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**Upcoming Programs**

**September 5. PNW Moths: The Making of a Website.** This summer, a team of researchers from institutions across the region saw three long years of work come to fruition in the launching of Pacific Northwest Moths, a website featuring high-resolution photographs of more than 1,200 species, along with detailed descriptions and distribution maps and an easy-to-use identification key. The site allows users to play with a vast dataset on moth distributions, providing the opportunity to study shifts in seasonality and distribution. At the same time, it is the first comprehensive source of information on this group of Pacific Northwest lepidopterans whose diversity far outstrips that of the region's butterflies. Two of the principal contributors to the website, Lars Crabo and Merrill Peterson, will tell us about how they pulled together this vast resource, and provide demonstrations on how to take advantage of the many features the site has to offer. They will also give tips on where, when, and how to find moths, many of which rival in beauty our most spectacular butterflies.
October 3. Matching the *Euphilotes* Blues to the *Eriogonum* Buckwheats They Use. Dave Nunnallee will discuss the *Eriogonums*-Blues associations in our area, where they occur, some basics of buckwheat identification and why identification is important. He will describe some of the recent discoveries and how they are critical in the larger picture of *Euphilotes* (buckwheat blues) distribution and speciation and some of the differences observed in various locations. He will also present some of the *Plebejus* (acmonoid) blues which use buckwheats, what is being done elsewhere by professionals, and how additional field work may help to clarify this confusing group of blues as well. Through his excellent photos Dave will illustrate all the buckwheats and the butterflies discussed.

A DVD photo guide with field marks and comments showing the Washington Buckwheats will be available for purchase price of $10 with 100% of the proceeds going to WBA. (Thanks to Dave for making this generous offer!) To assure getting one you may preorder it by putting in a request at: wabutterflyssoc@earthlink.net and paying for it at the meeting.

The next meetings will be November 7 and December 5. Programs to be arranged, check website for details.

### Antennae Up in the Methow Valley

It’s natural that the Methow Valley should buzz with butterfly fans; Okanogan County boasts more species than any other county in the state. This July saw more flurry than usual, as local Lepidoptera enthusiasts happily welcomed David James and his family when the Methow Conservancy invited him to deliver a “First Tuesday” lecture and lead a field trip.

David’s new book, co-authored with David Nunnallee, was the reason for his visit. On July 10, he explained the painstaking compilation of *Life Histories of Cascadia Butterflies* to an appreciative audience of over 50 people. The following day, 20 lucky participants with advance reservations assembled for David’s field trip on the road to Slate Peak.

As always, the entire James family contributed to the trip; Jasmine and Rhiannon netted several species that the group would otherwise have missed. The caravan of cars progressed slowly along the road, stopping for open meadows and a productive seep in the roadbed. Late-melting snowbanks kept the group from attaining the peak; lunch was had at the last drivable parking lot amidst a glory of glacier lilies but very few bugs.

David’s visit attracted attention in the local online news format Methow Grist. Writer Sheela McLean described his lecture, his book, and his work with monarch larvae-rearing at Walla Walla penitentiary. (See the article and photos: [http://www.methownet.com/grist/features/butterflies.html](http://www.methownet.com/grist/features/butterflies.html) ) She emphasized the allure of Slate Peak’s Melissa Arctic, and that species’ refusal to cooperate for the larvae book. Probably Methow residents will now be seen lurking in wait at Slate Peak, hoping to capture a gravid female for the two authors. – Joyce Bergen

### Summary of 2012 Field Season

After a slow beginning at Schnebly Coulee with Dave Nunnallee (cold and cloudy, few butterflies), Umtanum Ridge, again with Dave (24 species), Snow Mountain Ranch with David Droppers (11 species), and soggy trips at the Wings Over Eden conference, the weather warmed and our field season kicked into high gear.

Chumstick Mountain, June 30. For our annual 4th of July count, the forecast was 80% chance of thunderstorms. But they missed us and the weather was glorious. Parties attacked the mountain from three routes—Derby Canyon and Eagle Creek from the west and Swakane Canyon from the east. None of us were great at identifying butterflies on the wing, especially blues and frits. But we counted at least 24 species with an estimate of over 500 individual butterflies. – Al Wagar

Spokane area, July 7. John Baumann and Brenda McCracken led a group of more than a dozen people on a short butterfly walk on a new Inland Northwest Land Trust area called the Carder-Hanson Easement. The land is situated overlooking
Lake Coeur D'Alene's Cougar Bay. Despite blistering heat, the group located nine species of butterflies, including what seems to be North Idaho's first known colony of the European Skipperling, *Thymelicus lineola*. – John Baumann

Reecer Creek, July 14. Led by Bob Hardwick, a large group of our members returned to a favorite location, Reecer Canyon. We invited Issaquah Alps Trail Club members on this trip. Dave Nunnallee was interviewed for an article in their quarterly, *The Alpiner*. Six of their members joined us, and several were beginning to ID some of the butterflies as the day progressed. We were also joined by two home schooled families. This meant we had five enthusiastic young people leaping after our fluttery friends. Thunderstorms had been forecast, but not until 2:00pm, so we left with high hopes and were well rewarded, seeing 41 species at locations which included a variety of habitats and altitudes. The Great Arctic and Lilac-bordered Copper were new to some of us. We saw five species of hairstreaks: Sylvan, California, Half-moon, Behr, and Coral. Right on schedule at 2:00pm the clouds rolled in and it began to thunder. However, it never rained, and we finished the day amazed at our numbers. – Melanie Weiss.

Hurricane Ridge, July 24. The Hurricane Ridge Trip was a joint field trip with the Olympic Peninsula Audubon Society, with 24 of us looking for butterflies, birds and wild flowers along the Hurricane Hill trail and the Obstruction Point Road. The flowers were spectacular, especially the lupines, larkspurs, paintbrush, phlox and lilies. Even though it was sunny the butterflies were still trying to warm up from the previous cool week so not the variety we had anticipated, but 15 species were seen in all including on the road back to the bottom. Being in a national park we were unable to use nets. The spectacular views with the foreground of flowers make this a very special place. – Idie Ulsh.

Quartz Mountain, August 4. In scouting the trip, Maureen Traxler found the road washed out 10 miles from the summit. Dave Nunnallee described another route, with no guarantee that it wasn’t also washed out. But Maureen said we’d find butterflies en route, even if blocked part way to summit. To our delight, Pine Whites were swarming all over the Ponderosa Pines at our first stop, the Indian John Hill Rest Area. At Gnat Flat butterflies were concentrated on the widely scattered clumps of goldenrod, there being few other nectar sources. As we gained elevation we saw both Parnassians and, at the summit, saw the Thicket Hairstreak (a new find for the area) and the Arctic Fritillary, new to many of us. All told, we found 37 species. Thanks, Maureen. Great trip! – Al Wagar.

Sauk Mountain, August 11. Colin Doan led a group of 9 butterfliers up the stunning flower meadows of Sauk Mountain. We netted a variety of bugs along our way including: Clodius Parnassian, Western Meadow Fritillary, Mormon Fritillary, Purplish Copper, Vidler's Alpine. At the top, hot and hungry, we stopped for lunch and views. After hiking a bit further, we were surprised to find an Arctic Fritillary and a Margined White. Tired, dusty and satisfied with a fine hike, we reached the parking lot and were treated to cold watermelon by Colin and his dad, Paul, a great cap to the day! – Melanie Weiss.
After a long cool and wet Spring, Summer finally arrived. Of particular interest to us, it arrived a little after our Eden Valley Conference. It would be an understatement to say that we would have much preferred sunny and hot to the cool, cloudy and wet we had for the conference. However, the Okanogan landscape was just beautiful and the location could only have been more appealing with a blue sky backdrop. Eden Valley Ranch provided a lovely setting for our meetings and field trip departures. Dave Nunnallee oriented us to the butterflies of the area on Friday evening. Rain with thunder and lightning waited until just after we went to our accommodations but then put on a show. You hate to bring rain gear to a butterfly conference but in that moment we were glad we did.

Bob Hardwick gathered us for the Saturday morning field trip under grey skies and cool temperatures. With his trademark enthusiasm he took us to great butterfly spots on nearby Mount Hull, a place that should be a hotspot. If enthusiasm could change the weather Bob could do it but wet and cloudy and cool prevailed. Thank goodness for Colin Doan finding that first Common Alpine. The butterflying was slim so fungi and plant identification stepped up from time to time to engage the intrepid gang. The skies did improve a little late in the day when a hardy few continued to find some of the expected species. We changed to dry clothes and came together in good fellowship to a delicious meal Saturday evening where Dana Visalli presented an interesting and informative talk on the relationship of plants and butterflies and how each piece contributes in a unique way to form the complex puzzle of life.

Dave Nunnallee gathered us on Sunday morning, again under grey skies, for our field trip to Mary Anne Creek, another good Okanogan butterfly spot. This time ornithology stepped up to engage the group with several Wilson’s Snipes providing their aerial winnowing acoustic display - against grey skies - in the absence of butterflies. However, we quickly observed the resilience of butterflies as grey clouds parted for about 30 minutes and butterflies came out all around us to fly in the brief sun. One was a Great Spangled Fritillary, a very special species for all of us. It was the more wonderful to see one species after another rise up from beneath our feet after the preceding lack of activity – and then to see it go quiet again as the blue sky hole closed again.

Certainly, it was damp and grey and cool but we had a great time and it was wonderful conference. We will remember this one with affection. We enjoyed each other, we enjoyed a beautiful landscape, and each butterfly species we found was enjoyed especially. We learned of special butterfly places we will want to return to another time. Our special thanks go out to Joyce Bergen, our good venue scout and arranger, Al Wagar, our conference registrar and all around get-things-done guy, Bob Hardwick and Dave Nunnallee our field trip leaders and Idie Ulsh, who arranged for Dana Visalli to speak to us. Many others contributed in many ways to make it a success. Thanks to all who helped and all who attended. You are all such good sports and great company to spend a special weekend with.

We are already looking at sites for the 2013 Conference. If you have a suggestion for a good place send me an email or give me a call.
Not a butterfly: Spencer Smith with a shaggy mane mushroom.

Also not a butterfly: The next generation of herpetologists with a wandering garter snake, *Thamnophis elegans vagrans*.

Bob Hardwick rallies the troops on Saturday morning.

Looking for butterflies in wet grass.

All photos this page by Richard and Connie Youel.
Non-consumptive appreciation of butterflies is central to our purpose, basic to our approach, and the guiding principal behind general membership field trips. Collecting of adult butterflies is not allowed on these trips. Collecting of eggs and larval stages for rearing is accepted on condition that individuals raised to adult stage are released at their original location.

<table>
<thead>
<tr>
<th>Date</th>
<th>Destination/Description</th>
<th>Difficulty</th>
<th>Trip Leader/Contact</th>
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</thead>
<tbody>
<tr>
<td>August 25</td>
<td>Ellensburg Overlook &amp; Snoqualmie Pass</td>
<td>1 - 2</td>
<td>Al Wagar</td>
</tr>
<tr>
<td>Sept 1 (8)</td>
<td>Sheep Lake (Chinook Pass, Mt. Rainier)</td>
<td>2 - 3</td>
<td>Bob Hardwick</td>
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Sheep Lake is located along the Pacific Crest Trail. The trip will begin in the parking lot just east of Chinook Pass, just past the east entrance of Mt. Rainier National Park. The trail leaves the parking lot and parallels the highway 410 (east) for about 1 mile then leads up a valley northward for another mile to the lake. The butterfly area is the wet meadows at the head of the lake. The hike is for people that are in reasonably good condition. It is not difficult, but is about two miles (one way) and some uphill trail climbing. It is a beautiful area, and very popular with hikers. The area is Forest Service land, and is located on the western edge of Yakima County. Participants will meet Bob at the Krispy Creme Donut Shop at the Tacoma Mall at 8:00 a.m. People from Seattle should car pool together if possible and travel to Tacoma to meet Bob. Any questions contact Bob at bobhardwick2@gmail.com Bring lunch and drink and good hiking shoes.

HOW TO SIGN UP: Anyone can sign up at a WBA monthly meeting or by contacting the trip leader. (See Board and Committee list in this issue for contact information)

RAIN DATES SHOWN IN PARENTHESES

DIFFICULTY RATINGS:
1 Easy, mostly by car, minor walking along roads
2 Fairly limited walking, some slopes involved.
3 Moderate, up to 1.5 miles walking with moderate slopes.

WHERE & WHEN TO MEET: Trips depart from the north half of 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. On request we also stop at the Issaquah Park & Ride at 7:30 a.m. To reach the Issaquah Park & Ride: going eastbound on I-90 take Exit 15 (1st Issaquah exit). At exit stoplight turn right (south) and drive 0.45 mile to Newport Way intersection (traffic light). Turn left (east) on Newport Way and drive 0.1 mile to another light, and turn right (south) into the Park & Ride.

If you live in another part of the state, contact the trip leader to arrange where to meet the field trip group.

Please tend to personal matters such as getting coffee or lunch food before departure time so others are not delayed. Bring your own beverages, snacks and lunch for a day in the field.

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.

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

COSTS: Passengers are expected to share gasoline expenses. Typically this is $10-20 each. Each rider should also pay a share of any park entry fees, ferry fares, etc. 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.
Number Ten:

One Day in Willapa

As if in poetic revenge for my last-but-one column, "Mold Butterflies: The Rot Factor", this past spring and early summer were perhaps the worst for butterflies in my entire three decades-plus in Wahkiakum County. I took some comfort in the fact that I would be in my old Colorado butterfly haunts not once, but three times between May and August. The state where I learned my butterflies is rightfully famed for its high diversity and abundance of these insects. But in the event, all three visits were fairly understated for their butterflies. Whereas a La Niña year here on the West Coast means a wet, stormy spring, it conversely (and perversely!) makes for an early, hot, and parched summer inland. So the Colorado flowers and pollinators came on early, then dried out and just dribbled through the rest of the season. So we got the worst of it at both ends; we couldn't win for losing.

The other saving grace, however, to which I looked forward, was the almost-always reliable coming of what the English call High Summer—those languorous, Mediterranean days of August, when the rain finally retreats, the sun decides to come out until at least early fall, and the butterflies—no matter how bad it's been before—at last appear. This year I missed the start of this annual calendrical gift, trying to find arctic-alpine butterflies in the Rockies. But when I came home, there it was—the mornings of heavy fog, burning off into days of echo-azure hue that might reach seventy degrees. . . or even eighty! But would the butterflies respond, even this summer, moldiest of moldy years?

So often it happens that the best days outside are days that we are obliged to remain indoors, for work or family or other pressing needs. Yesterday was the exception: I spent it exactly where I wanted to be—on our front porch, in full view of the sunny side of the garden. Oh, I was working, but it was work that could as easily be carried out there, as within the house. As it happens, I was meeting with Jean Thompson Black, my editor at Yale University Press, which is going to publish a paperback edition of my book Mariposa Road. Jean elected the front porch for our conference site, and I readily concurred. Though our session probably took twice as long for all the distraction, it worked out just fine.

As the morning mist lifted and the temperature climbed, the first respondent was an almost black flip-flopping form, one of several common wood nymphs that would dance around the house all day. He (it was a fresh male) alighted on the porch rail just out of reach, where Jean could see the double-defense of crypsis (camouflage—but not against white paint) and bright eyespots to draw avian attack away from the body. Then came the little darting deltas of the woodland skippers, nectaring on scarlet pinks in a pot at our feet, and then, successively, on almost every other nectar source around the place. Tawny and fleet, they made things lively in a hurry. It wasn't long until whites turned up bouncing across the yard like self-propelled ping-pong balls, both our native margined whites and a cabbage white or two. Western tiger swallowtails came and went, their long legs dangling like an airplane’s undercarriage, as if overseeing the whole show.

Already this would have been a pretty good showing for these depauperate precincts, but from there it just got better. It is the time of the bright nymphs of High Summer, and they did not disappoint. The day before, Thea had spotted a light, fresh satyr angling around a leaf, having been dispatched by a large crab spider. Now here was another satyr, zipping around the big Port Orford cedar they always seem to prefer, and making sallies into other sunny corners of Swede Park. One salmon flash may have been a lone painted lady passing through, and then a couple of its congeners appeared on various flowers alongside, and nudging over, the skippers: these of course were red admirables, or as WBA native plant guru Stewart Wechsler delightfully calls them, red-gartered ladies. As many readers know, what most folks call red admirals invaded the Northeast and upper Midwest this spring by the many thousands, maybe millions. The West experienced no such massive influx, but they have turned up in our usual modest numbers.
Jean was already charmed by the demonstration, which would have caused anyone who didn't know any better to think we dwell in a great butterfly spot. As trains of skippers swirled around the garden like little gold meteors, and the swallowtails dabbled and floated, we both had a challenge keeping our minds on our task. And it wasn't just the butterflies! As we watched a woodland skipper sipping from a yellow flower of the native large-leaved avens, a scarlet meadowhawk basked on the tip of a sword fern just beyond. Then a rufous hummingbird came to see us, hanging in the air right before our noses. An aggressive male swallowtail harassed a pale worn female until she left, and then flew twenty feet straight up at a passing raven.

Then came the capper, as a large form floated slowly across our vision. It was about the biggest, broadest female Lorquin's admiral I'd ever seen! The size of a California sister, she levitated back and forth across the porch, around the front yard, over the rhodie, under the oak, 'round and 'round the house, with the occasional flick of her citrus-tipped wings, for the next couple of hours. "She's parasailing!" said Jean, who couldn't believe the collective spectacle. I tried to act as if it were all just normal in these sunny climes of ours, but really, I couldn't believe it either. Later, Jean summed up the admiral's display, and the day's butterfly watch as a whole: "That was the best bib'n'tucker performance ever!"

And so the day played on, cadres of swallowtails up and down and all around, and a single late-brood echo azure passing through the field of my binoculars as I watched the tigers. Of the week's butterflies, only a Clodius parnassian failed to appear for the day's tally. When we finally had to go in, the swirl was still in play.

* * *

So what does it say, that one of the worst butterfly counties in the country could offer up "the best bib'n'tucker performance ever" in the appraisal of an experienced natural history editor? To me, it reinforces what I often tell people when they ask me why a butterfly guy like me lives in a damp place like this: in the first place, it may be subtle, but there are certain species well adapted here that can furnish some good lepping. In the second, being so subtle, few have studied the cutover rainforest of the Willapa Hills, so that much of what one does find is excitingly new. And thirdly, what one learns from a relative barren is the power of the individual: when they are so few, you come to fully appreciate every single butterfly, and that is a gift. But in this instance, I didn't need to invoke any of those rationales: it was just plain spectacular, by any standards, with several butterflies of several kinds visible at any one moment, in a great moving montage of color and motion.

This one day in Willapa also goes to show that butterfliers everywhere may live in hope of better days to come: if a day like this can happen here, it can happen almost anywhere. Even in a season that has been notoriously wretched in its earlier weeks, conditions can congeal to bring about a perfect storm of butterflies. This happened in 1992 and 2002, all summer long; and it has happened here again in High Summer, 2012.
There are about twenty species of blues in Washington, including two species and one subspecies of *Celastrina*. *Celastrina* is a genus of small blues in which the males are bright blue dorsally while the females are mostly brown with less blue and have broad black peripheral bands on the dorsal forewings. The Dusky Echo Blue is regarded as a subspecies of the Echo Blue, *Celastrina echo echo*, although some consider it to be a full species.

*Celastrina echo nigrescens* flies in northeast Oregon, east of the Cascades in Washington and in the Kootenay Lakes region of British Columbia, however its range has not been clearly differentiated from that of *C. e. echo*. In areas where the two subspecies fly together, worn adults of *C. e. nigrescens* may be seen with freshly eclosed *C. e. echo* indicating partially offset flights. The flight period for *C. e. nigrescens* is poorly known but extends at least from April 10-May 29 in Washington and there may be a partial second brood. Known habitats include lower mountain canyons, open shrub habitat and mountain corridors such as roads and trails. *Celastrina echo nigrescens* utilizes some of the same larval host plants used by *C. echo echo*, although our database is small. In early April *C. e. nigrescens* eggs can be found on *Cornus sericea* (Red Osier Dogwood) and *Ceanothus velutinus* (Mountain Balm or Snowbrush), and *Holodiscus discolor* (Ocean Spray or Cream Bush) appears to be used as well.

Males often congregate at mud or ashes and mating occurs in the immediate vicinity of host plants. Males can be numerous while females are reclusive and inconspicuous. Females inspect several terminal bud clusters of a host plant before laying a single egg, tucked between the buds as deeply as possible. Eggs hatch in 3-4 days and larvae grow rapidly, pupating 17-19 days after hatch, the adults eclosing 9 days later. First instar larvae chew round holes through the sides of flower buds and hollow out the insides. Larger larvae feed heavily, eating only buds and stems, refusing leaves and avoiding aphids. *Cornus* bud clusters with several damaged buds are a good field sign for locating larvae. Larvae do not build nests and do not leave the host plant until pupation. Rapid larval development to adult in captivity suggests that *C. e. nigrescens* may be double brooded, but field observations are needed for confirmation. Larvae are solitary but will withstand crowding in captivity. The mature larva is bright green with reddish brown markings, a bold white side stripe, and bold white markings in chevron patterns on each segment. The pupa is light brown becoming dark later, with numerous bristly blond setae. There are four instars and overwintering occurs as a pupa. Eggs and larvae may be found on terminal clusters of buds of the host plants, usually 3-6 feet above the ground. In one instance eggs of the sunflower aphid (*Aphis helianthi*) on dogwood stems hatched concurrently with *C. e. nigrescens*, and an attack by aphids on a first instar larva was observed, an aphid attaching its sucking mouth parts to the larva while others aphids attempted to do so as well. This appears to be the first report of an aphid attacking a butterfly larva.

The adults of *C. echo nigrescens* are very similar to those of *C. echo echo*. The Dusky Echo Blue differs in often having more darkly marked ventral wings, but it varies from nearly as pale as *C. echo echo* to nearly as dark as *C. lucia*. The most noticed dark markings include a broad dark band around the edge of the ventral hindwing (VHW). Also the VHW of *C. echo nigrescens* is said to have a "blurry" appearance, with markings less crisply defined than in *C. echo echo*. In some areas adults of *C. echo nigrescens* and *C. echo echo* may be found together. In such areas *C. echo echo* usually flies a little earlier but with some overlap. The full extent of the range of this subspecies needs study.
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

Further information: wabutterflyassoc@earthlink.net or call Idie Ulsh at (206) 364-4935.