



Olympia, Washington Volume 2018, Number 5 November/December 2018

Replacing Fossil Fuels with Renewable Energy in Washington State - Black Hills Audubon Supports I-1631

by Sue Danver

Pervasive wildfires, along with heat and drought, contaminate the air we breathe and endanger both humans and wildlife. Climate change—that is, global warming—is already here in Washington State, and National Audubon scientists have determined that this change is the greatest threat to birds—too fast for birds and other wildlife to adapt to, not to mention us.

To address climate change, Black Hills Audubon, as well as Audubon Washington, have endorsed initiative I-1631. This measure would place an ever-increasing fee on greenhouse-gas emissions from the use of fossil fuels by the largest emitters in the state. These funds would be used to develop renewable energy, like wind and solar, and to protect forests, clean water, and clean air while also protecting communities at risk from change.

Our air would become cleaner not only because of decreasing emissions into the atmosphere but also as the shift away from carbon will reverse the terrible effects of global warming, including wildfires, droughts, severe storms, and the even more disruptive climate that we are now headed toward. Passage of I-1631 would foster development of renewable energy, thus generating many new jobs in the state, while offering help for those losing jobs in fossil-fuel industries and communities affected by the transition. Passage of this initiative would establish our state as a leader in addressing global warming.

Climate change is with us; we need action now. We have before us an opportunity to do our part in addressing a clear and present danger. Please help Washington State be a bellwether for the nation by supporting I-1631 in the November election.

Monthly Speaker Series November 8, 2018

The Canning River - Arctic National Wildlife Refuge / Dan Streiffert

Dan Streiffert is an avid wildlife photographer and birder. He is an active member of the Sierra Club and current chair of the Rainier Audubon Society Conservation Committee.

Dan will narrate and show photographs from a trip down the Marsh Fork of the Canning River on the western boundary of the Arctic National Wildlife Refuge. This highly diverse and productive coastal plain is one of the most pristine ecosystems in America. The refuge is home to 42 mammal species, including 120,000 caribou, 36 species of fish, and 160 bird species. Migratory birds from all six continents exploit the burst of productivity in the long days of the Arctic summer.

We will also hear an update from Kelly Beach about her experience as a bird banding intern.

December 13, 2018

Unravelling the Mysteries of the Marbled Murrelet / Martin Raphael, Ph.D.

Marty Raphael is an ornithologist and forest ecologist, recently retired (but still active) at the Pacific Northwest Research Station (U.S. Forest Service) in Tumwater. During his distinguished scientific career, he has conducted extensive research on the life history of Marbled Murrelets, which were listed as threatened under the Endangered Species Act in 1992.

Murrelet populations have declined, primarily due to loss of nesting habitat. At-sea surveys conducted for 20 years in the San Juan Islands and Puget Sound indicate the population has declined 3.9% per year. Reproductive rates are only about 6 young for every 100 adults. Over 150 birds have been tracked by radio telemetry, showing daily movements over 100 miles between nesting sites (continued page 4)

Armchair Birding: Raptors in Focus

by Anne Kilgannon

Have you ever been hawk-watching? Standing on a ridge overlooking a stretch of country created just right for an updraft of warmed air, forming a highway in the sky for the soaring of raptors? Some Fall day I will be there, thrilling to the sight of big birds streaming by, the urgency and tug of the migratory season pulling them through the sky. The Chelan Ridge Hawk Migration Festival on the dry side of the North Cascades is within reach—and a likely adventure some day—but the epitome, the dream trip, would be Hawk Mountain in Pennsylvania, so heroically saved for us by Rosalie Edge in 1938 when she purchased the land under the migration path.

Oh my, what a story! If you enjoy gripping page-turners and unlikely champions battling great odds—and winning get a copy of her life story, Hawk of Mercy, by Dyana Furmansky, for an eye-opening history of a dark chapter in Audubon. It's a passionate and inspiring biography of a woman wholly taken with birds and their protection, who threw herself and her fortune into conservation work almost alone, but who through persistence and sheer chutzpah created a movement and galvanized a quiescent public to stand up for birds. From a traditional norm of seeing hawks as vermin fit only to shoot and let rot in their thousands as they attempted their annual migration over the mountains of Pennsylvania and other infamous spots. Edge transformed the reflexive killing to awakening a sense of awe in the majesty of the birds responding to the seasonal imperative. In time, binoculars replaced shotguns, respect and understanding ended the wanton slaughter.

The villainy assigned hawks as "chicken killers" was, in part, ignorance of the crucial balancing role of predators in general and the raptor's place in the natural order. Society still struggles with the notion of wolves and grizzlies taking their rightful places. Hawk-viewing festivals are part of continuing public education, as are banding programs, annual counting and mapping of bird populations, and other programs to gather data, establish patterns, and learn the intricacies of bird life.

An excellent window into this work and the fascinating people who make it their life's purpose is Jack Connor's *Season at the Point: The Birds and Birders of Cape May*. Connor describes in gritty but affectionate terms what it means to participate in the annual tallying of raptors as they pass over this spot on the eastern flyway. As you read his account, your back will ache in empathy, your eyes will want to be there scanning, straining to identify smudges and streaks of sky-high birds as they stream by. You will be moved by the Cape birders' dedication and their dogged strength as they struggle each year to add to our store of knowledge—still rudimentary, still a new science of migration and population.



Should you be pulled to join in, either at the Cape or more locally at Chelan, it would be best to study the classic work *Hawks in Flight*, by three noted graduates of Cape May: Pete Dunne, David Sibley and Clay Sutton. Their book is dedicated to Maurice Broun, who got his start when Rosalie Edge hired him as the first "curator" at Hawk Mountain. Roger Tory Peterson wrote the Foreword, adding another link to the chain of bird knowledge passed hand to hand, having himself stuffed envelopes for Rosalie's conservation crusades in her New York apartment in his early days. It was Peterson's "method" of bird identification system, first published in the 1930s, that helped turn bird study to field study, not "bird in the hand" by way of the shotgun. All these steps we now take for granted are but one or two generations of birdwatchers in the making. *Hawks in Flight* takes the Peterson method even further as the authors explore the visual frontiers beyond field marks and feather colors. Watching and identifying raptors calls upon the birder to develop new skills involving "a number of hints and clues: the rhythm and cadence of a bird's flight; its overall color, shape, and size; plumage characteristics; and behavior under given conditions. All form a composite picture of a bird that may be flying at the limit of conjecture."

It's startling to realize that the tips offered for hawk identification were painstakingly assembled from experience at Cape May in the near past: Pete Dunne conducted the first season-long migration count just in 1976. This is still an evolving story, one we can participate in and advance if we have the time and skill. Bird watching is a relatively young pursuit and one heavily dependent on citizen science. With climate change and habitat loss threatening, we all feel the urgency of the moment, but seeing how far we have come in such a short span is also encouraging. We are giant strides from the massed killing of hawks, Passenger Pigeons, and other birds shrugged off by public indifference; our challenges are subtler if no less deadly. Rosalie Edge's campaigns will not be our way, but with new tools and knowledge, we will join our pioneer forebears and marshal awe and wonder "for the birds."

Conservation Challenges in Thurston County

by Sam Merrill

Black Hills Audubon faces several conservation challenges in Thurston County this fall, for which member participation is invited. We encourage members to follow our new monthly electronic newsletter, CHIRPS, which reaches members' screens on the first of the month, for timely updates of BHAS news. Over five hundred members have signed up for CHIRPS; if you haven't, we encourage you to do so.

Mineral Lands Policy

Thurston County is considering radical changes in the code of the Mineral Lands chapter of the Comprehensive Plan. BHAS seeks your help in sending emails to the Planning Commissioners and/or County Commissioners. By coordinating with other environmental organizations, we hope to generate many more than the 120 emails (to the Planning Commission) that we elicited last March.

This fall, the Planning Commission (PC) will have two mandatory public hearings on new Comprehensive Plan language and code changes: one on Mineral Lands Policy, likely in October, and a very critical hearing on code changes in November. Public comments on code will be crucial, because the protective critical areas code, implemented in 2010 after years of exhaustive research, could be seriously weakened. Although the Board of County Commissioners will have the final vote in 2019, it is important to focus now on comments to the PC. We plan to alert BHAS members of our comments on recommendations.

On a positive note, the County hydrogeologist has produced a comprehensive memo summarizing the problems that sand and gravel mines can create on surface waters and the County's aquifer. He recommends that mining companies produce reports that address some of these water concerns as part of their permit process. BHAS supports this effort.

Lake Lawrence Cell Tower

In 2015, Verizon proposed a cell tower to be located immediately adjacent to the Smith Area wetland that is intended as mitigation for the McAllister water rights. Following appeal by the Deschutes Neighborhood Group (DNG), the Hearing Examiner remanded the project for a more thorough bird study.

In December 2016, BHAS's Deb Nickerson and Anne Mills trained DNG members about local birds, and Sally Nole, Bob Wadsworth, and Sue Danver assisted with the survey in the winter of 2017. After review of surveys by Verizon's consultant and by DNG, the County again approved the tower. And again, the DNG appealed. At a recent hearing BHAS members Sally Nole and Bob Wadsworth testified about their efforts and their analyses of the two bird-survey reports.

The Mitigation Area is publicly owned by Yelm, Olympia, and Tumwater, and is worthy of refuge status, as suggested by Washington Dept. of Fish and Wildlife. Dikes were removed this summer and birds moved in immediately. County code requires that a cell tower must be 1,000 ft. from a refuge, so the tower project would have to be denied. The County has taken the position that it is not an official wetland.

Proposed Tumwater 1,000,000 Square Foot Warehouse

A proposed million-square-foot warehouse across from the truck stop at I-5 and 93rd Avenue in Tumwater has met the city's application requirements. A major concern is its location in the Salmon Creek Basin, an area prone to serious floods. With heavy rains, this basin could experience groundwater flooding, such as occurred in 1999.

Because this area is part of the Black River watershed, pollution carried by floodwaters from the Salmon Creek Basin could affect not only residences but also the thousands of conservation acres along the Black River, including the Black River National Wildlife Refuge and Glacier Heritage Park. We are seeking hydrological review of the developer's water report and Tumwater's response to that report. Early participation in the process gives us the best chance to achieve success.

New patches for BHAS

These beautiful patches arrived this summer to identify the birdwatching backpacks being donated to libraries in the Timberland Library system. We have extras to



offer to our members. They are perfect to sew onto your own backpack, hat or outerwear. You can buy one at our program meetings for \$5.00. If you would like one but can't attend a program meeting, please contact Kathleen Snyder **secretary@blackhills-audubon.org**. It would be easy to mail one to you.

Wanted: Used birding books

If you have some birding books that you no longer want, please consider donating them to our used book sale, which happens at our monthly program meetings. All the proceeds from the book sale are used to support our chapter and its good works. Either bring your donations to a meeting or contact Kathleen Snyder **secretary@blackhills-audubon.org** to arrange a pickup.

November 6: Public-Comment Deadline for Marbled Murrelet Conservation Strategy

by Maria Ruth

The Washington Department of Natural Resources (DNR) and the U.S. Fish and Wildlife Service (USFWS) have released their revised draft Environmental Impact Statement for the endangered Marbled Murrelet Long-Term Conservation Strategy. Public comments are being accepted through November 7.

DNR manages about 15% of Washington's murrelet habitat, with eight alternative management strategies under consideration. Which strategy is

eventually chosen may determine the fate of the species in Washington; having lost 44% of its population in the state since 2001, the species faces local extinction in the near future.



Marbled Murrelet Illustrations by Dugald Stermer generously provided by the Dugald Stermer Family



Our state forests are public land, and you have a say in how they are managed. Please speak up to support a conservation strategy that will make a significant contribution to the recovery of this species. The BHAS Conservation Committee is submitting comments, but individual comments matter, too. Please use DNR's official comment portal to send comments electronically (https://www.surveymonkey.com/r/MMLTCSRDEIS) or by U.S. mail to: SEPA Center, P.O. Box 47015, Olympia, WA 98504-7015.

For suggested talking points, please visit BHAS's website ("Marbled Murrelet" under the Conservation tab).

Field Trip Planning is Fun! Come Help Plan 2019 Field Trips on December 5

by Bonnie Wood

I have a birder friend in Gig Harbor whom I see only occasionally. Each time we see each other, she tells me about the birding sites she has discovered and enjoyed. I am not familiar with all of them, but I note them, considering that they might be worth a field trip for all BHAS members and other interested folks.

On Wednesday, December 5, at 6:00 p.m., the BHAS Field Trip Committee will hold its annual planning meeting for 2019. But I don't mean to sound official and bureaucratic: birders willing to be field trip leaders meet at my house and talk about their favorite – or newly discovered – birding sites. Plus I've got snacks!

We would love to have you join us. Join us to share your favorite birding sites. Join us to help plan 2019 BHAS field trips. We welcome new faces and ideas. I want to emphasize: one does not have to be an expert birder to lead a field trip. Just be willing to convene a group at a specific time and place.

My house is at 2800 Aberdeen Court in southeast Olympia. From Boulevard Avenue, turn east, coast down the hill, and turn right at the second cul-de-sac. My house is on the lower corner. Please RSVP to **bwood2800@gmail.com.** I look forward to seeing you!



Unravelling the Mysteries of the Marbled Murrelet / Martin Raphael

(continued from page 1)

and feeding areas in nearshore marine waters. Extensive surveys have documented the extent of suitable nesting habitat throughout the bird's range in Calfornia, Oregon, and Washington. Conservation and restoration of nesting habitat remain the primary means of recovering this fascinating species.

Keep your feeders clean and safe for birds!

Wild Birds Unlimited on Cooper Point Road cleans bird feeders for \$7 each (20% goes to BHAS); trays and domes are an



extra \$1 each. Loaner feeders available. See Dave at store.

Wildlife Rehabilitation in Washington State

As birders and others interested in wildlife go about their activities, they're likely to find injured animals that could be saved by people with the necessary expertise. Here's a brief introduction to wildlife rehabilitation, a profession licensed by the State of Washington.

While the Washington Department of Fish and Wildlife (WDFW) manages wildlife on a population level, it values the role of wildlife rehabilitators who care for sick, injured, and orphaned wildlife. All native wild birds, mammals, reptiles and amphibians are protected by State laws and regulations, and it is unlawful to attempt rehabilitation without the proper permit. Anyone wishing to practice wildlife rehabilitation must get a Wildlife Rehabilitation Permit (WAC 232-12-064) from the WDFW, which authorizes a person to temporarily possess and treat injured, diseased, oiled, or abandoned wildlife for the purpose of wild release. Rehabilitators must meet several requirements to earn this permit, and those who work with native migratory birds must also have a US Fish and Wildlife Service Migratory Bird Permit. Licensing ensures high standards of practice and that all wildlife rehabilitators are trained, qualified, and provide humane care and housing for wildlife in their custody.

Animals in rehabilitation face one of four fates: successful rehabilitation and release, non-releasable permanent educational placement, natural death as a result of its condition, or euthanasia. On average, half or more of the wildlife brought to wildlife rehabilitation facilities die or must be euthanized. So rehabilitators must make difficult decisions daily and take their responsibilities seriously. Every animal is carefully evaluated, diagnosed, and treated through a program of veterinary care, proper diet, medication, physical therapy, exercise, and prerelease conditioning. Successful rehabilitation means that released animals are physically and psychologically fit and can truly function as wild animals. State law states that they must be able to recognize and obtain the proper foods, select appropriate mates and reproduce, show fear of potential dangers, and know how to avoid predation. Successful releases are planned according to weather, season, habitat, safety, and location.

Most rehabilitators rely on you to get the animals to them. Since they are volunteers, by law they may not be paid for their work except by donation. WDFW asks that we respect the time, compassion, and personal expense they put into every animal they care for, and consider donating to these caregivers.

In Thurston County, Yelm Veterinary Hospital (360-458-7707) treats injured small mammals and birds, but no orphans or babies. Raindancer Wild Bird Rescue (360-970-5402) in Olympia treats birds of prey, corvids (crows, ravens, jays), and bats. In Pierce County, Jasmine Fletcher's "A Soft Place to Land" (360-761-2915) in Graham treats small mammals, deer and elk. Kelley Ward's-Featherhaven (253-350-5792) in Enumclaw treats songbirds only.

Wintering Backyard Birds of Lewis County with Dalton Spencer

Having a new instructor and class offering in Lewis County presents another option for a birding class with Black Hills Audubon. Dalton Spencer will teach a class geared for beginning birders, helping people learn to find and identify over 30 species of wintering birds in their backyards. From doves to chickadees, this class will open your eyes and ears to the world of birds, letting you develop a greater understanding of birds, while you learn to cater to their needs and see them in your backyard more often. There will be two Thursday sessions, November 29 and December 6, 7:30-9:00 p.m. each evening, at the Centralia Christian Church, 1215 W. Main St., Centralia 98531. Bring a field guide or alternative bird book. Registration (\$25.00) is required and the class is limited to 24 people. Register by calling Deb Nickerson at 360-481-7446 or emailing her at debranick@gmail. com.

Birding 101 Class with Scott Mills

This course, taught by retired Professor of Ornithology Scott Mills, will provide an introduction to birding with an emphasis on developing identification skills. Other topics will include a review of birding tools, including binoculars and field guides, an introduction to birding terminology, and some discussion of basic bird biology as it relates to identification. The course is designed primarily for beginning birders but should be useful for many mid-level birders as well. There will be five class meetings on Saturday mornings, 9:00-11:00 a.m., January 12 to February 9, 2019. Classes will be held at the Education Building at Nisqually National Wildlife Refuge. There will also be two field trips on dates to be determined at the first class. The course costs \$75.00: register by contacting Ken Brown at kenbrownpls@ **comcast.net**. Class is limited to 24 persons. Some scholarships are available.

Field Trips and Events Capsule

November

3 **Field Trip and Event:** Birding and Breakfast

8 Event: Monthly Speaker Series

15 **Field Trip:** Eagle's Pride Golf Course, JBLM

19 **Event:** Olympia Birds and Beer

28 **Event:** Shelton Birds & Brew

December

Event: Field Trip and Event: Birding and Breakfast

Event: Monthly Speaker SeriesEvent: Olympia Birds and Beer

20 **Field Trip:** Eagle's Pride Golf Course, JBLM

26 **Event:** Shelton Birds & Brew

29 **Field Trip:** Downtown Ducks



Weekly Guided Birding

First Saturday Birding & Breakfast

Want to get a head start on your weekend? Join us for Birding and Breakfast at 7:30 a.m. on the first Saturday of each month (except **8:00 a.m.** November through February). Bird with us, then enjoy breakfast at a local restaurant. Beginning birders are welcome. Share what you know, connect, enjoy. For more information, contact Black Hills Audubon Society at 360-352-7299.

November 3: Meet Carla Miller at Millersylvania State Park (12245 Tilley Rd South) at **8:00 a.m.** (Note the later-than-usual starting time for winter.) Park in the first lot on the left when you enter at the main gate. A Discover Pass is required. Breakfast at the River's Edge Restaurant at the Tumwater Valley Golf Club (4611 Tumwater Valley Dr SE, Olympia).

December 1: Meet Bob Wadsworth at Mud Bay Park and Ride (510 Madrona Beach Road, Olympia) at **8:00 a.m.** (note the later-than-usual starting time for winter), with breakfast at the Shipwreck Restaurant after birding.

Field Trip: Billy Frank Jr. Nisqually NWR Every Wednesday, 8:00 a.m. - noon

Leader: Phil Kelley

It is beautiful at Nisqually in the late fall and winter: golden grasses, russet leaves, sun sparkling on water. It is when migrating waterfowl are visiting or wintering over, as well, and you get to practice identifying birds that are sometimes difficult: ducks, shorebirds, gulls, and raptors. Come on a Wednesday, and Phil Kelley will help you identify birds and give you wonderful tips for recognizing them later.

The Refuge has a \$3.00 entrance fee, which is waived if you have a Golden Eagle Pass, federal interagency pass, or other applicable pass.

Birds and Beer





Join birders at 4:30 p.m. in Olympia on the 3rd Monday of the month (November 19 and December 17) at the Fish Tale Brewpub, 515 Jefferson St. S.E., Olympia. Folks meet at the couches in the back, where they share their "best birding spots in our area."

Shelton

Olympia

Meet local birders on the last Wednesday of each month at the El Serape Cantina at 318 W. Railroad Ave., Shelton, WA. Drop by any time between 5:00 and 7:00 p.m. to share your favorite birding spots and meet other bird lovers. Upcoming dates: November 28 and December 26. See you there!

Field Trip: Eagle's Pride Golf Course, JBLM
Third Thursday of Each Month, 8:00 a.m. - noon
November 15 and December 20
Leaders: Denis DeSilva and David Wienecke

Only one-half mile from Nisqually National Wildlife Refuge, Eagle's Pride Golf Course's diverse landscapes attract a wide variety of birds. If you have never visited this birding site, you will be surprised by its accessibility and richness of habitat.

As always, dress for the weather and bring water and snacks as needed.

Meet at the driving range parking spaces. Take exit 116 off I-5N. Go west off the ramp and then right into the gold course. The driving range access road, a narrow gravel road, is an immediate left, or you can park in the main lot and easily walk up to the driving range.

If you have questions, contact David Wienecke at **david.l.wienecke.naf@mail.mil** or call his office phone 253-964-0341.

Field Trip Details



Join the group "South Sound Birders" on Meetup. com to be reminded of field trips and correspond with members about birding.

by Bonnie Wood

November-December 2018

Saturday December 29, 9:00 a.m. - noon Field Trip: Downtown Ducks

Leader: Burt Guttman

Capitol Lake is always wonderful in the winter, typically rich in waterfowl, especially a great variety of ducks. And we often find some unusual species to make the experience special. We emphasize helping people with less experience in birding as they learn to identify categories of birds, and we concentrate on water birds, which are easier to see and study than little birds flitting through the trees. Dress warmly and come join us; we meet at 9:00 at Marathon Park on Deschutes Parkway.

Save the Date-BHAS Annual Dinner

Our Speaker will be announced in the Winter Echo, which will also have ticket information and details about the program and dinner choices. Stay tuned!

Date: Saturday, March 2, 2019

Where: South Puget Sound Community College

Student Union Building



Jack Davis Conservationist of the Year Award Nominating Criteria

This award is primarily for citizens or teams who have volunteered their time and skills in the field of conservation. The award is intended for persons who have not previously received it. When submitting a nomination, please be guided by the following criteria:

- * Work was a volunteer initiative relying heavily on volunteer time;
- * Nominees worked collaboratively with others, including governmental and non-governmental organizations, to help resolve an environmental issue;
- * Nominees used objective sources of information and reliable data, while demonstrating professionalism throughout;
- * Nominees worked consistently on the issue and persevered, proving resourceful under difficult challenges;
- * Results of the work made a significant difference either in real environmental benefits or improved awareness by the public or governmental agencies on an environmental issue
- * Work has generally been within the BHAS geographical base (Thurston, Mason, and Lewis counties);
- * Nominees may be members of BHAS, but don't have to be;

Submit the name(s) and a brief description of the effort made by the individual(s) or teams and their progress and successes as they relate to the Jack Davis Conservationist of the Year Award criteria. If you are nominating a team, please list the key individuals who led the team and their contact information. Please email your nominations to **ConservationAwardNom@blackhills-audubon.org** or mail them to the Black Hills Audubon Society, PO Box 2524, Olympia , WA 98507. Questions can be addressed to the

Conservation Chair, Sam Merrill, at conservationchair@blackhills-audubon.org. (Deadline Jan 20, 2018)

Dave McNett Environmental Educator Award Nominating Criteria

Black Hills Audubon is proud to continue recognizing environmental education efforts by area residents. We would like to receive nominations of individuals who have carried on Dave McNett's tradition of educational excellence. These individuals are making a positive difference in the lives of living beings through their work as educators. The nomination criteria for this award are:

- * Nominees collaborated with others toward the educational goals of informing the public about an aspect of our natural world pertaining to bird habitat or conservation;
- * Their work has been inspirational to those they have worked or taught with;
- * Work need not have been done on a volunteer basis, but did involve volunteers or one's own volunteer time;
- * Nominees can be professional environmental educators, but need not be:
- * Nominees have worked in the field for at least two years;
- * Work has generally been within the BHAS geographical base (Thurston, Mason, and Lewis counties);
- * Nominees may be members of BHAS, but don't have to be:

Please email your completed nomination, along with a brief narrative about why you are nominating the person, to **McNettEnvEducatorAward-nom@blackhills-audubon.**org, or mail it to Black Hills Audubon Society, P.O. Box 2524, Olympia, WA 98507. **(Deadline Jan 20, 2018)**



Pass on Plastics

by Kim Adelson

Items made of plastic are a major source of pollution on both land and sea. A staggering amount of plastic ends up in our oceans—the equivalent of 136 billion milk jugs annually. Sea animals such as birds and dolphins get tangled up in it; others, such as sea turtles and 90% of seabirds, ingest it. This problem has been growing rapidly: in the 1960s, only 5% of seabirds were found to have plastic in their systems, but by 1980 the number had jumped to 80%. Projections are that nearly 100% of pelagics will be plastic consumers by 2050. Sea plastic is hard for animals to avoid; large pieces eventually break down into small, sometimes microscopic particles, which remain in the stomachs of sea birds and other creatures. sometimes filling them to the point that they starve. Birds also suffer because the often-sharp pieces can puncture internal organs. Most plastic in the oceans was originally dumped on land and was swept by rainwater or sewage systems into streams and rivers, finally making its way into the ocean.

Fortunately, we can all take easy steps to reduce our contribution to the plastic problem.

- Avoid disposable plastic items: straws, take-away containers, cutlery, grocery bags, etc. Substitute reusable items, such as canvas totes and metal straws, or biodegradable items such as paper and cardboard. Bring mesh totes from home for fruits and veggies rather than using the plastic bags provided by the store.
- Buy a reusable water bottle. And a travel mug.
- Stick with clothing made from natural fibers.
 Those made from synthetics such as rayon, acrylic, polyester, and nylon shed "microfibers" every time they are washed and are in fact the largest source of plastic pollution.
- Avoid disposable diapers.
- Buy used items. Not only are you saving the plastic in the item itself, but also in the packaging in which so many products are encased.
- When you can, buy items packaged in cardboard rather than plastic. Think laundry and dish-washing detergent. Cardboard degrades much more quickly than plastic and is more easily recycled.
- Avoid fancy tea bags. Those shiny tea bags that look like silk are actually made of plastic. Go with paper tea bags or, better yet, switch to loose tea.
- Buy items in bulk, or at least avoid products in singleserving containers. For example, a quart of yogurt in a single package uses a lot less plastic than a six-pack of smaller portions.
- Support local plastic bag bans or taxes.



- Kick your gum-chewing habit. Nowadays, most chewing gum contains polyethylene and polyvinyl acetate rather than chicle, which was made from tree sap and was biodegradable.
- Use biodegradable bags for pet waste.
- Recycle your plastic goods. Only about 10% of plastic in the U.S. is recycled.

Many people don't recycle plastic because they are unsure how to do so. In general, the "best" plastics are those embossed with a 1 or 2 on their bottoms; those with higher numbers are either more toxic or less reusable. If you must buy plastic objects, try to stick with the lower numbers. Styrofoam, commonly used in meat packages in groceries, is one of the longest-lasting plastics, but you can recycle it at Dart Container Co., 600 Israel Road in Tumwater.

Shape also matters. In Thurston County, for example, transparent bottles and jars can be recycled only if the neck is narrower than the base. Opaque food tubs, like those for yogurt or sour cream) are recyclable but clear tubs are not. Rigid, but not soft, plant pots are also recyclable. Prescription medicine bottles are recyclable only if their openings are narrower than their bases (which is generally not the case). Plastic lids are never recyclable—they gum up recycling equipment. So do plastic bags. Plastic clamshells are not recyclable.

Plastic lasts in landfills and in the seas for thousands of years; it harms wildlife. Many plastics also leak estrogenic chemicals that are carcinogenic. It is made from oil, and hence its use encourages drilling and oil transport. There are so many good reasons to try to reduce our reliance on plastic: please commit to taking at least one or two small steps in that direction!

Black Hills Audubon Society (BHAS) Membership Form

Use this form for new membership or membership renewal.

Please check the appropriate box, complete, and mail to: BHAS Membership, PO Box 2524, Olympia WA 98507

| □ Option 1 - BHAS Chapter (Only) Membership: (includes individual or household): |
|---|
| This membership is intended for those who wish to maximize their contributions to our local Black Hills chapter. All of your dues go directly to BHAS for its programs. Please make check payable to Black Hills Audubon Society. |
| Regular Member: □ 1 year: \$20 □ 2 year: \$35 □ 3 year: \$50 |
| Senior/Student: □ 1 year: \$15 □ 2 years: \$25 □ 3 years: \$35 |
| □ Option 2 - National Audubon Society Membership: Chapter C9ZY12OZ |
| If you live in Thurston, Lewis, or Mason County, your NAS membership includes your BHAS membership. Most of your dues go to support national efforts. You receive Audubon magazine and The Echo. Please make check payable to National Audubon Society. [Use this form only for new NAS memberships. Make NAS renewals using the forms sent to you by NAS and send directly to them.] |
| Regular Member: □ \$20 (1 year only; NAS no longer accepts either multiple-year or reduced-rate memberships) |
| The bimonthly Echo Newsletter is part of membership. Choosing the eEcho version saves BHAS mailing and printing costs. "Go Green" and enjoy the eEcho version in color sent to your email. |
| \square Yes: I want to "Go Green" by receiving the online eEcho. |
| Email (please print carefully) |
| I would like to help Black Hills Audubon's education and conservation programs. Enclosed is an additional tax-deductible donation of \$ [Please make checks payable to Black Hills Audubon Society.] Name: |
| |
| AddressCity/State/zip: |
| AddressCity/State/zip: Phone Email: |
| |

Reminders About Your Membership:

Lewis, Mason and Thurston counties. Contributions are deductible to the extent allowed by law.

- If you are a National Audubon Society member, you do not need a separate BHAS Chapter membership: your chapter membership is included in your NAS membership.
- If you wonder when your membership is up for renewal, check the label on your ECHO. Above your name, you should see a number such as 201909. This means your membership expires in September 2019. National Audubon members should renew through
- NAS which often offers special promotional rates.
- BHAS gives you a grace period of 6 months after your renewal date. You will receive the ECHO and other mailings in this period.
- BHAS only sends renewal notices to those who are 'chapter only' members.
- If you and your spouse or partner reside in the same household, you do not need two individual memberships for either NAS or BHAS.



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Audubon's Mission

To conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity. BHAS Chapter goals are to maintain, restore, and protect our ecosystems for future generations; and to promote environmental education and nature-based recreation.



Contact Information

Mailing Address: PO Box 2524, Olympia, WA 98507

BHAS Message Phone: 360-352-7299 Website: www.blackhills-audubon.org E-mail: 4info@blackhills-audubon.org

Membership: http://blackhills-audubon.org/join/

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We Need You and Your Email Address!

We live in a world of fast, easy mass communications personalized for those who belong to any group. Our Communications Committee has worked hard to bring us into the new millenium by enhancing the features of our website, developing a monthly e-newsbrief, and expanding what we post on Meetup. We will be updating our Facebook page soon too. All these methods of communication are meant to bring you the most current information about our chapter's work in the most efficient ways possible.

We have email addresses for about one-half of our membership; we would like to have email addresses for every member who uses email, knowing there are some who do not. So I am asking you to please take a moment to send us your email address if we don't have it. If you receive our monthly "Chapter Chirps", then we have your email address. We have 80 members who choose to receive our Echo newsletter electronically. If you wish to do this, please let us know that also. Our Membership Chair, Margery Beeler, will take your email addresses and update our database so please let her know what your email address is. Margery can be reached at: mswampcat@aol.com. Our goal is to gain the email

addresses of at least 80% of our membership and with your help, we can do that.



Echo and **eEcho** are published bi-monthly. The Editor welcomes articles, photographs, artwork, etc. for the newsletter. Graphics are by Nature Icons/Ultimate Symbol or public domain unless otherwise noted. The deadline for the next issue will be December 1 for the January/February issue of the *Echo*.

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