



Washington Butterfly
Association

*G'nun**

The newsletter of the Washington Butterfly Association

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<http://wabutterflyassoc.org>

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

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



Happy Year of the Tiger! An Ornate Tiger Moth, *Apantesis ornata*.
(C. Barrantine) Wait, what? Wrong tiger?? Ohhh well.

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Upcoming Programs by Zoom First Wednesday at 6 PM

February 2: **The Art of Observation: Maria Sibylla Merian and the Metamorphosis of Insect Science.** Author Kim Todd will explore the life and work of early entomologist Maria Sibylla Merian, who studied insect metamorphosis in Suriname in 1699. Yes, Sixteen Ninety Nine, more than a century before Darwin or Humboldt. Two years studying and sketching caterpillars in the rainforest led to the publication of her masterwork, *The Metamorphosis of the Insects of Surinam*. Kim Todd is the author of four books about science and history and is currently on the creative writing MFA faculty at the University of Minnesota, where she teaches literary nonfiction. You can find her at www.kimtodd.net.

March 2: Julie O'Donald on **Native Plants that Feed Birds, Moths and Butterflies.**

April 6: Dr. David James on **Western Monarchs: Migration, Adaptation and Resilience.**

May 4: Jon Pelham, TBD.

President's Message

Greetings & Salutations Fellow Lepidopterans,

As February is upon us, we are stirring to get out amongst the nature that revives us physically, butterflies that refresh the soul, plants and flowers that heal the long hard winter. So far 2022 has been another hard one for me. The Virus is still wreaking its own unique hazard. The snow has stuck around for far, far too long. It has prevented us from getting out and about. Gone was a long planned winter trip to Tucson to visit my sister and canceled was the Christmas trip to Phoenix to visit my brother and his family.

But now, even with six inches of snow on the ground in Klickitat, the crocuses are sticking their heads up out of the snow, reminding me to plant more of them next year. I look forward to my flower, shrub and tree garden blossoming forth; bringing eternal hope for life reborn and nature's little shining ornaments that we call butterflies. Soon, I shall see visiting Orange-Tips, Cabbage Whites, Blues and Coppers. There is no other group of animals & insects that we distinguish and name by their graceful and beautiful coloration.

There are even signs that we are finally breaking out of the Covid Virus Pandemic that has kept us from Winter Time intermingling and celebrations. We still need to wait and see whether there will be yet another variant that deters us from gathering in groups with nets and cameras, hugs and smiles, and guide books in hand. It is my hope that we can renew field trips and our study weekend that we all enjoy so much when our pace of life allows us the time to get out.

This winter, I turned 70 years old. That is a milestone that many of us did not envision ourselves ever reaching. But somehow I muddled my way through it. I almost preserved enough body function and miraculously have set money aside to do the things I want to do. I hope to backpack into true wilderness and do butterfly surveys where I had bypassed in my earlier years.

I hope to travel overseas and revisit Mt. Parnassus in Greece - where we take the name of one of my favorite butterfly groups. I hope to get out and revisit some old haunts like the Beartooth Plateau of Wyoming and Montana, the LaSal Mountains of SE Utah, the Uintas Range in NE Utah, and the Steen's Mountain in SE Oregon. This is an ambitious list admittedly, but after the last couple of years, I'm ready.

I am ready to end diapause and eclose anew. Jim

A Shout Out To One Of Our Dedicated Volunteers!

One of our long-time volunteers, Carolyn Heberlein has given generously of her time in numerous ways. She is currently our webmaster, and also our "Zoom angel" supporting our Zoom meetings and gatherings. Carolyn coordinates the publicity for WBA. In my experience, whenever she is asked to help in some way, she generously responds with "I can do that". If she hears that one of our members is ill or suffering a hardship, she kindly communicates with them and alerts others who know the individual. But the latter is done only after affirming with the person that it is OK to do so. When we ask for volunteers at our Outreach Events, Carolyn often steps forward to man the WBA booth with others. In the past she has served on the Board of WBA, and was Newsletter Editor for many years, printing and mailing it herself. Her generosity extends beyond our organization. In her neighborhood she has erected a Little Free Library. She volunteers for political causes, is a talented knitter and an avid gardener. Generous, kind, talented, Carolyn deserves a loud Shout Out from our members. Thank you, Carolyn, for what you give to our organization!



Carolyn with her Little Free Library. (M. Weiss)

Melanie Weiss

Watching Washington Butterflies with Bob Pyle

Number Forty-six

The Women of Washington Butterflies

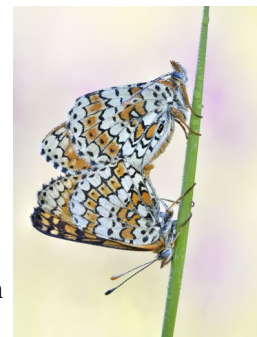
One given during my earlier years as a lepidopterist was that butterfly study was a country of men and boys. The great majority of members of the Lepidopterists' Society were male, with women appearing at the annual meetings chiefly as wives and camp followers. Among the young, I didn't know a single girl who collected butterflies. All the manuals were addressed to "lads" and "boys" as the proper practitioners of this hobby. Some even opined, as Roger Tory Peterson put it in his introduction to *Watching Washington Butterflies*, "It has been suggested that butterflies may symbolize a boy's adolescent dreams of the fair sex, gossamer and floss creatures to be pursued and—just possibly—possessed." Butterflies were a man's world; that's just the way it was, or seemed.

Of course there were some exceptions, in fact. We were aware of famous women butterfly painters or students of the past, such as Maria Sybilla Merian or Lady Glanville, for whom a British checkerspot was named but whose will was contested as belonging obviously to someone of unsound mind. There were a few well known female scientists working in Lepidoptera, like Annette Braun and Miriam Rothschild. And a handful of women Lep Soc members in their own right, including Jo Brewer, Jackie Miller, and Elaine Hodges—not to mention June Preston (of *Tharsalea mariposa junia* Pyle & Hammond, June's Copper, of the Olympic Peninsula). June and her husband Floyd comprised the most productive museum butterfly collecting team in the country. Other life partners contributed specimens, such as Washington pioneer Lepidopterist J. F. Gates Clarke's wife Thelma, on a lesser scale. But on the whole, an extraterrestrial observer might have fairly concluded that this odd little subsection of humans was almost strictly fraternal.

What about here in Washington? Aha! Here, the situation has been, and remains, quite interesting and not so simple in terms of gender. To begin with, there have been four master's degrees awarded by the University of Washington for butterfly studies, in 1913, 1917, 1946, and 1973—two boys, two girls. But it might surprise you to know that the first two of them were for theses written by young women post-graduate students, to wit: "The Butterflies of Washington," by Lucia Eola Edson, 1913; and "A List of the Lepidoptera of the Insect Collection of Orson Bennett Johnson," by Louise Farrar Pennell, 1917. Ms. Edson's dissertation was the very first checklist of Washington butterflies, and Ms. Pennell's detailed the contents of the first major collection in the predecessor to the Burke Museum. As such, they are the foundational documents of Washington butterfly studies—making possible those of Leighton in 1946 and Pyle in 1973—researched and written by women.

The inspiration (and supervising professor) for both theses was Orson Bennett Johnson, the first professor of natural sciences at the UW, though he died before Pennell's was finished. Johnson (of Johnson's Hairstreak) also mentored the Young Naturalists' Society, founded by Seattle pioneers Charles L. Denny and Edmond S. Meany, for many years. The YNS included many women teachers among its members, an influential president in the 1890s being Adella Parker. A well-known early photograph by A. W. Denny (see page 26 in *Butterflies of Cascadia*) depicts a waist-coated OBJ afield with Dr. Maud Parker and Adella Parker Bennett in long dresses and hats—replete with nets—sure proof that women were a vital early part of insect studies here.

A contemporary of these Seattle players was Agnes Veazie (1869-1963), a collector in Portland. She too had a checkerspot named in her honor: *Euphydryas anicia veazieae* Fender & Jewett. Though an Oregonian, she and her family had a cottage in Ocean Park, Washington, and it was there that she collected the now-federally threatened Oregon Silverspot (*Argynnis zerene hippolyta*) in 1916, its first (and for half a century, last) records in the state. Her daughter, Harriet Veazie Reinhard, followed in her footsteps, to



Lady Glanville Fritillary
mating pair, *Melitaea
cinxia*. (Sven Damerow)



Maria Sybilla Merian, 1700



Lucy (l) and Annette
Braun, 1910. (Univ. C'nti)



Miriam Rothschild (1940?)

(Continued on page 4)

(Continued from page 3)

become the chief authority on San Francisco butterflies. I knew her, and had a chance to see remnants of Agnes and Harriet's collection at San Francisco's Josephine D. Randall Junior Museum, on Corona Heights, including some of those old, rare frits.

Perhaps the next prominent woman player on the Washington butterfly scene was Emily Hendrickson, known far and wide as "The Butterfly Lady." Emily lived in Sunnyside, and collected all over Yakima County and the surrounding mountains in and around the nineteen-fifties. She swapped and sold specimens to collectors far and wide, and is represented in many museums. As a teen in Colorado, I corresponded with her and bought some of her material. Emily's family had a cabin on Orcas Island, where she did some important early sampling, including the San Juan County records for the Great Arctic, Moss's Elfin, and others. In later years, I determined to meet The Butterfly Lady at all costs while I still could, having (to my great disappointment) missed out on some other elders by putting it off. By chance, I met her niece, who facilitated our happy visit in a Portland nursing home. Later, I called on the niece, Ruth Adamson, and her husband Harley, in their Montesano home. She had much of Emily's collection, kept in air-tight Riker mounts, pressed under glass without pins. Ruth was surprised that I showed less interest in Emily's big, bright, tropical morphos and birdwings than in the little brown jobs from Orcas. After her death, Harley gave me the three mounts of Washington specimens that will soon make their home in the Oregon State Arthropod Collection. Sadly, much of the rest of the collection was destroyed in a house fire in 2014.

In the 1930s and 1940s, two couples were active here—Grace and John Sperry and Ruth and Arthur Svihla. Both pairs collected largely in the Olympics, visiting locations unsampled before or since. The Sperrys were leading lepidopterists and naturalists from Riverside, California, and the Svihlas collected bryophytes and other plants around the world for museums. A recent subspecies description honored its probable first captors with the epithet *Euphydryas colon svihlae* Pelham.

The following decades go mostly quiet on the subject. In the fifties, Barbara Laudan collected in Southwest Washington, later reporting a possible sight record of a Buckeye in Longview in 1953. In the early sixties, things began to pick up. Sigrid Shepard did field work with Jon Shepard, initiating a fecund partnership that continues to this day, and later co-authoring the section on parnassians in W. J. Howe's *Butterflies of North America*. JoAnne Clark Pyle (later Heron) similarly collaborated in the author's earliest Washington butterfly investigations. His longtime collecting partner and mother, Denver lepidopterist Helen Lee Lemmon, made influential visits in 1964 and 1967, sparking Pyle's determination to study the state's butterflies in depth. Later the same summer, Pelham's mother, Elizabeth Pelham, took Pelham and Pyle on their first collecting trip together to Bear Canyon, leading to all manner of mayhem ever since.

One more decade saw further advances. In 1974 and '75, Sally Hughes partnered in the author's doctoral research on Washington butterfly ecogeography, in the process discovering the Makah Copper (*Tharsalea* {formerly *Lycaena*} *mariposa makah* Pyle & Hammond), which in another and more just world would be named "*Tharsalea mariposa sallya*". In January, 1979, longtime WSU Cooperative Extension Agent, insect educator and researcher Sharon Collman formally revived the insect study and social group, the Scarabs. (Scarabs had thrived in Seattle from 1937 to 1974, when founder and High Scarab, Professor Melville Hatch retired. Several of its most active members had been UW women). Collman bridged the old Scarabs and the new, encouraging the study and enjoyment of butterflies and all insects, and later publishing an influential Extension booklet, *The Butterflies of Lowland King County*, in 1986. Arachnologist Bea Vogel and her lepidopterist daughter Megan were among the New Scarabs who pursued butterflies and their study.

Even so, as Pelham and Pyle, with their surviving elder mentors, got things rolling toward a new push and a book, we knew almost no women involved in butterfly study in the state. But things were about to change, big time...and a landscape was coming that those callow young collectors would hardly recognize. The era of butterfly studies as an old boys' (and young boys') club was almost over, and all to the good. How that came about, and where we are now, will be the story for next time.



Oregon Silverspot. (USFWS)



Moss's Elfin (M. Weiss)



Hurricane Hill, type location for *Euphydryas colon svihlae*. (R. Johnson)

Species Profile: In Search of the *Clodius* Parnassian Host Plant East of the Cascades by Cheryl Bellin

Searching host plants for immature butterfly stages can be a fun pastime while waiting for spring flight season. Sometimes, even finding the host plant can be a challenge. *Dicentra uniflora* is a plant that can often go unnoticed in sage steppe habitat. It emerges soon after snow melt and is quite small. Photos of it often include a coin to highlight how small it really is (Figure 1). One look at this uniquely beautiful flower confirms how its common name, Steer's Head, came to be. The entire plant senesces and essentially disappears fairly quickly before adults fly, further complicating locating it. Why the interest? It was assumed that Steer's Head was the host plant for the *Clodius* Parnassian, *Parnassus clodius*, east of the Cascades in Washington state, though not confirmed.

I observed *P. clodius* at my residence in Winthrop, WA, the last several years. A freshly mated female was observed in my front yard (Figure 2, note the white sphragis at the abdomen tip) May 22, 2019, indicating close host plant proximity. Reporting this observation to Jonathan Pelham resulted in his prompting me with, Where's the host plant? I'd not seen Steer's Head at my home, but knew it's a beauty found in the Methow Valley often cited as blooming in May. I began looking around my home in earnest in 2019, but found no plants that summer, nor the next.



Figure 1: *Dicentra uniflora*.



Figure 2: *Parnassus clodius*.

The early bird gets the worm. In 2021, I started looking in February while a good portion of the hillslopes were covered in snow. On March 20, 2021, Steer's Head plants were observed on the sun-exposed, east-facing hillslopes amongst the rocks, bitterbrush and sage (Figure 1). Of note, as of this date even the presumed earliest bloomers, Spring Beauties and Yellow Bells were yet to bloom. Over the next few days the Steer's Head appeared in large numbers as the snow continued melting and the soil warmed. Notably, those areas with highest solar gain and protection were first to show emergence. The close proximity to my residence made multiple daily forays convenient. On hands and knees I spotted one plant with nibbled leaves and that evening I went out several times to search for the crepuscular caterpillar per James and Nunnallee (2017). None were seen. Finally at 9:30 AM, March 25th, a *P. clodius* caterpillar was seen warming itself in the sun near the nibbled Steer's Head (Figure 3). The first few days after finding the nibbled plant, I continued looking periodically at night. But after several daytime sightings of caterpillars, I gave up on the cold evening explorations. Over the next few weeks, 4-5 individuals were observed feeding in the same location until early April (Figure 4). All feeding observations were during the day from approximately 10 AM to 4 PM. I suspect the late evening to early morning temperatures being below freezing must send them burrowing for cover. They likely return to the surface to bask in the early morning sun to warm themselves prior to feeding. From 8:30 -10 AM they were typically stationary, likely warming themselves in those protected sunny places. One larva was seen in late afternoon burrowed into the adjacent leaf litter, it's posterior end just barely visible. Family obligations curtailed observations for a few weeks and upon my return in early May, many plants in the vicinity of where *P. clodius* had been observed had already senesced. The first *P. clodius* adult in 2021 was seen flying down our lane May 10; how fun to confirm they are residents.

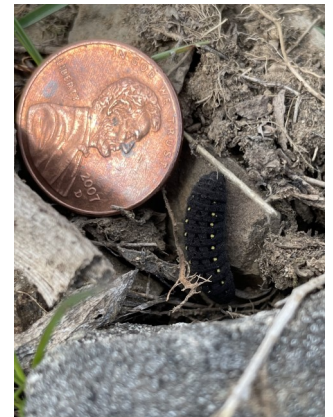


Figure 3: basking caterpillar.



Figure 4: Feeding caterpillar.

Reference

James, D.G. and D Nunnallee. 2011. Life Histories of Cascadia Butterflies. Corvallis: Oregon State University Press.

All photos by Cheryl Bellin.

A Note from The Dark Side of PNW Lepidoptery

Carl D. Barrentine

We have a good knowledge of Pacific Northwest (PNW) butterflies. There's always more to learn of course but the growing body of knowledge about the diversity, distribution, and life histories of six families, 68 genera, and more than 200 species of PNW butterflies is a laudable accomplishment. That success has been in large part due to not just to efforts of professional lepidopterists but also to a legion of dedicated amateur butterfly-watchers, now referred to as 'citizen scientists.'

Although our growing cumulative knowledge of butterflies and their biology is always tentative and incomplete, as is the case for all scientific knowledge, it's fair to say that our current understanding of PNW butterflies is much more accurate and comprehensive today than it was 50 years ago when I was an undergraduate student of zoology at Central Washington University. That's wonderful.

Increasingly satisfied with what we do know about butterflies, it seems cogent to pause to acknowledge the fact that butterflies represent just 5-10 percent of PNW lepidoptera. So an obvious question arises: What do we know about the 'non-butterflies', the 90-95 percent of the metaphorical 'dark matter' of PNW Lepidoptera?

Well, we do know something. A close reading of the 'Moths and Butterflies' portion of Merrill Peterson's comprehensive field guide, *Pacific Northwest Insects* (see pp. 344-417), reveals the possibility that there may be more than 3,245 species of moths in the PNW. That's a reasoned, educated guess, of course, and I think it's a good estimate. But I would not be surprised to learn that this estimate may be conservative.

Bob Pyle has acknowledged our ignorance of the diversity of PNW moths in both of his comprehensive field guides to PNW butterflies (see pp. 30 and 366, *The Butterflies of Cascadia*, by Robert Michael Pyle, 2002 and p. 419, *Butterflies of the Pacific Northwest*, by Robert Michael Pyle and Caitlin C. Labar, 2018). I concur. There is much still to learn about PNW moths, though year by year our knowledge is slowly increasing.

We now know quite a lot about the identities, life histories, and distributions of about 40-45 percent of PNW moth species, as evidenced in the digital website *PNW Moths* (see <http://pnwmoths.biol.wvu.edu/>), which is an astonishingly complete resource of knowledge on 10 families, 327 genera, and 1,210 species of PNW macromoths. It is notable that this excellent resource does not yet include information, for example, about six large and common moth families (e.g., Geometridae, Tortricidae, Gelechiidae, Crambidae, Pyralidae, and Coleophoridae). Note: Merrill Peterson and Jon Shepard plan to include the Geometridae in an upcoming and much-anticipated revision of the PNW Moths website. This is good news because the geometrids represent a diverse and ubiquitous macromoth family that includes many genera and species.

What of the other 35-40 families of moths, I wonder? What about those overlooked but perhaps ecologically important families of micromoths? We still know very little if anything about 55-60 percent of PNW moth species! Our current



Self portrait.
Carl Barrentine with a Giant Silk Moth.

knowledge of the identities, distributions, and life histories of PNW moth species seems woefully incomplete compared to our knowledge of PNW butterflies. I'm hoping that will change over the next decade or two when we begin to pay more attention to the 'dark matter' of lepidopterology. Hence my clarion call: It's time to pay attention to the 'dark matter' of lepidoptery!

My journey into the nocturnal hinterlands of 'Mothlandia' began a dozen years ago in the Red River Valley of North Dakota and Minnesota. For seven years (2011-2017) of my 25-year residency in North Dakota, from March through November of each year, I dutifully documented the diversity of the midwestern moth fauna within a 60-mile radius of my home. The singular effort proved productive. I found more than 830 species of moths, representing 450 genera and 35 families. It was a lot of work, but it was also a lot of fun.

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Segue to Spokane, Washington. It has been my ambition to ‘learn my local leps’ since moving to Spokane in mid-August 2017. Compulsive to the core, I began a similar ‘moth project’ when I relocated to Spokane. I live on the edge of a rural residential neighborhood that is located several miles from the southern suburbs of the city. My home is proximal to two well-known Conservation Areas that border the east and west ridges of the Latah Creek drainage basin, just north of the rolling Palouse wheatlands and east of the sagebrush-step scablands. The focus of my ‘local lep education’ began in my own Spokane County backyard and extended to a radius of some 20 miles to the east and west to include both local Conservation Areas as well as a portion of the Turnbull NWR. That delimits the boundaries of my ‘Mothlandia.’

What have I learned about ‘local leps’ after four years? I’ve learned that my knowledge of local moths remains woefully incomplete, that I’ve more work yet to do, and that four years is not enough time for me to encounter all of my local leps! I have learned something more. Over the last four years of intensive ‘mothing’ I have learned to identify 755 species of moths, representing 414 genera and 45 families. It’s a good start.

A clarion call to action. I invite you to consider joining me in the ‘citizen science’ endeavor of finding and documenting the moths found here in the PNW. Your educational journey may begin in your own backyard, a vacant lot, a nearby city, county or state park or perhaps a local Conservation Area. I can help.

Some Pedagogical Aids

Although my knowledge of PNW moths is far from complete, I’m eager to share what I’ve learned with others who may have an interest in learning their local moths.

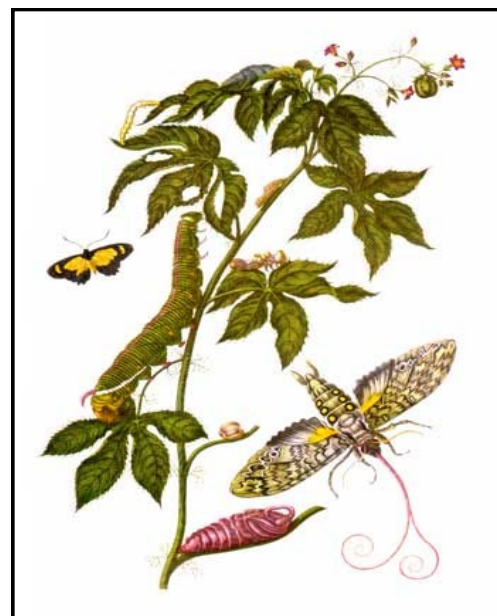
Videos. I’ve made a 10-part video series that describes in some detail my protocol and techniques for finding and photographing local moths (see [Backyard mothning with Carl Barrentine in Spokane, Washington, USA – National Moth Week](#)). Note: I embrace a ‘catch, photograph, and release’ philosophy of lepidoptery. I’m not opposed to collecting specimens for research purposes but, I just do not have the requisite time to pin, spread, and label the many, many thousands of moths I handle each year. It’s all I can do to get good digital images of living moths.

Checklists. I’ve compiled three seasonal checklists to Spokane County moths (i.e., Spring, Summer, and Fall), which I will make available to WBA members as pdf documents through the WBA website: [Washington Butterfly Association - For all butterfly enthusiasts in Washington State \(wabutterflyassoc.org\)](#)

Photographs. Digital images of local moths, including relevant data, are archived with *Bug Guide*, an Iowa State University entomological database that I’ve been contributing to for a dozen years now (see [Carl D. Barrentine - BugGuide.Net](#)). I’ve also archived images of moths with *Field guide-Leps*, a cellphone app developed by mothling friend Andre Poremski (see [Carl Barrentine | Fieldguide](#)) that is popular with those who archive images with *iNaturalist*. Finally, I’ve archived images of moths with two *Facebook* groups, ‘Mothing and Moth-watching’ and ‘Butterflies and Moths of the Pacific Northwest.’

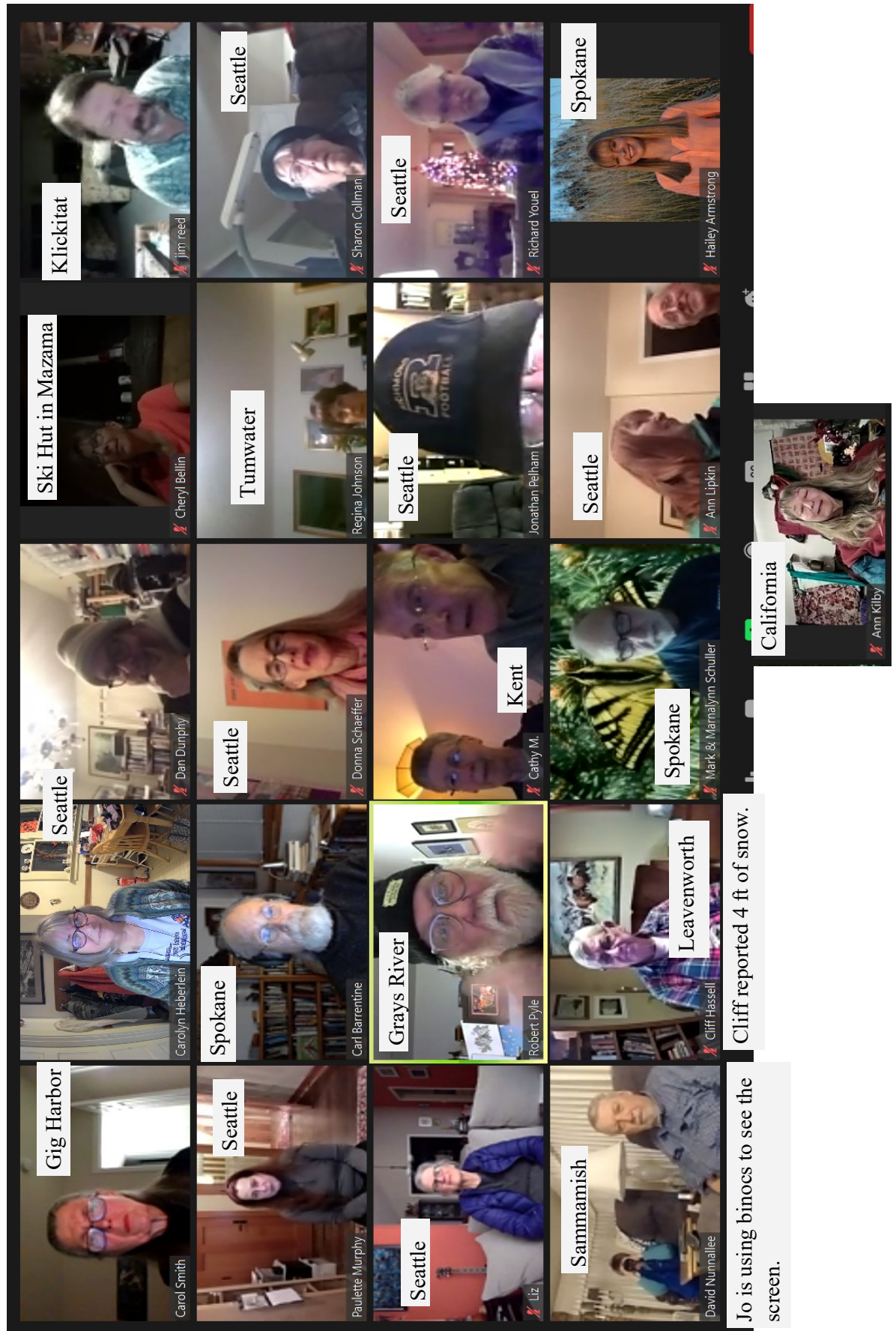
I invite you to please join me in learning your local moths.

Contact information: Carl Barrentine



The Giant Sphinx Moth, *Cocytus antaeus* from *Metamorphosis insectorum Surinamensis*. - Merian, 1705

WBA Winter Party Jan 8 2022!





Viceroy from near Brewster. (Cheryl Bellin)

Following up on The Hinchliff Atlas records, from 60 or more years ago, Viceroy's, *Limenitis archippus*, were observed last fall at multiple locations along the riparian corridor of the Columbia River near Brewster, WA in Okanogan County. Dale Swedberg speaks of one he thought he saw in 2018 on an Okanogan River kayak trip near Riverside, WA. Maybe there will be time in 2022 for that followup kayak trip to confirm.

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