

The Murreletter

Society for Northwestern
Vertebrate Biology

Volume 14, No. 1

Annual Meeting Issue

March 2006

President's Message

You won't be too shocked to hear that we are dangerously close to our annual meeting. This is reason to be enthusiastic for many; however I think there are quite a few meeting organizers who are feeling very busy, even hectic. That is the nature of the beast I guess. I won't say I've been involved in organizing a lot of conferences, but from where I sit it's easy to see that the busyness is paying off. The 2006 meeting is looking like its going to be a good one, a big one, and it will have something for everyone, even the hard-to-please conference attendee. Of course I'm biased! But don't take my word for it, see for yourself on pages 9 through 17 of this issue.

Like all other organizations, we are only as good as our membership and its ability to come together and get the job done. Clearly we have been successful at that. Nonetheless, I will use this short message to coax you to pitch in where you can and volunteer to help make this meeting really successful. We have a multitude of opportunities for volunteering, before and during the conference, and you are likely to meet some great folks and make some new friends. See the call for volunteers for details on page 14. Get in touch with Dan Dugger, Marc Hayes, or myself if you would like to help out.

For those of you looking for a momentary diversion from reality, I have something for you to ponder. Imagine an area so remote that no one has ever been there, not even the nearest native tribes know about it, and no one knows of its flora or fauna. Imagine walking in such a remote area and discovering species no one knew ex-

isted. This sounds like something right out of the Lewis and Clark Expedition or Star Trek, but unbelievably, it can still happen on our planet! Recently, a group of researchers explored a remote area of New Guinea and discovered 20 new species of frogs, 4 new species of butterflies, many new plants, a new species of honeyeater (a bird), and a new species of tree kangaroo (<http://news.bbc.co.uk/1/hi/sci/tech/4688000.stm>)!!! Who says the new frontiers are all gone?! It's just a matter of how far you have to go and how bad you want to get there. Now that this cool place and new species have been discovered, let's hope they aren't promptly loved to death.

The last few weeks have brought some other interesting news about a rare critter that still resides in the Pacific Northwest. Take a look at the very first wolverine ever radio-collared in the Pacific States. Her name is Melanie, she is probably just a year old, and she was caught in the North Cascades of Washington. She was captured, collared and released on 11 and 12 February by a group of U.S. Forest Service and Washington Department of Fish and Wildlife biologists led by Keith Aubry of the Pacific Northwest Research Station, and she is currently telling some satellites where



she likes to spend her time.

Isn't that exciting?!

Photo by Cathy Raley

...Continued on page 3

Society for Northwestern Vertebrate Biology

... the oldest scientific association devoted to the study of terrestrial vertebrates in the Pacific Northwest.

- Established in 1920

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Who we are...

The Society for Northwestern Vertebrate Biology was founded in 1920 as the Pacific Northwest Bird and Mammal Society. Long recognized as the pre-eminent union of ornithologists and mammalogists in the Pacific Northwest, the society adopted its current name in 1988 to reflect an expanded taxonomic scope that included amphibians and reptiles. The scope expanded again in 1999 to include fish. Today the society strives to promote close working relationships among ornithologists, mammalogists, herpetologists, and ichthyologists in our region; foster exchange of scientific information and interest in the study of vertebrates; and offer a forum for these activities through meetings and publications.

Membership

All persons or institutions interested in the study of birds, mammals, amphibians, reptiles, and fishes are eligible for membership. Individual members receive the Northwestern Naturalist and the Murreletter, our newsletter. Other SNVB publications, such as Northwest Fauna, are available at a reduced rate. Other privileges of membership include notification of all meetings of SNVB, power to vote in SNVB meetings and elections, and the privilege of holding office in SNVB.

**For more information or to
become a member visit:**

<http://www.snwvb.org>

The Murreletter

The Murreletter is published 3 times yearly and is distributed to the members of the Society for Northwestern Vertebrate Biology. Submission of stories, meeting announcements and other material of interest to members of the society is encouraged. Submissions should be sent to Murreletter Editor Ian Reid. To receive the Murreletter electronically, which is strongly encouraged, please provide your current email address to SNVB Treasurer Julie Grialou.

... Continued from page 1

You might guess a little sooner than the end of the sentence, but what do the Island marble butterfly, giant Palouse earthworm, and crowned tightcoil (a snail) have in common? The answer is not that they are invertebrates, but good try. These species were feared lost, but recent discoveries indicate that they still exist. The idea or reality that not just one species, but several, has not been lost is exciting. It gives us reason to hope that it's not too late to help them recover. Their absence reflected poorly on our limited understanding or our lack of concern for their survival. Perhaps some will say that we really didn't have anything to worry about, that it was just a matter of not having looked for



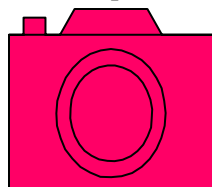
Photo by Bill Leonard

them enough. Perhaps that's true for some species like the crowned tightcoil, which isn't a well known beast, and tops out at ~3 mm wide and ~2 mm high (see inset). But for other species, such as those that can't hide behind an M&M, we know better. Few people survey for passenger pigeons, or really feel a need to. Most of us recognize a few times in our lives when we would have really wanted a second chance. Preventing a species' extinction seems like a task you don't get too many tries at. However, in the unlikely event that we get a second chance, we need to attack that opportunity with extreme prejudice; a shoot first and ask questions later scenario of species conservation. I would guess that these opportunities won't come around that often.

—Jeff

Calling all (amateur) photographers:

We are having a photo contest at the Annual Meeting in Olympia. Contest categories are birds, mammals, reptiles & amphibians, fish, landscapes, humor, and environmental action at work. We will be having prizes for best in each category and runner-ups and best of show. For more details see page 10 of this issue or contact



Mariann Brown at mariannkbrown@aol.com or (360) 366-1466.

The Murreletter Is Getting A New Editor!

With only a little good-natured arm twisting, Kathryn Ronnenberg has accepted the coveted role as editor of the Murreletter, starting this June. Kathryn is a Research Assistant with the Pacific Northwest Research Station of the U.S. Forest Service in Corvallis, Oregon. She has a background in geography, GIS, graphic design, and editing, and is a natural for taking over the reins from Ian Reid. Ian, on the other hand, is not headed out to pasture; he has put in a good stint as the editor and has other irons in the fire. Ian, many thanks for all your evening and weekend hours, and for your tireless efforts over and above the call. You've made sure that the Murreletter is not only worth reading, it's worth looking forward to.



—Submitted by Jeff Lewis, SNVB President

Other Upcoming Events of Interest

1-2 April 2006. California Tiger Salamander Larval Survey Techniques Workshop. Sonoma State University, Rohnert Park, CA, www.lagunafoundation.org or contact David Cook at dcook@scwa.ca.gov

4-7 April 2006. Applying DNA Methods to the Study of Wildlife Distribution and Abundance. Nelson, British Columbia, Canada, www.cmiaa.org or (250) 837-9311. See website for other 2006 workshops on caribou and bear conservation.

27-28 April 2006. Conserving Birds in Human-Dominated Landscapes. American Museum of Natural History, New York City, <http://cbc.amnh.org>

15-19 May 2006. Western Division American Fisheries Society Annual Meeting, Bozeman, Montana, www.wdafs.org/index.htm

Northwestern Naturalist Editor's Report

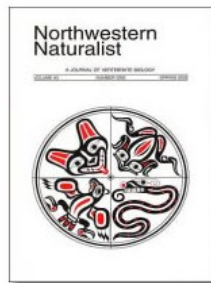
The *Northwestern Naturalist* is the official journal of the Society. It was originally published as the *Murrelet* and is recognized as the best source of early biological studies in the Pacific Northwest. The tri-annual journal publishes peer-reviewed original contributions dealing with biology of birds, mammals, amphibians, reptiles, and fishes in the western United States and Canada.

Submissions during 2005 were typical of previous years: 20 articles and 9 notes. *Northwestern Naturalist* is now being indexed in the Zoological Record as well as being available through BioOne. Next fall, all of our past issues should be on-line with articles available from JSTOR.

The first issue of 2006 will be a special one devoted to papers from last year's workshop on Biodiversity held at our annual meeting. This issue was Dede Olson's idea and she has worked hard all year getting these papers ready for publication. This issue will be larger than usual and so will the other two issues of 2006, which will include the normal allotment of papers that usually appear in three issues.

Extra copies of the Cumulative Index for the *Murrelet* (volumes 1-69) will be available free at the registration desk at the annual meeting at Evergreen College. Also available will be a membership directory from 1992 for anyone who might be interested. Stop by the desk and pick up your copies before they are all gone.

We need a **new Northwestern Naturalist Editor** in place by Fall 2007. This would be an excellent opportunity for the right person. Please contact Burr Betts or Jeff Lewis soon if you are interested in the Editor position or know someone who might be.



—Submitted by Burr Betts
Editor, *Northwestern Naturalist*

PNW Amphibians Book Review

Editor's Note: This is the in-depth review of this book promised in last issue's Murreletter.

Amphibians of the Pacific Northwest edited by Lawrence L. C. Jones, William P. Leonard, and Deanna H. Olson, Seattle Audubon Society, xii + 227 pp., ISBN 0-91-4516-16-7

Few books have more color photographs (286 by my count) than pages, but *Amphibians of the Pacific Northwest* is one, and it clearly ranks among the best. This long-awaited little book, which replaces the now out-of-print *Amphibians of Washington and Oregon*, is a spectacular example of editorial wizardry that generated a sequel that far surpassed its predecessor. Covering an expanded range (Alaska to northwestern California and inland to Idaho and western Montana), this book provides the most understandable, up-to-date synopsis of the 46 species of amphibians in this region. Particularly useful (and timely) additions in this book include short chapters that address Biogeographic Patterns, Declining Amphibian Populations, and Habitats; a substantial increase in the number of photographs of eggs and larval stages; the inclusion of four species (California red-legged frog [*Rana draytonii*], Rocky Mountain tailed frog [*Ascaphus montanus*], wandering salamander [*Aneides vagrans*], and Scott Bar salamander [*Plethodon asupak*] that are not currently addressed in other regional amphibian books or guides; and two species that were treated as one in the earlier edition (Columbia spotted frog [*Rana luteiventris*] and Oregon spotted frog [*Rana pretiosa*]). Useful additions to the chapter on Declining Amphibian Populations are the range maps that reveal where selected species have disappeared regionally. Additionally, the revised and expanded species accounts squeeze roughly 30 percent more natural history and descriptive information in an easily readable form. More than a field guide, this book can serve as companion text or reference for students, naturalists, teachers, and other enthusiasts of amphibians in the Pacific Northwest. Best of all, the price is right! You can obtain a copy of this great little piece that should be on every naturalist's bookshelf from the SNVB store. Send a check or money order (\$20 + \$3 shipping for one copy) made out to SNVB, to: Julie Grialou, SNVB Treasurer, 18304 Highway 20, Winthrop, WA 98862.

—Submitted by Marc Hayes, Washington VP

Emerging Issues in Amphibian Conservation: Chytrids

Chytrids: The Fungus Among Us

In 1989, herpetologists from the world over descended on Canterbury in England to attend the First World Congress of Herpetology. One largely unanticipated result of that assembly was the behind-the-scenes talk among many investigators that were seeing their study populations decline. That discussion galvanized herpetologists, ultimately leading to the development of the international Declining Amphibian Populations Task Force (DAPTF) and its regional subgroups and numerous other spin-off entities and efforts designed to raise awareness about this apparently global plight to amphibians.

During the late 1990s, a key piece of this complex environmental puzzle was revealed with the discovery of a distinctive fungus, the chytrid *Batrachochytridium dendrobatidis*, which appeared to be temporally linked to the disappearances of different frog species at disparate locations across the globe. Part of the uncertainty in establishing this link arose from the fact that although many initial disappearances were often pronounced, few dead frogs could be found whose death could be attributed to this fungus. However, its detection in more mortality events among ever-increasing numbers of amphibian species pointed to this fungus as a key player in amphibian declines.

Recently, this fungus has been detected at several places in the Pacific Northwest. In 2005, R. Steven Wagner and Jim Johnson of Central Washington University discovered it among 85 dead Pacific treefrogs (*Pseudacris regilla*) at Swamp Lake near Snoqualmie Pass (on the Cascade Divide) in Washington State; these investigators have not been able to find a live frog in the surveys conducted there since May 2005. Wagner also confirmed an instance of this chytrid in a population of northern leopard frogs (*Rana pipiens*) at Potholes Reservoir near Moses Lake; a population studied by Steve Germaine of WDFW. Christopher Pearl, Mike Adams and colleagues at USGS in Corvallis have detected the fungus in five of the seven amphibians species examined over a broad area in Oregon between 2001 and 2005. In British Columbia, Doug Adama and co-workers have encountered this chytrid in their recent repatriation efforts with the northern leopard frog in that province's small area of the Okanagan, and work by Purnima Govindarajulu has revealed that bullfrogs (*Rana catesbeiana*) on Vancouver island have among the highest rates of chytrid infection among bullfrog populations introduced around the world. Purnima's current work is attempting to determine to

what degree bullfrogs may act as a vector for the fungus. In Montana, Bryce Maxell and colleagues have similarly found the chytrid among northern leopard frogs, a species that has nearly vanished from western Montana.

The most sobering recent information regarding the chytrid amphibian story comes from the tropics. In a paper in the journal *Nature*, Alan Pounds and colleagues provide the best initial data that declines among nearly two-thirds of the 140-odd species of New World harlequin frogs (genus *Atelopus*), which are linked to chytrids, also appear linked to climate change. Perhaps the most revealing paper addressing chytrids is a January 2006 report by Karen Lips and colleagues in the *Proceedings of the National Academy of Sciences*, who report the dramatic, sudden wave of disappearance of a large segment of the frog fauna in Costa Rica and Panama. The results of this paper underscore the reason that initial studies found so few dead frogs: mortality occurs so fast that unless one is continuously monitoring, as was done in this study, it will be all but missed. A last equally important paper in the first 2006 issue of *Frontiers in Ecology and the Environment* by Whiles and colleagues explores the cascade of effects of dramatic amphibian population declines by chytrids on the structure and function of tropical stream ecosystems.

In less than 10 years, the amphibian chytrid has risen from an essentially completely unknown entity to a major player about which we still know relatively little, particularly regarding details about its mode of transmission. For these and other excellent reasons, herpetologists, wildlife managers, and others interested in our amphibian fauna clearly need to become much better informed about the amphibian chytrid and other amphibian diseases.

This year's joint SNVB/WA-TWS meeting provides one ideal opportunity to do this, a workshop on Amphibian Disease Diagnostics being presented by a panel of experts on amphibian disease, several of which are of international renown: Drs. Cynthia Carey, James Johnson, Andrew Storfer, R. Steven Wagner and PhD students John Romansic and Pieter Johnson. If you were unaware of this opportunity, browse the meeting registration form at the tail end of this Murreletter.

—Submitted by Marc Hayes, Washington Vice-President



Vice-President and Trustee Candidate Biosketches

Northern Region VP: Elke Wind

Elke has been a member of the SNVB for 10 years, and a Board member since 1998. She is a self-employed contract biologist living and working on Vancouver Island, British Columbia. In 1996, she received her M.Sc. from UBC. Her thesis research investigated effects of forest fragmentation on wood frogs in north-central Alberta. Since that time, her main area of research has continued to focus on impacts of forest harvesting on amphibian populations, especially habitat management of small wetland habitats. She has written numerous reports for government, species recovery teams, and non-profit organizations. Recently, she has been expanding into education through her work with a local Young Naturalists' Club, including developing a leader's manual and program guide for children aged 10+. She has extensive experience as a Board member, including organizing the 2001 annual meeting in Victoria and numerous wetland and amphibian workshops and meeting sessions.

Northern Region VP: Brent Matsuda

Brent Matsuda received an M.Sc. in frog molestation from the University of British Columbia in 2001 and has been a wildlife consultant in exile in California since then. His work has had him chasing insects in the southern Mojave Desert, goshawks in the Sierras, snails in Oregon, and polar bears in Alaska. 2006 will mark his return to British Columbia, where he has previously served time as a park naturalist, duck and rat molester for the Canadian Wildlife Service, and herpetoculturist for the Vancouver Aquarium. While he has been typecast as a herper, most of his employment time has been spent surveying birds. Brent has been a member of SNVB since the late 1990s (although his first SNVB meeting was in 1993) and has previously been a Trustee on the SNVB Board. He greatly enjoys being involved with SNVB because of the people who make up the membership – they are cool, down-to-earth, and fun to hang with!

Oregon VP: Doug DeGross

Doug completed his B.S. in Environmental Geography at Ohio University in 1997 and his M.S. in Environmental Science at Oregon State University in 2004. His Masters Thesis focused on gene flow and relatedness of the Del Norte and Siskiyou Mountain salamanders. He currently works as a Wildlife Biologist with the USGS Forest and Rangeland Ecosystem Science Center in Corvallis, Oregon. Doug is a field project leader in northern California and southwestern Oregon conducting herpetofaunal research, with a focus on the foothill yellow-legged frog and western pond turtle. In addition, he assists in studies assessing wildfire and fuels management effects on terrestrial and aquatic herpetofauna assemblages. Doug is interested in population genetics, biogeography, ecology, herpetology, *Plethodon* evolution, and the Klamath-Siskiyou region in general. He spends his leisure time hunting, fishing, herping, spending time with his dogs, playing soccer, skiing (all winter forms), cooking, imbibing fine tequilas, socializing, and traveling.

Southern VP: Hartwell H. Welsh, Jr.

Hart Welsh is a research wildlife ecologist with the Pacific Southwest Research Station of the U.S. Forest Service. He is stationed at the Redwood Sciences Laboratory in Arcata, California. He has a B.S. in Zoology from the University of California at Berkeley, an M.S. in Wildlife Biology from Humboldt State University, and a Ph.D. in Wildlife Ecology from U.C. Berkeley. He has previously held positions with the Forestry and Natural Resources Department at U.C. Berkeley and the U.S. Fish and Wildlife Service's National Ecology Center in Colorado. His primary research interest is herpetology and he has over 40 publications on the herpetofauna of the western United States and Mexico (Baja, California). His current research interests include: (1) the relationships of forest structure and riparian attributes to the distribution and abundance of forest herpetofauna; (2) the use of amphibians as indicators of ecosystem health and integrity; and (3) the mechanisms of amphibian declines.

...Continued on page 7

Trustee: Laura Friis

Laura is a biologist with the Ecosystems Branch of the British Columbia Ministry of Environment, based in Victoria. She has a B.S. from Simon Fraser University and a M.S. from the University of Victoria. She worked for many years with the wildlife research group and for the last 15 years has been the provincial amphibian, reptile and small mammal specialist. In this position she works on issues related to conservation, management, research and information programs on these species. She coordinates the provincial Frogwatch program and serves on many recovery teams. She is also active in the Canadian Amphibian and Reptile Conservation Network, and in the Western Bat Working Group. Attempts to retire from government have so far been unsuccessful. Laura served as Secretary/newsletter producer with SNVB from 2001-2003. When she is not working with "her" species, she is traveling the world in pursuit of total solar eclipses (which is why she will be in Libya during the 2006 annual meeting - apologies in advance!)

Trustee: Paul Hendricks

Paul completed his B.A. (Zoology) in 1975 and M.A. (Zoology) in 1987, both at the University of Montana, with a thesis on the foraging ecology of American Pipits on the Beartooth Plateau, Wyoming. Paul attended Washington State University, completing his Ph.D. (Zoology) in 1993 with a dissertation on the reproductive ecology of his beloved American Pipits, again in the Beartooth Mountains. After school he studied birds in Mexico, the Hawaiian Islands, and the Northwest Territories, and supervised a study of tallgrass prairie birds in Oklahoma for the G. M. Sutton Avian Research Center. Paul has been employed as a zoologist with the Montana Natural Heritage Program for the last ten years. Here he has been able to feed his broad natural history interests, including surveys of herps (and coauthoring a book and Northwest Fauna No. 5), birds, bats, shrews, land mollusks, a few butterflies, cave invertebrates, and others. Paul is also involved in establishing protocols and statewide inventory schemes for bats and land mollusks. When not working, Paul likes to write haiku, and spend quality time with his wife and companion animals.

Trustee: Matt Kluber

Matt received a dual BA/BS with an emphasis in Biology from The Evergreen State College in Olympia, WA in 2002. Currently, he is a Masters Student in the Department of Forest Science at Oregon State University working with Drs. Deanna H. Olson and Klaus J. Puettmann on a component of the Density Management and Riparian Buffer Study. Matt's thesis research is focused on distributions and habitat associations of terrestrial amphibians in managed headwater riparian forests of the Oregon Coast Range. Matt spent 3 seasons working as a scientific technician for Dr. Marc P. Hayes at the Washington Department of Fish and Wildlife studying headwater stream and terrestrial amphibians in southwestern Washington. Matt also worked for Dr. R. Bruce Bury of the USGS on research projects in southwest Oregon and northern California involving western pond turtles and foothill yellow-legged frogs. When he isn't in the field collecting data or hunched over in front of a computer, Matt enjoys mountain biking, herping, hiking, and playing music, as well as spending time with his sweetie and their two cats and tortoise.

Trustee: Hans Purdom

Hans received his B.S. in Environmental Science from The Evergreen State College and is currently back at Evergreen working towards his Masters. Hans is employed at the PNWRS Olympia Forest Sciences Laboratory where he works as a biological technician on the forest ecosystem study. He currently spends much of his time conducting research on effects of forest management practices on arboreal rodents, forest floor small mammals and amphibians. Also, Hans assists with amphibian and small mammal surveys at Mt. St. Helens National Volcanic Monument. Research interests include small mammal ecology, disturbance ecology, herpetology, population ecology, old growth, sustainability, human demographics, public lands conservation and Cascade Range volcanoes. When not at work or school he generally spends his time engaged in one of the following activities: backpacking, eating elk jerky, hunting, restoring his old house (this is what he mostly does right now), tree climbing, organic gardening, savoring Portuguese wine and single malt scotch.

2006 SNVB Elections—Please Vote

OFFICIAL BALLOT – 2006 SNVB ELECTIONS

Please circle your selections

NORTHERN REGION VP: (Circle one)

Brent Matsuda
Elke Wind (incumbent)

OREGON VP:

Doug DeGross

SOUTHERN REGION VP:

Hart Welsh (incumbent)

TRUSTEES: (One vacancy)

Paul Hendricks

Laura Friis

Matt Kluber

Hans Purdom

Please send your votes either via email to bmaxell@mt.gov by 24 March or postal service postmarked by 21 March to:

Bryce Maxell
Montana Natural Heritage Program
1515 East Sixth Avenue
Helena, Montana 59620-1800

A ballot box will also be present at the Annual Meeting at the Evergreen State College. Election results will be announced at the banquet on 30 March.



Please join us for the spectacular...

2006 SNVB/WA TWS Joint Annual Meeting

27 March-1 April 2006
Olympia, WA

In cooperation with: Western Forest Carnivore Committee (WFCC), International Canopy Network (ICAN), Partners in Flight – Washington/Oregon Chapter (PIF), Partners in Amphibian and Reptiles Conservation (PARC), and Pacific Northwest Amphibian and Reptile Consortium (PNARC).

CHALLENGES OF A CHANGING WORLD: HISTORICAL PERSPECTIVES AND NEW INNOVATIONS

Scheduled Events

Location (and building and room, where appropriate) of events is shown in parentheses following each event. Location abbreviations include: Olympic National Forest Headquarters (**ONF**) at 1835 Black Lake Boulevard; The Evergreen State College (**TESC**) at 2700 Evergreen Parkway NW; Plenty at 200 4th Avenue W (**PDO**); and Fishbowl Brew Pub (**PUB**) at 514 Jefferson St SE.

27 March (Monday)

10:00 AM – ***Amphibian Disease Diagnostics Workshop and Lab***

5:00 PM

(**TESC**; Seminar II Building, Pod A, Lecture Rm 1105)

The SNVB and PNARC are presenting a timely workshop on field indicators of amphibian parasites and pathogens. Participants will be introduced to amphibian disease ecology, and given the tools to recognize parasites and pathogens in the field. Topics include chytrid fungus (*Batrachochytrium dendrobatidis*), water mold (*Saprolegnia ferax*), trematodes, and viruses. The workshop will be presented in three sessions: lectures, small group labs and a panel discussion. Lectures will address disease ecology, amphibian declines and conservation. Labs will provide a hands-on opportunity for participants to observe specimens, and learn sampling techniques and specimen preservation. Target participants include biologists, technicians, land managers and students. SNVB or WA TWS members and those conducting amphibian work in the Pacific Northwest will be given registration priority. (lunch included; maximum enrollment 60; **SPACE STILL AVAILABLE**)

10:00 AM –

5:00 PM

Beyond Counting Birds: Estimating Population Vital Rates through Banding

(**TESC**; Seminar II Building, Pod A, Workshop Rm 1107)

This Oregon-Washington PIF Workshop, hosted by the Klamath Bird Observatory, will focus on methods and conservation based applications of marking bird populations through banding. Both constant effort mist-netting and target-netting schemes will be outlined. Applied presentations will cover topics including: measuring population vital rates, estimating survival during migration and wintering seasons; monitoring avian disease; stable isotopes, genetics and biogeography; and education. This workshop will include a bird-banding field demo Tues AM. Target participants include biologists, land managers, students, and community members interested in learning more about bird banding as it relates to bird conservation. (refreshments included; maximum enrollment 60; **SPACE STILL AVAILABLE**)

...Continued on page 10

... Continued from page 9

9:00 AM –
3:00 PM

Forest Canopy Access Workshop

(**TESC**; Seminar II Building, Pod A, Lecture Rm 2107)

This exciting two-part workshop, hosted by ICAN, will present forest canopy research methodologies and canopy access, focusing on avian, small mammal and epiphyte sampling, and hemispherical photography. Northwest forest canopy researchers will present their experiences conducting research in the forest canopy, addressing what has worked and what has not worked. A field based tree-climbing session will follow morning presentations. An experienced arborist will discuss climbing safety, showcase climbing gear, and demonstrate rope-based canopy access techniques. Participants will then have the opportunity to climb trees and access the forest canopy. Target participants include biologists, land managers, students, and community members interested in learning about forest canopy research techniques, and forest conservation and management. (lunch included, maximum enrollment 35; **SPACE STILL AVAILABLE**)

Noon – 5:00 PM

Western Forest Carnivore Committee Conference (**ONF**; Conference Rms)

This WFCC-sponsored conference meets every two years to bring together biologists, resource managers, naturalists and many others to discuss research, conservation, and management of forest carnivores. Twenty presentations will focus on research and conservation of mesocarnivores (including lynx, wolverine, fisher, marten, and others) and related topics over 1.5 days. (refreshments included)

28 March (Tuesday)

Posters on display (**TESC**; Longhouse, Cedar Rm and Foyer)

8:00 AM –
10:00 PM

Perspectives, Fieldwork and the Ecology of the Pacific Northwest

(**TESC**; Longhouse, North Rm)

A Symposium and Festschrift honoring R. Bruce Bury: 14 speakers are slated to speak on diverse topics tied to the Symposium theme in this day-long celebration honoring the career accomplishments of R. Bruce Bury: Mike Adams, Don Ashton, Jamie Bettaso, Steve Corn, Doug DeGross, Gary Fellers, Mark Jennings, Eduardo Joyel, Roger Luckenbach, Deanna Olson, David Pilliod, Chris Rombough, Norm Scott, and Tanya Wahbe. Colleagues will have the chance to regale participants with stories from the Bury past prior to a final presentation. After the fête, celebrants will be treated to an all-you-can-eat Native American-style salmonbake and clambake. (refreshments, lunch, and salmon/clambake dinner included)

8:00 AM –
5:00 PM

Western Forest Carnivore Committee Conference (**ONF**; Conference Rms)

Continuation of 27 March session. (breakfast, refreshments, and lunch included)

8:00 AM – Noon

Beyond Counting Birds - A Workshop on Bird Banding

Continuation of 27 March session. Field session: time & location will be provided at the Monday part of this workshop.

7:00 PM –
11:00 PM

No-host pre-meeting social (**PUB**)

If you get into town early come on down for handcrafted beers, non-alcoholic ginger brew and tasty vittles at the newly remodeled Fishbowl. Sorry, must be 21 or older.

29 March (Wednesday)

Posters on display (**TESC**; Longhouse, Cedar Room and Foyer)

7:30 AM

Registration Opens

...Continued on page 11

... Continued from page 10

- 8:00 AM – Noon **Plenary Session (TESC; Longhouse, North Rm):** An exciting slate of plenary speakers with unique talks addressing our meeting theme.
- R. Bruce Bury** – One of the deans of Pacific Northwest herpetology and first conservation biologists - Title: **Everything I needed to know about biology I learned early or during an odyssey of field trips from Arcata to Zzyxx Springs**
- Dave Fraser** – Premier innovator and advocate in wildlife conservation with a Canadian perspective - Title: **Wall Lizards and Wolverines: Special Challenges for North and Western North America**
- Lynne Houck** – Premier researcher on North American lungless salamanders and advocate of interdisciplinary approaches - Title: **Collaborative Research Provides New Perspectives on Salamander Reproductive Behavior**
- Nalini M. Nadkarni** – Internationally known canopy researcher of seminal work in temperate and tropical rainforest, well-known for innovative approaches - Title: **Prisons, Pulpits, and Poets: Disseminating Research Beyond Academia**
- Robert M. Pyle** – Natural history writer and lepidopterist of international fame with works such as *Wintergreen* and *The Butterflies of Cascadia* - Title: **Heretical Monarchs, Winter Tadpoles, and Giant Hairy Apes: Asking the Unaskable Questions**
- Noon – 1:30 PM **TWS Business Lunch (TESC; Greenery Cafeteria, College Activities Building, lower level)**
- Regular Sessions**
- 1:30 – 5:00 PM Managed Landscapes - Forests (TESC; Longhouse, North Rm, East Half; Moderator: Hannah Anderson)
- 1:30 – 5:00 PM Amphibian Ecology (TESC; Longhouse, North Rm, West Half; Moderator: Tara Chestnut)
- 6:00 – 11:00 PM **Wednesday Evening Social (PDO; 6:30 PM to whenever the batteries run down)**

30 March (Thursday)

- Regular Sessions** (continued)
- Posters on display (TESC; Seminar II Building, Pod B, Rm 1107)
- 8:00 – 11:30 AM Managed Landscapes – Amphibians (TESC; Seminar II Building, Pod A, Rm 1105; Moderator: Aimee McIntyre)
- 8:00 – 11:30 AM Prairie/Shrub Steppe Ecology (TESC; Seminar II Building, Pod B, Rm 1105; Moderator: Sally Butts)
- 8:00 – 11:30 AM Land Mammals/Herptile Ecology (TESC; Seminar II Building, Pod A, Rm 1107; Moderator: Steve Germaine)
- 11:30 AM – 1:00 PM **SNVB Business Lunch (TESC; Greenery Cafeteria, College Activities Building, lower level)**
- 1:00 – 5:00 PM PARC (TESC; Seminar II Building, Pod A, Rm 1105; Moderator: Jeff Holmes)
- 1:00 – 4:30 PM Managed Landscape - Mammals (TESC; Seminar II Building, Pod B, Rm 1105; Moderator: Jim MacCracken)

...Continued on page 12

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- 1:00 – 5:00 PM Conservation Planning I (**TESC**; Seminar II Building, Pod A, Rm 1107; Moderator: Cliff Rice)
- 5:30 – 6:30 PM **Pre-Banquet Poster Social** (**TESC**; Gymnasium)
Meeting participants can view and discuss posters with presenters during this refreshment/no-host bar social.
- 6:30 – 10:00 PM **Meeting Banquet** (**TESC**; Gymnasium)
Attendees can listen to the indomitable Larry L. C. Jones, long-time Northwesterner and émigré to Arizona, talking on the Biodiversity of the Sky Islands, and enjoy the awards ceremony and raffle. Chicken and vegetarian entrees will be served.

30 March (Friday)

Regular Sessions (continued)

Posters on display (**TESC**; Seminar II Building, Pod B, Rm 1107)

- 8:00 – 11:30 AM Amphibian Diseases/Physiology (**TESC**; Seminar II Building, Pod A, Rm 1105; Moderator: Elke Wind)
- 8:00 – 11:30 AM Avian Ecology (**TESC**; Seminar II Building, Pod A, Rm 1107; Moderator: Aaron Holmes)
- 11:30 AM – 1:00 PM No host lunch (**TESC**; Greenery Cafeteria, College Activities Building, lower level)
- 1:00 – 3:00 PM Fish Ecology (**TESC**; Seminar II Building, Pod A, Rm 1105; Moderator: Tim Quinn)
- 1:00 – 3:00 PM Conservation Planning II (**TESC**; Seminar II Building, Pod B, Rm 1105; Moderator: Carl Ward)

1 April (Saturday)

Field Trips

Five exciting field trips are scheduled. Bring raingear, proper footwear and layers; this is the Westside after all. Knee-high rubber boots are a minimum for the amphibian and mollusk trips, bring hip boots and waders if you have them. **Sign up when you pick up your meeting packets at registration; meeting point locations will be provided at registration.** Trips include:

Birding at Nisqually National Wildlife Refuge: Join Black Hills Audubon for a bird watching trip at the spectacular Nisqually National Wildlife Refuge (NNWR) located northeast of Olympia where the freshwaters of the Nisqually River meet the saltwaters of Puget Sound at the Nisqually River Delta. The delta, biologically one of the richest and most diverse in Puget Sound, supports a melange of estuarine, freshwater wetlands and riparian woodland habitats. Located on the last largely unspoiled major estuary in Puget Sound, NNWR is famous for the more than 275 migratory and resident bird species that use the refuge for breeding, migration, or wintering. Species of note that can be expected include American bittern, wood duck, Bonaparte's gull, northern harrier, green heron, common yellowthroat, common merganser, short-eared owl, Virginia rail, Lincoln sparrow, blue wing and cinnamon teals, and marsh wren. (Lead: Bill Shelmerdine; Enrollment limit 25)

...Continued on page 13

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Forest Wildlife Habitat Management at Fort Lewis: The U.S. Forest Service, Pacific Northwest Research Station (Olympia) will host a field trip to Fort Lewis in Tacoma to visit selected sites in the landscape-level Forest Ecosystems Study begun in the early 1990s. This study emphasizes enhancement of wildlife habitat using different silvicultural thinning prescriptions that vary forest canopy density. Participants will be able to both see the structural variation in thinning treatments and discuss the responses of arboreal and forest-floor mammals, birds, and amphibians to these treatments, as well as their consequences for these forest systems. (Lead: Todd Wilson; Enrollment limit 25)

Lowland Stillwater Herpetofauna: A field trip to a rich stillwater-breeding amphibian site in central Thurston County (secret location to be announced). Species that can be expected are almost guaranteed are long-toed salamander, northern red-legged frog, northwestern salamander, Pacific treefrog, roughskin newt, and if we are lucky, western toad and Oregon spotted frog. If the day is sunny, common and northwestern garter snakes, and maybe even northern alligator lizards may also be found. Great macrophotography opportunities. (Leads: Kelly McAllister and Lisa Hallock; Enrollment limit 25)

Mollusk and Leaf-litter Invertebrate Trip: Casey Richart, mollusk-man extraordinaire, will lead a field trip into The Evergreen State College forest to regale the mollusk and litter-invertebrate lovers. If you want to see some hairy snails, jumping slugs, pseudoscorpions, or opiliones, then this is the field trip for you. Great macrophotography opportunities. (Lead: Casey Richart; Enrollment limit 20)

Scenic and Photography Trip to Mt. Rainier Area: This early morning trip into the wilds around Mt. Rainier; great opportunities for landscape photography. (Leads: To be determined; Enrollment limit 20)

Other Events

Vendors: Vendors of books, ephemera, and art ware, including our own SNVB store, will be available on Tuesday and Wednesday 28-29 March (**TESC**, Foyer of the Longhouse) and on Thursday and Friday 30-31 March in the Poster Session room (**TESC**, Seminar II Building, Pod A, Rm 1107).

Photography Contest: On Tuesday and Wednesday 28-29 March (**TESC**, Foyer of the Longhouse) and on Thursday and Friday 30-31 March in the Poster Session room (**TESC**, Seminar II Building, Pod A, Rm 1107). Contest categories are birds, mammals, reptiles & amphibians, fish, landscapes, humor, and environmental action at work. Prizes will be awarded for the best photo and runner-up in each category, as well as best in show. Photos should be mounted, but need not be framed. If enough black and white entries exist, they will be judged separately. Photos must be hung for viewing no later than Thursday 30 March at 8:00 AM but can be hung as early as Tuesday 28 March at 8:00 AM; judging will occur Thursday afternoon and presentation will be made at the banquet. For questions, contact Mariann Brown, phone: (360) 366-1466 or e-mail: mariannkbrown@aol.com

Book-signing Event: A book signing for the recently published Seattle Audubon "Amphibians of the Pacific Northwest" will occur at the mid-morning break for the Plenary Sessions on Wednesday 29 March (**TESC**, Foyer of the Longhouse). All three editors of the book will be available for this signing.

SNVB Dinner Board Meeting: At 5:15 PM on Wednesday 29 March (location to be announced).

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Registration

If you have not registered, **IT'S NOT TOO LATE** but we are in the late-fee registration phase. See registration details on page 14. A registration form is also available on the SNVB website at: <http://www.snvvb.org/> or at the Washington Chapter of The Wildlife Society Website at: <http://www.washingtonwildlifesoc.org>.

Lodging

The Ramada Inn Governor House (621 Capitol Way South, Olympia; 360-352-7700) is the official lodging venue for the annual meeting; 100 rooms are reserved for us. When you call, let them know you are with the JOINT 2006 SNVB/WA-TWS MEETING to get your rate. Other lodging opportunities exist nearby are the Econolodge Olympia (1211 Quince Street SE, Olympia; 360-943-4710), Extended StayAmerica (1675 Mottman Road SW, Tumwater; 360-754-6063), and the Red Lion Olympia Hotel, 2300 Evergreen Park Drive, Olympia; 360-943-4000).

Meeting Location

The focal meeting location, The Evergreen State College (**TESC**), is 3-4 mi west of downtown Olympia. Public transportation (bus) is available to the meeting site at the cost of \$1.50 for a daily pass. Parking at TESC is \$1.50 per day. See maps on pages 12-13.

For More Information Contact: Marc Hayes, Planning Committee Chair
email: mhayesrana@aol.com or phone: (360) 902-2567

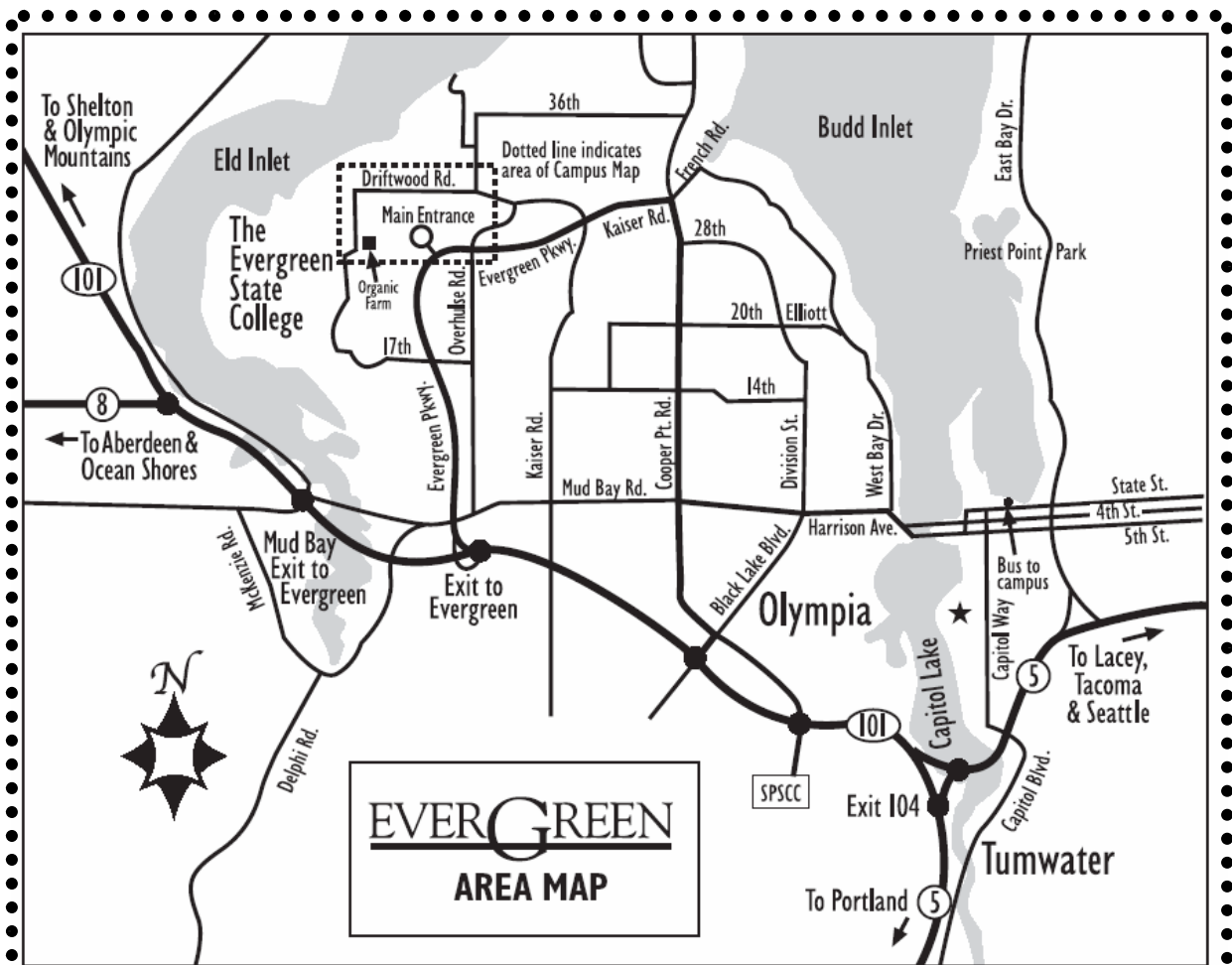
Volunteers Needed for the Annual Meeting

SNVB and the WA-TWS strongly encourage students and recent graduates to volunteer. Ask if you may be eligible for discounted registration. Learn about careers and get to know wildlife by working side by side with professional biologists!

Volunteer opportunities are available in the following categories:

1. **Session Support:** Provide session support including preparing audio/visual equipment, running errands, and cleanup. Support is needed for Amphibian, Bird, Mammal, Forest Canopy, and Poster Sessions.
2. **Registration Table:** Register conference guests and presenters.
3. **Photo Contest:** Help with the setup and breakdown of the Photo Contest.
4. **Raffle Salesperson / Prize Shuttler:** Sell Raffle tickets at registration and before the banquet. At the TWS/SNVB banquet, deliver raffle prizes to winners.
5. **Sign Posting / Ushers:** Post signs for sessions, workshops, and banquets and direct conference participants between sessions.
6. **Vendor Contact:** Provide vendor contact, organization and set-up assistance. Must be available on an unscheduled part-time basis the month before the conference.
7. **Registration Packet Assembly:** Assemble registration packets. Must be available on evenings the week before the conference.

To volunteer, contact Dan Dugger, Volunteers Chair, at dugrdan@allvantage.com



The Evergreen State College

How to Get Here

Whether you are coming from the north (Seattle, SeaTac Airport) or south (Portland): Take I-5 to Exit 104, and follow Highway 101 to the third exit (The Evergreen State College). Travel two miles on the Evergreen Parkway to the main campus entrance on your left. Please be sure to stop by the parking booth for a permit. We recommend that you use Parking Lot C.

Campus and Vicinity

The Evergreen State College in Olympia is an hour's drive from the Seattle-Tacoma (SeaTac) airport. The area is served by the Capital Aeroporter, and the Greyhound Bus Company stops in Olympia near the state capital. Many Washington scenic areas and urban points of interest are easily accessible from here.

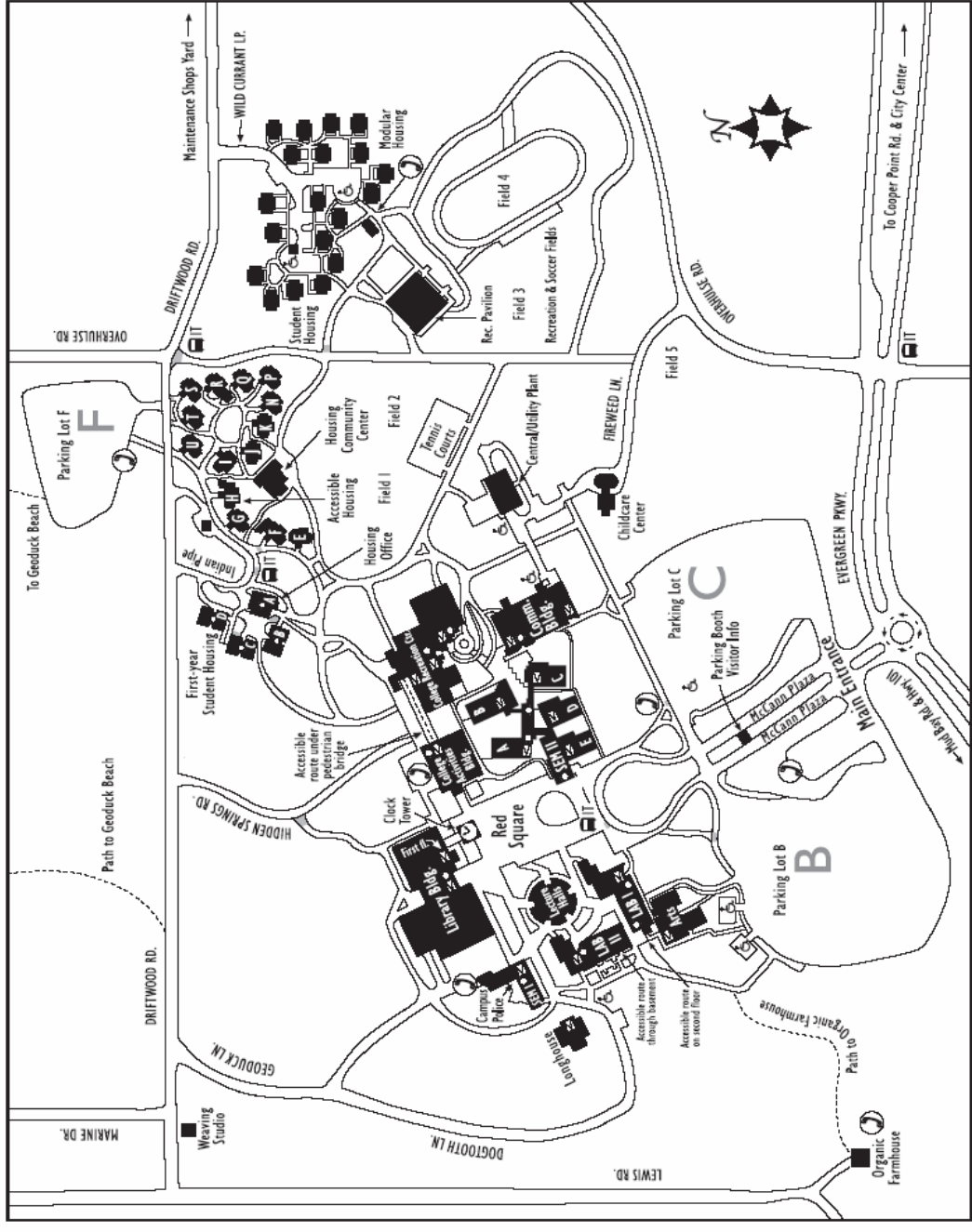
EVERGREEN

CAMPUS MAP KEY

- Arts Arts Annex
- CAB College Activities Bldg.
- COM Communications
- CRC Recreation Center
- IT IT Bus Stop
- LAB I . . . Arts and Sciences
- LAB II . . Arts and Sciences
- LC Longhouse
- LH Lecture Halls
- LIB Library
- SEM I . . . Seminar I
- SEM II . . Seminar II

	Automatic Door
	Emergency Phone
	Accessible Parking
	IT Bus Stop
	Elevator
	Curb Cuts

The Evergreen State College
 2700 Evergreen Parkway, NW
 Olympia, WA 98505
 (360) 867-6000
 www.evergreen.edu
 (ed: 06/04/06) p. 2/1448



Registration Form for the 2006 Joint Annual Meeting
Society for Northwestern Vertebrate Biology – Washington Chapter of The Wildlife Society
One Person Per Form Please, Form also available at <http://www.snwvb.org/>

Name: _____ E-mail: _____

Professional Affiliation (if any): _____

Address: _____

Office Phone: _____ Home Phone: _____

Society Affiliation? (Circle all that apply) SNVB WA-TWS Neither Affiliation
OK to share your contact info (excluding home phone) shared with other attendees? (Circle one) Yes No

Pre-Meeting Workshops: All Workshops on Monday, 27 March

	AMPHIBIAN DISEASE DIAGNOSTICS (10:00 AM-5:00 PM) (lunch included)	BIRD-BANDING WORKSHOP (1:00 – 5:00 PM) (field demo Tues a.m.)	CANOPY ACCESS WORKSHOP (9:00 AM – 2:00 PM) (lunch included)	
Member	\$95	\$60	\$70	_____
Non-member	\$115	\$75	\$85	_____
Student	\$30	\$20	\$30	_____

Western Forest Carnivore Working Group Meeting: Monday – Tuesday, 27-28 March

All Registrants (includes refreshments) \$30 _____

Northwest Ecology Symposium and Feitschrift in honor of R. Bruce Bury: Tuesday – 28 March

All Registrants (includes Native American salmon/clam bake) \$50 _____

Annual Meeting: Wednesday – Friday, 29 – 31 March – Membership not required, but membership reduces workshop costs! Registration covers the Wednesday evening social, the Thursday evening banquet, and refreshments at all breaks! Please check box if attending banquet

Early Registration (post-marked by 15 February)	\$130	_____
Late Registration (after 15 February)	\$180	_____
One-day registration (banquet not included)	\$50	_____
Student	\$40	_____

Additional (Non-registered) Banquet or Family Guest \$30 _____

2006 SNVB Dues (check membership type)

Regular Individual	_____	\$25	_____
Contributing Individual	_____	\$35	_____
Sustaining Individual	_____	\$50	_____
Student	_____	\$10	_____
Lifetime (one-time payment)	_____	\$325	_____

2006 Washington Chapter, TWS Dues (check membership type)

Regular Individual	_____	\$10	_____
Student	_____	\$5	_____

GRAND TOTAL _____

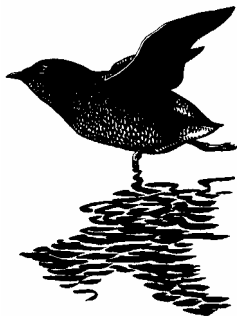
Do you wish to be a student mentor? (Circle one) Yes No

Do you wish to be a judge of paper presentations? (Circle one) Yes No

Please make checks payable to the SNVB (Sorry, no credit card payments). Please mail your registration form and payment to: Julie Grialou, 18304 Highway 20, Winthrop, WA 98862. SNVB Tax Identification Number is 91-605-3399.

Cancellation Policy: We offer a full refund for cancellations through 15 February 2006. For cancellations after 27 January 2006, there will be a handling fee of 25% of the total bill. Substitutions are fine (i.e. if someone has a sick child, they can send a colleague in their place).

Registration Scholarships: A limited number of registration scholarships are available to students or others. Please contact: Aimee McIntyre (360) 902-2560 or e-mail: mcintam@dfw.wa.gov for more information.



For more information about the
Society for Northwest Vertebrate Biology
Check out our updated web page:
<http://www.snwvb.org>

**Don't Forget to make plans for the
2006 Annual Meeting:**
Challenges of a Changing World: Historical Perspectives and
New Innovations
27 March—1 April, Olympia, Washington