

The Leopold OUTLOOK

A publication of the Aldo Leopold Foundation

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Member Preview



THE ALDO
LEOPOLD
FOUNDATION

*The health of our waters is the principal
measure of how we live on the land.*

Luna Leopold

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In the drouths of the thirties, when the wells went dry, everybody learned that water, like roads and schools, is community property.

Aldo Leopold, "The Farmer as a Conservationist," 1939

GUEST EDITOR: Jennifer Koblecky, jennifer@aldoleopold.org
DESIGN: Jeannine Richards
SPECIAL THANKS: Marcy Huffaker and Alma Shure

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LAND ETHIC PRESS
 The Aldo Leopold Foundation

Cover: Rain droplets on a leaf. Photo: Joel Prince, courtesy of National Association of State Foresters.

FROM THE PRESIDENT

Respecting Our Water

It is inconceivable to me that an ethical relation to land can exist without a love, respect, and admiration for land and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense.

Aldo Leopold, "The Land Ethic"

MANY OF YOU KNOW that although water covers 71 percent of the Earth's surface, less than three percent is actually freshwater and 98 percent of the freshwater is in ice. While water at times appears limitless, we are indeed pushing up against the limits of distribution and quality of safe drinking water.

As we planned the content for this issue focusing on the theme of water, California and much of the West were in the throes of a serious four-year drought. El Niño has given the American West a reprieve (albeit temporary) but Flint, Michigan, a community with a seemingly ample water supply, has put water back on the center stage in a way that will undoubtedly have ripple effects across the country as municipalities and citizens reconsider the role of water in our communities.

We often assume that water, should we simply turn on the tap, will always be there. These situations remind us what happens when we assume. The complexity of the myriad of water crises unfolding across the world—it is estimated that one billion people do not have access to safe drinking water—is beyond what we can examine in a single issue of *The Outlook*. We hope the articles we selected will provoke you to think harder about where your water comes from, how different cultures relate to water, and how sometimes competing values dictate the use—or misuse—of water around the world.

Leopold challenged us to think beyond current economics and suggested that if we ever hope to fully embrace and implement an ethical relationship with the land we would need to wrestle with the deeper, more functional, and more aesthetic values of the "soils, waters, plants, and animals, or collectively: the land." This issue begins with a selection from Cynthia Barnett's new book *Rain: A Natural and Cultural History* that examines the visceral and vital dimensions of just how precious and unique our water on Earth is. A particularly special section of the magazine features the poetry and imagery of Kim Blaeser, Wisconsin Poet Laureate, connecting us with the beauty, power, and cultural significance of water. David Groenfeldt's article "Toward a New Water Ethic" helps illuminate why we need more reflection and discussion in order to define why and how we truly value water. Sharon Day and the *Nibi* (Water) Walkers invite and inspire others to actively engage in the act of expressing care and concern for water and rivers in their communities.



Jennifer Koblecky, Baraboo, Wis.

We then take a journey with Aldo Leopold followed by Wade Davis, investigating nearly a century of change along the Colorado River to the Gulf of California. Rivers profoundly shaped Leopold's thinking and many were chronicled in *A Sand County Almanac*: the Mississippi, the Colorado, the Río Gavilán in Mexico, and the Wisconsin, where he purchased his now-famous Shack. River experiences in the Ozarks were also important for Leopold's engagement with the natural world. In the Leopold Atlas, Stan Temple retraces the history of Leopold's "shanty" along the Current River, which was his home base for numerous hunting and fishing excursions.

We also honor the enormous impact Aldo and Estella's son, Luna Leopold, had on the study and understanding of rivers, their ecology, and their geomorphology with a piece by former Education and Outreach Fellow Greg Hitch. Greg's piece reveals that just like his father, Aldo, Luna's legacy continues to inform and inspire others to understand and care about the natural world.

The Backyard Almanac shares ways to assess the health of your own stream from the publication *My Healthy Stream*, created in partnership with Trout Unlimited. This is paired with our Outreach Education Coordinator Maria Kopecky's adaptation of a Leopold Education Project (LEP) exercise so you can engage family, friends, or students on water-related issues.

I've personally learned and thought more deeply about water myself as a result of this issue. I hope we can all keep learning together as the foundation's blog will include additional pieces related to this theme beginning on World Water Day, March 22. Next time you go fishing, canoe down a river, or even turn on the faucet, think again about just how valuable this amazing life source really is.

Buddy Huffaker, President

P.S. Special thanks to our former Communications Coordinator, Jeannine Richards. While she has left the foundation to pursue a PhD, we are glad to retain her creative talents in creating the beautiful design and layout for *Outlook*. Thanks also to our Director of Education Jennifer Koblecky for temporarily taking the reins on editing—she truly was the "Rainmaker" for this issue!



Origins

BY CYNTHIA BARNETT

Rain brings us together in one of the last untamed encounters with nature that we experience routinely, able to turn the suburbs and even the city wild.

THE RAIN ON MARS was gentle, and welcome. Sometimes, the rain on Mars was blue. One night, rain fell so marvelously upon the fourth planet from the sun that thousands of trees sprouted and grew overnight, breathing oxygen into the air.

When Ray Bradbury gave Mars rain and a livable atmosphere in *The Martian Chronicles*, science fiction purists grumbled that it was completely implausible. In the previous century, astronomers—and writers like H.G. Wells who borrowed from their work to give sci-fi a tantalizing authenticity—had seen Mars as Earthlike, odds-on favorite for life on a planet other than our own. But by the time *The Martian Chronicles* was published in 1950, those odds had changed. Scientists viewed Mars as chokingly dry, impossibly harsh—and far too cold for rain.

Bradbury didn't care to conform to the scientific views of the day. On any planet, he was much more interested in the human story. He created a rain-soaked Venus, too, but not because scientists then considered it a galactic swamp. Bradbury just loved rain. It fit his melancholy like a favorite wool sweater. As a boy, he had loved the summer rains of Illinois, and those that fell during family vacations in Wisconsin. Hawking newspapers on a Los Angeles street corner as a teen, Bradbury never minded a late-afternoon deluge. And in his eighty years of writing every day, raindrops tap-tap-tapped from the typewriter keys into many a short story and every book.

A Bradbury rain could set a gentle scene or a creepy one. It could create moods of gloom, mania, or joy. In his short story "The Long Rain," he made rain a character all its own: "It was a hard rain, a perpetual rain, a sweating and steaming rain; it was a drizzle, a downpour, a fountain, a whipping at the eyes, an undertow at the ankles; it was a rain to drown all rains and the memory of rains."

So often making rain the *mise-en-scène* for life, Bradbury was onto something. Everyone knows that life could not have developed without water. Life as we define it required a wet and watery planet. But the Earth-as-exceptional-blue-marble story many of us grew up with is, in some ways, as much a product of the human imagination as the warm Mars sea of *The Martian Chronicles*. Modern scientists have good evidence that Earth did not develop as the sole wet and watery orb in our solar system. Earth, Mars, and Venus were born of the same batch of flying fireballs. All three boasted the same remarkable feature: water.

What's exceptional about our blue marble is not that we had water. It's that we held on to it, and that we still do. While the ancient oceans of Venus and Mars vaporized into space, Earth kept its life-giving water.



Victoria Crater on the surface of Mars. Photo: NASA/JPL-Caltech/University of Arizona/Cornell/Ohio State University

Luckily for us, the forecast called for rain.

**End of free preview
Click to keep reading**



Jeannine Richards, Baraboo, Wis.

Reprinted from *Rain: A Natural and Cultural History*, © 2015 by Cynthia Barnett. Published by Crown Publishers, a division of Penguin Random House, LLC. Available wherever books are sold.

Water Poems

BY KIMBERLY BLAESER



Dreams of Water Bodies

Wazhashk,
small whiskered swimmer,
you, a fluid arrow crossing waterways
with the simple determination
of one who has dived
purple deep into mythic quest.

Belittled or despised
as water rat on land;
hero of our Anishinaabeg people
in animal tales, creation stories
whose tellers open slowly,
magically like within a dream,
your tiny clenched fist
so all water tribes might believe.

See the small grains of sand—
Ah, only those poor few—
but they become our turtle island
this good and well-dreamed land
where we stand in this moment
on the edge of so many bodies of water
and watch *Wazhashk*, our brother,
slip through pools and streams and lakes
this marshland earth hallowed by
the memory
the telling
the hope
the dive
of sleek-whiskered-swimmers
who mark a dark path.

And sometimes in our water dreams
we pitiful land-dwellers
in longing
recall, and singing
make spirits ready
to follow:
*bakobii.**

*Go down into the water.



BWCA Haiku

Eerie wisps of white
stir the damp air at daylight—
ghost mists on Pine Lake.

Iron cold and wild
a million wet blue acres;
drink in your smallness.

Trio of blueberries
glistens on morning ledge rock,
paddler's reward.

Now green fringe of pines
pink pearly clouds of sunset,
deep in mirror of lake.

Across endless dark
echoing calls, wolf and loon—
fluid song of night.



Boundary Waters Canoe Area. All photos by Kimberly Blaeser.



Wellspring: Words from Water

A White Earth childhood water rich and money poor.
Vaporous being transformed in cycles—
the alluvial stories pulled from Minnesota lakes
harvested like white fish, like *manoomin*,
like old prophecies of seed growing on water.
Legends of Anishinaabeg spirit beings:
cloud bearer Thunderbird who brings us rain,
winter windigo like Ice Woman, or *Mishibizhii*
who roars with spit and hiss of rapids—
great underwater panther, you copper us
to these tributaries of balance. Rills. A cosmology
of *nibi*. We believe our bodies thirst. Our earth.
One element. *Aniibiishaaboo*. Tea brown
wealth. Like maple sap. Amber. The liquid eye of moon.
Now she turns tide, and each wedded being gyrates
to the sound, its river body curving.
We, women of ageless waters, endure;
like each flower drinks from night,
holds dew. Our bodies a libretto,
saturated, an aquifer—we speak words
from ancient water.



KIMBERLY BLAESER is the Wisconsin Poet Laureate. Anishinaabe and a native of White Earth Reservation in northwestern Minnesota, she is a professor at the University of Wisconsin–Milwaukee where she teaches Creative Writing, Native American Literature, and American Nature Writing. Ancient Light, an art chapbook of her picto-poems and poetry is forthcoming in 2016.



Toward a New Water Ethic

BY DAVID GROENFELDT

Ethics can be applied to just about anything, but they do need to be applied in order to work. One cannot be simply “ethical” without putting those ethics into action.

WHAT DO YOU CALL the principles, the values, that form the basis of water policies, or that motivate us to use or not use water in certain ways? How do we judge whether our use of water—whether for brushing our teeth or irrigating a farmer’s field—is wasteful or necessary? When we read about the proposed dam that the government of Laos wants to build on the Mekong river, what determines whether we feel that is a good idea or a terrible one? I use the term “water ethics” to denote these underlying principles that influence our own water behavior and our reaction to other people’s behaviors.

The kind of ethics I am talking about are rarely black and white. We usually need more information to form a judgment about the dam, or even about whether we are using too much water in brushing our teeth: What is the source of the water flowing out of the tap, and what will happen to it when it goes down the drain? What sort of dam is being proposed on the Mekong? What are the impacts on the river’s fish, and on the traditional communities and cultures that depend on fishing? What will the electricity from the dam be used for, and what are the alternative energy options? What will happen to the people who live in the proposed reservoir area?

The questions we ask in our inquiry about whether the dam is desirable or not, or whether we are using too much water in our own homes, reflect our values about what is important. What information is relevant to our support or opposition to the dam proposal? Does it matter if fish can navigate around the dam through fish ladders? Does it matter if local communities have to give up fishing and work in a factory powered by the dam’s electricity? Does it matter what is being produced in the factory that uses the electricity from the dam? What about the labor conditions? Where do water ethics end and other ethics begin?

The American conservationist Aldo Leopold believed that an extension of ethics beyond our immediately obvious self-interest to include the well-being of Nature was, in his words, “an evolutionary possibility and an ecological necessity.” Our civilization has already made good progress on our ethical path, and embracing Nature is the next step. In his most famous essay, “The Land Ethic,” Leopold illustrates how far we’ve come in our ethical evolution by relating the Greek myth of Odysseus returning after twenty years away from home (ten years fighting the Trojan War and another ten years finding his way back). His wife and son have been loyally awaiting his return, but what about his slaves, and particularly the female slaves? Had they been loyal too? Just to be sure, Leopold tells us, paraphrasing Homer, “he hanged all on one rope a dozen slave-girls of his household whom he suspected of misbehavior during his absence.” What would today be considered mass murder was then seen as justified house-cleaning. “The girls were property. The disposal of property was then, as now, a matter of expediency, not of right and wrong...”

Leopold’s story has been recounted many times not only because of the powerful imagery, but also because there are two

deep truths in his example. The first truth is that we have made incredible progress over the past few millennia, and particularly in the past century, in extending our ethical boundaries. While we continue to give special attention to our immediate families and



Jeanine Richards, Baraboo, Wis.

communities (“charity begins at home”), we have also embraced an ethical concern about people we do not know and will never meet. Through the United Nations, we have endorsed resolutions proclaiming the rights of people and cultures. In 2010, we (again through the UN) even recognized the right of every person to have safe water to drink. Clearly, we are making progress!

The second truth in Leopold’s account is that for all our recent progress in caring for the larger human community, we have not yet made room for Nature in our ethical sphere. The way we treat our rivers, lakes, aquifers, wetlands, and estuaries is largely, if not entirely, governed by expediency. The easiest place to discharge industrial waste is the river that is flowing by, and the easiest way to expand an urban water supply is to build a reservoir on that river upstream of the factory where the water quality is still good.

This article was adapted from David Groenfeldt’s book, *Water Ethics: A Values Approach to Solving the Water Crisis* (Routledge, 2013)

**End of free preview
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Steve S. Meyer, Prairie du Sac, Wis.

On Loss in the Colorado River Delta



The alluvial fan of the delta spread across two million acres, well over three thousand square miles, a vast riparian and tidal wetland the size of the state of Rhode Island. It was one of the largest desert estuaries on earth.

in circles, he dallied with lovely groves, he got lost and was glad of it, and so were we.”

Drifting with the ebb and flow of the tides, waking by dawn to the whistles of quail roosting in the branches of mesquite trees, making camp on mudflats etched with the tracks of wild boar, yellowlegs, and jaguar, the Leopold brothers experienced the Colorado delta much as had the Spanish explorer Hernando de Alarcón, who first reached its shores in 1540. There were bobcats draped over cottonwood snags. Deer, raccoons, beavers, and coyotes, and flocks of birds so abundant they darkened the sky. Avocets and willets, mallards, widgeons, and teals, scores of cormorants, screaming gulls, and so many egrets on the wing that Leopold compared them in flight to “a premature snowstorm.” He wrote of great phalanxes of geese sideslipping toward the earth, falling like autumn leaves. On every shore he saw clapper rails and sandhill cranes, and overhead, doves and raptors scraping the sky.

and women, who, in their rituals, he reported, revealed a deep reverence for the sun. He described the Cocopah as tall and strong, with bodies and faces adorned in paint. The men wore loincloths, the women coverings of feathers that fell back and front from the waist. Every adult man had shell ornaments hanging from the nose and ears, and deer bones suspended from bands of cordage wrapped around the arms. They gathered in great numbers, small bands of a hundred, larger assemblies of a thousand, and in one instance, as Alarcón reported, no fewer than six thousand.

To support such populations, the Cocopah grew watermelons and pumpkins, corn, beans, and squash. From the wild they feasted on fish, wood rats, beavers, raccoons, feral dogs, and cattail pollen and tule roots. In the first months of the year, with their stores of harvested food exhausted, they travelled to the high desert to gather cactus and agave. Mesquite pods, ground with a *metate*, yielded flour that was made into cakes or mixed with water and consumed as a drink. Their dwellings were simple structures—round domes of reeds and brush. They slept beneath blankets of rabbit skins. They moved through the marshes in dugout canoes, carved from cottonwood, or on rafts of logs bound together by ropes made from willow bark or wild grasses.

BY WADE DAVIS

IN 1922, HAVING COMPLETED WORK on the first comprehensive management plan for the Grand Canyon, Aldo Leopold, along with his younger brother, set out by canoe to explore the mouth of the mighty Colorado. At the time the main flow of the Colorado reached the sea, carrying with it each year millions of tons of silt and sand and so much fresh water that the river’s influence extended some forty miles into the Gulf of California.

The alluvial fan of the delta spread across two million acres, well over three thousand square miles, a vast riparian and tidal wetland the size of the state of Rhode Island. It was one of the largest desert estuaries on earth. Off shore, nutrients brought down by the river supported an astonishingly rich fishery for *bagre* and *corvina*, dolphins, and the rare and elusive vaquita porpoise, the world’s smallest marine cetacean. At the top of the food chain was the *totoaba*, an enormous relative of the white sea bass that grew to three hundred pounds, spawned in

the brackish waters of the estuary and swarmed in the Sea of Cortez in such abundance that even fishermen blinded in old age, it was said, had no difficulty striking home their harpoons.

In contrast to the searing sands of the Sonoran Desert through which the lower Colorado flowed, and the blue and barren hills of the Sierra de los Cucapás, cradling the river valley to the north and west, the delta was lush and fertile, a “milk and honey wilderness,” as Leopold called it, of marshes and emerald ponds with cattails and wild grasses yielding to the wind, and cottonwoods, willows, and mesquite trees overhanging channels where the water ran everywhere and nowhere, as if incapable of settling upon a route to the sea. The river, wrote Leopold, “could not decide which of a hundred green lagoons offered the most pleasant and least speedy path to the gulf. So he travelled them all, and so did we. He divided and rejoined, he twisted and turned, he meandered in awesome jungles, he all but ran

It was an exquisite landscape, rich in fauna and flora, with hundreds of species of birds and rare fish, and along the mudflats, melons and wild grasses that yielded great handfuls of edible fruits and seeds. But the brothers’ sojourn in the delta was not without its challenges. The river was too muddy to drink, the lagoons too brackish, and every night they had to dig to find potable water. The dense and impenetrable thickets of *cachinilla* made movement on land almost impossible, leaving Leopold doubtful that people had ever lived in the wetlands. “The Delta having no place names,” he wrote, “we had to devise our own as we went.”

Original Inhabitants

In this Leopold was quite wrong, for the marshes and lagoons of the Colorado delta had for a thousand years been home to the Cocopah Indians, who viewed themselves as the offspring of mythical gods, twins who had emerged from beneath the primordial water to create the firmament, the earth, and every living creature. In 1540 Hernando de Alarcón encountered at the mouth of the river not hundreds but thousands of men

This article is excerpted from *River Notes: A Natural and Human History* by Wade Davis. Available from Island Press wherever books are sold.

**End of free preview
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~ The Backyard Almanac ~

Leopold's most well-known backyard was his sand farm along the Wisconsin River where he and his family spent weekends restoring the Shack and the land. Leopold's observations would later become the foundation for his famous essays in *A Sand County Almanac*. Many of the species Leopold valued can be found in your own backyard, too!

BY JACK E. WILLIAMS, MICHAEL P. DOMBECK, AND CHRISTOPHER A. WOOD

HOW GOOD IS THE WATER QUALITY in your stream? This question can be answered by taking water samples and conducting chemical tests, but it can also be addressed by examining what species live there. Some species of aquatic insects are sensitive to pollutants and occur only in high quality streams. Others are more tolerant of pollutants and occur in poorer quality streams.

One of the most widespread groups of animals used to determine water quality are macroinvertebrates. Macroinvertebrates are small animals without backbones that live on the bottom of streams. Common types of macroinvertebrates include aquatic insects, snails, clams, worms, and crayfish. They live among gravel and sand, and on rocks, logs, and aquatic plants. By learning to identify them you can tell a lot about your stream.

Macroinvertebrates usually are abundant, with large numbers of species found across a diverse array of aquatic habitats from small springs and ice-melt streams to large lakes and rivers. Mayflies, one group of aquatic insects, has about 600 different species in North America. Like most aquatic insects, the life cycle of mayflies includes an egg stage, a gill-breathing larval stage, a pupal stage, and finally, a short-lived winged adult stage that lives only long enough to reproduce. Most of their short lives (from a few months up to four years) are spent among the stream substrates.

High Ecological Value

Macroinvertebrates are a major part of the food web in stream systems. They feed on algae, bacteria, leaves, and a variety of decomposing organic matter. In turn, they provide the bulk of the diet of many fishes. Aquatic invertebrates such as mayflies, caddisflies, stoneflies, and midges, provide the primary foods for a wide variety of fish ranging from small minnows to large trout. Because of their abundance and their position as "middlemen" in the food web, macroinvertebrates are critical in the nutrient cycles of stream ecosystems.

You may have seen swarms of adult mayflies, midges and other aquatic insects as they emerge from water and seek their mates. They often fly upstream, which helps reverse the nutrient

loss in higher elevation streams or headwaters that naturally occurs as water flows downstream.

Determining Water Quality

Different species have different sensitivity to pollutants. Stoneflies, for example, are quite sensitive (intolerant) to pollutants and are usually found only in areas of high water quality. Leeches and crane fly larvae, on the other hand, can tolerate poor water quality. Their presence tends to indicate unhealthy streams. So, the presence of certain groups of macroinvertebrates will tend to indicate the quality of the water and the health of the stream.

The diversity of species found in your stream also is a good indicator of water quality. Streams that support a larger number of aquatic insect species will generally be in better condition than streams that have just a few species, even if those few occur in abundance. Too much silt, for example, may be great habitat for midge larvae and other worm-like species but may smother out gill-breathing mayflies and stoneflies.

The EPT Index

One simple index of water quality is the EPT Index. This is a measure of the number of different species of Ephemeroptera

(mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies) that occur in your stream. Generally speaking, mayflies, stoneflies, and caddisflies are more sensitive to pollutants than are many aquatic insects and their presence indicates better water quality and a healthier stream. A stream community dominated by numerous species of mayflies, stoneflies, and caddisflies indicates low sedimentation, well-oxygenated gravels, and a variety of stream bottom substrates—all indicators of a healthy stream.



JACK E. WILLIAMS, MICHAEL P. DOMBECK, and CHRISTOPHER A. WOOD teamed up to author the *My Healthy Stream handbook*, published in 2012 by the Aldo Leopold Foundation and Trout Unlimited. The handbook contains a variety of useful information for the streamside landowner. Order a copy at www.aldoleopold.org.



Chris Wood

The last word in ignorance is the man who says of an animal or plant: "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not.

Aldo Leopold, *Round River*, 1953

Determining Water Health



Leopold Education Project

Audience: 7-12 grade

Time needed: 60-90 minutes

Materials: Paper, pencils, small-meshed nets, small collection containers, waterproof boots, macroinvertebrate field guides



Cindy Deacon Williams

ACTIVITY:

1. Visit a stream or other body of water. Ask students to create a list of animals that live in and around the body of water, including guesses about what the unseen species might be. Ask whether the students perceive the body of water to be healthy or unhealthy and what led them to that opinion.
2. Split students into groups of two to four to collect macroinvertebrates by dragging a net through the water and the sediment before sifting and rinsing. If sampling a stream, students may also try stirring up the sediment immediately upstream of the net so the current washes loosened material and macroinvertebrates downstream. Encourage students to look underneath rocks and to sample all habitats present. Temporarily store macroinvertebrates in shallow, water-filled containers.
3. Identify macroinvertebrates using field guides and record the number of species found, as well as the number of individuals of each species found. Use your field guide to determine the sensitivity of the species collected.
4. As you sort through the insects you collected, separate out the mayflies, caddisflies, and stoneflies. You may notice you have, for example, a couple different species of mayflies. When you've finished sorting, count up the number of different kinds that you have and compare your total to the scores below. For example, if you sampled all available habitats and found four different kinds of mayflies, three different caddisflies, and two different stoneflies, this is equivalent to an EPT Index score of nine (4+3+2=9), which corresponds to Fair.

EPT Index: Excellent (27+), Good (21-27), Good-Fair (14-20), Fair (7-13), Poor (0-6)

DISCUSSION QUESTIONS:

1. How did the animals found in the water compare with your initial list?
2. What do the diversity of species and the EPT Index score tell us about the ecosystem's health?
3. What environmental and man-made factors might impact the health of this water body?
4. What do you think Aldo Leopold meant when he said: "The last word in ignorance is the man who says of an animal or plant: 'What good is it?'"

EXTENSION:

Aldo Leopold was an avid recorder of phenology, the study of periodic plant and animal life-cycle events that are influenced by climate and seasonal change in the environment. Many of the macroinvertebrates collected today will go through significant changes as the seasons, and their life cycles, progress. Research the adult form of a larvae you collected. In what ways does it look similar to or different than its larval stage? At what time of the year will it reach its adult form and how long will it live? What environmental factors could influence the phenology of that species?

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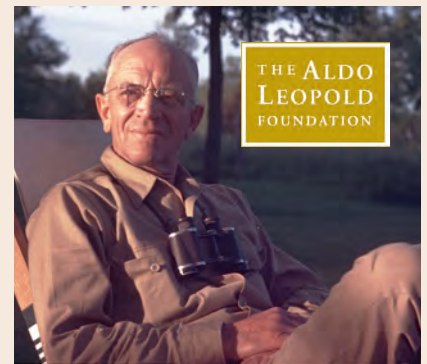
The Leopold Outlook magazine is published biannually and mailed to our members. The *Outlook* is filled with artwork, beautiful color photography, and thought-provoking articles by nationally recognized authors such as Wendell Berry, David Orr, Gary Paul Nabhan, Kathleen Dean Moore, and many more. Each issue of *Outlook* invites members to explore Leopold's land ethic through a different theme, presented by new and different voices and perspectives.

Join or Renew Your Membership Today

Aldo Leopold captured the wonder and simple excitement of nature in his classic book, *A Sand County Almanac*. His words have inspired millions to respect the land and to live their own personal "land ethic." A membership to the Aldo Leopold Foundation is a passport to Leopold's legacy. Strengthen the future of conservation, and answer Leopold's call for an ethic of caring today. Your membership will directly impact every project, program, and initiative that is advancing Leopold's vision of a community that respects and celebrates people, land, and all the connections between them. Thank you.

All Aldo Leopold Foundation members enjoy:

- Subscription to our members-only magazine, *The Leopold Outlook*
- FREE admission & self-guided tours of the Leopold Center and Leopold Shack
- FREE admission to Saturday guided tours of the Leopold Shack
- FREE audio tour of the Leopold Center
- 10% Bookstore discount
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The Aldo Leopold Foundation
P.O. Box 77 • Baraboo, WI 53913
608.355.0279 • 608.356.7309 fax
www.aldoleopold.org

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