



Washington Butterfly
Association

The newsletter of the Washington Butterfly Association

P.O. Box 31317 Seattle WA 98103

<http://wabutterflyassoc.org>

Facebook: Washington Butterfly Association. Instagram: #washingtonbutterflies (anyone can use this hashtag)

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



Gathering at the Refuge Headquarters, Saturday morning. (Steve Schubert)



Mike Munts identifying a butterfly.
(Nancy Ewer)

Programs:

Seattle: Wed. Sept. 4: Share the Wealth
Spokane: Wed. Sept. 18, Share the Wealth
Spokane: Wed. Oct. 16, Nan Vance
Spokane: Wed. Nov. 20 Carl Barrantine

In This Issue:

President's Message [p 2](#)
Watching Washington Butterflies [p 3](#)
2019 Study Weekend [p 5](#)
Trip Reports [p 8](#)



Eastern Tailed Blue. (Sue Orlowski)



Bedazzling Blues at Swakane. (Cathy Clark)



Dark Wood Nymph. (Mary Schu)

President's Message from David Jennings

As our days grow shorter rapidly and summer draws to a close it makes me reflect on what an excellent summer it was. A large part of the goodness of the summer was the great time we had in Colville at this year's Butterfly Study Weekend.

What a great weekend it was. It had been many years since I have been in that part of the state. Between our local hosts, the great habitats, the wonderful facilities, the delicious food, and spending time with all of you made me regret I had not spent more time in this part of Washington-and that the weekend was not longer!

It is always great to see younger faces on our field trips. This year's scholarship recipients were enthusiastic and engaged the whole weekend. I think a lot of learning, including reinforcing the value of just being outside and observant, occurred. One of our early scholarship recipients is now a WBA board member so our scholarship program is already paying benefits. Thank you Idie!

You elected a great board for this next year. This year's board will be meeting in October for our annual all day retreat to plan out this next year. One of the big decisions made is where the next Study weekend will be held. Your input is greatly appreciated. What part of the state should we explore next summer?



David Jennings and Chris Loggers confer on a bumblebee. (Nancy Ewer)

Watching Washington Butterflies with Bob Pyle

Number Thirty-seven

Those Crazy Disjuncts

The field of biogeography treats of the whereabouts of plants and animals across the landscape—not only *where* organisms occur, but *why* they occur here, and not over there. This means that biogeography is extremely important to the conservation of butterflies and other creatures, because—as the motto of The International Lepidoptera Survey says—"We cannot protect that which we do not know." And that certainly includes where they live. Biogeography is also fun. Since its operating currency is dots on the map, it means we get to go out and find those dots in the form of sightings, photographs, and voucher specimens: and who doesn't love a treasure hunt?

Sometimes we spot a species far out of its known range, and this is always exciting. But it also sets up the big ask: WHY is it there, when it hasn't been found thereabouts in the past? Sometimes such a discovery is simply an artifact of what biologists call "undersampling"—the common phenomenon of certain places, especially near roads, being scouted much more frequently than other, out of the way localities (see my previous column, "Where Are the Backpacking Butterflies?") Other times widely spaced records denote range expansions, emigratory movements, or "strays." These are not to be confused with actually *disjunct* resident populations, likely in place for a very long time, that simply haven't been found before.

We have some spectacular examples of well-known disjuncts revealed by Washington butterfly study. But first, two words: "disjunct"—occurring at a far remove from the next nearest known population; and "relict" (not "relic," that refers to an object)—a colony that has been left behind from a formerly widespread population that has since contracted through geologic or other disruptive events. All relicts are disjuncts, but not all disjuncts are relicts.



Spring White. (M. Weiss)

A relictual species, most commonly, has been pushed around by glaciation and left to survive in suitable remnants of habitat while the rest of the landscape around it has grown too warm, too dry, or otherwise unacceptable. Most of these post-glacial relicts occur at high elevations, where Pleistocene-like conditions remained long after the ice-sheets melted. Some of them survived in refugia called "nunataks"—islands of terrain protruding above the line of glaciation. Not surprisingly, it is these ice-stranded butterflies (and other organisms) that are most vulnerable to the warming and drying trends caused by climate change. We worry about Melissa's Arctics (*Oeneis melissa beani*) and other arctic-alpine species being pushed right off the tops of the North Cascades as warming trends advance. But other factors can lead to relictualism and disjuncture as well, such as afforestation and deforestation, agriculture, vulcanism, island-making and rejoining through sea-level change, and other landscape-scale changes in the vegetation, hydrology, soils, or any other ecological conditions. Disjuncture can also arise from causes other than relictualism, such as different colonization routes, rafting, or human-caused introduction. So with all that in mind, let's look at some of the notable Washington disjuncts, and ask how they might have gotten that way.



Hoary Elf. (Jeanne Dammarell)

One of the oddments we've long noticed is the presence of certain species in the Olympics that live in the eastern Cascades but skip the west side. While there is a lot of affinity between the Cascades and the Olympics, with some shared subspecies (*Erebia vidleri*, *Boloria titania rainieri*, and *Lycaena mariposa cascadia*, for example), certain other east-siders make a big leap across seemingly suitable habitat west of the crest, only to show up again in the Olympics. Among these are the Lilac-bordered Copper (*Lycaena nivalis*) and the Spring White (*Pontia sisymbrii*). This may be a factor of ecological differences we have yet to appreciate, such as moisture gradients. Or it could indicate separate colonizations from different directions.

More dramatic than these is the remarkable case of the Hoary Elf (*Callophrys polios*). The stronghold is in the north-east, reaching across and down from the Canadian Shield. Fair enough. But then there are robust populations in the

(Continued from page 3)

Puget Trough/Salish Sea and northeastern Oregon, and tiny dabs and dribbles down the Oregon and northern California coasts. This is a classic post-Pleistocene relict, a cool-country butterfly drying up in a warming climate, much as a tadpole puddle evaporates bit by bit with the advancing summer. In fifty or a hundred years this elfin might be solely a creature of the Canadian taiga and certain cooler ranges. But why it doesn't occur now up and down the kinnikinnick-rich Cascades, and along the Washington coast, is a mystery to me.

We can find various similar examples of relictualism and disjuncture across our fauna and our state. One that was long thought to be truly unusual was the colony of Silver-bordered Fritillaries (*Boloria selene*), a northern, wet-loving species, isolated at Moxee Bog, deep in the dry Columbia Basin. Dave McCorkle worked with The Nature Conservancy to make this one of the first butterfly preserves in the country, and David James and others are working with TNC to try to restore the habitat and the butterfly, which has since flickered out with shrub succession and the loss of accessible violets. But happily, the discoveries of John Baumann and others have revealed that there are many more colonies of this classic post-Pleistocene relict than we had ever guessed. We hope they will withstand the coming changes, but at least they have a better chance than had they really been limited to Moxee Bog.

We have three really dramatic examples of disjuncture that I must mention, all of which have turned up in the past thirty years, the newest and weirdest one only this year. First off, back in the early 1980s, Jonathan Pelham and Jim Reed independently discovered some big golden skippers at Sun Lakes in Grant County. Pelham recognized these as a state record, the Yuma Skipper (*Ochlodes yuma*), which had theretofore been known no closer than northern Nevada—skipping Oregon altogether! Yuma has had quite a history since: being mistaken for the very pale *Ochlodes sylvanoides bonnevillae*; almost getting sprayed out of existence when its giant reed foodplant was mistaken for an exotic relative; and turning up in a few other spots in southern Washington and northern Oregon near little relict stands of reeds, but nowhere in numbers. Another echo of an earlier Ice Age, it remains one of the great Washington butterfly finds ever.



Island Marble. (Robert Michael Pyle)

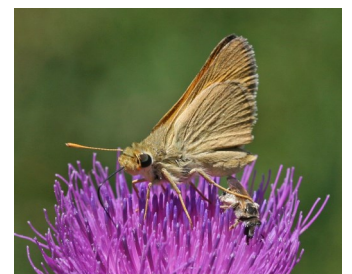
The same can be said for the Island Marble (*Euchloe ausonides insulana*), which John Fleckenstein discovered at American Camp on San Juan Island while undertaking grassland butterfly surveys for the state in 1998. Last seen near Victoria in 1908 and long considered extinct, the rediscovered subspecies has now been federally listed as Endangered. The Island Marble is removed from its nearest relatives (*Euchloe ausonides transmontana*), somewhere near Mazama, by over a hundred miles. As the only colony of Large Marbles west of the Cascades in Washington,

how it got there remains a matter of conjecture. I think it must have been much more widespread in the region during warmer, drier times in the past, and have slowly dissipated (there's that puddle in the sun again) ever since, eventually leaving only the sole colony intact in the dry rain shadow of San Juan Island. Or, it might have colonized up the coast from California, instead of westerly from the Rockies. This is one species that may actually spread with climate change, perhaps one day meeting up again with its cousins across the mountains.

But the true climax in Washington butterfly disjuncture has only recently come to light. This entirely unlooked-for addition to our state checklist was discovered by avid butterflyer and photographer Dennis Deck, of Tigard, Oregon. In early summer, 2018, Dennis brought back a photograph of a little butterfly from Klickitat Canyon that for all the world looked like the Gold-hunter's Hairstreak (*Satyrrium auretorum*), which should fly nowhere near there. This area harbors large numbers of California and Sylvan Hairstreaks (*S. californica* and *S. sylvinus*), and those are what I found when I went back to his site for a look. Jon Pelham confirmed the ID, but we didn't know what to think: the



Distribution map of Hoary Elf, from *Butterflies of the Pacific Northwest*, Pyle and LaBar, Timber Press 2018.



Yuma Skipper. (J. Baumann)

Gold-hunter's Hairstreak male, Klickitat Canyon. (Dennis Deck)





Sienna Weed, Scholarship
Winner, with mother
Jillian. (J. Baumann)

Colville Study Weekend June 28-30 2019



Michael Sheeran, second from right,
Scholarship Winner, with family. (J. Baumann)

First of all, we should celebrate the fact that this cooperative effort between WBA and the Little Pend Oreille National Wildlife Refuge was likely to be the largest Fourth of July butterfly count ever held in Washington! The 42 participants who gathered on June 29th were split into four groups to survey both familiar areas and those never previously studied in the all day campaign. We had a heck of a lot of fun out there, and had the privilege of showing two new Idie Ulsh scholarship recipients and their families the ropes!

It did seem to me, at least, that despite the fact that we added two new refuge species to its list, and despite the 4JBC list being longer by one species than in any previous count, overall butterfly numbers and species diversity were somewhat low across the board, with one exception: *Vanessa cardui*, the Painted Lady, which was ubiquitous and plentiful nearly everywhere, low and high. Thus, in a season with more moderate weather through springtime, we might expect to have seen even more butterflies with so many observers present. I also believe last year's very poor (dry and smoky) summer partly explains our lower numbers overall. Whites and Sulphurs made especially poor showings. Less surprisingly, none of us saw Monarchs at any life stage, though these were seen in several previous counts.

A few further things are worth shouting out: 1- The *Euphilotes* discovered by Mike Munts is only provisionally counted as the "on heracleoides" species, because his group did not record which buckwheat plant was present with the single butterfly it found. 2- We do have a very good photo of the Eastern Tailed Blue (p 2) to verify this new locality. 3- The Hedgerow Hairstreak sighting reported by Mary's group on Bisbee Mtn, Ferry County, appears to be a new county record. We have a sharp photo for verification (p 7). 4- The Edith's Checkerspot hails from the very top of Sherman Pass, not actually a range expansion, but a butterfly lying right on the tiny disjunctive dot in the species map in Pyle and LaBar's field guide. 5- Here's a hunch we can consider to explain Edith's Copper's dramatic range expansion recently: it seems to be utilizing non-native Sheep Sorrel. Although I am not certain that I witnessed oviposition, I did watch a female repeatedly crawling up and down stems of this weedy plant, which were plentiful wherever we found the butterfly.

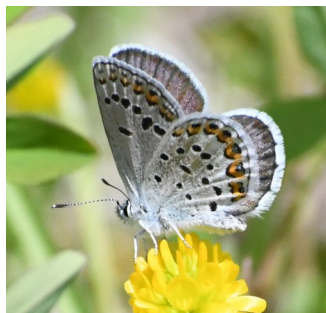
By way of concluding, I want to say very enthusiastically "Thank you!!" to Mary Schu, Lora Langford and Sue Or-lowski, the 3 person event planning team that made this remarkable weekend possible! Many, many folks at the conference joined me in singing their praises.

John Baumann

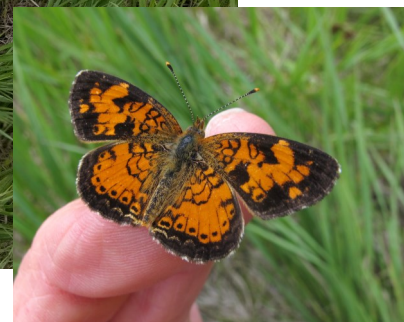
2019 Silent Auction

We had a very successful silent auction at the Study Weekend (aka Conference) in Colville this year. A big Thank You to my helper Izzie Langford! And another big Thank You to everyone who donated items or solicited donations from businesses, and to everyone who bid. Even if you didn't win the item you wanted, your bid helped raise money for WBA. In all, we raised \$385 on 44 items, plus a special shout-out to Paulette Murphy, who donated an extra \$300 to WBA in addition to her winning bid for Dale Swedberg's guided butterfly tour of Sinlahekin Wildlife Area!

Study Weekend 2019: Colville, Sherman Pass and the Little Pend Oreille National Wildlife Refuge



Northern Blue. (Mary Schu)



Mike Elledge photographing a Northern Crescent. (Vicki and Mike Elledge)



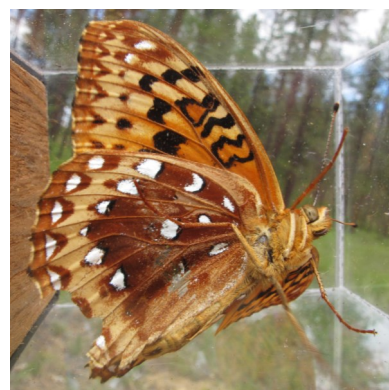
Hailey Armstrong photographing. (Sue Orlowski)



Paulette Murphy photographing. (Sue Orlowski)



Regina Johnson photographing. (Vicki Elledge)



Great Spangled Fritillary, male,
Kettle Range. (Mike Elledge)



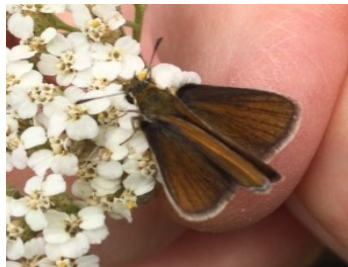
(Carolee Colter)



Pink-edged Sulphur. (Mary Schu)

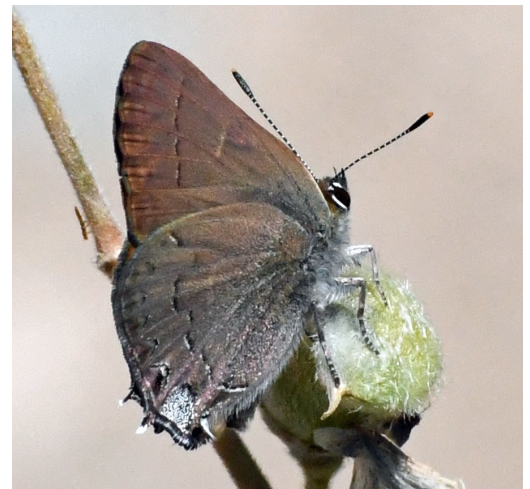


Persius Duskywing. (Mary Schu)



Garita Skipperling.
(Carolee Colter)

Hedgerow Hairstreak, a Ferry County
record. (Mary Schu)



Schumaker Meadow, Little Pend Oreille National Wildlife Refuge. Photo by Steve Schubert.

Trip Reports from a Very Wet Spring (Rescheduled! Cancelled! Rescheduled!)

Yakima Training Center field trip rescheduled May 11 Melanie Weiss

The Department of Defense Yakima Training Center (YTC) occupies 327,000 acres of beautiful shrub-steppe at varying elevations and habitats near Yakima. Our cancelled April date was moved due to poor weather. So on May 11 ten “vetted” WBA members visited this expansive area to conduct a butterfly survey.



Large Marble. Compare to Becker's White on next page, and Island Marble on p. 4. (M. Weiss)



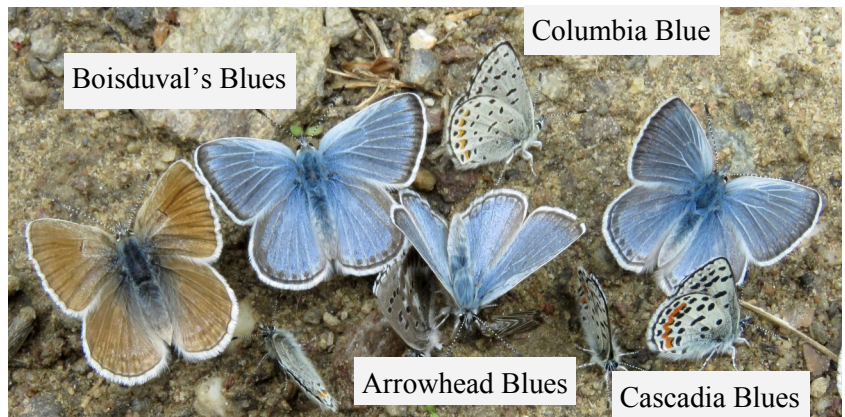
Euphilotes "battoides" sphaerocephalum blues. (M. Weiss)

This continued the relationship begun by David James last year to document butterflies on the acreage and allowed us to survey unsampled areas of our state. The property has many rare plants, a sage grouse lek, and the flowers were stunning while we were there. Many said the flowers alone would have been worth the trip. We found an unnamed blue on *Eriogonum thymoides* that has only been detected at a few other locations in our state. Twelve species were seen including the *Euphilotes "battoides" sphaerocephalum* feeders, Anise Swallowtail, Becker's White, Desert Marble, Large Marble, Silvery Blue, Gray Hairstreak, Juba Skipper. We learned that visitor passes are available to the general public. And they have a tour of the sage grouse mating in the spring given to a group selected by lottery. We all enjoyed the day in so many ways.

Blue Puddling Glory. (M. Weiss)

Swakane Canyon creative rescheduled May 24 Melanie Weiss

A quick creative reschedule allowed a potentially rainy and cancelled field trip to Reecer Canyon on May 24 become a mostly sunny trip to Swakane Canyon one day earlier. The canyon road is not for vehicles with low clearance. It is narrow, full of serious pot holes and rocks, and is a very slow drive. But we were well rewarded for our efforts. Puddling was occurring in large numbers, another reason why the drive was slow.



Pacuvius Duskywing. (M. Weiss)

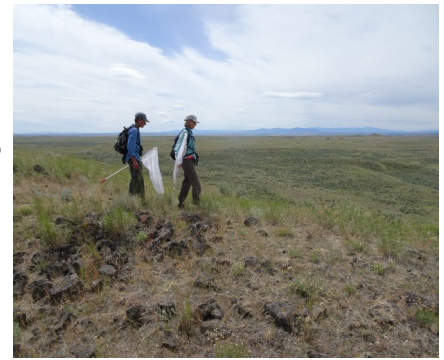
We were bedazzled by the bodacious, blizzard-like bounty of butterflies we found there. At one point we had someone walking before the car to sweep the butterflies away! We also had a scout checking to see if it was “worth” getting out for new puddling activity as we were stopping often and we wanted to get further back into the canyon! We saw 29 species of butterflies and several day flying moths. There were many *Pacuvius Duskywings*. This was a good year for them in many locations. We saw nine species of Blues including the Arrowhead Blue, Melissa's Blue and Acmon Blue. A few of the others we saw were the Western Green Hairstreak, Northern Cloudywing, Common Sootywing, Common Checkered Skipper and Common Roadside Skipper. It was a grand day and nice to see species less often seen. Several species were new for some of the participants.

Spiva Butte Preserve Field Trip Rescheduled June 9 Melanie Weiss



Spiva Butte group. (M. Weiss)

After a weather reschedule, WBA returned to Spiva Butte on June 9. It is now Spiva Butte Preserve, having achieved this deserved status due to the hard work of Ferdi Businger. The Chelan-Douglas Land Trust is managing it, and Ferdi has been named the Site Steward. This prime shrub-steppe habitat has a four-acre lake, three springs, a diversity of birds, plants, animals and butterflies in addition to a sage grouse lek nearby. Once again Ferdi graciously showed us around this stunning property. A few of us stayed on his private land bordering the preserve the night before under a star-filled sky.



Cheryl and Jim on top of Spiva Butte.
(R. Johnson)

We were fortunate this year to see the Silver-bordered Fritillary flying in good numbers along with the Garita Skipperling (which opened its wings like a fan unfolding), Coronis Fritillary, Northern Crescent, Arrowhead Blue, Ruddy Copper, Large Marble...28 species in all. Several of us climbed the butte at the end of the day for hill toppers. It was a special day for everyone.

Note: Visitation is with permission only.

Cascades Butterfly Project White “Wanderers” July 21 Melanie Weiss

We had an interesting beginning of data collection on the Naches Loop Trail at Mt. Rainier for the 2019 season of the Cascades Butterfly Project. We survey a 1,000 meter section of the trail divided into five transects. On July 21, the first survey of the season, along the first transect, Regina Johnson netted a Becker’s White, a shrub-steppe butterfly. We were in alpine meadows at about 5,500 ft. We saw two more whites fly by. Then in the second transect, four whites flew by and I photographed a Western White. By the end of our survey, 20 whites had flown through the five transects. We netted a second Becker’s White in the last transect. I have been collecting data on this trail for many years and had never seen the Becker’s White on the trail before. Whites rarely are seen on this trail. When I looked at the summary data of CBP’s Annual Counts since 2011, only 5 whites had been detected on the transects at Naches. We had detected 20 in one day. According to Jon Pelham, there is one other park record for a Becker’s White from the Box Canyon area in 2016. They are “wanderers”, not migrators, and most likely came from the Tieton Basin as a nice corridor runs between the mountains from the city of Naches to Chinook Pass. The Western White is the more common white seen on the transects in



Western White. (M. Weiss)

the park. The Becker’s White may sometimes wander with the Western White and show up together as it did that day. However, the Western White has a range from sea level to high alpine meadows and survives well at that higher elevation. I have seen the Western White each week since our first visit. Whites haven’t been present in such large numbers, but there have been several on the subsequent visits, and Western Whites have been the ones that have been netted or photographed. According to Jon P., the Becker’s White cannot survive at low temperatures. I have not seen them since our first visit on July 21. They could still be present, but I haven’t netted one. On that first day we were seeing the second generation of the Becker’s



Beckers’ White on Naches Loop.
Compare these two to Large Marble
on previous page. (R. Johnson)

White. And according to David James, they had been seen in good numbers all over the valley due to the late spring and early summer being a bit cooler so the host plants were in fairly good condition. Their first generation did not demonstrate such a strong showing. It has been exciting to experience the surprising places that these white “wanderers” appear.

nearest known record for this species was in southernmost Oregon—an entire large state away! Could it have hitchhiked in as a chrysalis on a camper, we wondered? Or was it a case of atavism—some strange genetic throwback? For the time being, we consigned it as a rogue record, and put it in abeyance.

But, lo! come June 2019, and Dennis again found the butterfly—several individuals in different locations, miles apart! He and his field companions got good, clear photographs of both males and females. Now there was no doubt: we had Gold-hunter's Hairstreak as the newest known member of the Washington butterfly fauna! So what's the deal? This species does not stray or wander much, but tends to be a sedentary resident. A chance introduction of both sexes or a gravid female seems unlikely. Perhaps it is an ancient relict of a once-wider range, since wiped out by recent vulcanism in intervening areas of Oregon. But how has it remained unspotted till now, in a canyon frequently haunted by butterflies, not to mention Jim Reed's netwielding high-school biology classes, for many years? A delicious, if maddening, mystery to ponder through dark winter nights while the butterflies sleep.

Such is the nature of our crazy disjuncts: when they first turn up, far from the next nearest dots, they surprise or even shock us. Maybe we should get over that. Species, after all, have been fluid gliders over the face of the earth ever since they came ashore. Nothing should really surprise us in the way of animal and plant movement. But I like surprises, and that's one reason I love studying distribution. Informed guesswork? Maybe, but also an ever-fresh puzzle, punctuated by the occasional sizzling discovery or insight. Paraphrasing Dr. Johnson's quip about London, when you're bored with biogeography, you're bored with life.

Board Members

President	David Jennings	
Vice President	Mary Schu	
Secretary	Hailey Armstrong	
Treasurer	Regina Johnson	
At-Large	Regina Rochefort	
At-Large	Lora Langford	
At-Large	Paulette Murphy	
At-Large	John Baumann	
At-Large	Jim Reed	
At-Large	Melanie Weiss	

Committees

Science Advisor	Jon Pelham	
Membership	Reg Reisenbichler	
Annual Conference	Available	
Field Trips	Available	
Programs	Paulette Murphy	
Publicity/Website	Carolyn Heberlein	
Newsletter	Regina Johnson	