Volume 11, Number 3 July – September 2010

Washington Butterfly Association

G'num*

The newsletter of the Washington Butterfly Association
P.O. Box 31317 Seattle WA 98103
www.naba.org/chapters/nabaws

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

Recent Programs

In April, **Shirley Sekarajasingham** and **Richard Lindstrom** shared their gorgeous photos of Ecuador's skippers, along with their "spit-wad" method of attracting them. They started out using spit on tissue and soon found that spraying the tissue with salt water worked just as well or better. Place the tissue on vegetation and the butterflies will come find it!

At the May meeting, **David Droppers** showed us how to identify all of our state's parnassians, swallowtails, whites, and sulphurs, complete with a quiz on each group to make sure we "got it." Can you identify the swallowtails pictured here? Answers at bottom of page 2.

In June, **Gary Bernard** explained how color vision works, for people as well as butterflies. For example, a male butterfly may use color vision to identify other males and chase conspecifics out of his territory. A female may use it in evaluating the males, as well as detecting host plants at long range. In his lab, Gary studies the physical properties of photoreceptors.
Photo by UW staff photographer Mary Levin

Please Note: We are beginning to distribute G'Num via email. You'll receive a link to open it from our website. To keep receiving a paper copy instead, please contact

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.

August 4 – "Share the Wealth"
Please bring your butterfly photos, whether to share or to get help with identification.

Upcoming Field Trips

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.

Date	Destination	Trip Leader
July 9 - 11	Annual Conference, Leavenworth	See page 3
Sat, July 24	2 - Fish (Tuquala) Lake near Roslyn, Kittitas County	Dave Nunnallee
Sat, July 31	4 - Corral Pass near Crystal Mt. (Mt Rainier)	Dave Nunnallee
Aug 7 or 8	5 - Mount Townsend near Quilcene (Trip will go on the day with the best weather)	Bob Hardwick
Sat, Aug 14	2 - Mineral Springs near Cle Elum	Maureen Traxler
Sat, Aug 28	1 - Ellensburg Lookout/Gold Creek	Al Wagar

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)

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
4 Difficult, hiking on trails or terrain are steep in places.
5 Very difficult, extended hiking on trails or steep terrain.

WHERE & WHEN TO MEET:

Trips will 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.

Tend to any personal matters such as getting breakfast, coffee or lunch food before departure time so others are not delayed.

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 $8-10 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.

SCHEDULING & WEATHER:

Weather is always a major factor for planning butterfly trips in Washington, particularly March through June. For flexibility; leaders must have the right to make last-minute itinerary changes to provide you with the best possible butterfly experience.

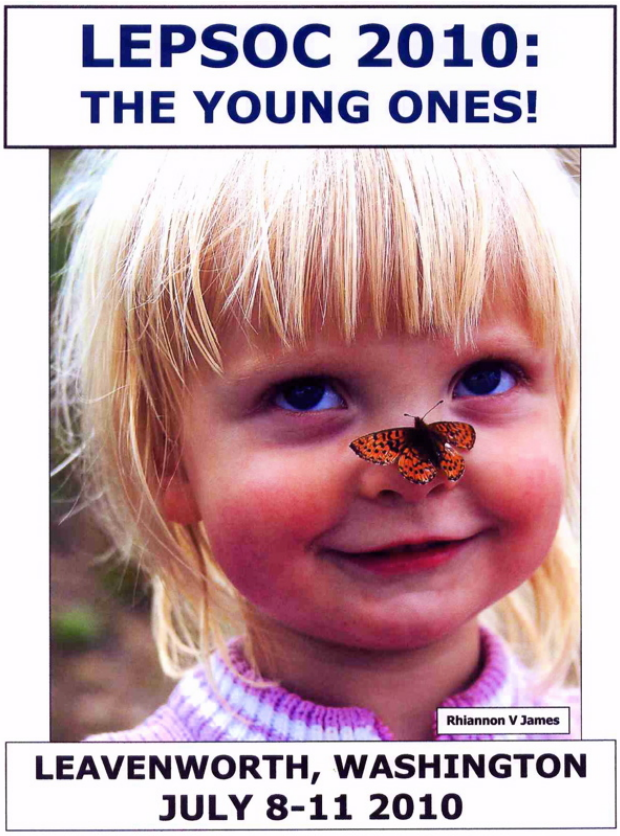
On occasion it is necessary to cancel or postpone an outing if the weather does not permit a viable alternative. It may also be necessary to adjust some trips to earlier or later dates to best match seasonal weather patterns. WBA will make every effort to keep you informed of any changes.

CANCELLATIONS:

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

Swallowtail Quiz Top photo: Two-tailed Tiger Swallowtail. Bottom left: Anise Swallowtail. Bottom right: Western Tiger Swallowtail.

Conference Update



WBA's annual conference will be coordinated this year with the annual meeting of the Lepidopterists' Society.

As of mid-June, we have a combined (WBA/LepSoc) registration of approximately150 people planning to attend our combined conference in Leavenworth during July 8-11!

LEPSOC 2010: The Young Ones! has attracted lepidopterists from around the U.S. and a few from across the globe, with delegates from Japan, The Netherlands, Canada, and Finland.

The theme celebrates immature Lepidoptera and youthful lepidopterists.

This will be a great opportunity to meet butterfly and moth people from outside the Pacific Northwest and to help familiarize them with our unique Cascadian fauna. Conversely, you will be able to learn more about butterflies and moths from other professional and citizen scientists, some of whom will be visiting Washington for the first time.

Please join us for a great Lepidoptera experience in Leavenworth in July!

Ongoing WBA Outreach

Continuing our outreach efforts, in April we had a table at the Earth Day celebration at St. Edwards State Park and at the Edmonds Backyard Wildlife Fest. In May, Paul Doan gave a talk on butterflies at Bellevue's Mercer Slough Environmental Education Center, followed by a butterfly walk. In June, Al Wagar did a program at Seattle's Discovery Park. If you are interested in helping with outreach,

At the Edmonds Backyard Wildlife Fest

On a butterfly walk at Mercer Slough

Field Trip Report

Photo op moment
at Cowiche Canyon

Despite a late season and cool weather we've had successful field trips to Schnebley Coulee, Cowiche Canyon, and the Wild Horse wind and solar generating facility near Vantage. But the weather was too marginal for the trip to the Camas Creek Natural Area. If nothing else, the cool weather facilitates photo opportunities. Some of us brought Milbert's Tortoiseshell larvae from Cowiche and raised them to adults.

Edith's Checkerspot
at Wild Horse

Milbert's Tortoiseshell raised from
larvae from Cowiche Canyon

A Tale of Two Ladies

You may have spotted the misidentification of a *Vanessa cardui* as *V. virginiensis* in the last issue of G'Num in a photo accompanying Bob Pyle's column. This was our error and not Bob's, of course.

American Painted Lady, *V. virginiensis*, has two large eye spots on the ventral hindwing. Painted Lady, *V. cardui*, has a row of small eye spots.

V. virginiensis is quite rare in Washington, although it's been seen in a wide variety of locations, including one found by Richard Youel at Reecer Spring during a WBA field trip. Bob and Thea Pyle have found several at their home in Wahkiakum County, and saw numbers on Mt. St. Helens in September, 1997. *V. cardui* is absent from Washington in some years and abundant in others.

Both species migrate from areas further south, such as California. When a lush spring occurs there, a higher percentage of larvae reach adulthood and make their way north. A big invasion year might yield only a sighting or two of *V. virginiensis*, though, while we could have a bounty of *V. cardui*.

Vanessa virginiensis
Photo by Idie Ulsh

Vanessa cardui
Photo by Idie Ulsh

Number Two: Native or Not?

I've just come in from cutting Scots broom in a neighbor's fields, once productive dairy pastures but now fallow and taken over almost completely by reed canary grass, blackberry, and broom. It was hard, hot, sweaty and stickery work, but satisfying. These bottomlands are not likely to be fully indigenous again in my time, but by reducing the opportunistic broom, at least I am helping to give willows and other native plants a chance to gain a foothold.

If you're like me, you take special pleasure in habitats dominated by native organisms. It is more fun to watch western gray squirrels than eastern, a Lewis's woodpecker than a starling. This is not much of an issue with butterflies themselves in Washington. The only two exotics we have are cabbage whites and European skipperlings. I actually appreciate *Pieris rapae* for often being the only butterflies to be seen in many times and places, especially in Western Washington. I have to say I admire their adaptability and the way they have occupied many of our seashores, right down to the tideline, by colonizing beach radish or sea rocket (*Cakile maritima* and *C. edulenta*). As for *Thymelicus lineola*, we watch its slow spread along our northern borders with interest, and with some trepidation, in case it might disadvantage our uncommon native skippers in the high meadows of the Pend Oreille. In 2008, I found it by the tens of thousands in the Little Blackfoot country of Montana, and no woodland skippers, the usual common species at that season, at all; so there may indeed be cause for concern over European Skipperlings. But on the whole, when among butterflies here, you are among natives.

"Scots broom, the shrub that ate the West"
Photo by Arthur Lee Jacobson

European Skipperling
Photo by Dave Nunnallee

Not so with plants. Hundreds of species have been introduced, on purpose or inadvertently, and many of these have become all too well established. Who among us has not noticed roadsides dominated by Herb Robert, even in wilder corners of the Olympic Peninsula; riversides all but consumed by Himalayan blackberries or Japanese knotweed; and formerly diverse grasslands shot with cheatgrass? We have hundreds of examples. Thea and I visited a handsome place east of Missoula along Rock Creek, known as the Valley of the Moon, and concluded it should be called the Valley of Knapweed; ditto, now, for much of Okanogan County. Then there is Scots broom, the shrub that ate the West. So whenever we look around and find ourselves surrounded largely by indigenous herbs, shrubs, and trees, it gives us a special frisson of delight, a good, things-as-they-ought-to-be feeling. It's a sensation that is all too rare.

Cabbage White
Photo by David Droppers

Given the presence and abundance of Eurasian plants adapted to our land (the word "our" written by this person of European descent not without irony), I find it interesting to ask how our native butterfly fauna responds to a flora with which it did not evolve. As a life member of the Washington Native Plant Society, I would like to think (as many choose to believe) that our butterflies actually prefer native plants when it comes to larval hosts and nectar sources. I would love to be able to reinforce that belief, but in all honesty, I cannot. Yes, anise swallowtails used mostly yampah in California, lomatiums in the Columbia Basin, and angelica by the sea before we came. But these days they exploit weedy fennel just as happily in alleys of the Central District of Seattle and along

the highway verges. Two-tailed tiger swallowtails are much more abundant across the arid West today for having adapted to green ash shade trees for their larvae, and thistles, teasel, knapweed, and other weedy composites for nectar. Silvery blues proliferate on pink *Vicia sativa* along I-5, and purple *Vicia kracca* in the Blue Mountains. Spring butterflies like orangetips and arriving ladies love dandelions, while Clodius parnassians and most species on the wing in mid- to late summer nectar above all on hairy cats-ear (*Hypochaeris radicata*). Among the most awkward examples of such adaptive shifts toward exotics: the recently rediscovered island marble on San Juan Island, which escaped extinction by feeding on introduced, weedy mustards in lieu of their original larval hosts, whose identity is uncertain; the federally threatened Oregon silverspot, which in some sites got by on tansy ragwort in the absence of native nectar sources; and West Coast winter monarchs roosting mainly in *Eucalyptus* trees, ever since their original California coastal forests became too fragmented for them.

Does any of this, or the many other examples we could name, mean that we should embrace these exotic, adventitious plants, and abandon our efforts to remove them from native habitats? Certainly not! The negative impacts of noxious plants on indigenous communities and organisms are great and irrefutable. But it does suggest that if we aspire to get rid of weeds that our butterflies have learned to use, it would behoove us to think about their needs in advance, and take measures to replace the missing resources with native species of equivalent utility.

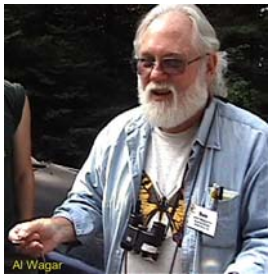
Mating Pair of Silvery Blues
Photo by Dave Nunnallee

Lepidopterists face a special challenge in this regard. Butterfly bush (*Buddleja davidii*) has always been considered the most valuable and attractive of all butterfly garden nectar plants, native or non--distinctly *non*, in its case. As long as it was confined to yards or waste areas, BB could be enjoyed by butterflies and butterfliers alike without attendant problems. But the situation has changed as *Buddleia* has escaped into a number of habitats dominated by native plants, primarily riparian. Riverbars and certain seral forest stands are proving especially susceptible to colonization by butterfly bush, which has been listed as a Class B noxious weed in both Washington and Oregon. This places a strong onus on butterfly lovers, especially those who also love native plants, as most of us do: if we choose to utilize BB in our butterfly gardens, we take on the heavy responsibility to deadhead the blooms before they broadcast their copious seeds in late fall, as well as to police our perimeters and make sure we are not the source of any outbound colonization. If, instead, we choose to eliminate *Buddleia*, our imaginations will be taxed to come up with replacements both native and anywhere near as attractive. Our favorite native, late season nectar source where we live in Southwest Washington is Douglas aster. You may discover others that work well where you live.

Butterfly Bush
Photo by Robin Lewis

Meanwhile, according to the Oregon Department of Agriculture, "effective immediately, the propagation, transport, purchase, or sale of butterfly bush (*Buddleja davidii*) is prohibited in Oregon with the exception of sterile varieties that produce little or no seed." As our president Al Wagar remarked to me, "Sterile varieties of *Buddleja* seem a lot safer than depending on people to remove and destroy seedheads. Among thousands of gardeners, change of ownership, personal mishaps, and so on would surely result in many escapes." I agree; and, of course, who is going to deadhead the existing feral stands? If these seedless varieties and hybrids retain their nectar and astonishing attractiveness for butterflies, they may furnish the answer we've needed for the vexing dilemma of butterfly bush. Any readers who try them out, please let us all know how they do!

Butterflies, it turns out, do not know native from non-native. But we do, and if we take pleasure in places where the flora and fauna more resemble what David Douglas found here than the tossed salad we have made of things since, it is up to us to do our part to help keep the landscape that way. We can and will enjoy the accidental benefits of our latter-day plants, when it comes to the butterflies that employ them; but we should also do what we can to maintain and restore the natural communities that arose here without us.



Bob Pyle
Photo by Al Wagar

Arctic Skipper – Carterocephalus palaemon by Dave Nunnallee

Our species profile for this issue is the Arctic Skipper, *Carterocephalus palaemon.*

The Arctic Skipper is a member of the family Hesperiidae, the large worldwide family of butterflies known as skippers. In Washington there are 29 species of skippers, most of which are categorized in two subfamilies, the Pyrgine or "spreadwing" skippers, and the Hesperine or "grass" skippers. But there is one exception; the Arctic Skipper belongs to a third subfamily, the Heteropterinae. This subfamily has ties to the old world, indeed *C. palaemon* is a native resident in Eurasia as well as our area. Skippers in this subfamily often hold their wings outspread, similar to the spreadwing skippers, but the larvae feed on grasses, similar to the grass skippers.

Carterocephalus palaemon is an uncommon skipper found in the mountainous parts of Washington and Oregon, including the Cascades, Olympics and NE WA. Beyond Cascadia it is found in Alaska and much of Canada, extending south to California and the Colorado Rockies, also into the upper Midwest and New England. This circumpolar species is also found in Europe and east across N Eurasia to the Pacific. It occurs in moist, woodland mountain habitats from near sea level to 7000 feet, favoring forest clearings along riparian corridors. In our area populations are small and isolated and fluctuate. The flight period here is mid May-late July.

The Arctic Skipper is single-brooded. A diapausing mature larva was found in mid October in a rolled leaf nest on *Phalaris arundinacea* (Reed Canary Grass) near Leavenworth. It was in an upright tied leaf nest on the upper part of the grass near a blade tip; the nest was similar in appearance to that of the Woodland Skipper, except that it had fewer silk cross-ties; it was fully silk-lined on the inside and there was no wax. After overwintering, on Feb 9 the larva was removed from refrigeration and it pupated 5 days later without feeding; the adult eclosed 12 days later. Larval hosts are poorly documented but include *Calamagrostis purpurascens* (Purple Reedgrass), *Bromus* spp. and probably other grasses. Females lay their eggs singly on grass blades. Early instars pull together the edges of a grass blade forming a hollow open-ended tubular nest secured with silk cross ties. Feeding larvae often clip grass blades and the terminal 2-3 inch tips fall. Larger larvae require larger grass blades to construct nests; if only smaller blades are available they may tie several together. *Carterocephalus palaemon* has 5 instars and protection is based on concealment in nests, flinging frass and nocturnal feeding to avoid predators. The larvae at all stages are very slender, elongate and striped, and can be confused with only a few other Cascadia skippers. *Thymelicus lineola* has highly distinctive eggs and pupae, and L4-L5 have striped heads. In *Oarisma garita* the head capsule is greenish in all instars. The larvae of *Amblyscirtes vialis* differ in color in all instars and the pupae lack projections. The head capsule of *Euphyes vestris* larvae is distinctly marked and the pupae are black.

The adult Arctic Skipper is unmistakable with its strongly spotted wings and golden-brown colors and should not be confused with any other skipper in our area. Very little is known about this species in the US, including larval host grasses, natural enemies and other factors affecting abundance and distribution. Populations in Washington seem fairly volatile, and the species has been seen in only small numbers for the past several years in some of its normal haunts. Adults nectar readily on flowers and live for up to 3 weeks. Males perch ~3-4 feet above ground level, darting out in search of mates.

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Idie Ulsh	Programs
Carolyn Heberlein	Publicity/Website
Robin Lewis	Newsletter

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: