NORTH CENTRAL WASHINGTON AUDUBON SOCIETY



Visiting with Raptors: Fifth Annual Chelan Ridge Hawk Migration Festival

Join the Methow Valley Ranger District, North Central Washington Audubon Society, and HawkWatch International for the fifth annual Chelan Ridge Hawk Migration Festival! This free family event combines activities in Pateros with a field trip to the Wells Wildlife Area, a raptor ID workshop and trips to Chelan Ridge to learn about and celebrate raptors as they journey to winter territories. This all happens at Memorial Park in Pateros on September12 and 13.

You will get to visit vendors, see raptor demonstrations, listen to live music, and take a trip to the spectacular Chelan Ridge Raptor Migration Site. During the day, shuttles will run from Pateros to Chelan Ridge where visitors will be able to see raptors like Cooper's Hawks up close as they are banded and released. Also included is a field trip from 8 am to noon to the Wells Wildlife Area.

Chelan Ridge sits at 5675 feet above sea level along the flyway of migrating raptors. Biologists who live at the Ridge during the migration season will offer insight into what it is like to live and breathe raptors and show how the birds are banded and tracked. This is an amazing experience with environmental education and interpretation conducted by on-site educators, Forest Service personnel, and volunteers.

Join Jerry Liguori from Hawk Watch

International for a raptor ID workshop in Pateros at 7 pm on September 12. He has studied raptors throughout North America researching raptor biology,



Sharp-shinned Hawk ready for release at last year's festival. Photo by Marilyn Shearling

life history, ID, migration, and general behavior. Jerry is a premier raptor ID expert and has authored three books: *Hawks from Every Angle, Hawks at a Distance*, and *The Crossley ID Guide: Raptors*. The workshop will be held in Pateros. Jerry will also be available on Saturday at Chelan Ridge. He will discuss in-flight identification as birds migrate down the ridge, and in-hand identification including sexing and aging.

In Pateros on Saturday, there will be fun for all ages from 8 am through 3 pm. One booth features: NCWAS's *What's that Bird?* - a fun analog birding simulation game where children find and Volume 48 #1 September 2014 by Richard Scranton, Wenatchee

name bird models in trees. There will be an owl pellet station featuring hands-on science and plenty of bird education material. North Cascades Base Camp will be back with face painting for kids. Plus, they offer an overnight stay after the festival at their lodging in Mazama featuring a guest lecturer and a bird field trip the following day. For more information check their website: www. northcascadesbasecamp.com.

The festival is also a great place to check out cutting-edge optics from Wild Birds Unlimited and the latest birding guides and books from Trails End Bookstore. Daniel Anderman will be back with his wonderful nest boxes for sale. David and Mica Shearer will entertain us with their unique brand of acoustic music.

This festival is scheduled to coincide with the peak of southbound migration of raptors at Chelan Ridge — the best place in Washington to view fall migrating raptors. Past festivals have brought several hundred people delighted to see hawks up close, and spend a day learning all about raptors. So please join us for the 2014 festival!

To sign up for any of the activities or to learn more about the festival please visit our website: ncwaudubon.org. or contact Richard Scranton at rscran4350@yahoo. com or 421-3166

See related article on page 4.

The mission of the North Central Washington Audubon Society is "to conserve and restore natural ecosystems, focusing on birds and their habitats, for the benefit of people and the biological diversity of North Central Washington."

North Central Washington Audubon Society

Officers, Chairs, Board Members President - Jeff Parsons | 264-4905 | jparsons@nwi.net Vice President - Art Campbell Past President - Mark Oswood | 662-9087 | moswood@nwi.net Treasurer - Larry Tobiska | Itobiska@nwi.net Secretary - Penny Tobiska | ptobiska@nwi.net Conservation - Chris Parsons | 264-4903 | cjparsons@nwi.net Education and Outreach - Penny Tobiska - ptobiska@nwi.net Mark Oswood | 662-9087 | moswood@nwi.net Email Master - Marie Garrett | 669-1800 | breezycanyon@gmail.com Field Trips - Jenny Graevell - 679-3531 | avijenee@yahoo.com Dan Stephens | dstephens@wvc.edu Membership - Heather Findlay | 429-8167 | heather@eaglesun.net Newsletter - Teri J Pieper | 630-6224 | teripieper@hotmail.com Science Officer - Don McIvor | 997-9456 | puma@methownet.com Web Master - Treesa Hertzel | webmaster@ncwaudubon.org At Large: Richard Scranton | rscran4350@yahoo.com Ruth Daugherty | 779-4380 | thebirdlady@frontier.com

Website - www.ncwaudubon.org Email - info@ncwaudubon.org Mailing address - PO Box 2934 Wenatchee, WA 98807 North Central Washington Audubon Society is on Facebook too All phone numbers in the Wild Phlox are area code 509 unless otherwise indicated.



This Papuan Frogmouth is a bird of the night but not a nightjar or an owl like we might find in North America. It was observed and photographed by Libby Schreiner and Victor Glick on their summer trip to Australia and Papua New Guinea. Read about their trip on page 6.

North Central Washington Audubon Society Wild Phlox Subscription Form			
 Subscribe to NCW Audubon Wild Phlox One Year, Nine Issues \$15 I prefer to get the Wild Phlox electronically (email address required below) Separate subscription to Phlox NOT needed for NAS members in good standing Donation: I would like to support NCW Audubon's programs of education and conservation. Enclosed is my additional donation of \$ Please do NOT acknowledge my donation in the Wild Phlox 			
Memorial in the name of			
Please mail check and form to Post Office Box 2934 Wenatchee, WA 98807-2934.			
NameAddress			
CityStateZip Code			
Phone number Email			
Planned Giving: Please consider giving a planned gift to NCW Audubon to support our education and conservation programs for generations to come. Your charitable gift will be tax deductible. It could go to an endowment fund or to a specific program or as a gift to our general operating fund. Remember, your gift to North Central Washington Audubon will go to fund programs in North Central Washington!			
To join the National Audubon Society which also includes a subscription to the Wild Phlox, please see their website at www.audubon.org or drop us a note and we will send you a form for a special rate introductory membership.			

Editor's Notes

covers. Chelan County had a big fire in the hills above Wenatchee and then the Entiat and Leavenworth areas were hit hard. Meanwhile several fires burned in Douglas County. It was hard to keep track of it all. And then on the morning of July 14 a small lightning storm rolled through the Methow Valley setting four small fires. We could see one from our house. It seemed like it would have been easy to put out those first two days but resources were elsewhere. Other fires near Carlton grew faster. There was a sense that this was the big fire year we'd all been dreading. Soon the fires blew up and the Cougar Flats fire across the valley from us exploded and roared down valley to join the others and then on to Pateros. It was dreadful. Many homes were lost. People fled with as much as they could gather and with any luck they were able to take their animals. Some horses were set free in hopes that they would find a safe place. Cattle on the range died. And what of the wildlife? Power and communications were gone. After eight days the power returned to much of the valley and folks were beginning to adjust to what might be the new normal. More than 250,000 acres had burned – the largest wildfire in Washington's history. More than 300 homes destroyed.

And then on the afternoon of August 1, when we were all fire weary and hoping that the worst of it was over, a flat tire on a trailer ignited grass along highway 20 between Twisp and Winthrop. It was 100 degrees that day with strong winds. My neighbor came to my house and insisted I had to leave immediately – the fire was on the next road and coming our way. I stood in disbelief as he pointed to the thick black wind-driven smoke. There was little I could do besides set a couple sprinklers, grab a few things, load the dogs and leave. I watched from the highway below and believed our house was burning while people across the valley watched and emailed and called and texted to make sure we were safe. Hours later

the smoke lifted and one person described my house as a phoenix, still there, surrounded by the ashes. 500 acres burned; ten houses were lost and more than twenty outbuildings. We have many fire fighters and helicopter pilots to thank for their hard work to save it. And we know that we had defensible space so that the volunteer fire fighters were willing to stand there during the first fire storm and keep the water running on the flames. We now are preachers about defensible space and the use of Trex decking, metal roofs, cutting back dry grasses and much more. And we were incredibly lucky. Returning the next day and seeing our neighbors' houses and outbuildings gone was heart breaking.

Fires have shaped the summer of 2014 throughout the four-county area that NCWAS

Now it's time for restoration. We will plant trees for the next generation and shrubs and native grasses and plants for ourselves and the wildlife. We will top our standing dead pines for the birds, bats and and other mammals that can use them. While it is hard to see the burned landscapes out our windows, we know that fire is a natural process of this landscape and it will come back to a better state than it was. I will document this process with photos and words as time passes. For now we mourn the losses and look forward to winter and the promise of spring.



American Kestrel photo by Teri J Pieper

Another fire burned in Ferry County in the beautiful San Poil River valley. Chances are if you are reading this in our four-county region, you are close to an area that's been impaced by the fires. This is a good time to set up photo points and document the changes as they occur. Change comes very fast to the burned areas with re-growth and erosion happening right now. Also, build nest boxes this winter. Many birds lost important nesting habitat. I am very interested to see if the House Wren population decreases. They have appreciated all the tall brush and have become very numerous, often taking over nest boxes from swallows and bluebirds. While House Wrens are fine little birds I really like the swallows and bluebirds.

NCW Recent Bird Sightings

At the beginning of July a Northern Hawk Owl was seen on the trail to Horseshoe Basin in the Pasayten Wilderness. Also backpackers reported lots of Hermit Thrushes and Fox Sparrows. Eight Bald Eagles were reported at Fish Lake, near Plain. Along Icicle Creek there were Ruffed Grouse, Western Tanagers, Swainson's Thrush, Golden-crowned Kinglet and Willow Flycatchers. In early August an Eastern Kingbird was reported along the Wenatchee River between Cashmere and Monitor. In mid-August someone was pretty sure he saw a Jaeger on Patterson Lake. I saw a Doublecompiled from the ncwabird email list and Tweeters

crested Cormorant on the Methow. After the fires people are reporting unusual feeder birds such as Lazuli Bunting and Clark's Nutcracker. A White-crowned Sparrow was reported at the Wenatchee River Confluence. I put up sunflower feeders and have seen numerous finches, mostly Cassin's. Hummingbirds are still around with Anna's being reported. Hearty hikers spotted a Baird's Sandpiper at Wing Lake, just over the county line from Chelan and Okanogan in Skagit County. Yellow-rumped Warblers and Western Tanagers were numerous on our burned hill this week – probably migrating.

Chelan Ridge Project Opens August 25

by Kent Woodruff, Twisp

With the drama of the summer and the pain and loss we are experiencing over all the changes surrounding us we have not been sure about the fate of this year's Chelan Ridge Raptor Migration Project, especially with fire so close. I spoke to this year's crew leader, Kelsey Navarre while she was still working on waterfowl in Alaska, asking if she was willing to take on an extra challenge this year with new faces, new structure to the forest, and lots of caution since the fire season is not over. She said "Bring it on!".

In addition, the impact to the town Pateros saddened many of us, and we wondered whether there would be enough energy for hosting the 5th Raptor Migration Festival on the 13th of September, but the Pateros town officials say, "Bring it ON! We need some festivities".

So after carefully checking with fire mangers, District Rangers, and Audubon staff, and visiting the site to see how things look, I bet you can guess what my recommendation is for both the project and the festival: YES! Bring It ON!

So... we start counting and capturing hawks, falcons, eagles, harriers, ospreys, and vultures (and maybe even a kite or a jaeger) on the 25th of August and will be hosting visitors every day until the snow runs us off the mountain. Our site is on the ridge near Cooper Mountain, 9 miles west of Pateros. Visit http://hawkwatch.org/our-work/migration-research-sites/fall-migration/item/74-chelan-ridge-raptor-migration-project for more information. See you soon on the ridge.

NCWAS Binoculars Herd Opening Eyes Around NCW

By Susan Ballinger, Wenatchee

Since spring, I've had the opportunity to introduce the wonders of bird-watching to over 175 people, ages 8-70, using the new "flock" of NCWAS 30 loaner binoculars. Repeatedly, I've watched as a person holds and learns to focus binoculars for the first time, and then successfully looks through and clearly sees a bird, up close. Using binoculars to look at birds is a transformational activity. By using binoculars to bring a bird into a surprisingly close, clear view, people are introduced to a new kind of "seeing," and suddenly have a new feeling of connection to life around them. I thank Mark Oswood for his coordination of the loans. Here's a travelogue of trips



Pictured are the some of the Columbia Elementary students with their adult leader, Carrie Heiburg, who spotted the soaring turkey vultures and successfully used binoculars to follow the birds in flight above the Columbia.

I've taken with the herd of binoculars (and my human traveling companions):

• On March 1, under Jenny Graevell's expert field guidance at East Wenatchee's Porter's Pond, 20 new birders taking the Wenatchee Valley College Continuing Education waterfowl ID class were delighted by a male Barrow's goldeneye swimming midstream in the Columbia River.

• On April 26 up the White River, 19 Wenatchee Naturalist adult students under Heather Murphy's guidance watched an American Dipper hold a large insect, bob on a streamside rock, and then fly it up to a nest, underneath a bridge.

• On Apr. 29 under the guidance of a team of NCWAS board members, Mark, Penny, Larry, and Charles Sheard 56 Wenatchee high school biology students practiced field identification skills using the binoculars as part of the "What's That Bird" analogue bird activity.

• On June 18, 60 4th-8th grade day-campers at Confluence State Park successfully learned to hold and focus binoculars while watching a pair of osprey bring food into their active platform nest along the Columbia River.

• On June 19, 16 Columbia elementary kids surveying the Columbia River from a rock promontory along the Apple Capital Loop Trail suddenly fell silent and watched as a pair of turkey vultures careened by, floating on a thermal.

• On Aug. 4, 20 adult volunteers at Holden Village were newly empowered by comparing barn and violet-green swallows, perched side-byside on power lines.

I would like to thank the Charlotte Martin Foundation and Eagle Optics (grant-givers) who made the binocular purchase possible. In just months, this gear has resulted in new kinds of delightful discoveries, and many first steps on a path towards building a collective culture of conservation.

Evening with the Experts: a Highland Wonders Educational Event

On Friday, September 26, Okanogan Highlands Alliance invites you to bring your curiosity about native plants to a panel of experts: George Thornton, Dana Visalli, and Erica Heinlen. The event will take place at the Community Cultural Center (CCC) of Tonasket, beginning at 6:30 pm with dinner benefiting the CCC at 5:00 pm. Bring your digital photos, pressed plant specimens, and other plant samples for help with plant identification and understanding the role of the plants in our Okanogan landscape. Now is the time to collect samples and take photos! Everyone is welcome to participate in the event, whether they bring in a mystery plant or not. OHA is a non-profit organization that works to educate the public on watershed issues. Important details and guidelines for plant collection: www.okanoganhighlands.org/education/hw.

Registration is Open for the Wenatchee Naturalist Course

Exciting new developments are underway with Wenatchee River Institute for the 50-hour Wenatchee Naturalist course, offered through Wenatchee Valley College Continuing Education, September 17 - December 10. The course is designed to allow students to meet new friends, discover lovely local places to visit again, and to gain new eyes for the natural wonders of North Central Washington. Learn more and register at www.ced.wve.edu.

Instructor Susan Ballinger has added a Wednesday afternoon session with four Thursday field trips, in addition to the Wednesday evening session with four Saturday field trips. The daytime option will make the class a better fit for people living outside the Wenatchee area. Starting this September, the course will be offered once a year in the fall. To date, 114 people, ages 12 - 81, have completed the course, coming from from Plain, Leavenworth, Cashmere, Wenatchee, East Wenatchee, Entiat, and Chelan. A majority of these people have immediately started to

Naturalists on a geology and plant ecology field trip to the Horse Lake Preserve photo by Naturalist Craig Garver

by Susan Ballinger, Wenatchee fulfill their pledge to volunteer at least 20 hours toward conservation, taking part in stewardship, education outreach, and citizen science projects affiliated with over 35 local conservation organizations! For example, NCWAS board members Penny Tobiska, Jennifer Graevell, and Richard Scranton are all active Wenatchee Naturalist volunteers.

The Wenatchee River Institute's new staff member, Ian

Fair, is the Wenatchee Naturalist post-course coordinator. Under Ian's leadership, new program elements are in development, including an expanded monthly e-news, a volunteer recognition plan, periodic socials, workshops and classes designed especially for Wenatchee Naturalists. If you are looking for a way to deepen your connection to both the natural and human aspects of our collective home, consider becoming a Wenatchee Naturalist!

by Susan Ballinger, Wenatchee

Unveiling a New Bird Education Box

Starting in September, a new Bird Education Box will be available for check-out from the Wenatchee Valley Museum and Cultural Center, thanks to the creative volunteerism by Leavenworth artist and educator, Cordi Bradburn. Selina Danko, museum education coordinator needed a replacement for a worn, dated bird education trunk that had been assembled over 20 years ago by NCWAS members, under Sue Hoover's coordination.

After completing the Wenatchee Naturalist course, Cordi wanted to fulfill her pledge to volunteer at least 20 hours towards conservation, and she hatched her idea. Cordi is a seasoned classroom artist-in-resident and she quickly envisioned a new type of learning kit that used art as a medium to teach science. Over the winter, Cordi painted 15 life-sized replicas of common birds cut out of half inch boards, mounted on stands. Students of all ages will be able to use these beautiful mounts to learn about bird identification. Selina explained, "It is intended for use as an accompaniment to an art lesson in bird drawing and painting, as well as identification. Cordi also assembled a set of science lesson plans and curriculum packet in a three-ring binder as part of the kit."

If you'd like to check out the kit, contact Selina Danko at the museum Sdanko@wvmcc.org or 888-6240.

Audubon Council of Washington

The Audubon Council of Washington (ACOW) is an annual state-wide meeting where members from all 25 Audubon Chapters in Washington gather together for a day of information sharing and networking. This year's ACOW is being hosted by Grays Harbor Audubon and is Saturday September 20th at the Shilo Inn at Ocean Shores. The event will feature a GIS workshop for chapter leaders as well as fun field trips to local birding areas, such as Bottle Beach State Park and the sewage lagoon (a favorite spot for local birders). On Friday evening, September 19th, the Washington State Audubon Conservation Committee (WSACC) will be meeting from 6:00 - 8:00 to discuss chapter conservation priorities and to discuss state-wide resolutions important to Audubon's bird mission. Please go to the wa.audubon.org website and pre-register for these great meetings. See you in Ocean Shores!

by Chris Parsons, Leavenworth

What We Did on Our Summer Vacation

Viewing Birds-of-paradise on a flat screen, sitting comfortably in our North American home, served only to reawaken the long- held desire to connect on a deeper level with these creatures of flamboyant behavior and unbelievable beauty. We knew we would go sometime, but always delayed since travel there is done only in the dry season, our prime North American summer months. Then one evening, over dinner, a friend remarked "you can't wait forever." Heavy words indeed, so plans were made to visit Northern Australia and Papua New Guinea (PNG) in the summer of 2014. Tropical Queensland, on the far northeastern side of Australia and Kakadu National Park in the Northern Territory would be our Australia destinations with a three week guided trip to PNG in between.

Although our primary focus was birds, especially Bowerbirds and Birds-ofparadise, we enjoy all things natural so a trip to the Great Barrier Reef was arranged where we saw nesting Common Noddies, Sooty Terns, and Brown Boobies, among others. We marveled at the reef corals, fishes, and sea turtles.

Travel to the far north Queensland is best done with someone experienced in 4x4 driving (a snorkel is necessary on the vehicle) with river crossings and bad

dirt/mud roads, and with long distances between services, so we set off from Cairns with a great guide, for seven days of birding and natural history, and whatever else we could uncover including some very interesting World War II history. Thousands of American GIs, including one of Libby's uncles, came to Australia when the Japanese bombed Darwin and landed on Papua New Guinea.

We searched for and found many of Queensland's endemic birds including the endangered Golden-shouldered Parrot. A highlight was observing a Great Bowerbird displaying at his bower and actually enticing a female to come inside and have a look around (no mating however, despite erecting the bright pink feathers on the back of his head, and various show-off postures). This bird had a carpet of white objects arranged around both sides of the bower, as well as inside, with a few red and green objects strategically placed. We were told he did not like yellow so Libby picked a yellow flower and put it among the white objects. Within seconds he flew in, grabbed the offending yellow flower and flipped it well away from his carefully ordered decorations. Yes! This is why we came here. To see this in person is to connect on some level that we have difficulty describing but involves elements of wonder, awe, curiosity and humor, all seeming to bring into clearer focus our place in the world. These birds sing, dance, construct and think. We should do likewise.



Greater Bird-of-paradise

Article and photo by Libby Schreiner and Victor Glick, Winthrop

In addition to birds, we saw Leaf-tailed Geckos, Freshwater and Estuarine Crocodiles, monitors, various snakes and dragons (Aussie for lizards), Giant Rats, various species of kangaroos, wallabies and possums, Sugar Gliders, various species of bats and flying foxes, frogs, etc We finished this part of the trip with 245 bird species, 22 mammal species (the incomparable Platypus being a favorite, along with Tree Kangaroos), and 11 reptile species, along with several frogs.

My mind raced as we crossed the Torres Strait flying at 25,000 feet in a Brazilian made two engine aircraft. We were told that chewing the hallucinogenic betel nut, a common practice in PNG, was not allowed. I was about to enter a country like no other on the planet in terms of wildlife, people, culture and

history.

We were warned that PNG could be a dangerous place, not to leave hotel compounds on our own and stay with the group, so we were pleased to find our names on a placard at the airport held by a hotel employee. The primary focus for birding was the fabulous family, the Birds-of-paradise. These birds defy adequate written or verbal description. They must be seen to have their elaborate plumage and behavior internalized and locked into memory. We were pleased to

see 22 of the 39 species, some at close range and some doing their wonderful displays. PNG is home to

many other great families of birds. We were fortunate to see about 320 species, 7 new mammal species (Silky Cuscus being the favorite), 6 new reptiles and a myriad of orchids!

We visited villages where locals were friendly and helpful and, of course, no trip to PNG would be complete without a visit to the Wigman and the academy where unmarried men may enroll in an 18 month long, cloistered life while they grow their hair for sale. One man was on his 6th and final session since he wished, after all, to one day be married.

Our final weeks were spent back in Australia, traveling on our own in the Northern Territory, primarily in Kakadu National Park where ancient rock art decorated sandstone walls and 6 meter long crocodiles glide mostly submerged in the rivers. Of the 45 new species of birds seen in NT, favorites were Rainbow Pittas (our fourth pitta species of the trip), Red Goshawk, Hooded Parrot, and Gouldian Finches. We also added five new mammal species and several more reptiles, including an aggressive encounter - on the snake's part - with the most venomous snake in the world, taipan.

Traveling is not without travail but sharing that would spoil the story of a wonderful trip to fascinating places.

A Geologic Drive Through Tumwater Canyon

Driving from Wenatchee to Leavenworth and on through Tumwater Canyon provides the traveler with an excellent example of how the character of a landscape can strongly reflect the nature of the underlying bedrock. The roadway (SR 2) between Wenatchee and Leavenworth extends along the lower Wenatchee River valley, with the wide valley bottom and moderately sloped adjacent hillsides dotted with numerous fruit orchards. At the west end of Leavenworth, just past the turn-off to Icicle Road, SR 2 passes by a 200-foot high rock knob on the left, and the traveler enters the entirely different world of Tumwater Canyon. Steep slopes rise up several thousand feet from the river, confining the river and adjacent road in the narrow canyon bottom. About 8 miles from Leavenworth, SR 2 leaves the dramatic landscape of Tumwater Canyon and enters a side valley to the Wenatchee River. Here, beyond the upper end of Tumwater Canyon, the surrounding hills and mountains are higher than they were between Wenatchee and Leavenworth – the traveler is now deeper into the Cascades - but the surrounding topography is again

Black Trees Give Life

When forests burn, many trees die. It's a fact. Cambium cooks and needles fry, particularly in hot fires in dense fuels Conifers are particularly flammable and can go up in spectacular crown fire. The resulting sea of black dead stems causes some people to think they must DO something immediately.

Post fire recovery is a complicated process that requires time and care for the forest to heal. Dead trees have an important role. They offer shade to seedlings trying to become established. When they fall, downed logs hold the soil in place; provide decaying organic material and habitat for many species such as chipmunks, small birds and snakes. Small mammals are particularly important to forest recovery for

dispersal of colonizing plant seeds and fungal spores that inoculate soils with important microorganisms.

Dead trees are an integral component of the regenerative process after a fire.

In forests, dead trees are critical habitat for many species, providing nesting and feeding sites for woodpeckers and other cavity-dependent species, as perches for song birds, and down logs. Dead trees are created in pulses over time; single or small groups of trees die in mature forests, or large numbers are killed all at once, such as in a fire. Some much less steep than it was in the canyon. Why the distinct difference in landscape between Tumwater Canyon and the areas along SR 2 above and below the canyon?

The valley and surrounding hills along SR 2 between Wenatchee and Leavenworth are mostly underlain by sedimentary rocks, primarily sandstones. These rocks, part of the Chumstick Formation, are easily eroded and, over millennia, the Wenatchee River and its tributaries have carved the wide valley and moderately sloped hillsides. At the west end of Leavenworth, the underlying rocks change abruptly from the sedimentary rocks of the Chumstick Formation to much harder granitic rocks. These granitic rocks are part of the Mt. Stuart batholith, a large mass of granitic rock that underlies Tumwater Canyon, the canyon sideslopes, and the surrounding high mountains. At the upper end of Tumwater Canyon, SR 2 passes back into the easily eroded sedimentary rocks of the Chumstick Formation, and the topography is once again subdued as the traveler proceeds north toward Coles Corner.

> By Ken Bevis, Twisp Washington DNR Stewardship Biologist

birds, such as the Black-backed and American Three-toed Woodpeckers are specifically adapted to utilize fire-killed trees. These dead trees will often stand for many decades.

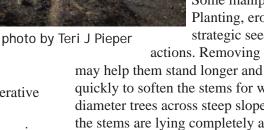
Salvage logging can damage fragile soils, and accelerate erosion and weed infestation. Removing dead trees that

could help stabilize the soil and provide habitat can inhibit forest recovery. Cutting dead trees may be necessary for protection of infrastructure such as buildings or along roads where falling trees could pose safety hazards, or to gather monetary value from trees otherwise destined for harvest. However, dead trees do not need to be removed to help the forest recover. Some manipulations can help recovery. Planting, erosion control, and possibly strategic seeding are beneficial recovery

actions. Removing the tops of tall dead trees

may help them stand longer and introduce heart rot more quickly to soften the stems for woodpeckers. Laying small diameter trees across steep slopes can help reduce erosion if the stems are lying completely against the soil. But, overall, the forest recovers best when the dead trees remain and nature is allowed to take its course.

Dead trees are beautiful and stark reminders of the fury and healing properties of nature. Ponder their grandeur in the wake of fire and leave them standing as functional landmarks to the power of nature.



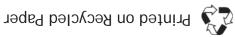
xolha bliW rədmətqəZ

North Central Washington Audubon Society Post Office Box 2934 Wenatchee, WA 98807

ΒΕΤURN SERVICE REQUESTED

North Central Washington Audubon Society Calendar Items in bold text are sponsored or co-sponsored by NCWS

Methow Conservancy First Tuesday See www.methowconservancy.org	Expeditionary Art Imaging the Arctic	October 7
Okanogan Highlands Alliance Highlands Wonders program. See page 7	Evening with the Experts Learn about your Native Plants	September 26
In Leavenworth. See http://www.salmonfest.org/	Wenatchee River Salmon Festival	September 20
See raptors and other bird up close and in the air! Learn about Migration! Book your field trips today! See page 1.	Chelan Ridge Hawk Migration Festival	15 & 13 September



Visit the NCW Audubon Society website for updates on these and other events visit the NCW Audubon.org

Permit No. 21 NENATCHEE, WA NON-PROFIT NON-PROFIT