

# An Earlier Record of an Introduced Species from a Historic U.S. Army Privy, Vancouver, Washington Martin E. Adams<sup>4</sup>

In our modern times, the rapid discovery of an introduced species significantly aids in its eradication or control. Historically, however, the date of the first collection of an introduced species is often the only indication we have of when that species came into the country, and the collection or first sighting could take place many years after the actual introduction. The recent discovery of the remains of an archaeological insect pre-dates the first known collection of the species in North America and could help narrow down when, and possibly even where, this species was introduced.

Fort Vancouver National Historic Site in Vancouver, Washington, has a two-pronged history—a British occupation by the Hudson's Bay Company (HBC) as a fur trading post from the mid-1820s to 1860; and a US Army presence, established when the land upon which the HBC had established their post became US territory by treaty in 1846. The latter occupation, in the late-nineteenth century, provides the chronological background to this study.

The rehabilitation of the ca. 1904 Artillery Barracks (Figure 1) at the Vancouver National Historic Reserve in 2011 uncovered the remains of a privy for the Non-Commissioned Officers' (NCO) Staff Quarters buried underneath the Barracks. This building, and the associated privy, were in service from the mid-1880s through at least the early-1890s, as inferred from historic maps. The year the NCO Staff Quarters privy was decommissioned is not known. However, details of an 1894 map show evidence of water and sewer lines to the NCO Staff Quarters, at a time when indoor plumbing was rapidly coming into favor, and the absence of the privy structure on the map suggest its removal by

had been constructed directly on top of the site of the NCO Staff Quarters and the privy. The concrete foundation of the Artillery Barracks ensured that the privy sediments were capped before the construction of the Artillery Barracks began in late 1903. During the 2011 excavation of the NCO Staff Quarters privy, National Park Service (NPS) archaeologists collected bulk sediment samples for analysis of microartifacts and biological remains. This author extracted insect remains from those sediments for identification and analysis. One of the insects recovered from those samples was *Trachyphloeus bifoveolatus* (Beck) (Coleoptera: Curculionidae).

that time (Figure 2). Regardless, by 1904 the Artillery Barracks

*T. bifoveolatus* (Figure 3) is a flightless root weevil introduced from Europe. First discovered in North America at Staten Island, New York, in 1916, it was very commonly collected in the 1930s and 1940s in eastern Canada, particularly Nova Scotia and New Brunswick (Brown, 1940). It was not noticed in the Pacific Northwest



Figure 1: Modern view (facing northwest) of the Artillery Barracks at Fort Vancouver National Historic Site. This is a large U-shaped building, and the south-face of the building is currently shown. The location of the NCO Staff Quarters and privy, the focus of this study, is underneath the east wing (right side of the photo). Photo by author.

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Figure 2a. Plan of Present System of Water Supply at Vancouver Barracks, W.T. (July 1886). The area circled in red indicates the location of the NCO Staff Quarters (the T-shaped building) and the arrow indicates the privy outbuilding for those quarters, the focus of this study. Compiled by Engineer Office Head Qt's., Department of the Columbia. Housed at Fort Vancouver National Historic Site, VBHM Drawer #19-45. Courtesy of the National Park Service.

until 1934, when it was collected in Fernie, British Columbia. By the mid-1940s, it had also established itself in Portland, Oregon, and Lakeview, Washington (Hatch, 1971). Brown (1965) theorizes that the eastern and western populations of *T. bifoveolatus* represent separate New World introductions, and because of varying characters and distribution, eastern North America had multiple introductions.

The possibility exists that the first collection date of *T. bifoveolatus* could be pushed back further. Blatchley and Leng (1916) describe a new species, *T. davisi* (Blatchley), distinguished from *T. bifoveolatus* by differences in the number and size of the anterior tibial spines (Sleeper, 1955). Though first described in 1916, the type specimens for *T. davisi* were originally collected in Staten Island, New York, in 1911 by its namesake, William T. Davis. Brown (1965), however, felt that the morphological characters separating the two were irrelevant, and made *T. davisi* synonymous with *T. bifoveolatus*. That being the case, the chronology of its introduction could be inferred to be earlier than previously thought because of the 1911 collection, though publications subsequent to 1965 (Hatch, 1971; Majka et al., 2007) make no reference to the 1911 observation<sup>1</sup>.

Nevertheless, this archaeological specimen would predate all other collections of this species in North America. Like several other root weevils, *T. bifoveolatus* has been known to enter houses, possibly to take shelter from the elements (Hatch, 1971). It is entirely likely

<sup>1</sup> Majka et al. (2007) actually list the first North American collection of *T. bifoveo-latus* as 1917, not 1916.



Figure 2b. Plan of Vancouver Barracks and Military Reservation, Washington (June 1892, corrected to April 1894). Area circled in red indicates the location of the NCO Staff Quarters, but the privy is not shown on the map, suggesting that indoor plumbing had made its presence obsolete. Lines on the map indicate the location of water and sewer lines for the buildings. Prepared under the direction of Maj. Tully McCrea, Acting Chief Engineer Officer, 5th Artillery. Housed at Fort Vancouver National Historic Site, VBHM Drawer #19-53. Courtesy of the National Park Service.

that this particular specimen exhibited such behavior by entering the NCO Staff Quarters privy outbuilding, subsequently meeting its demise by falling in the hole. Though construction of the Artillery Barracks building over the NCO Staff Quarters and privy site was completed in 1904, the historic maps of the privy site suggest that with the advent of indoor plumbing, the privy may have been decommissioned and/or removed as early as the mid-1890s. Thus, the introduction of *T. bifoveolatus* may have taken place upwards



Figure 3: Dorsal (left) and ventral (right) view of *Trachyphloeus bifoveolatus*, recovered from bulk sediment samples of the NCO Staff Quarters privy at Fort Vancouver National Historic Site. Photo by John Edwards, courtesy of the National Park Service.

of 20 years prior to the first "official" collection of this species on the east coast in 1916.

As more and more ships traveled to North America in the eighteenth and nineteenth centuries, new and exotic insect species made their homes here. The timing of these historic introductions, however, is often inferred by the date in which these species were first observed or collected, which could have been many years after the introduction itself. In the first part of his five-volume Beetles of the Pacific Northwest, Melville Hatch commented on the disparity between the actual introduction and the date of first discovery, stating, "no one will ever be nearer to the arrival of these species in our fauna than we are now" (Hatch, 1953:25). However, with the advent of archaeoentomology-the identification and analysis of insect remains in archaeological contexts-it is possible to reduce that disparity, and not only approach the original chronology of the introduction of past species, but also to narrow down where and under what circumstances such an introduction might have taken place.

#### Acknowledgements

The author would like to thank the following from Fort Vancouver National Historic Site for their assistance on this project: Beth Horton (Archaeologist), Tessa Langford (Curator), Meagan Huff (Museum Technician), Elaine Dorset (Archaeologist), and John Edwards (NPS Volunteer).

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# The Funnybug Chronicles—Episode 1: In the Beginning... Loren Russell

If I were the More-or-less Intelligent Designer and able to invent an insect for my own, I could hardly have done better than the Oregon Funnybug. As I'll argue in a later installment of these chronicles, I think that Caurinus is likely the oldest, coolest regional endemic we have in the Pacific Northwest biota.

Life has its surprises. I came to Corvallis in 1969 after getting a masters degree with Mel Hatch at the University of Washington, assuming I would revise some genus of beetles, and not coincidentally try to stay out of Vietnam. At the time Oregon was a hotbed for coleopterists. At OSU Paul Ritcher had just completed his study of *Pleocoma*; the Fender and Schuh family dynasties were in full flight; Rick Westcott, Gary Peters, and Jerry and Jean Davidson had just shown up; in a couple of years, Paul Johnson and Jim LaBonte came on the scene. My plans changed when I received a fellowship for an ecological study of carabid beetles. Ultimately my study went nowhere, so I suspended my PhD program and took a job at the "Water lab" (soon to be US EPA), at the west edge of the OSU campus. But I continued to maintain and expand my

beetle collection, and found myself exploring a series of special habitats—beetles associated with mammal nests, carrion, fungi, slime molds, soil-litter and deep soil species and, yes, winter-active and bryophyte associates.

During the winter of 1976–77, I had renewed access to the Entomology Farm—my project at the EPA used Bud Crowell's stock of European snails for bioassays—and discovered that the range of 20 large Berlese funnels at the farm would not be used until spring. Permission granted, I jumped at this chance and began processing 10–20 large bags of forest soil/litter from each week's road trip. Usually, I did a quick once-over to pick out debris, top off alcohol, and cherry pick the collection for especially interesting beetles or for arthropods of interest to various contacts. January 22, 1976 fell into this pattern—I drove to the north side of Mary's Peak to take soil cores for a soil respiration study at EPA, and while I was at it I brought back a few bags for the Berlese funnels—mostly leaf litter from an alder opening, mixed mosses from the tops of logs, and, fatefully, one bag of epiphytic moss from vine maples. At this point, Paul Johnson comes into the picture. I'd known him since he was in high school, and at this time he was probably in his second or third year of college. He was a regular on my road trips and was eager to see the litter critters from the Berleses, so I arranged "tutorials"-Paul came to my office at the EPA at noon or after work, and we'd do a session of "what's this bug". After a few weeks, it was getting harder and harder to stump him-he certainly knew the common beetles to genus, at least, and most other insect larvae and adults to family. On this occasion I had the new Mary's Peak collections—I'd just picked them up that morning and had only eyeballed the contents. I moved through the likeliest two or three vials, then with an eye on the clock, decanted the last vial. It hadn't looked very diverse, but while Paul was working on the previous vial, I saw that it contained a few larvae and an adult of the byrrhid genus Lioon. And a small dark wingless critter that I'd collected there a month or two before and thought Paul would have trouble with, Hesperoboreus brevicaudus. Or so I thought ...

I changed the Petri dish under Paul's scope and started our ID routine. Staph larva, check, chironomid larva, check, *Lioon* larva, beetle/?byrrhid?, check. Then, with a dissecting needle I moved my ace-in-the-hole into Paul's view. "What order?" "No idea", he said. So I went through the checklist: wings?, mouthparts?... "Well, it's biting..." he said. "What about the rostrum?" I said. "What rostrum?" So I looked, and Paul was right, there was no rostrum. It wasn't *Hesperoboreus*, or anything else I'd seen or heard of. And, like Paul, I couldn't even figure what order it might belong to. Less than 2 mm long, a flea-like habitus, wingless, (two small veinless pads, actually), hard-bodied with retracted genital segments and almost no exposed membranes, generalized cranial sutures, but what big eyes and what big mandibles!

By the next day, I was showing our find around. Almost immediately someone (was it Gary Peters?) called it "the funnybug" and the name stuck, it was the Oregon Funnybug. And we still didn't have the order—it was just clear that what we saw couldn't be keyed, and really all we could do was exclude possibility. Certainly my sense, from the pterothorax and what we could see of the genital segments, was that it had to be holometabolous, an opinion shared by Jack Lattin and Paul Oman. And we could exclude most orders—it couldn't be a beetle, a fly, a lep or trichopteran. Hymenoptera seemed crazy, and Bill Stephens confirmed that. We kept dipping back toward some unknown family of neuropteroid or even (first impressions!) somehow related to boreids. We needed more specimens and we needed a male. So the first Funnybug Notch Expedition took shape.

It was a classic La Niña winter, and after a spell of mild, dry weather in early January, we had several storms bringing snow to lower elevation making it hard to get back to the collection site, which we now called Funnybug Notch. In early February, however, the weather improved enough that we could drive to the watershed gate, so we went in—skis, snowshoes, and rubber boots. There were 6 to 8 of us—I only recall Gary and Brenda Peters and Rick Westcott, and we all went to work on the vine maple with beating sheets. As I recall, one specimen of the Funnybug was found, another female, as well as a few *Hesperoboreus*. I took several bags of moss as well, and finally, a male. Big eyes, big mandibles, and... short, spiny forewings forming a grasping structure. And only one family had such wings. This was, ironically, inevitably, a bizarre new genus of Boreidae (Mecoptera)!

What was so special about finding Caurinus dectes, AKA the Oregon Funnybug? As I said in the intro, it may be the oldest and coolest regional endemic that we have in the Pacific Northwest. There are other contenders of course: among insects, grylloblattids are the gold standard, but these range eastward into the Rockies and are perhaps most diverse across the north Pacific into Japan, Siberia and China. Interestingly, Caurinus can be found in proximity to Grylloblatta, Epimartyria (Micropterygidae), and Tanypteryx (Petaluridae); native earthworms (Megascolecidae), and the two outstanding vertebrate palaeoendemics, the tailed frog (Ascaphus) and mountain beaver (Aplodonta). We'll return to this in the next Chronicle.

Note: All of this is as I recall it—most of the people involved are still around, so I'd appreciate any corrections or additions.

Editor's Note: Details about a second species of *Caurinus* (Mecoptera, Boreidae) recently discovered in Alaska can be found on the web page <http://www.eurekalert.org/pub\_releas-es/2013-07/pp-doa071113.php>. The page includes an SEM picture of the male of the new species, *Caurinus tlagu*, and links to the description in Zookeys, a short video of one hopping, and a second short video showing Loren collecting *C. tlagu* in Alaska.

### A New Description for *Pterostichus malkini* (Hatch, 1953) (Coleoptera: Carabidae)

In a recent paper, Jim LaBonte (2013) from the Oregon Department of Agriculture Plant Division, redescribed *Pterostichus malkini* (Hatch, 1953). The species had been described originally from a single female collected in the Charleston area of Coos County, Oregon. Jim found that he had additional material including some males. The paper includes a nice image of the male and images of diagnostic features which will help in the identification. It also includes collecting and habitat information. So far the species has not been found outside of the vicinity of the type locality.

LaBonte, J.R. 2013. Pterostichus (Anilloferonia) diana LaBonte (Coleoptera: Carabidae: Pterostichini), a replacement name for P. (A.) lanei (Hatch, 1935), and validity and redescription of P. (A.) malkini (Hatch, 1953). Zootaxa 3682 (4): 563–571. Download available from <http://www.mapress.com/ zootaxa/2013/f/zt03582p571.pdf>.

# 2013 Aeshna Blitz Ron Lyons

This year's *Aeshna* Blitz was held in the Wallowa–Whitman National Forest in northeastern Oregon on the weekend of 16–18 August. The original plan was to stay at Duck Lake, but, because the road off of NFD 66 into this lake precluded those of us with cars, we stayed at the campground at Twin Lakes instead (on the Wallowa–Baker county line, approximately 45.078° N, 117.055° W, 6500 feet elevation).

Twin Lakes is an interesting spot. There are two pairs of lakes—the southern pair is in Baker County, the northern pair in Wallowa County. The southern lakes are clearly separated; one, the largest of the four lakes included a large marsh and had a small floating dock. The smaller northern lakes are joined by a narrow neck. Judging from the debris mats up from the water, the northern pair probably looks much more like one lake early in the season. Interestingly, none of the lakes have specific names on my topographical map. There is a small outflow from the southern lakes into the northern lakes.

Nine people made the drive—Sherry Daubert, Steve Gordon, Jim Johnson, Cary Kerst, Ron Lyons, Steve Valley, and Josh, Michelle, and Xabrina Vlach. The number of odonate species encountered was somewhat disappointing and not much more than the number of attendees. Eleven species were recorded, but the *Aeshnas*—five



species in all, were by far the most conspicuous. The highlights were two species new for Baker County: *Aeshna canadensis* (Canada Darner; fairly numerous) and *A. tuberculifera* (Black-tipped Darner; just a single female, and first found in Oregon only in 2009).

Saturday was generally sunny and mild and we dispersed to explore the different wetland areas. On Saturday evening, while we sat about dis-

Aeshna interrupta (Variable Darner) eyes the camera lens from its perch on the side of a tree.

cussing life and the events of the day a large thunderstorm storm passed. Presumably it dumped its load somewhere in Idaho—we only got a few drops.

Perhaps the biggest surprise for me occurred on Sunday morning. A number of Aeshnids flew and hunted over the southernmost lake before 6 AM PDT as the sun was just brightening the sky. The air temperature was only around 50° F; the lake and the trees around it were still in shade. One pair was even seen mating around 6:30. I hadn't expected them to be flying so early. I saw one female *Aeshna palmata* (Paddle-tailed Darner) ovipositing in the sunlit sedges by 8:20 AM.



Cary Kerst, net ready and camera available, scans the Wallowa County lakes.



Aeshna palmata (Paddle-tailed Darner) flying over Wallowa County lakes.

On Sunday, I stayed behind hoping that some of the less familiar *Aeshnas* (at least for me) would come around and give me a chance to photograph them. No such luck. But, a couple of chipmunks did come by the campsite looking for left-behinds, perhaps some broken taco chips, and a deer grazed there beside my parked car.

We all had a good time in a beautiful part of Oregon that some of us had never visited.



Sunrise over the Baker County lakes (looking northwest).

# Polystoechotes punctatus (Fabricius), a large lacewing occurring in Oregon (Neuroptera: Ithonidae) Ron Lyons

*Polystoechotes punctatus* (Fabricius) (Figure 1) is a large member of the Neuroptera, formerly in the family Polystoechotidae, the giant lacewings. Recently, Winterton & Makarkin (2010) incorporated this family into the Ithonidae, the moth lacewings. Oswald (2007) lists 77 described species in the Ithonidae, 24 of which are known from the fossil record only. Of the extant species, three—*P. punctatus, Platystoechotes lineatus* Carpenter, and *Oliarces clara* Banks—occur in the United States. *Platystoechotes lineatus* is known only from the Sierra Nevada Mountains of California; *Oliarces clara* is known from California, Arizona and Nevada (Oswald, 2007).

*P. punctatus* is known from much of North America. Carpenter (1940) remarked that it was found in "all of the states west of the Rocky Mountains (approximately longitude 105°)".

He listed a number of other state/provincial records but only two for specific localities, Peace River Alberta and Lino Panama. Penny, Adams and Stange (1997) gathered together the various literature records, included seven new state records, and came up with a list of 31 states, including Alaska, and four Canadian Provinces where it had been documented. A small cluster of northeast states-Delaware, Connecticut, Vermont, Rhode Island—is not on this list, unusual only in that these small states have been occupied for a long time and one would expect that, if present, someone would have reported it. However, Banks (1905) said it occurred "All over the northern half of our country and extending southward in the mountains, as into North Carolina, New Mexico and Arizona". Taken at face value, this statement implies that the northern states absent from the list should in fact be included. On the other hand, excluding Georgia and North Carolina, the southeastern states-Arkansas, Louisiana, Mississippi, Kentucky, Tennessee, Alabama, South Carolina, Florida, Virginia, West Virginia-are, perhaps significantly, also absent from their list. The full distribution extends down through Central America to Panama (Carpenter, 1940; Penny, 2002).

Early on, Banks (1905) noted that *P. punctatus* was "more common in the northwest than elsewhere". Recently, Penny (2002) indicated that it "appears to have disappeared from much of its former range in temperate North America, including all of the eastern USA and Canada". Archibald and Makarkin (2006) said it is "most common in the Mixed Coniferous forests of the northwestern United States". Few pictures have been posted on BugGuide. net, all from California, Oregon and Washington. In British Columbia, it occurs on most of the mainland and Vancouver Island (Cannings & Scudder, 2007).

*P. punctatus* has been found in many parts of Oregon, but no systematic study of its distribution has been made. The specimens



Figure 1. *Polystoechotes punctatus* collected at light by Kenneth Goeden, 28 August 1961, in Ontario, Oregon. Wingspan 56 mm (ODAC specimen).

held in the Oregon State Arthropod Collection (OSAC), Oregon Department of Agriculture Collection (ODAC), Southern Oregon University Collection (SOU) and Crater Lake National Park Collection (CLNP) have been collected by a number of individuals from 22 of Oregon's 36 counties (Figure 3). Johnson (1995) lists it as a species found in the Columbia River basin, but offers no specific locality information. Given the earlier comment from Archibald and Makarkin (2006), it is interesting that *P. punctatus* does not appear in the arthropod species summary list from the long-term study in the H.J. Andrews Experimental Forest in the Willamette National Forest (Parsons et al., 1991).

Adults have been collected between early June (Corvallis—the day on the label appears to be the 8th but it is hard to read) and 23 November (Corvallis), with the bulk of the collections taking place in the mid-July to mid-September time period. It has been found essentially from sea level (Portland, Corvallis) to over 7000 ft (Crater Lake National Park). The most recent specimen deposited was from 1992.

My first encounter with this species was in the form of a squashed individual on the floor in the Mazama Campground washroom at



Figure 2. *Polystoechotes punctatus* photographed 2 September 2013, 10:20 pm at the Best Western Ponderosa Lodge, Sisters, Oregon. Photo by Ron Lyons.

Crater Lake National Park on the night of 30–31 July 2004. I saw one next on the wall at the Motel 6 in Weed, California one summer several years ago (date unknown). Recently, on the night of 2–3 September 2013, I found a small number of individuals at the Best Western Ponderosa Lodge in Sisters (Figure 2). Four individuals were resting on the back wall of the first floor, the adjacent sidewalk and the floor of the nearby laundry room. Another was fluttering about (moth-like) in the laundry room, apparently stimulated by the fluorescent lighting. (I did not check the other walls/ areas of the Lodge. They had all left or been removed by the time I checked the next morning.) The back wall faces a relatively flat undeveloped area covered primarily with pines, sagebrush, rabbitbrush and grasses. It was clear and calm with temperatures in the low 60s at the time.

Little is known about the life history of this insect. In early experiments, Needham and Betten (1901: 551) found that captive females dropped eggs singly and at random, not attached to any substrate. When multiple females were held captive together, they resorted to cannibalism. Females also ate their eggs. Welch (1914) found that eggs, initially white, turn green prior to hatching, about 15 days after being laid. The first instar larvae look much like lacewing larvae depicted in texts, with long curved mandibles. They begin to search for food on hatching. The size of the adult indicates that the larvae should eventually reach a respectable size before pupating. Some work on the final instar larvae has been done by MacLeod (1964) and presumably there is a bit more on the life history but I have not seen his unpublished thesis. Grebennikov (2004) added some information on the first instar, but was not sure that the larvae he examined were actually from P. punctatus (see also Makarkin & Archibald, 2009).

The early papers contained various opinions on where the larvae lived and what they ate. Although as yet unconfirmed, the larvae are now thought to be phytophagous or saprophagous (Grebennikov, 2004; Winterton & Makarkin, 2010).

As adults these are relatively large (wingspan ~74 mm for one of the ODAC specimens), distinctive insects about which little seems to be known. The adults are attracted to lights; Penny et al. (1997) report that they are frequently seen around campfire smoke. Two early papers note the presence of a very large number of insects. Lintner (1886) wrote "hundreds could be seen resting on the parlor walls" at Long Lake in the Adirondack Mountains of New York in August 1885. Reporting a story from Rev. C.J.S. Bethune, a prominent Canadian entomologist, Fyles (1903) wrote: "Some years ago, an alarm of fire was raised in the town in which he then resided. The fire-engines were called out and their was a great commotion. From the roof of a large warehouse, near the water, volumes of seeming smoke and heated air were rising and eddying [...]. The appearance that had alarmed the town was caused by innumerable specimens of Polystichotes punctatus, Fab, rising from, and sporting over, the roof." (The unnamed town undoubtedly was Port Hope, Ontario, Canada, where Rev. Bethune lived for least



Figure 3: Distribution of *Polystoechotes punctatus* within Oregon based on specimens held in Oregon collections.

29 years before moving to London, Ontario in 1899. Port Hope is on Lake Ontario about 60 miles NE of Toronto.)

*Polystoechotes punctatus* has been found in many parts of the state; I would not be surprised to find that it occurs or has occurred somewhere in every county in Oregon. The exact habitat requirements of this species have not yet been determined. I would be happy to receive any reports or information anyone would care to pass along—they may be flying in your area right now.

#### Acknowledgements

I would like to thank Chris Marshal (OSAC), Jim LaBonte (ODA), Peter Schroeder (SOU) and Mary Benterou (CLNP) for help with and access to the collections they manage.

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# 2013 Lepidopterists' Society Pacific Slope Meeting David V. McCorkle

The Lepidopterists' Society, Pacific Slope Section held their 60th annual meeting at the Malheur Field Station, 7–10 August of this year. The attendance was somewhat low, about 16 society members plus some family members.

The formal presentations were given the morning of Thursday, 8 August. The four papers were all well presented. Liam O'Brien told of his monitoring of a population of *Papilio rutulus* that has thrived for nearly forty years on a planting of London Plane trees in downtown San Francisco. Chris Marshall gave an update on activities at the OSU Arthropod Collection (OSAC). The move to preserve larger lepidoptera in special envelopes rather than as pinned specimens is of note. Kelly Richers' paper was titled "Status of Fascicles of the Wedge Foundation". And lastly, John Lane gave a review of his study of Juniper Hairstreaks and their hosts in the Pacific Northwest. Of special note is his current study of populations on apparently relic stands of Juniper on the Olympic Peninsula. Jon Shepard added a note on the current status of his group's moth website, <http://pnwmoths.biol.wwu.edu/>, titled "Beyond Butterflies: PNWmoths". They now have some 1300 macromoth species recorded.

The rest of the time was spent socializing and doing field work. Several of the attendees set up black light traps and apparently did well sampling the nocturnal insects in the vicinity. Saturday involved a field trip to the nearby Steens Mountains. At least some of us had both an enjoyable and productive time. Of note was Bob Pyle's wife Thea's first visit to Steens Mountain. She and a small group of the meeting participants spent some time



Arctia caja (Great Tiger Moth). Photo by Liam O'Brien.

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Satyrium titus (Coral Hairstreak). Photo by Liam O'Brien.

just sitting and looking out over the impressive view. (I know because I photographed them in the act.)

Paul Hammond and I were successful in getting breeding stock females of both Speyeria zerene and S. mormonia. These have oviposited well for us. And I was able to fulfill an objective I have had for over forty years. I was able to collect a species of Helophorus (Hydrophilidae) that I described in 1965 from just four males and three females. (In 1985, Ales Smetana of the Canadian National Collection expanded the known number to 13.) Being such a rare entity, I considered it especially honorable to name the species after my graduate school adviser, Melville Hatch. However, he later pointed out that being named for a com-

mon species is really more of an honor. But it was too late then to change what I had done. However the species, Helophorus hatchi, is now better represented by the additional four males and four females that I collected in McCoy Creek in the vicinity of Fish Lake. I also took a few specimens of *H. lecontei* and two other species as females only, which are hard to identify. H. hatchi is known only from high elevations in Oregon and California.



Meeting participants. Back Row (left to right): David Powell, Ray Stanford, Jeff Baier, Mark Hitchcock, Jerry Powell, Kelly Richers, Jon Shepard, Chris Marshall, Dana Ross. Front Row (left to right): Bob Pyle, Helen Wilson, Jim Reed, John Lane, Paul Hammond, David McCorkle. In front: Liam O'Brien. Present but not pictured Kit Stanford, Thea Pyle and Sigrid Shepard. Photo by Liam O'Brien.

We visiting entomologists were all very grateful for the hospitality shown us by the Malheur Field Station staff. The station director, Duncan Evered, was especially helpful in his suggestions of good collecting sites and in showing us the collection that he and his staff have made there at the station. And the kitchen staff certainly kept us well-fed.

# Helfer's Dune Grasshopper, Revisited Ron Lyons

In my article on Helfer's Dune Grasshopper (Lyons, 2013), I gave the species name as Microtes helferi, following Otte (1984). Recently, I received an email from Dave Weissman whose analysis (Weissman, 1984) indicated that this species belongs in the genus Trimerotropis. This conclusion is also supported by ongoing genetic analysis work by Dave Lightfoot. The species name should be Trimerotropis helferi Strohecker. (The name for the species, Microtes pogonota, mentioned at the end of my article, is still valid.)

Weissman (1984) also found that the color of the wing disk (in the hind wing) in live specimens of T. helferi is variable. He found individuals with clear, greenish tinged and greenish yellow wing disks and noted that the "colors apparently fade out completely after death as judged by most museum specimens".

I would like to thank Dave Weissman for sending along the correction, and both he and Dave Lightfoot for subsequent email conversations.

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# 35th Northwest Lepidopterists' Workshop

When: Saturday and Sunday, 19 and 20 October 2012Where: Cordley Hall, Oregon State University, Corvallis, OregonHosts: Drs. Paul Hammond and David McCorkle, Hosts

Sponsored by the Zoology Department and Arthropod Collection, Oregon State University

## Saturday Program, 19 October

- 9:00 AM Register at Cordley Hall, room 2113 (east wing). No fee. Workshop Preview: Arrange study specimens, etc. Cordley Hall room 1070 (west wing)
- 10:00 Welcome and announcements, Cordley Hall room 2113 (east wing)
- 10:30 Activity reports: New state and county records, Lepidopterists' Society meeting reports, book announcements, etc.\*
- 12:30 PM Group picture. Location to be announced.
- 12:45 Lunch at local restaurants.
- 2:00 Workshop session: Cordley Hall room 1070. (Preceded by a brief orientation to this year's groups if requested.)

Groups of emphasis for this year: Butterflies: Acmonoid Blues, Swallowtails (and Parnassians) Moths: general moths, especially Geometridae of the Macarias Group Also specimens of any Lepidoptera from recent field trips or of special interest. Information exchange and specimen gift exchange is encouraged.

- 2:00 Parallel Session: Starting out with Butterfly Collecting: Youth Workshop. Cordley Hall room 1064
- 5:00 Workshop session conclusion
- 5:30 Buffet dinner at Izzy's Restaurant, Corvallis
- 7:15 Ag 4001: Brief planning session followed by the evening lecture:
   Sex, love, and heat: the developmental plasticity of sex role reversal in the Squinting Bush Brown Butterfly, by Kathleen Prudic, PhD (Research Scientist, Zoology, Oregon State University)
- 9:30 Meeting recessed until Sunday morning.

\* Please bring your Northwest collecting records with you in written form. Dana Ross will put them into the master file and send any significant county records to Jon Shepard for inclusion in the Lepidopterists' Society Season Summary. (Include the state, county, location and date, and if available, range and township or longitude, latitude coordinates and altitude.) Ann Potter is also soliciting Washington state records.

Program continued next page ...



Program continued...

# Sunday Program, 20 October

- 8:30 AM Workshop session resumed, Cordley Hall room 1070 (west wing)
- 10:00 Field trip reports and other contributions. PowerPoint, etc. Cordley Hall room 2113 (east wing)

This is your opportunity to contribute a presentation on or related to Lepidoptera, e.g. field trip report, favorite images, etc.

Please notify Paul Hammond prior to this meeting of your equipment needs and if your presentation is likely to exceed 10 minutes.

"12:00" Meeting concluded

The map below shows Cordley Hall and the ALS Building in red. Most of the meeting takes place in Cordley Hall. The Saturday evening presentation in Ag 4001 is on the 4th floor of the ALS building, reached from the 3rd floor of Cordley via a sky bridge.



The smaller of the two parking areas colored in turquoise is the one favored by participants as it is the one closest to the weekend entrance for Cordley Hall. Access this lot via Orchard Ave or Park Terrace and through the larger parking lot. Street parking is also available along Orchard Ave.

For a full campus map, visit <http://oregonstate.edu/campusmap/> and click on "PDF Map" at the bottom of the page.

### Workshop: Starting out with Butterfly Collecting: Youth Workshop

- Instructors: Christopher Marshall (OSAC, OSU Zoology), Dana Ross (OSAC) and Katy Prudic (OSU Zoology, eButterfly)
- When: 2:00–4:00 PM, Saturday, 19 October 2013—Preregistration Required.
- Where: Cordley Hall, room 1064, Oregon State University, Corvallis

In conjunction with the annual Northwest Lepidopterists' Workshop, the Oregon State Arthropod Collection (OSAC) will hold an introductory workshop for young people ages 7–16 (accompanied by a parent or legal guardian) who might be interested in starting their own collection. This two hour class will provide the students with the skills necessary to create a collection, as well as discuss the scientific value of collections and the ways in which responsible butterfly collecting aids in conservation efforts. The majority of the class will be spent demonstrating basic techniques for finding, capturing and preparing butterfly and moth specimens. We will also review the butterflies that beginners are most likely to find in our area and emphasize how to properly care for a butterfly collection so that it can help scientists to better understand these beautiful and fascinating creatures.

We will also discuss how students can work with new online tools to contribute data from their collections to a growing body of biodiversity data.

The class is limited to 15 students and pre-registration is required. There is no cost to attend, but every student must be accompanied by a parent or legal guardian.

You can pre-register at <http://osac.science.oregonstate.edu/youth-butterfly-workshop/>.

Note: Class participants are invited to attend the Northwest Lepidopterists' Workshop which will take place on Saturday and Sunday in nearby rooms. Registration for this event is not required and there is no fee involved. All you need is an interest in butterflies and/or moths.

### **Publications from the Xerces Society**

### **Conserving Bumble Bees**

Guidelines for Creating and Managing Habitat for America's Declining Pollinators

By Rich Hatfield, Sarina Jepsen, Eric Mader, Scott Hoffman Black and Matthew Shepherd

#### **Ecologically Sound Mosquito Management in Wetlands**

An overview of mosquito control practices, the risks, benefits, and nontarget impacts, and recommendations on effective practices that control mosquitoes, reduce pesticide use, and conserve wetlands.

By Celeste Mazzacano and Scott Hoffman Black.

#### **Beyond the Birds and the Bees**

Effects of Neonicotinoid Insecticides on Agriculturally Important Beneficial Invertebrates

By Jennifer Hopwood, Scott Hoffman Black, Mace Vaughan, and Eric Lee-Mäder.

Visit <http://xerces.org/> for more information on these publications or to download the free PDF. Conserving Bumble Bees can be purchased as a hardcopy from their online store.

### **Journal Issues Wanted for OSAC Library**

The Oregon State Arthropod Collection (OSAC) is seeking donations of volumes and issues of the Canadian Entomologist that are lacking in the OSAC library. The current holdings of the Canadian Entomologist are: 75(5), 79–81, 82(6–9), 84(12), 85, 86(6, 10–12), 87(8), 88(1–6, 8–11), 89(1– 7, 9–12), 90–125, 126(1–4,6), 127–128, 129(2–6), 130–136.

A listing of other journal holdings will be available later. We are especially seeking issues of the Pan-Pacific Entomologist, Journal of the New York Entomological Society, Psyche, Bulletin of the Brooklyn Entomological Society, and Entomological News.

Please contact Jon Shepard at <shep.lep@netidea.com> or (250) 352-3028. He is coordinating the organizing of the library, but do not phone until early November as Jon will not be at home until then.

Thank you for your consideration.

# Eugene Chapter of the North American Butterfly Association (NABA)

The results for the July 4th Butterfly Counts carried out by members of the Eugene Chapter of the North American Butterfly Association for Eugene, Browder Ridge and the Cascade-Siskiyou National Monument can be downloaded from the Chapter's website <http:// www.naba.org/chapters/nabaes/>.

The website also contains details on upcoming meetings. Carol Buckley and Sue Butkus will speak on "Creating a Butterfly Oasis" on Monday, 14 October. Robert Michael Pyle is scheduled to speak on Monday, 9 December. Meetings are held at the Eugene Garden Club, 1645 High St., Eugene. Social time begins at 7:00 PM with the presentation starting at 7:30 PM.