



*G'nun**

The newsletter of the Washington Butterfly Association

P.O. Box 31317 Seattle WA 98103
www.naba.org/chapters/nabaws

*G'nun is the official greeting of WBA. It is derived from the name of common Washington butterfly food plants, of the genus *Eriogonum*.

WBA Meeting Programs

WBA meetings are held on the first Wednesday of each month. They are held at the UW Center for Urban Horticulture (3501 NE 41st Street, Seattle) and begin at 7:00 p.m. The first fifteen minutes are used for social reception and viewing of displays.

APRIL 6:

“Moths: the Other Lepidoptera”

presented by Tom Boucher

Includes moths from several parts of the state and some that he guarantees that you will never have seen before!

MAY 4:

“The El Niño Impact on Painted Ladies and Butterflies and Monarchs of the West Coast”

presented by Dr. Bob Vandenbosch, UW Professor Emeritus Chemistry and Adjunct Professor Physics

Bob has researched and published papers on this fascinating subject.

JUNE 1:

“Butterflies of the Puerto Vallarta and Mismaloya Areas of Northwest Mexico”

presented by Bob Hardwick

Bob has traveled here often and photographed a wide variety of species and sites in this region.

Member Noticeline

Member Noticeline: This is an "opt in" service for WBA members in which announcements, butterfly related articles, and other WBA information will be sent to you via e-mail. We are very careful to not overuse this method but some very interesting and timely information has been sent.

Just send your e-mail address to: wabutterflyassoc@earthlink.net and in the subject slot put: [WBA Noticeline](#). You may "opt out" at any time by sending a message to that effect to this same address.

WBA Mission Statement

The Washington Butterfly Association is devoted to
scientific understanding and enjoyment of butterflies and their ecology
through conservation and education.

2005 Field Trips

Date	Destination
March 27	Schnebley Coulee - Kittitas County
April 16	Lower Umtanum Canyon – Kittitas County
May 7	Lower Swakane Canyon – Chelan County
May 21	Cooke Canyon – near Ellensburg
June 11	Tahuya Peninsula – near Belfair
June 25	Entiat Canyon – Chelan County
July 9	Reecer Creek Canyon "Big Day", Kittitas County
July 22-24	WBA Annual Conference, Winthrop and the Methow Valley
August 6	Fish (Tuquala) Lake – near Salmon La Sac
August 28	Mt. Townsend near Quilcene in Jefferson County

HOW TO SIGN UP:

Anyone can sign up for field trips at any WBA monthly meeting. You can also sign up by contacting the trip coordinator which will be posted on the web page.

WHERE & WHEN TO MEET:

Trips will depart from the Ravenna Park & Ride at 7:00 a.m. unless expressly stated otherwise. The park & ride is located under I-5 at Ravenna Blvd between NE 50th & NE 65th St. We meet in the north half of the park & ride.

On request will also stop at the Issaquah Park & Ride at 7:30 a.m. To reach the Issaquah Park & Ride, take I-90 east to Issaquah, exit to the south via Exit 16, and go 3 blocks. The Park & Ride is on the left.

If you live in another part of the state, contact the trip coordinator to make arrangements to meet the field trip group.

FIELD TRIP PROTOCOLS:

All field trips are conducted by carpool-without the volunteer participation of drivers the trips are not possible.

If you have a car that you are willing to drive, please have the gas tank full and ready to go. Passengers are expected to share gasoline expenses. It is suggested that each rider pay the driver ten cents per mile plus a share of any park entry fees, ferry fares, etc.

All WBA-sponsored field trips are fully insured through our parent organization, NABA.

Please tend to any personal matters, such as getting breakfast, coffee or gasoline, before the departure time so others are not delayed.

The trip leader will collect a voluntary donation of \$5 per person (children under 12 are free) for each field trip to help offset expenses of the organization.

SCHEDULING & WEATHER:

Weather is always a major factor for planning butterfly trips in Washington, particularly March through June. The key to dealing with weather is flexibility; our leaders reserve the right to make last-minute itinerary changes in order to provide you with the best possible butterfly experience.

On occasion it may be necessary to cancel or postpone an outing if the weather does not permit a viable alternative. The flow of the season is also important, and it may be necessary to adjust some trips to earlier or later dates to best match the seasonal weather patterns. WBA will make every effort to keep you informed of any changes.

CANCELLATIONS:

If you need to cancel, please remember to contact the trip coordinator as soon as you can so the group does not wait for you at the park & ride.

Mazama, Washington
July 22 - 24, 2005



The varied habitats of the Methow Valley – riparian zones, shrub steppe, and alpine meadows – support over a hundred species of butterflies. With the field trips and lectures of this conference, you can gain a better appreciation of the species living here. Depending on weather, field trips may go to the Boulder Creek area, where we could see the Pink-edged Sulphur (*Colias interior*). Though fires burned many acres near Slate Peak, some alpine meadows are still intact. There we could see Vidler's Alpine (*Erebia vidleri*), Hoffmann's Checkerspot (*Chlosyne hoffmanni*), and possibly Melissa Arctic (*Oeneis melissa*) and Lustrous Copper (*Lycaena cupea*).

Join us as we explore the Methow Valley and enjoy the butterflies we find. To attend the conference, send in a registration form today!

Conference program:

Friday, July 22

6:30 – 7:30pm Registration & refreshments at the Mazama Community Center
7:30 – 8:30pm Species identification workshop

Saturday, July 23

Breakfast on your own

8:30 – 9am Meet in the parking lot next to the Mazama Community Center for an all-day field trip
9am – 5pm All-day field trip
6pm Buffet dinner at the Mazama Community Center
7:30pm Short business meeting, including election of officers
7:45pm Conference Keynote Address – to be announced

Sunday, July 24

Breakfast on your own

8:30 – 9am Meet in the parking lot next to the Mazama Community Center for a half-day field trip
9am – 1pm Half-day field trip
3pm Leave for home

Please note that you are responsible for making your own arrangements for lodging.

Summertime is the busy season in the Methow Valley, and all rooms may be taken unless you book early. Listed below are some of the area accommodations. All conference events will be held in the Mazama Community Center.

Mazama Country Inn

800-843-7951

www.mazamacountryinn.com

Almost next door to community center. Rooms start at \$89 and go up to \$350 for a five-bedroom cabin. Identify yourself as part of WBA and receive a free continental breakfast in the restaurant (full breakfast is available there too).

Timberline Meadows Lodge

800-848-7723

www.timberlinemeadows.com

Under two miles from community center, toward Winthrop. Three cabins start at \$235 and sleep up to eight people. A duplex, each half at \$205 sleeps six.

North Cascades Basecamp

866-996-2334

www.ncbasecamp.com

Just over two miles from community center, toward Slate Peak. Six rooms with double beds at \$86 including breakfast, and a cabin sleeping up to five.

Central Reservations

800-422-3048

www.methowreservations.com

This booking service offers places to stay in the area. Be aware that a newly-enforced county regulation prohibits rental of private homes without permits, and make sure that the place you book will be available without any problems.

Also nice, but fully booked at the time of this printing

Mazama Ranch House

Freestone Lodge

Forest Service campgrounds are available about eight miles from the community center, down Lost River Road. Get information about sites at www.fs.fed.us/r6/oka/; click on “recreational activities”, then “campground information”, then “Methow Ranger District”. The sites close to Mazama are at “Lost River – Hart’s Pass Area”, and are called Ballard and Riverbend. In the “Highway 20 Area”, Early Winters and Klipchuck campgrounds are close to Mazama. All are on a first-come, first-served basis. Telephone the ranger district at 509-996-4000 or 4003 to talk to a human.

Our species profile for this issue is the Coral Hairstreak, *Satyrrium titus*.



Hairstreaks belong to the large worldwide family Lycaenidae, which also includes all blues, coppers and metalmarks. Hairstreaks are small butterflies, often with tail-like extensions or "hairstreaks" on their hindwings, particularly in members of the genus *Satyrrium*. In Washington State there are eighteen species of hairstreaks, six of them in the genus *Satyrrium*. Butterflies in the genus *Satyrrium* fly in mid summer, peaking in July, and are highly valued by butterfly enthusiasts.

The pretty Coral Hairstreak is probably the most sought after species in the genus *Satyrrium*. While its reported flight period in Washington extends from early June to mid August the Coral Hairstreak is usually quite scarce, seldom common even locally, and can be quite difficult to find at all. This species does habituate the same preferred habitats year after year however, and can reliably be found by visiting places where it has been seen on previous years.

Satyrrium titus is a fairly widespread North American species, occurring across Canada from British Columbia to the Atlantic, and south through much of the United States except the southernmost parts. Within Washington State *titus* is entirely restricted to the east side, occurring mostly in a belt along the eastern foothills of the Cascades. Outlier populations have been found spotted here and there especially in low mountainous or hilly areas elsewhere in eastern Washington.



Starkly white eggs of a typical "compressed sphere" Lycaenid shape are oviposited in mid to late July, singly or in small clusters, in small crevices and protected areas on the woody parts of host plants. The preferred plant eaten by *S. titus* larvae is usually chokecherry (*Prunus virginiana*) but sometimes also wild Rose (*Rosa woodsii*). Western Serviceberry

(*Amelanchier ainifolia*) has also been reported. *Satyrrium titus* overwinters in the egg stage, and does not hatch the following spring until the larval host plant has begun growing its delicate new leaves. The larvae feed only on leaves, developing moderately slowly but ultimately reaching a surprisingly large size of about 21 mm. In the later instars the larvae become uniquely and dramatically colored, bright green in the middle and wine-red on both ends. The cycle from newly hatched egg to mature final instar is completed in about 24 days (in captivity), whereupon the larva



pupates to a camouflaged spotted brown chrysalis, typically hidden under debris at the base of the plant. On eclosing the adult butterflies mate and start the cycle anew.

Adult Coral Hairstreaks are as unmistakable as their unusual larvae. Along the entire outer margin of the ventral hindwing (VHW) a row of large bright orange spots is set against a contrasting dark gray (fresh) or brown (worn) ground color. No other Washington butterfly has such a dramatic orange spot row in combination with the "tails" characteristic of the genus *Satyrrium* (but compare also California Hairstreak). There may also be a trace of small orange spots along the ventral forewing, although these are easily overlooked. Paralleling the orange spots on the proximal (body) side of the VHW is a corresponding row of black spots ringed with white halos.

Adults nectar readily, particularly on Showy Milkweed when available. While distracted for nectar they are sometimes easily approached for closeup photography.



Adults are often found in the higher elevation fringes of the sage-steppe, adjacent to the lower timber line, areas where typically chokecherry and milkweed occur together, but they also occur in hotter, drier parts of the Columbia Basin. Watch for the colorful Coral Hairstreak on sunny days in July, especially along watercourses and roadsides where its food and nectar plants occur.

Btk Spraying of Gypsy Moths

Washington Butterfly Association's Official Stand on Btk Spray for Gypsy Moths

The Specifics:

The Washington State Department of Agriculture (WSDA) announced it is proposing to treat two locations this spring for the destructive European gypsy moth; a 200-acre site near Keyport in rural Kitsap County (basically the entire Evergreen Ridge housing development and several surrounding properties), and a 12-acre site in the Roanoke neighborhood in Seattle (boundary on the west; Eastlake Ave. E.: on the east, Boylston Ave. E.: on the north, approximately 125 feet north of Edgar St.: and on the south, approximately 290ft. south of E. Roanoke St.).

WSDA is proposing to treat the two sites with *Bacillus thuringiensis* var. *kurstaki* (Btk), a biological insecticide used in the past to keep the gypsy moth out of Washington. Btk is registered for use in the U.S. by the Environmental Protection Agency (EPA) and is found naturally in the environment. They plan on both aerial and ground spraying of Btk.

Background:

WSDA found 5 European Gypsy Moth adults each in 2003 and 2004 as well as 3 European Gypsy Moth egg masses and numerous pupal cases in 2004 at the Roanoke neighborhood site. At the Kitsap County site, WSDA found 1 European Gypsy Moth adult in 2003 and 5 adults in 2004. It found no other life stages in either year.

General Statement of Concern:

Although the Washington Butterfly Association (WBA) recognizes that the gypsy moth (*Lymantria dispar* L.) poses a serious threat to trees and supports the WSDA in its desire to contain the threat, WBA also has serious concerns about the use of Btk and WSDA's lack of thorough evaluation of alternatives. In particular, WSDA refers to a 1995 EIS to justify not using any alternatives.

Specifics of Concern - Use of Btk:

Btk is lethal to Lepidoptera (butterflies and moths) resulting in an Order of insects being wiped out in the treated areas. Although Lepidoptera is the only order of insects that Btk will impact, this order is one of the most diverse, with numerous species in the proposed areas of Gypsy Moth control.

Jeff Miller, an entomologist at Oregon State University, in a report published in 2000, found a decline in Lepidoptera species abundance of between 80 and 100 percent and a decline in live caterpillar mass of between 84 and 99 percent, following aerial application of Btk. Although there is substantial recovery after three years, there is no evidence to indicate a complete recovery of all species to previous abundance. Or as Bob Pyle put it in a letter to the WBA board: "Areas sprayed by Btk have been shown to become virtual butterfly (and moth) barrens for years, thus affecting songbirds and bats up the food chain. The poor town neighborhoods that get it will likely lose their butterfly garden capacity for some time to come."

Alternatives:

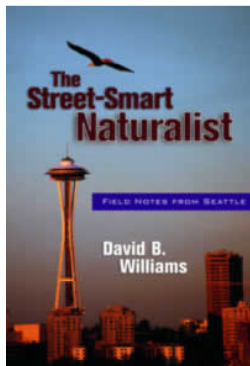
Alternatives to Btk do exist. One of the best is a viral pathogen, known as Gypchek, was developed by the US Forest Service. A USFS web site describes how it works: "This pathogen invades through the gut wall, reproducing rapidly in internal tissue causing the disintegration of internal organs and the death of the host caterpillar. Eventually, the host ruptures, distributing viral occlusion bodies into the environment which serve to infect other individuals." It has been found to be extremely effective. The one downside is cost, which appears to be one reason that WSDA does not consider using it. The key benefit of Gypchek versus Btk is that Gypchek targets only gypsy moths. According to the USFS, it is currently used in limited quantities for suppressing gypsy moth outbreaks.

Conclusion:

WSDA appears to be set in its use of Btk without fully considering the alternatives. The justifications for using Btk (which kills all moths and butterflies) instead a more specific remedy (for instance, Gypchek) are unclear. However they appear to include cost. One way to bring the cost down is to start using Gypchek. In the short term using Gypchek may be more expensive, but if it achieves the same goal, eradication of Gypsy Moths, without killing so many other beautiful and important butterflies and moths, then it is obvious that the initial cost is worth it. The Washington Butterfly Association urges the WSDA to take the lead in developing better ways to eradicate Gypsy Moths.

Book Review

The Street-Smart Naturalist:
Field Notes from Seattle
By David B. Williams
WestWinds Press
224 pages \$14.95



Back to the city, or back to nature? In his newest book, author and WBA member David Williams shows us how we can get the best of both. Botany and bugs, geology and geese, creeks and crows; living in a major city doesn't have to separate us from the natural world. Stepping away from a typical guidebook format, Williams presents the reader with a series of essays that weave personal musings, bits of humor, natural history observations, and scientific data into a multi-textured perspective of life in the city.

Through explorations as diverse as walking the length of Thornton Creek, bicycling to the top of the Seven Hills of Seattle, and going out in the field with an urban crow researcher, Williams addresses questions that an observant person asks in an urban environment. What did Seattle look like before Europeans got here? How does the area's geologic past affect us? Why have some animals thrived and other languished? How are we affected by the species with whom we share the urban environment and how do we affect them? This book captures all of the distinctive flavors of the Emerald City, urban and natural.

For more information including an outline of each chapter, visit David Williams' website at:
www.seanet.com/~wingate/

This book will be available in May.

Confessions of a Beginning Butterfly

by Tom O'Connell

As yet there have been no butterflies reported in the canopies of the coast redwood trees in northern California, but it may be only a matter of time. Researchers from Humboldt State University in Arcata are finding all kinds of surprising flora and fauna up there.

These amazing trees are typically 300 feet high and some are much higher. They are estimated to be between 2000 and 3000 years old. Their canopies are so high up that they have never before been carefully explored. But now Humboldt State explorers are finding that the canopies are packed with epiphytes in layers up to 3 feet deep. This canopy soil supports a variety of life that includes great fields of ferns, thickets of huckleberry bushes, small pink earthworms of an unidentified species, aquatic crustaceans and wandering salamanders. Since these salamanders, which are brown and gold, breed in the

canopies, they appear to get along without every visiting the ground. Other trees also grow way up there where the redwoods throw out multiple trunks which then fuse together to make separate forests. Fir trees, oak trees and laurel trees have been found in those forests. One 8-foot sitka spruce tree has also been found.

How do those researchers get up to these amazing canopies? And how do they STAY up there to do their research? These and other questions are answered in a recent New Yorker article. It is written by Richard Preston and appears in the 14 & 21 February issue.

Can they find BUTTERFLIES living up there?

Tom O'Connell

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Membership Application

Washington Butterfly Association

The Washington State Chapter of the
North American Butterfly Association (NABA)

Yes! I want to join WBA/NABA and receive *American Butterflies*, *Butterfly Garden News* and *WBA Newsletter*, as well as other member privileges.

Name: _____

Address: _____

City, State, Zip _____

Phone: _____ Email Address: _____

Special Interest (circle): Listing, Gardening, Observation, Photography, Conservation, and Other _____

Dues enclosed (circle): Regular \$30 (\$60 outside U.S., Canada, Mexico)

Family \$40 (\$80 outside U.S., Canada, Mexico)

Payment must be in U.S. dollars.

Mail application form to: NABA, 4 Delaware Rd., Morristown, NJ 07960