



# G'n<sup>u</sup>m\*

The newsletter of the Washington Butterfly Association

P.O. Box 31317 Seattle WA 98103  
[www.naba.org/chapters/nabaws](http://www.naba.org/chapters/nabaws)

\*G'n<sup>u</sup>m is the official greeting of WBA. It is derived from the name of common Washington butterfly food plants, of the genus *Eriogonum*.

## Recent Programs



For our November program, **Dr. John McLaughlin** discussed butterfly population responses to climate change. John has been studying the effects of climate changes on butterfly populations in North Cascades National Park and Mt. Rainier National Park. He and his team conducted surveys of alpine and subalpine habitat of the Parks in 2008 and 2009. Long-term butterfly monitoring methods are also being developed. Species distributions in these habitats are expected to change most rapidly and dramatically in response to climate change.

Photo by Al Wagar

In December, **Bob Hardwick** shared his adventures in Ecuador with us, starting in Quito and moving on to three different lodges on the Napo River. His trip was in early October, during the dry season. He described the excellent food at La Selva Jungle Lodge, the more luxurious accommodations at Sacha Lodge, and the best butterflying he has ever experienced along the 1.5 kilometer dirt road leading into Cabañas Aliñahui. He traveled with Shirley Sekarajasingham and Richard Lindstrom, who gave a marvelous presentation in April 2010 on the skippers of the region. Bob showed his wonderful photographs of a wide array of additional species, which had everyone oohing and aahing. Shown at right are an eyemark (top) and clearwing (bottom).

Photos by Bob Hardwick



## Next Program

WBA meetings are held the first Wednesday of each month 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.

### March 2 – David Droppers

**“Don’t black out because of the blues... help has arrived!”**

With 19 species of blues in Washington State, remembering all those identification cues can be near futile. David Droppers has been working on a tool that will help us with those confounding blues. He will be sharing his dichotomous key to the Blues of Washington State, and showing us how to use it. In addition, David will give us a refresher course on the identification of these blues. With this new guide in our pockets, field identification will not be near as intimidating.

## President's Message - from Richard Yonel

WBA had its annual Holiday Party on Saturday evening, January 22. Jon Pelham was generous to host it at his house again. It is generous when you think of having about 25 fun-loving party types milling about talking, laughing, sharing stories and balancing paper plates heaped with food on their laps on your good furniture and clean carpet. The food was excellent with the annual smoked turkey as a centerpiece, surrounded with a wonderful array of potluck specialties. The gift exchange was spirited with the several highly sought after items making the rounds from person to person to the delight of the new recipient and the groans of the past recipient. This year seemed to be heavy on really nice things and lighter on the white elephants.



*Winter Party Feast*



*Winter Party Gift Exchange*

Speaking of Annuals, the Board expects to have the Annual Conference in the Spokane area this summer. WBA has a core of enthusiastic members with excellent butterfly expertise in the area and a wealth of favorite butterfly field trip locations. The Board is following up on our Outreach focus and the Spokane area presented itself as a great butterfly area with potential for new members. It promises to be a fun location with great butterflying and it will be even more fun if we have new people joining us and discovering that they live in a butterfly-rich place. The exact location has not been determined yet but areas to the north of the city look very desirable. Joyce Bergen is working on venue possibilities. More news to follow soon. As part of our outreach effort, Idie Ulsh will present a program titled "Wings of Beauty" in Spokane on April 14.



## Watching Washington Butterflies with Bob Pyle

### Number Four: "My" First Six State Records

I will never forget that hot last day of July, 1975, in deepest Asotin County, where the Grand Ronde River meets the Snake. My field team was exploring little-sampled sections of the state to fill in species records for my research on eco-geography of Washington butterflies. Working in the very corner of the state, near a major intersection of butterfly freeways (= rivers), I knew we had a chance of finding something new. So when I spotted a deep russet nymph that I didn't recognize, I initially imagined it might be a question mark (*Polygonia interrogationis*)—way out of its eastern range! But it was another rarity: offspring of a viceroy paired with a Lorquin's admiral and a viceroy (*Limenitis lorquini* × *Xarchippus*). Few such hybrids were known.

Imagine my surprise moments later when a tiny yellow butterfly appeared before me. I knew what it was immediately, and shouted "STATE RECORD!" even before I netted it. My helpers were finding them too. Between us, we encountered seven fresh males of the dainty sulphur or dwarf yellow (*Nathalis iole*): the first ever recorded for the state, and one of only three finds



Dainty Sulphur (*Nathalis iole*)  
Photo by Idie Ulsh

in the entire Pacific Northwest. *N. iole* is a southern resident that irrupts into the North every year for several generations, then dies back in the fall. The immigration peaks in the Midwest, with only a very few outliers reaching the Northeast or Northwest. I've been studying this species' northerly movements ever since, and may someday actually publish on the

subject. In the meantime, this exciting find gave me a taste for new state records, and left me primed to find some more.

Few of us can resist the allure of discovery, and when it comes to a state butterfly club, what calls to us more (unless it be a brand new species to science!) than a new member of our state check-list? My next opportunity, unlike the near-random find of the dainty sulphur, came as a protracted search. From the Army



Golden Hairstreak (*Habrodais grunus*)  
Photo by Dave Nunnallee

Corps of Engineers' *Washington Atlas*, which roughly mapped a number of rare plants, I learned that golden chinquapin (*Chrysolepis chrysophylla*) barely dipped into southern Washington. If we could find the plants, we might also find the beautiful golden hairstreak (*Habrodais grunus*), which feeds on the small chestnut relative.

Several expeditions ensued. The first couple were wild goose chases, because the Corps' *Atlas* mistakenly placed the plants in Clark County. Another, with Jon Pelham, aborted in deep snow when we went looking for winter eggs in the foothills of the correct county, Skamania. Finally, Prof. Art Kruckeberg published a paper on chinquapin in Washington, situating two stands: one along Hood Canal, the other near the foot of the Big Lava Bed in Gifford Pinchot National Forest. No sooner did Sally Hughes, John Hinchliff, and I arrive on the scene, on September 7, 1980, than the long-sought butterfly obliged. Within moments of our arrival, John spotted one, I netted another, Sally found eggs—and we had our state record. As with the dwarf yellow (and most such

discoveries), the finding of the golden hairstreak was a collaborative rather than a solo effort. We're still looking in the Hood Canal chinquapin stands.

The sachem skipper (*Atalopedes campestris*) had long been known as another northward immigrant in summers, well into the Willamette Valley. After Maurita Smyth found the first one in Portland, I started looking in southwesternmost Washington. We'd often seen it on fall garden flowers in Corvallis during the Halloween meetings of the Northwest Lepidopterists



Sachem Skipper (*Atalopedes campestris*)  
Photo by Dave Nunnallee

Association, so I took to checking marigold patches along the Lower Columbia in fall. On an autumn day in 1990, Thea had business in a tall office building just outside the Vancouver Mall. Waiting below, I noticed tawny skippers on the flowerbeds. Most of them were woodland skippers (*Ochlodes sylvanoides*), as expected, but one looked larger. Leaping out of the car, I saw that it was bigger, and bore the distinctive glassy forewing spot of a female sachem! I had no net along, but fashioned a tiny one from a cotton pecan bag and a stiff piece of wire borrowed from a nearby electrician. Woodlands kept putting up the sachem, but I finally got a clear shot--and the state record! Not long after that, as we know, sachems colonized Washington in a big way, becoming the first species of butterfly demonstrated (by Lisa Crozier) to expand its range in response to warming trends. Now it occurs up and down the Columbia and tributaries at least to Carson, Yakima, and Othello.

Next came another immigrant skipper, again following a concerted search along our borders, but this time we found it on the northern edge rather than the southern. The European skipperling or Essex skipper (*Thymelicus lineola*) is our only other widespread introduced species, besides the cabbage white (*Pieris rapae*), in North America. Thea had found the state records in both Montana and Idaho in recent years, and it was known to occur in B.C. Merrill Peterson told me that he'd seen it along the freeway verges south of Vancouver, B.C. So after many searches in all the other corners of the state, we traveled to Blaine for a look-see. There was nothing but a cabbage white in the sprayed gardens around the Peace Arch. But when we checked out a weedy powerline right-of-way just east of Blaine, a grassy corridor coming directly out of Canada a few hundred yards away, we spotted slow little golden skippers right off the bat. To preserve her Northwest skipperling streak, I made sure Thea netted the first one. She tripped on a hidden cable going for it, but caught it on



European Skipperling (*Thymelicus lineola*)  
Photo by Dave Nunnallee

the way down for our fourth state record, and her third for that species. Now if she can find one in Oregon, she'll have the grand slam! *T. lineola* has since spread south, but more slowly than I expected: only as far as the Birch Bay-Lake Terrell area so far (fide D. Nunnallee). Happy on Timothy and reed canary grass, it will surely keep going. David James's discovery of the species in northeast Washington gives pause for concern for the rare native skippers in that region. On

the Big Year, I found *T. lineola* enormously abundant on the Little Bigfoot in Montana, whereas woodland skippers and other grass skippers were almost absent.

The pattern of targeted pursuits continued, but even more so. As an early product of the ecological and revisionary work on the "dotted blue" group (*Euphilotes* spp.) that Andy Warren, Dave Nunnallee, Jon Pelham and others are engaged in (which is revealing several "hidden" state records by entirely different means!), Andy determined that we didn't really have *E. enoptes* in Washington as we'd long thought. Instead, the things we'd called dotted blues ("*E. enoptes*") were actually Columbia blues (*E. columbiae*, a name elevated from subspecific status). Andy suggested that if anyone could find its hostplant (*Eriogonum nudum*) in the state, he or she might well find true *E. enoptes* as well. How could we resist such a challenge? In the state herbarium data base, Thea and



*Euphilotes enoptes*  
Photo by Dave Nunnallee

I found two records for the plant--one old, vague one in the Goat Rocks, and one specific, more recent one in the Tieton country--made by none other than our old mentor, Art Kruckeberg! So, going on yet another of Art's botanical tips, we found the site, found the plant, and on our second visit, found the butterfly--all over it! Thea popped across the road and netted the first one. Since then, Dave Nunnallee and David James have found it in additional sites.

My final SR was the only one I pursued (and found) on my own. But even that depended on others--another tip from Andy, in fact, responding to a

tip from Neil Bjorklund—who had spotted a western pygmy blue (*Brephidium exilis*) on the Umatilla National Wildlife Refuge on the Oregon side of the Columbia. Andy challenged Washington lepidists to go find it on the Washington side. I drove over there, camped, awoke



Western Pygmy Blue (*Brephidium exilis*)  
Photo by Dave Nunnallee

to rain, and spent a sodden September day tapping up just a sulphur, a monarch, and a damp juba or two. Then, after 7 p.m., the sun came out and illuminated a brilliant rabbitbrush and a nearby Russian thistle. I tapped both, and up from the *Salsola* popped a little bit of glitter: Washington's first (and still sole) pygmy blue!

Each of these discoveries has been both exciting and fulfilling, adding to the sum total of our knowledge about Washington butterflies while affording the satisfaction of successful hunts and memorable days afield. Additional finds await, especially as ranges continue to expand northward with climate change. In my next column, I will predict the next six state records that we--or you!--might find.



Bob Pyle, Dave Nunnallee, and Caitlin LaBar  
Photo by Robin Lewis





Our species profile for this issue is the Cedar Hairstreak, *Callophrys gryneus* ssp. *plicataria*.

Hairstreaks belong in the subfamily Theclinae, which in turn is in the large family Lycaenidae; in addition to hairstreaks this family also includes the blues, coppers and metalmarks. Hairstreaks are small butterflies, often with tail-like extensions or "hairstreaks" on their hindwings. In Washington there are eighteen species of hairstreaks, ten of which are now included in the genus *Callophrys*. Until recently *Callophrys* included only our three green hairstreaks, but has now been expanded to include the mistletoe and cedar hairstreaks (previously *Mitoura*) and the elfins (previously *Incisalia*). This species was previously placed in *Mitoura*, the hairstreaks which use conifer trees or the mistletoes growing on them as their larval host plants. Hairstreaks are spring and summer butterflies and are often highly regarded by lepidopterists.

The cedar-feeding subspecies of *Callophrys gryneus*, *C. g. plicataria*, occurs in NW Oregon, W Washington and S Vancouver Island. *Callophrys gryneus plicataria* is single-brooded in WA, flying from mid April to early July. Adults are usually scarce, localized and rather unpredictable, but population outbreaks occasionally occur. One spring, on May 26 we observed an 'outbreak' along the upper Nooksack R in Whatcom Co., when hundreds of adults were on the wing. Adults fly in open forested areas near large cedars, along roadsides and in flowery clearings. They often fly to ground level for nectar, utilizing a wide variety of flowers including dandelions, blackcaps and forget-me-nots. Steep hillsides where the ground is at eye level with higher tree branches can be good locations to find them.

In the spring females lay eggs singly on new-growth needles at the branch tips of mature cedar trees, especially *Thuja plicata* (Western Red Cedar). In captivity eggs may be placed on either surface of the needles. Eggs hatch in 5-6 days, and larval development from egg hatch to pupation occupies ~39 days. The larvae feed on tender terminal needles, chewing small round holes usually near the tips, using their extendable necks to hollow out the insides. The larvae are solitary and may be cannibalistic if crowded. All

instars after L1 have four parallel longitudinal yellow-white stripes, two dorsal and one ventrolateral on each side; these stripes become prominent but broken in the mature larva giving a braided green and yellow appearance, closely resembling the "woven" pattern of cedar needles. No other Cascadia butterfly larvae are likely to be confused with this species. Larvae do not construct nests, relying instead on superb camouflage for protection. There are four larval instars. The pupa is secured by a silk girdle, probably high in the trees, and is the overwintering stage.

Adult *Callophrys gryneus* are easily separated from all other hairstreaks except *Callophrys johnsoni* (Johnson's Hairstreak) and *C. spinetorum* (Thicket Hairstreak), which are somewhat larger and darker and lack purple coloration on the ventral hindwing. Adults perch with their wings upright and together so the dorsal surface is not visible. The two subspecies of *C. gryneus* are quite similar, but the juniper-feeding *C.g. chalcosiva* is separable by its more purplish ventral hindwing, more reddish-brown in *C.g. plicataria*. Females are similar to males but can be identified by their egg-swollen abdomen. The taxonomy of *C. gryneus* has been hotly debated among lepidopterists; in the past as many as five species have been split from this taxon. One of the most persistent splits separated the cedar feeders from the juniper feeders, however the two forms are now widely regarded as a single species.



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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: \_\_\_\_\_

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

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

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Payment must be in U.S. dollars.

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

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