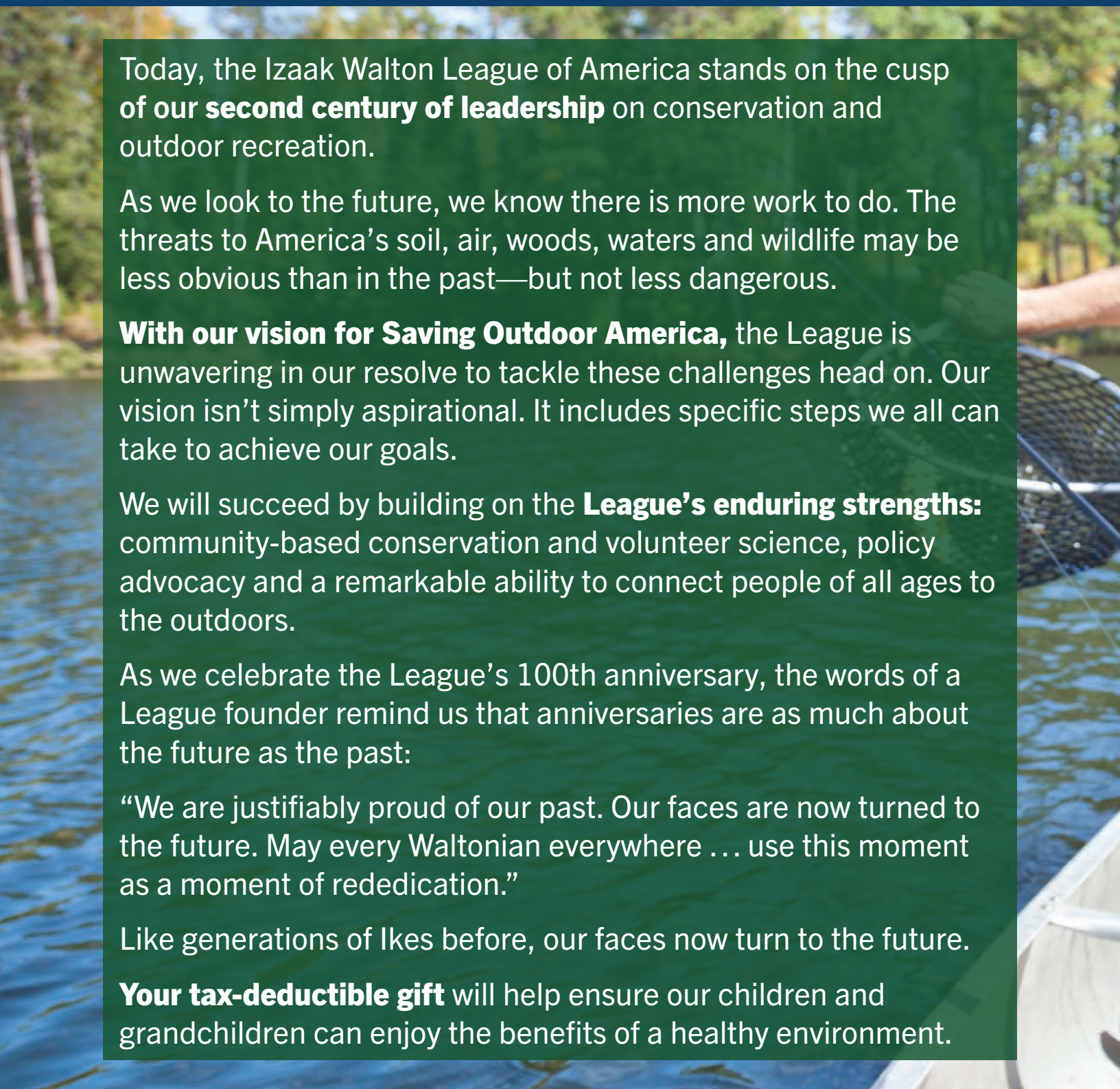
Despite these grim predictions, the draft report also finds that immediate action can still greatly improve our outlook and blunt the worst impacts of a warming planet. Echoing other recent reports, it asserts that the world is on course to warm less than had been projected over past decades, as emissions have been lowered.

However, we must continue to drastically cut greenhouse gas emissions and prevent carbon from reaching our atmosphere to avoid the worst consequences documented in the report. Our progress so far shows that it can be done, but now it must be done on a greatly accelerated time scale.

The National Climate Assessment is produced every four or five years and summarizes the latest research and science relating to climate change in the United States. It provides context about the effects of climate change we're living with already, and specific steps we have to take to make the future safer for the coming generations.

The draft of the Fifth National Climate Assessment is available for public comment until January 27, 2023, and will be finalized later that year. To review the draft, visit https://review.globalchange.gov.

Your Support Will Make the Leagu



Today, the Izaak Walton League of America stands on the cusp **of our second century of leadership** on conservation and outdoor recreation.

As we look to the future, we know there is more work to do. The threats to America's soil, air, woods, waters and wildlife may be less obvious than in the past—but not less dangerous.

With our vision for Saving Outdoor America, the League is unwavering in our resolve to tackle these challenges head on. Our vision isn't simply aspirational. It includes specific steps we all can take to achieve our goals.

We will succeed by building on the **League's enduring strengths:** community-based conservation and volunteer science, policy advocacy and a remarkable ability to connect people of all ages to the outdoors.

As we celebrate the League's 100th anniversary, the words of a League founder remind us that anniversaries are as much about the future as the past:

"We are justifiably proud of our past. Our faces are now turned to the future. May every Waltonian everywhere … use this moment as a moment of rededication."

Like generations of Ikes before, our faces now turn to the future.

Your tax-deductible gift will help ensure our children and grandchildren can enjoy the benefits of a healthy environment.

Thank you for your generous support!

gue's Vision for the Future a Reality

With your donation of $25 or $50 today, the League will:

- **empower volunteers** at the grassroots level,
- help **shape critical conservation policy**, and
- **maximize the impact of the League's 200 chapters** that provide a gateway to the outdoors for so many people.

Make your tax-deductible contribution now

Please send your donation, payable to IWLA, to 707 Conservation Lane, Gaithersburg, MD 20878. Or save a stamp and donate online at iwla.org/secondcentury

CLEAN WATER CORNER

This leftover road salt in Annandale, Virginia eventually washes into Accotink Creek and the Potomac River.

MICHAEL REINEMER; ABBY HILEMAN

Striving for Incremental Change: Salt Watch and Social Marketing

By ABBY HILEMAN, Salt Watch Coordinator

From the beginning of the Salt Watch program, it was evident that the issue of road salt pollution was multifaceted. Not only does road salt have a wide range of impacts on infrastructure, the environment and human health, but the source of the pollution problem is also complex.

State and county departments of transportation apply road salt. But many others also apply salt: private business owners, property managers, apartment and condo complexes, school maintenance workers, faith-based organizations, contractors (often landscaping companies that shift to snow removal in the winter) and private homeowners.

We need to narrow our focus and tackle one part of a problem at a time.

The Izaak Walton League's Salt Watch program tackles this complex problem from all angles: we are piloting intensive campaigns to different audiences in Maryland (such as business owners, school groups and Scout troops) and we are hosting Smart Salt certification courses and equipping volunteers with advocacy tools to make changes in their communities.

As a result of these efforts, the understanding of how road salt can and should be used is certainly growing.

However, the education does not stop there. There is a larger story about salt pollution and reducing our environmental

impact while keeping us all safe. For instance, driving slowly in the winter, planning ahead or staying home during winter weather events and being patient while maintenance workers and applicators clear the roadways all play a part. There is a wide variety of solutions but no "one-size-fits-all" answer.

Salt Watch also affirms that changing behavior is hard, even when it leads to a dramatically better environment—without sacrificing safety, of course. This juncture between behavior and environmental health is where social marketing comes into play.

Social marketing is a "process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviors that benefit society (public health, safety, the environment, and communities)" (Kotler, Lee, and Rothschild, *Social Marketing: Influencing Behaviors for Good,* 2008, 3rd edition).

Salt Watch affirms that changing behavior is hard, even when it leads to a dramatically better environment.

It is a process that allows us to understand the barriers to limiting road salt use so we can effectively influence that change.

One Step at a Time

The first important aspect of influencing change is to not take on too much. It's better to focus instead on a specific step. For example, rather than aiming to "reduce road salt use," which we would all like to see, we should instead consider taking on a smaller piece of the overall goal, such as "limiting road salt use by private homeowners on their driveways."

When creating a goal, be as specific as possible and make sure the goal is measurable. For this example, we need to understand first how much road salt the average homeowner is using, the reasons why most people use too much and the barriers that are preventing them from changing their behavior. Once we take measure of the issue at hand and ask questions about the problem, we can then come up with an amenable solution to incite behavior change.

Many of our behaviors are not intended to harm the environment, we simply do not understand the problem, or we forget. How many times have you forgotten to take reusable shopping bags into the grocery store? Sometimes we just need a reminder, or a prompt, to keep us on track. Other times, we need some additional information before we can make a change.

For the example illustrated in the box at right, homeowners are more likely to change their over-salting behavior after being supplied with a mug that both prompts and educates them about how much salt to use.

PROBLEM

Homeowners use too much road salt on their driveways

REASON FOR PROBLEM

- Lack of understanding of how road salt works
- Misleading information on rock salt bags

BARRIERS TO CHANGE

Not knowing proper amount of road salt to apply

SOLUTION

Supply homeowners with a 12-oz mug with messaging about how 12oz of salt is enough for a 20ft driveway

Look through a Social Marketing Lens

When tackling a conservation issue in your community, try to approach it with a social marketing lens, and ask the following questions:

1. Is the problem I am trying to solve narrow enough that I can effectively influence behavior and track change?
2. How do I measure the problem so I can track changes between the beginning of the project and the end?
3. What are the reasons for the problem? Is it a lack of education about the issue? Lack of alternatives?
4. What are the barriers to change? Will the solution require your target audience to take an extra step, go out of their way or spend more money?
5. How can I lower the barriers to entry to ensure more people are taking the action I would like them to take?
6. What can I use to effectively remind (or prompt) people to take that action?

As Salt Watch has evolved and our messaging has spread across dozens of states, we have narrowed our focus on audiences and behavior. Rather than trying to inspire change across all road salt users, one regional project this year has a single focus area—encouraging business owners and applicators to take a Smart Salt Certification Training. The training asks and answers all the questions above through a social marketing lens.

While this approach may reach a smaller number of people, the influence it creates is lasting. It's a good reminder that we need to narrow our focus and tackle one part of a problem at a time. We also can never make assumptions about the causes and barriers around a problem. We need to ask questions first. And sometimes, the answers to those questions will be something we would never have expected, allowing us to come up with an even more creative and lasting solution.

To get involved with Salt Watch and see how you can advocate for smarter salt use in your community, visit www.saltwatch.org.

ABBY HILEMAN

Salt Watch is a program where the League supplies volunteers and partners with free chloride test kits to monitor their local streams, lakes and rivers for impacts of road salt pollution.

Order your free test kit at: www.saltwatch.org and join Salt Watch today.

News You Can Use

How much salt is flowing into your local streams this year? Find out by visiting the interactive map at iwla.org/saltwatchresults or scan the QR code below. This is where your test results and others' can be viewed.

In 2023, we will be launching a similar program called Nitrate Watch that will allow volunteers nationwide to collect and report data about nitrate levels in streams and drinking water. Visit iwla.org/nitratewatch, or use the QR code below.

JOIN THE SALT WATCH

SALT WATCH™
IZAAK WALTON LEAGUE OF AMERICA

www.saltwatch.org

What is chloride pollution?

Road salt keeps us safe on roads and sidewalks, but too much can pose a threat to fish, wildlife, and human health. Water treatment plants aren't equipped to filter out extra salt, so it can end up in tap water and even corrode pipes, which may cause serious health concerns.

Keep it Fresh (not salty) with Salt Watch

This national community science project:

- Provides ***free*** water testing kits to identify chloride pollution in local waterways
- Compiles volunteer data from across the country
- Educates the public on responsible salt application
- Helps volunteers advocate for smart salting

It is easy to participate and become a clean water advocate for your community!

HOW TO GET STARTED

1. Request a ***free*** kit at **SaltWatch.org** or by scanning the QR code below
2. Collect chloride readings at your chosen waterways
3. Upload a photo of your test strip to our database
4. Share your findings with your community!

Pay it forward so we can reach even more people!

Request your free kit

Pay it forward

SOIL MATTERS

PIXABAY

Farm policy has implications for drinking water, climate change, wildlife habitat and the food we eat.

Protecting Natural Resources from the Ground Up

By DUANE HOVORKA, Agriculture Program Director

The goals of the League's "Saving Outdoor America" Vision for a Second Century of Conservation include putting better conservation practices in place on tens of millions of acres of farm and ranch land over the next decade.

The year ahead in 2023 represents a rare opportunity to make big changes in federal policy that will make it possible to achieve those goals for our second century. If we succeed, we can help landowners eliminate soil erosion, sharply reduce polluted runoff, reduce downstream flooding, grow healthy food, support fish and wildlife and address climate change. We can do all that while helping farmers reduce their need for expensive inputs like fuel, fertilizer and pesticides.

The changes the League is pressing Congress for would:

- Put soil health at the center of America's agriculture policy;
- Increase long-term investment in conservation programs that have a proven record of success;
- Focus conservation dollars on programs that leverage non-federal funds, like the League's proposed State & Tribal Soil Health Grant Program.

The League's priorities were developed over the last year with input from League members, other conservation and sustainable agriculture organizations, and farmers and ranchers. They include a new State & Tribal Soil Health Grant Program, an idea developed by the League to provide federal support for innovative soil health initiatives at the state and local level.

Also included is a discount on subsidized federal crop insurance for farmers who adopt soil health practices, an idea championed by the League for several years.

What You Can Do

The League's policy proposals are a recipe for better conservation on the 900 million acres of farm and ranch land in the U.S., and we will need the active support of League members and chapters to succeed.

Members can write and call their Senators and Representatives and ask them to support the League's proposals. They can write a letter to their local newspaper, speak out at a town hall meeting, visit with their members of Congress, and ask their friends and relatives to take action.

League chapters can invite members of Congress to attend a chapter meeting to discuss our proposals. They can host an information night at the library or a local pub. They can hold a free showing of films like *Kiss the Ground* that explain why healthy soils are so vital to our food supply, our climate and clean water.

For our efforts to succeed, members of Congress need to hear from their constituents, and the League has more than 42,000 members and 200 chapters around the country who can make that happen.

In 2023, as Congress debates the Farm Bill, the League will remind consumers and policymakers that it isn't just a "farm" bill. It is a public health, clean water and climate bill.

To get started, visit iwla.org/agriculture and sign up for our Soil Matters email alerts or to learn more.

Conservation on the Ground

The day-to-day decisions made by America's farmers and ranchers have a huge impact on our water, wildlife, climate and other natural resources. When a farmer tills the soil deeply with a plow or disc, it leaves the soil vulnerable to erosion from rain or strong winds. Conservation tillage—tilling the soil lightly—can reduce soil erosion by 30 percent and eliminating tilling entirely can reduce soil erosion by 90 percent or more.

Without the needed changes, experts fear the U.S. could lose more than half of its remaining topsoil in the next several decades, putting our nation's ability to grow food at risk. The intensive tillage still practiced by many farmers can result in over seven tons of soil eroding per acre, and the Department of Agriculture (USDA) says there has been little improvement in soil erosion rates nationally in more than a decade.

Another conservation solution is using a cover crop. Planting cover crops to protect and feed the soil after harvest can hold the soil in place over winter, reducing the runoff of nitrogen and phosphorus into nearby streams by 30 percent or more. Agriculture is the single largest source of polluted runoff fouling our streams, lakes and drinking water, so getting more farmers to plant cover crops and reduce their tillage is critical to protecting our drinking water and making our rivers and lakes fishable and swimmable again.

In regions like the Chesapeake Bay where many farmers are adopting these practices, we are finally seeing progress in reducing water pollution. Unfortunately, nationwide less than eight percent of cropland is protected by cover crops each winter and more than one-fourth of cropland is heavily tilled.

Conservation practices like conservation tillage, planting cover crops, restoring wetlands and prairies and better grazing systems also help address climate change. They can transform farms and ranches that now generate greenhouse gas pollution that makes climate change worse into operations that capture greenhouse gases like carbon dioxide and store it in our soil, helping slow climate change.

USDA conservation programs are designed to help farmers and ranchers eliminate tillage, plant cover crops, adopt integrated pest management, improve their grazing systems and adopt other critical conservation practices. At $6 billion per year, the programs represent America's largest source of funding for private land conservation.

Farm Bill conservation programs have a proven track record of success, but they are so popular with farmers and ranchers that demand has far outstripped available dollars. More than two-thirds of farmers who applied for help through two of the largest USDA conservation programs were turned away in the last several years. The Inflation Reduction Act of 2022 provided nearly $19.5 billion that will help reduce the backlog of demand for these programs but we expect that farmer demand will continue to grow.

Driving Policy Change

The federal Farm Bill is a sprawling piece of legislation that touches nearly every aspect of our food and farming system. Since the very first Farm Bill in the 1930s, the legislation has had three primary goals: making healthy, affordable food available

PIXABAY

Write or call Senators and Representatives and ask them to support the League's proposals for better policy. To get information about issues and advocacy alerts, visit iwla.org/subscribe.

for all Americans; ensuring that farmers can stay in business; and protecting our soil and other natural resources. That includes the USDA conservation programs that provide $6 billion per year to help farmers and ranchers put in place conservation measures.

Much of the 2018 Farm Bill will expire in 2023, so high on the congressional "to do" list for the coming year should be enacting a new—hopefully better—Farm Bill. The next opportunity to have a major impact on farm policy may not come until 2028, and we cannot afford delay in addressing our water quality, climate change, and other natural resource challenges.

Through the League's proposals to put soil health at the center of America's agriculture policy, we could better educate farmers and ranchers—as well as lenders, suppliers, farmland owners and consumers—and promote the widespread adoption of combinations of soil health practices that provide multiple benefits for our soil, water, wildlife and climate.

By increasing long-term funding for conservation programs that have a proven record of success, Congress could ensure that farmers and ranchers have the money they need to make the up-front investment in equipment, fencing, knowledge and supplies to put conservation measures in place that deliver benefits for all of us.

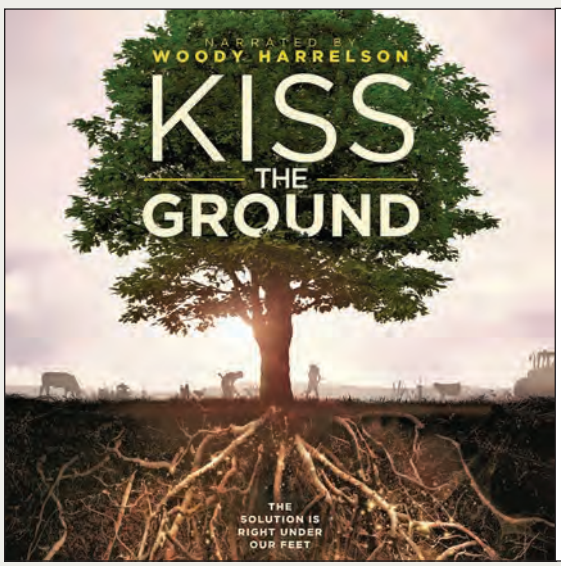
Without needed change, experts fear the U.S. could lose more than half of its remaining topsoil in the next several decades, putting our nation's ability to grow food at risk.

Focusing those conservation dollars on programs that leverage state, local, and private dollars would multiply the benefits, making the best use of our tax dollars.

With this recipe for success, the League's goal of putting conservation in place on tens of millions of acres of farm and ranchland over the next decade could be achieved. That would have a huge impact on climate change, the water we drink, the soil we grow our food in, fish and wildlife habitat and even the food we eat.

By restoring the health of their soil, farmers and ranchers win as well. Healthy soils can reduce or eliminate the need for expensive chemical fertilizers and pesticides, so growers can produce the same or more crops and livestock with lower input costs. That will help ensure that the conservation practices that benefit all of us will remain in place on America's farms and ranches for years to come.

To learn more and get involved, visit IWLA.org/agriculture.



Host a Film Screening

Building support for better farm policy among League members and chapters begins with better understanding. "Kiss the Ground," a film released by our partners last year, is an informative and inspiring tour through the challenges and opportunities before us, narrated by actor Woody Harrelson.

It's easy to host a screening. Visit kissthegroundmovie.com/host-a-screening, answer a few simple questions, and our partners will provide everything you need to host a successful screening.

The Power of the Outdoor Recreation Economy: Commerce and Conservation

By MICHAEL REINEMER, Editor

Paddle boards and even flotation devices for dogs contribute to the $862 billion outdoor recreation economy. These paddlers are on the Potomac at Riverbend Park in Virginia.

MICHAEL REINEMER

America's woods, waters and wildlife provide countless benefits—both for the natural world and for millions of people who enjoy hiking, hunting and other outdoor recreation.

A healthy environment also serves as the backbone for the outdoor recreation economy, recently estimated to account for $862 billion in gross output in the United States—a broad measure of economic activity generated in the sector. Outdoor recreation also supports 4.5 million jobs, providing income for many households and revenue for local economies across the United States.

The figures come from the U.S. Department of Commerce where the Bureau of Economic Analysis (BEA) recently issued its report for 2021. The 2021 economic figures show large increases compared to 2020, which due to the pandemic was a good year for visits to the outdoors—but not for

related businesses. The BEA definition of outdoor recreation ranges from hiking and boating to open-air concerts and tourism related to the outdoors.

Linking Commerce and Conservation

In recent decades, there has been increasing overlap between interests of conservation and commerce. And while some of the details are new, that link is not.

From the first days of the Izaak Walton League in 1922, many members have been involved in the business of the outdoors. And a large delegation of League leaders participated in the National Conference on Outdoor Recreation convened by President Coolidge in 1924 in Washington, DC. They made the point that conservation is essential.

From the outset, the League combined the pursuit of outdoor recreation with conservation advocacy. That tradition has continued throughout the League's history.

During the 1950s fight to preserve the stunning landscapes of Echo Canyon on the Colorado-Utah border, the League argued that conserving natural treasures is a vital benefit to local economies. Conservation Director Joe Penfold lined up support for Echo Canyon from business interests who focused on the value of protecting that region for outdoor tourism and recreation revenue. (Read more about that campaign in Issue 2, 2022 of *Outdoor America.*)

That battle for conservation was won, and it has had lasting ramifications for protecting America's national parks and public lands from development. In his book *Symbol of Wilderness,* Mark W.T. Harvey credited the Izaak Walton League with the Echo Park victory, writing that sportsmen, rather than park or wilderness advocates, provided heft to the conservation argument, and "that fundamental fact had great bearing on the success of the campaign in Congress."

Today, the link between the outdoor recreation economy and conservation has never been stronger or more overt. Whether defending the Pittman-Robertson Act law that applies shooting sports tax funds to conservation of wildlife habitat, or sports-equipment manufacturers weighing in politically to protect public lands, the two interests are intimately connected now.

The Outdoor Industry Lobby

For three decades now, the Outdoor Industry Association (OIA) has, in their words, worked to unite and serve "manufacturers, suppliers, sales representatives, and retailer members through its focus on trade and recreation policy, sustainable business innovation, and outdoor participation." Their agenda includes advocacy that urges national and local policy action to reverse the climate crisis, conserve 30 percent of the nation's lands and waters and enable greater access to outdoor activities for children and families from all backgrounds.

Many of the OIA member companies put their money where their mouth is. When elected officials in Utah backed large reductions in protected federal lands in 2017, many manufacturers of outdoor gear protested. As a result, Outdoor Retailer, the nation's largest outdoor products trade show, moved from Salt Lake City to Denver.

Today, the link between the outdoor recreation economy and conservation has never been stronger or more overt.

Now the show is moving back to Salt Lake City after five years. But dozens of companies still refuse to return, citing Utah officials' continued efforts to undo federal protection for Bears Ears National Monument and other federal lands in the state. The protesting companies include REI, Timberland, Vibram, The North Face, KEEN Footwear, Kelty and LifeStraw, among others.

In terms of policy positions, the outdoor industry is not monolithic. But a proposed bill in Congress in 2022 (H.R. 8167) to gut the Pittman-Robertson Act was opposed by the National Rifle Association, the National Shooting Sports Association, the Izaak Walton League, the National Wildlife Federation, Ducks Unlimited and Backcountry Hunters and Anglers, among other groups. The Pittman-Robertson Act was pushed through Congress with support from the League in 1937, and since then it has delivered billions of dollars to conservation efforts through a tax on firearms, ammunition and bows and arrows.

Recognition and Respect for the Sector

Recognition of the positive economic effects of outdoor recreation has gained respect in recent years. It was institutionalized in the Outdoor Recreation Jobs and Economic Impact Act, signed into law in 2016. That law directs the Secretary of Commerce, through the BEA, to conduct an assessment of the outdoor recreation economy, working with other federal departments.

States are also paying attention. Currently, 18 states have taken steps to foster outdoor recreation by creating new agencies and positions that work to attract new businesses and residents, support rural economic development and make sure that recreation is balanced with conservation goals.

As the map shows, the BEA measures the dollar value of the outdoor recreation economy in every state. As a percentage of state's gross domestic product, that value is as high as 4.4 percent in Montana, 3.3 percent in Florida and 3.1 percent in Indiana.

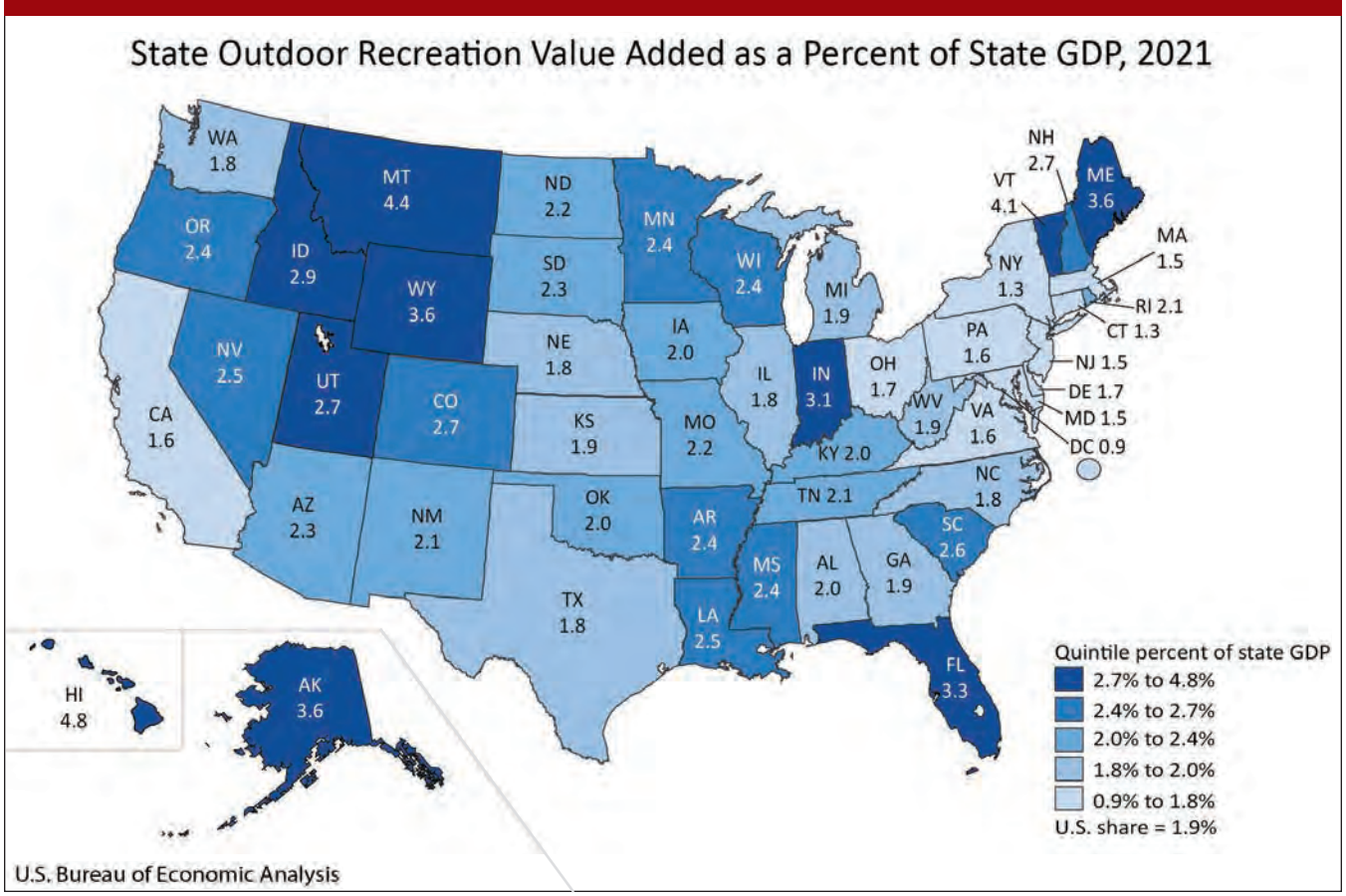
While the pandemic galvanized more visitation and time spent outdoors—some national parks were overwhelmed in 2020—it also triggered a steep decline in spending.

But as the pandemic waned, there was "an explosion of new participants and sales as people flocked to the outdoors as a safe, healthy way to enjoy time with friends and loved ones," notes Jessica Turner, president of Outdoor Recreation Roundtable—another group dedicated to promoting outdoor recreation. "Millions more Americans got outside than before the pandemic."

Access to the Outdoors Is Not Universal

Not all Americans have easy access to national parks and other public lands or even green spaces in their communities. But there's broad agreement that equitable access is a top priority. And conservation is viewed as part of the equation. "Expanding conservation programs and outdoor recreation opportunities is essential for communities of color who face barriers to getting to the outdoors," says

Outdoor recreation provides revenue and jobs in every state.



Outdoor Retailer bills itself as the world's leading business-to-business outdoor sports exhibition, holding winter and summer shows in Utah.

Shanna Edberg, conservation program director for Hispanic Access Foundation.

Edberg tells *Outdoor America* that in addition to geographic challenges, the barriers to access include lack of time, funds for outdoor gear and transportation. "By expanding programs to overcome existing barriers, we can help unlock nature's benefits for all."

To address those disparities, the Outdoor Recreation Roundtable and its member organizations established the Together Outdoors Coalition to create an environment where all people have access to welcoming outdoor recreation experiences. The Roundtable says about 100 outdoor recreation organizations across the public, private, and NGO sectors have joined in.

Entrepreneurial Diversity

During the past decade or so, many individuals and organizations have pushed for greater involvement in the outdoors for people of color. Because national parks in the U.S. were segregated for much of the 20th century, that exclusion presented a different and lasting barrier.

In 2009, Rue Mapp, who grew up connected to the outdoors in California, created Outdoor Afro, a nonprofit group that encourages more Black hikers to take to the outdoors. That network of volunteers has expanded to about 60 cities nationwide, and today her circle of outdoor buddies includes Oprah Winfrey and Steven Rinella, host of the popular television and podcast series, "MeatEater," which chronicles Rinella's hunting adventures.

And like Rinella, Mapp has moved into the retail sector of the outdoor industry by creating a for-profit called Outdoor Afro Inc., which makes outdoor gear. Mapp and REI are debuting a new marketing campaign called We Are Nature to launch that enterprise.

Jahmicah Dawes, founder and owner of Slim Pickens Outfitters in Stephenville, Texas, has been an entrepreneur in the outdoor recreation economy for about five years. He tells *Outdoor America* there have been very few role models for Black entrepreneurs in the industry, and one of his goals is to help "diversify the outdoors industry." He describes that process as "trying to build a staircase, step by step."

As the outdoor recreation economy expands, entrepreneurial diversity may follow, providing economic opportunities as well as chances to enjoy the great outdoors.

SCOTT MARTIN

The large, oblong fruit of the pawpaw has a custard-like consistency and a banana/mango taste and makes for tasty bread, ice cream and other treats.

The Call of the Pawpaw

By Rion Haley

"Pawpaw ambassador" Michael Judd generously introduced me to the pawpaw tree, confiding that I may find them when out for hikes in the nearby national park.

"They ripen in late summer and early fall. Just look for the fruit grouping, give the tree a little shake and take up to a bushel," he said. (Each national park in the U.S. has a superintendent's compendium that lists the limits of how much foraged food, if any, can be removed from the park.)

In September, I returned to the park and discovered the small native trees growing near the trail in the understory. A few gentle shakes later, I was enjoying the largest edible tree fruit in North America.

Pawpaws taste like a banana and mango got together and infused some vanilla into a creamy delicacy. I made pawpaw bread, which is sweeter and moister than banana bread. Then I became emboldened to make pawpaw ice cream, which became a family favorite. I have also heard that this wonderful fruit makes a delicious beer and brandy, but I've yet to try it.

In short, the pawpaw is the most delicious native fruit you have never tried.

A Brief History of Pawpaws

Going back about 40 million years, the pawpaw *(Asimina triloba)* began its northern migration as the glaciers receded and dinosaurs, as well as more recent prehistoric animals like the wooly mammoth, ate the tree's ancestors and produced scat laden with pawpaw seeds.

Before European explorer Hernando DeSoto explored the Mississippi Valley in the 1540s and was introduced to the fruit by the Indigenous people, Native Americans had been enjoying the pawpaw for millennia and had woven the tree's durable bark into fishing nets and baskets.

DeSoto gave the fruit the name "pawpaw" because he thought it resembled papaya, and this led to the first documentation of the tree by Europeans.

More recently, Thomas Jefferson grew the trees at Monticello, and the pawpaw earned the moniker "the poor man's banana" during the Great Depression because it was easy to forage.

FOR THE LOVE OF PAWPAWS, MICHAEL JUDD (2)

Today, as an homage to its rich American history, the third Thursday in September is National Pawpaw Day in the United States.

Habitat and Identification

Found in 26 states from Florida to Vermont and as far west as Texas (and spreading), the pawpaw is proving to be an amazingly adaptive species. It's helpful that deer avoid this tree when looking for food which helps the species to propagate and expand its range.

The pawpaw is the only species of the custard apple family that established itself in the northern areas of our continent. The tree's slender trunk can reach a height of 30 feet and the tree takes on a conical shape if it's in full sun.

Pawpaws need moist, healthy soil that drains well, warm and humid summers and winters with some freezing temperatures. The tree grows into colonies of genetically identical trees—or a "pawpaw patch"— through its root system.

An understory tree in many eastern forests, the pawpaw fills out and blossoms once it receives abundant sunlight.

A healthy tree will bloom with full sun or partial shade in the spring. Purplish-maroon flowers that appear before the tree leafs out in large, tropical-looking foliage. To set fruit, the tree requires pollination via flies or other insects from an unrelated tree.

The clusters of low-hanging fruit, which become light green when ripe in the late summer or early autumn, beckon the pawpaw devotee to come to pick them.

Nutritional and Potential Medical Benefits

Pawpaws contain potassium (three times more than an apple), phosphorus, calcium (10 times more than a banana), magnesium and zinc. An excellent source of vitamins A and C, they also have a significant amount of unsaturated fats, proteins and carbs. The pawpaw has these nutrients to an equal or greater extent than bananas, apples and oranges, and it has a comparable amount of fiber.

The bottom line—the pawpaw outperforms several well-known fruits in terms of most vitamins, minerals and dietary energy value.

The pawpaw may also have some medicinal properties. When ground up, the tree's bark and twigs produce an organic insecticide and, more importantly, an extract of the tree's bark has been used in laboratory cancer therapy. About 25 years ago, Jerry McLaughlin, a Purdue University researcher, sponsored by the National Institutes of Health, identified more than 40 compounds in the bark that showed initial success in fighting some cancers that are drug resistant. He discovered that the pawpaw compounds kill tumors that were unaffected by chemotherapy drugs, successfully stopping the cancer-causing cells by depriving them of an energy source.

ETHICAL FORAGING

The rules governing foraging on public lands such as parks and forests vary. Harvesting fruit or berries may be permitted but removing plants may not be allowed. Respect the local rules, stay on the path and remember that wildlife count on native nuts, seeds and fruit for their survival.

Increasingly popular in landscaping, the pawpaw provides fall color, seen in this back yard in Virginia. It is the only host plant for zebra swallowtail butterflies.

MICHAEL REINEMER

Memorial Sloan Kettering Cancer Center published an article in 2021 that backs up McLaughlin's theory, noting that the pawpaw is toxic to some cancer cells. However, studies on these effects were conducted in laboratories and on mice and have yet to be tried on humans.

A Commercial Fruit?

The Center for Agroforestry at the University of Missouri conducted a five-year regional consumer survey (at four farmer's markets in Missouri) and a national study that looked at the national pawpaw market. Pawpaw producers were surveyed regarding their business, barriers to market entry and challenges with selling pawpaws more widely. Growing and processing the fruit is tricky. The fruit is very perishable and easily bruised. All these factors help explain why pawpaws are seldom seen in your local grocery store.

Another issue producers face is that consumers aren't familiar with pawpaws, which is sort of a chicken and egg situation. How can you be familiar with them if you can't get them at the grocery store? Survey results found that only a quarter of domestic consumers have heard of pawpaws and only 19 percent of consumers had tried them before taking the survey.

But remember, not too long ago, mangoes weren't that easy to find on the shelves either. When surveyed, consumers who had tried pawpaws wanted to be able to purchase them.

I asked Judd what he thought about his beloved fruit's destiny and he said, "Demand will drive ingenuity and commercial processing equipment will follow."

At present, pawpaw producers are selling their fruit at farmer's markets where nearly 30 percent

of those consumers surveyed said they had eaten pawpaws before. Producers are also selling to restaurants, health food stores and online.

The University of Missouri's study optimistically concluded that the pawpaw market will ultimately grow as the demand for the product grows—especially once people try it.

Public interest in the propagation of this beautiful native has increased in recent years because of a growing locavore movement and the fact that the plant repels pests, resists disease and can withstand the effects of climate change.

At the same time, the pawpaw also has qualities that help mitigate the loss of pollinators, since the zebra swallowtail butterfly's larva almost exclusively consumes its leaves.

Pawpaw Passion Emerges from Pandemic

The pandemic helped create more outdoors activity than ever. As people came to realize that our food system is vulnerable to disruption, interest in foraging skyrocketed. I planted blueberries and figs in my yard, but I am a novice forager.

However, the call of the pawpaw keeps me looking for the tree during my walks in the park and I'll always be sure to visit when I know the lovely fruit is ready to be enjoyed.

About the author: Rion Haley is a Master Gardener in Maryland. Her love of all things natural takes her forest foraging and finds her planting everything from figs to sugar snap peas. She is the former managing editor of Outdoor America *and wishes the League another 100 years of prosperity.*

Other delectables that are on my Maryland path while walking in nature.

- Black walnuts
- Persimmons
- Blackberries
- Raspberries
- Apples
- Morels
- Peaches

The pawpaw blossom appears before the tree leafs out in the spring.

Pawpaw Festivals and Events

The Ohio pawpaw festival will celebrate its 25th year in 2023. Occurring in mid-September, it features three days of cooking, genetics and medicinal-use presentations. This community event is held just outside Albany, Ohio at Lake Snowden and hosts dozens of musicians, vendors and food trucks.

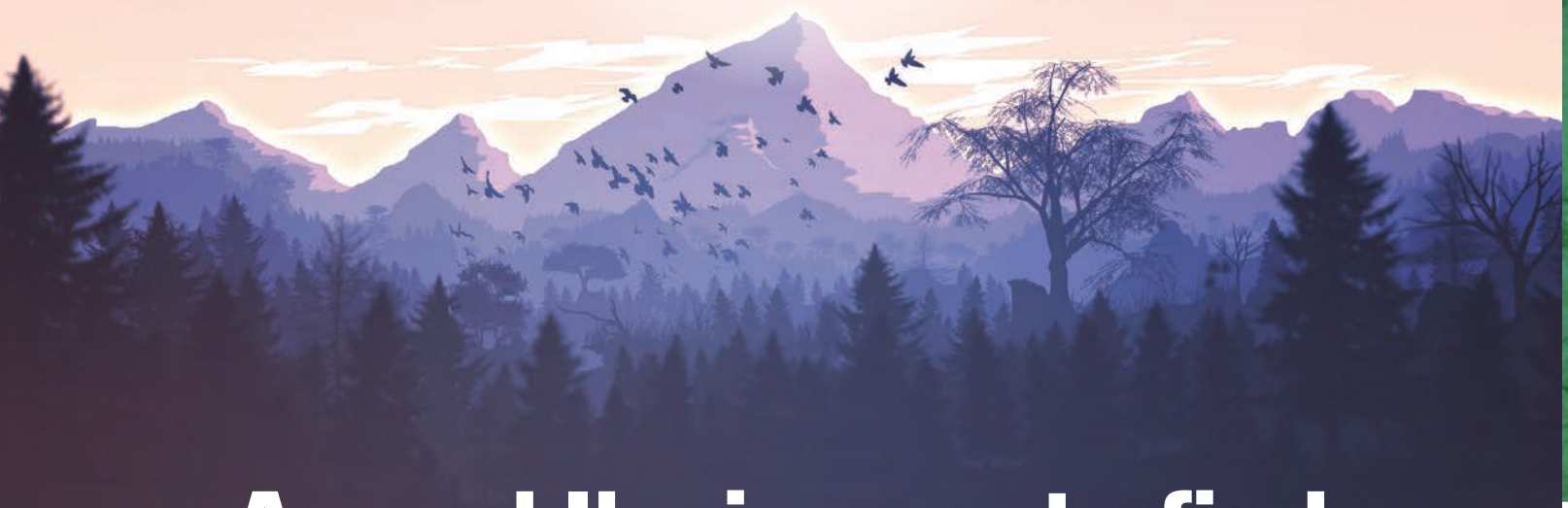
York County, Pennsylvania, hosted its annual pawpaw festival at the Horn Farm Center where wild and cultivated fruit and trees were available for purchase. Artisans, food vendors and community organizations joined in to entertain and educate.

Winston-Salem, North Carolina holds its pawpaw field day in early September and offers tastings, orchard tours, grow-your-own pawpaw lessons and more.

Frederick, Maryland finds an annual ice cream party in the pawpaw patch at Judd's circular strawbale home where fruit and seedlings are available for purchase.

FOR THE LOVE OF PAWPAWS, MICHAEL JUDD

NATIONAL
★AWARDS★
2023



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PIXABAY

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Young angler admires a shorthead redhorse, one of many unappreciated native species considered to be rough fish.

Minnesota Division Takes Action to Protect "Rough Fish"

By TYLER WINTER

Tyler Winter is a member of the Walter J. Breckenridge Chapter of the Izaak Walton League in Minnesota.

In September, the Minnesota Division of the Izaak Walton League filed a formal petition requesting that the Minnesota Department of Natural Resources (DNR) sustainably manage all native fish, both game and "rough" fish.

Traditionally, native "rough fish" have been considered less desirable to eat and consequently are unprotected from over-harvest. Minnesota's "rough fish" are in rough shape—and the League is leading an effort to change that.

At its national convention in July, the League passed a resolution calling for a comprehensive approach to sustainably managing all native fish, both game and non-game.

The petition filed by the Minnesota Division requests three basic changes to the fishing regulations governing native rough fish.

- Create a daily possession limit, along with any regulations necessary to ensure sustainable populations of all native fish.
- List the species by their scientific names to prevent confusion when interpreting regulations. Presently, entire groups of native rough fish are listed by common names.

- Close seasons for any native rough fish species listed as endangered, threatened or of special concern in Minnesota until the species has recovered.

The League filed the legal petition in partnership with the Sierra Club North Star Chapter, Friends of the Mississippi River, CURE (Clean Up River Environment), MN350, the Minnesota Conservation Federation, and Friends of Minnesota Scientific and Natural Areas.

The Division urged all Minnesotans to contact the Minnesota DNR in support of the petition, which can be viewed at https://bit.ly/iwlafishpetition.

Positive Steps Forward

The Minnesota DNR received and reviewed the petition and agreed with the League's goals. The agency believes that additional strategies are necessary for effective stewardship of Minnesota's native fish.

The DNR offered, and the Minnesota Division of the League agreed, to formally collaborate on strategies and implementation to protect so-called "rough fish." This process provides opportunities for reforms beyond the scope of the original petition.

These Fish Deserve Respect

Minnesota is home to 143 species of native fish. Of those, 27 are considered "rough fish," a pejorative term assigned to native species without scientific or practical justification. They include buffalo fish, freshwater drum, goldeyes, quillback and redhorse. The term is still used by the Minnesota DNR. Current fishing regulations, which allow unsustainable and in most instances unlimited harvest of native rough fish, are an unscientific relic of the 1950s.

The petition created by the League's Minnesota Division reflects the current scientific understanding that all native species provide important benefits to ecosystems.

Historically, fisheries managers sought to minimize populations of rough fish. This simplistic management strategy ignored the benefits provided by these native fish. They provide food for eagles, otters and even wolves.

Many of these species, such as the shorthead redhorse, prey on invasive zebra mussels. At the same time, rough fish also serve as hosts to the larvae of native freshwater mussels. The freshwater drum is a host to 11 species of native mussels. Mooneye and goldeye are the only hosts for the endangered spectaclecase mussel.

Bigmouth buffalo, which can live for more than 100 years, compete directly with invasive carp, helping to check the carp population.

These native fish are valuable parts of freshwater ecosystems and worthy of respect. They face the same threats as game fish such as water pollution, reduced habitat and warmer water temperatures—along with the additional threat of over-harvest. Minnesota Ikes are working to even those odds.

This freshwater drum is among the rough fish the Minnesota Division hopes to protect through better fisheries management.

Rough Fish Support Freshwater Mussels

Healthy native fish populations help freshwater mussels, which help keep water clean. A 2021 paper published in *Fisheries Magazine* by Andrew L. Rypel and others, "Goodbye to 'Rough Fish,'" states, "Loss or mismanagement of native fishes threatens freshwater mussel populations and vice versa. Because freshwater mussels are filter feeders, mussel declines often precede erosion in water quality."

TYLER WINTER (2)

Iconic Ikes Aldo Leopold

Leopold's Insights and Leadership at the Izaak Walton League

Through his field work and hundreds of research papers, Aldo Leopold has had a huge influence on wildlife management and conservation practices.

BOB MCCABE

It's hard to overstate Aldo Leopold's contributions to our understanding of ecology, wildlife and the role of humans in the natural world. Much of his groundbreaking work as a conservationist was deeply connected with the Izaak Walton League's early years.

Leopold grew up on the banks of the Mississippi River, hunting and fishing with his father and siblings. At an early age, he took an interest in observing and keeping careful records about the natural world.

He stuck with it, deciding to pursue a career in natural resources. Leopold traveled east to attend Yale, which had just started one of the nation's first forestry schools, thanks to a donation from Gifford Pinchot, chief of the newly formed U.S. Forest Service.

In 1909, with a forestry degree in hand, Leopold secured a job with the Forest Service. The Service sent him to Arizona and New Mexico, where one of his first assignments was to cull the population of large predators, since they sometimes killed livestock. Later in his career, he developed a different perspective on the role of predators.

As part of his work with the Forest Service, he wrote the agency's first game and fish handbook and developed the first comprehensive management plan for the Grand Canyon. He also introduced the idea—novel at the time—that some national forests should be preserved as wilderness.

Leopold married Estella Bergere in 1912. They went on to have five children, all of whom became notable conservationists in their own right.

During his 15 years with the Forest Service in the Southwest, Leopold expanded his interest in wildlife conservation and watersheds. He had an opportunity to focus more on those topics when the Service sent him to the Midwest in 1924.

Linking with the League in the Midwest

Leopold had hardly arrived at the Forest Products Lab in Madison in 1924 when the League's Wisconsin Division snatched him up. The Division had decided to take on forest conservation as one of its key issues, and they could not resist the chance to recruit one of the nation's few experts on that subject. By October 1925, Leopold was speaking to Ikes about "Forestry in Wisconsin" at the Division's state convention, one of many addresses he gave to the League.

He also produced important reports as a member of early League committees, and he was a frequent contributor to *Outdoor America.* Leopold's writing still echoes in our feature "Thinking Like a Mountain," named after a chapter in his landmark work, *A Sand County Almanac.*

Leopold served as a director of the League's Wisconsin Division, and he played a role in protecting the Boundary Waters region in northern Minnesota. The League was adamantly opposed to allowing road building in this wild region. When stakeholders reached an impasse over whether roads should be built in portions of the area, Leopold counseled a give-and-take to achieve progress, using his knowledge of the Forest Service. He recognized early on that working collaboratively was the only path to success for many conservation issues.

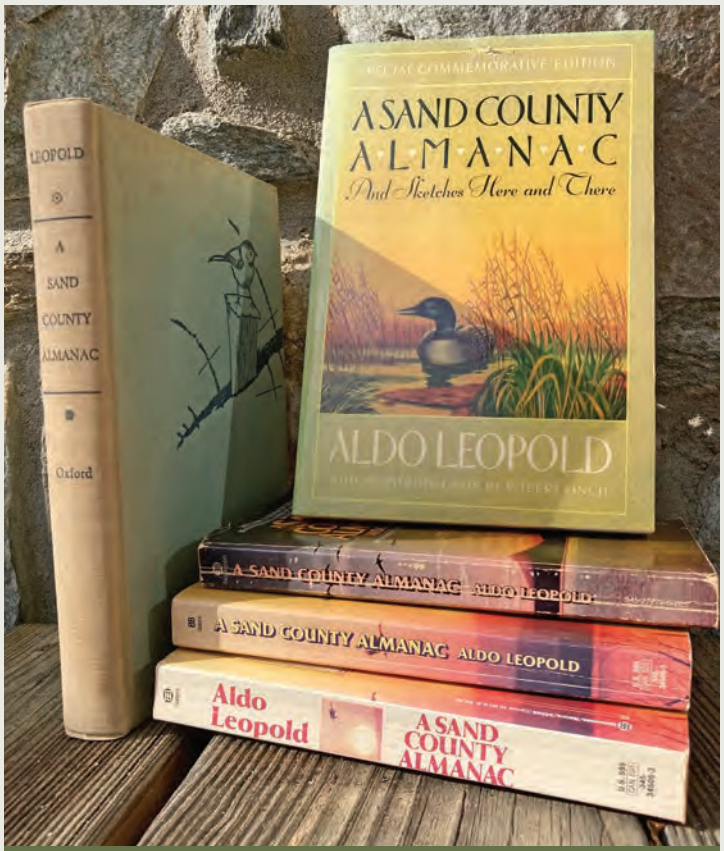
In 1928, Leopold began traveling the Midwest to understand why game was disappearing. At the time, the only accepted explanation for such a phenomenon was excessive hunting, and the typical response was more regulation. Leopold's conclusion, however, was the paradigm-shifting idea that wildlife populations were suffering because their habitat was disappearing.

Comparing his experiences in the public lands of the Southwest to his time among the privately owned lands of the Midwest, Leopold saw that neither regulations nor incentive-based voluntary programs could reliably get landowners to manage their acres more responsibly, when doing otherwise better satisfied their own economic interests. His ideas about environmental ethics expanded to include the idea that conservation was only possible when landowners genuinely wanted to do the right thing for the land.

After publishing the results of his game survey, Leopold returned to Madison to become a professor of game management at the University of Wisconsin and a research director at the university's arboretum. There, he undertook the work of creating the world's first prairie restoration. That prairie can still be seen today and it continues to reveal important discoveries in restoration ecology.

Leopold then moved to the

The insights captured in *A Sand County Almanac* live on, inspiring generations of conservationists.



For decades, Leopold's book, *A Sand County Almanac,* has been required reading at conservation organizations, colleges and universities.

MICHAEL REINEMER

"sand counties" of south-central Wisconsin, where he organized decades of notes and composed his influential book. In 1947, he learned that the book had been accepted for publication. Unfortunately, he didn't live to see it in print. On April 21, 1948, he rushed outside to help a neighbor battle a wildfire and while working to put out the flames, he died of a heart attack. But his insights captured in *A Sand County Almanac* live on, inspiring generations of conservationists.

Janette Rosenbaum is strategic communications manager for the Izaak Walton League.

Leopold's views about predators, like wolves, evolved as he better understood their roles in the wild.

PIXABAY

THE LAND ETHIC—LEOPOLD'S LEGACY

Over time, Leopold's views evolved as he considered the relationships between land, biological communities and the influence of humans. He developed a perspective that he eventually labeled "the Land Ethic," which put forests, wildlife, soil and humans together in a moral as well as a scientific framework.

For instance, his view of apex predators shifted, after he realized that they play an essential role in the fabric of ecosystems. In his essay "Thinking Like a Mountain," he describes an incident when he spotted a wolf and her pups in the wild and reflexively shot them. Checking the kill, Leopold observed the "fierce green fire dying in her eyes," which haunted him as he learned more about the role of predators in controlling populations of deer and other species.

If a mountain had a point of view, it would look at biology, geology and changes over long periods of time—decades, centuries or millennia. Leopold asserts in his essay that by killing all the wolves, a rancher fails to understand the wolf's role and purpose. And humans have failed to understand the natural world more broadly—whether the water, land or wildlife. We have not learned "to think like a mountain," he wrote. "Hence we have dustbowls, and rivers washing the future into the sea."

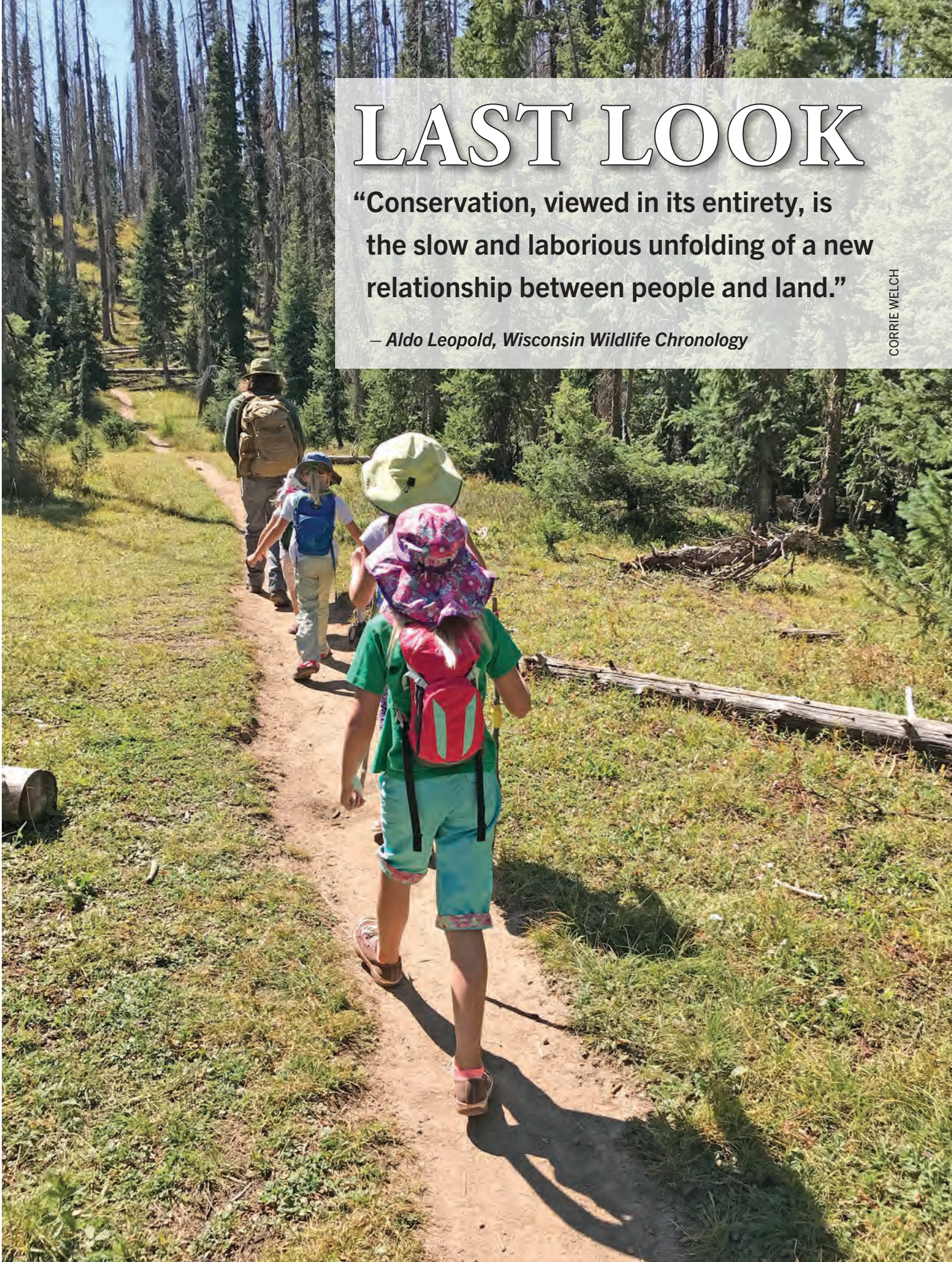
Leopold summed up his definition of the land ethic in a 1947 speech titled "The Ecological Conscience" at a meeting of the Garden Club of America. "The practice of conservation must spring from a conviction of what is ethically and esthetically right as well as what is economically expedient. A thing is right only when it tends to preserve the integrity, stability, and beauty of the community, and the community includes the soil, waters, fauna, and flora, as well as people."

By MICHAEL REINEMER, Editor

LAST LOOK

"Conservation, viewed in its entirety, is the slow and laborious unfolding of a new relationship between people and land."

— Aldo Leopold, Wisconsin Wildlife Chronology



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Lincoln, Nebraska
July 27-29, 2023

Ikes from across the country will gather in Lincoln, Nebraska July 27-29, 2023 for the annual Izaak Walton League national convention.

One noteworthy change to the schedule: the convention will be held Thursday through Saturday—not the traditional Wednesday through Friday schedule.

Plan to attend the Early Bird welcome reception Wednesday evening and the convention that begins on Thursday.

We will gather for the convention at Cornhusker Marriott where the League's discounted room rate is $109 per night (excluding taxes).

The Cornhusker has a restaurant and coffee shop. On-site parking is free. If you travel by air, there is free shuttle service to and from the Lincoln Airport.

Stay longer if you can. Lincoln has great restaurants, arts and culture and nearby attractions to visit.

Keep informed about convention registration, speakers and other special events at iwla.org and by signing up for convention-specific emails.

There's something for everyone in the Cornhusker State.
Plan to spend a few extra days when you attend the
2023 Izaak Walton League National Convention, July 27-29.