Utah Lepidopterist

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Utah Lepidopterists' Society

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Monte L. Bean Museum Boasts the Largest Butterfly in the State

The Monte L. Bean Museum at Brigham Young University, in Provo, Utah, houses the largest butterfly in the state of Utah, perhaps even in the world. With a wingspan of 5 feet 8 inches, displaying bold patterns of brilliant colors and one very large blue eyespot on each hindwing, this butterfly is unlike any other. While most butterflies get their beautiful colors from a covering of hundreds of overlapping powdery scales, this large specimen is made from hundreds of actual butterflies!

Ken Tidwell with display made from his donated butterflies. Photo by Todd L. Stout

The butterflies come from a portion of the Kenneth B. Tidwell collection recently donated to the museum's entomology section. His donation totaled nearly 12,000 mounted and papered specimens that Ken and his wife Donna collected from all over the world during the past 50 years.

According to Dr. Shawn M. Clark, collections manager at the museum, the actual idea on how to showcase the butterflies came from Emily Bybee, a student from Timpview High School that works as a volunteer in the entomology section of the museum. Museum artist Randy Baker designed and put together the popular display with the help of many volunteers. The large butterfly resides on the main floor of the museum along with several other new insect displays.

Most of Ken Tidwell's donated butterflies will be incorporated into the museum's insect collection which already houses over 2 million specimens. There is much work ahead for the museum staff in sorting and cataloging the butterflies into their proper taxonomic groups so they can be made available for study by visiting researchers.

The collection has "excellent scientific value," according to Dr. Richard Baumann curator of insects at the museum. "Much of the value is due to the fine work of Ken Tidwell in properly labeling the specimens with dates, locations and identification. Without the labels, the beautiful specimens would have little scientific value," added Dr. Clark.

"The collection contains some very interesting, unusually patterned, aberrant butterflies of several different species. One species of swallowtail collected by Ken in Latin America, was the first known completely intact specimen of its kind," said Dr. Clark.

Congratulations to long time Utah Lepidopterists' Society member Kenneth B. Tidwell for the generous donation of his collection to the Monte L. Bean Museum.

Alan R. Myrup
Editor, ULS Bulletin

The ULS Synoptic Collection is also housed at the Monte L. Bean Life Science Museum at Brigham Young University, Provo, Utah.

Jacque A. Wolfe Donates Lepidoptera Collection to the Utah Museum of Natural History

In early November 2003, Utah collector Jacque Wolfe met with Utah Museum of Natural History Entomology Collections Manager Christy Bills for the first time. Jacque established an immediate rapport with Christy helping her identify some difficult species of Utah *Speyeria* and introducing her to a unique alternative butterfly mounting technique that he learned from Jack Harry utilizing small magnets and strips as opposed to pins.

Little did Christy know that one of the purposes of Jacque's visit was to acquaint himself with the museum staff in order to assess the possibility of donating his entire collection there. After subsequent visits to the museum, and after the cordial nature of Christy and the museum staff, Jacque's concerns with security were properly addressed and he decided to go ahead and donate his entire collection to the museum

Donating his collection to a reputable museum provided a win-win both for the UMNH and Jacque because it allowed the museum to greatly enhance the variety of butterfly species available to the public while at the same time allowing Jacque to obtain more room for his already full apartment.

Because Jacque is still very much active in his collecting and extensive rearing projects, he still plans to use the majority of his living room for that purpose during these next summer months. However, there will be a lot more space now in his bedroom where his mounted butterflies used to be stored.

Another advantage for Jacque is that the museum is relatively close which allows him to drop by from time to time to donate more butterflies or to study data and specimens that are already housed at the museum.

Soon after Jacque decided to donate his collection to the museum, members of the museum decided to inform the local media of the donation and created a media day on February 21, 2004 to allow the public to view Jacque's collection. As a result of the announcement, during the week of February 16, Jacque was interviewed by KSL TV, KUTV, The Deseret Morning News, The Salt Lake Tribune, and the Daily Utah Chronicle--not to mention the Utah Museum of Natural History.

Visitors to the Utah Museum of Natural History enjoying the exhibit of butterflies donated by Jacque A. Wolfe. Photo by Todd L. Stout

The butterfly exhibit drew far more than even the museum had anticipated. Approximately 650 people attended the exhibit including ULS members Steve Sommerfeld and Todd Stout who were there to support Jacque and the ULS.

All in all, it was an enjoyable experience for Jacque, Christy, and all those at the museum who put the exhibit together.

Todd L. Stout
ULS Webmaster

An Unusual Event For Summit County, UT In 2003

Throughout most all of the thirty-two years (1972-2003) I have been closely monitoring butterfly species distribution at the county level in Utah, it was either Salt Lake Co (SL UT), or Utah Co (Ut UT) that headed the list for the highest number of bf species. These two counties ran neck and neck for years, mostly because of more concentrated collecting in these more heavily populated Wasatch Front counties over a longer period of time.

Then as the Utah Mojave region in the south half of Washington Co (Wa UT) began to be heavily investigated, and as more unusual southern influx species became proven [such as *Battus philenor* (blue pipevine swallowtail), *Zerene eurydice* (california poodleface), *Eurema nise* (mimosa yellow), *Chlorostrymon simaethis* (silverbanded hairstreak), and *Calephelis nemesis* (dusky metalmark) as examples], Wa UT

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Rearing Melitaeini --Checkerspots and Crescents

by Jacque A. Wolfe

The Tribe Melitaeini, Family Nymphalidae is represented by a fairly large group of butterflies commonly known as checkerspots and crescents. One attribute that I enjoy about this group is the variation found within each species which is greater than any other tribe in North America. Rearing large numbers of these butterflies can provide an interesting series with no two butterflies appearing alike. I also appreciate the fact that they are not disease prone when rearing, especially since their larvae are gregarious in their early stages.

The most obvious way to begin rearing these butterflies is to collect females to obtain ova. Another, is to look for immatures on their larval foodplant (LF). Both of these methods will require you to locate an existing colony. For a colony to exist, there must be sufficient LF growing in the proper environment. Searching the general habitat of the butterflies is one way to find the plants. Another is to visit a herbarium. Many records from a relatively small area may help to narrow the search and may lead you to an excellent spot.

When visiting a colony, I always look as hard for DYC's (Darn Yellow Composites), family Asteraceae, as I do females. These bright yellow flowers are magnets for any adults in the vicinity. I find an isolated clump and let the females come to me. When nectar sources are not plentiful, this method works very well.

I always gather the LF of a specific colony, to set up the females. If more than one possible LF is present, I take some of each. Checkerspots and crescents will lay equally well under filtered sunlight or artificial light. Using lights and a 24-hour timer set for three hours on, three hours off, creates a controlled environment and prevents overheating. Other than feeding the females and once a day checking the plants, little attention is required. In this indoor environment, ova can be obtained during inclement weather or in the dark of night. The females will lay at the most, one egg cluster per day.

While collecting females, don't forget to check the LFs for immatures. Begin at first light and search until the adults begin to fly. Later in the day, check the plants again for egg clusters. This increases your chances of obtaining immatures in any given year.

Another option is to collect post diapause larvae in early spring. This not only gives you a wider window for finding immatures, but gives you a chance to be in the field earlier after a long winter. Collecting post diapause larvae allows you to obtain adults without waiting until next spring. In the case of *Chlosyne palla* and *Chlosyne whitneyi,* a large percentage may feed for an instar and then reenter diapause. A disadvantage of collecting post diapause larvae is that poor conditions may cause the LF to be few in number or of poor quality which may result in smaller than normal adults. If the conditions are harsh enough, there may be few or no larvae until favorable conditions return.

Genus *Euphydryas*

Where *Euphydryas* larvae use *Penstemon*, an egg cluster can usually be found if the vegetation of the area is suitable. When searching for ova, you will have your best success in areas where thick vegetation confines the *Penstemon* to open areas such as roadsides or in naturally open spots where soil conditions concentrate it. An individual female will normally lay her eggs in a relatively small area. If you do find one egg cluster, a careful search nearby will usually reveal others. This also applies when *Castilleja* is used. Although if the plant is not yet in bloom, they can be much harder to find.

When collecting in a new area, keep in mind that there are many possible LFs such as *Plantago*, *Collinsia*, and *Symphoricarpos*. The ova of *Euphydryas gillettii* can also be found with regularity. Most female *E. gillettii* lay their egg clusters on scattered plants along a stream bank or on the dry hillsides above the stream, where scattered pockets of the *Lonicera involucrata* grow. A narrow, open flat bordering a stream is probably the most productive. Avoid large flats where the plants grow in dense colonies.

After the eggs hatch, the pre diapause larvae spin a few leaves together with silk making them much easier to find. Instead of closely examining each plant for ova, a person can check for these silken leaves and search more plants in a shorter amount of time.

Post diapause larvae of *Euphydryas*, like all genera of checkerspots, hide and rest in the litter below the LF. Even those species that use shrubs such as *Symphoricarpos* (snowberry) or *Lonicera involucrata* (twinberry honeysuckle), make the comparatively long journey from plant base to upper story dining area, and return, each day. Unless it is warm enough for them to be active, they will be in the under story litter. Even if larvae are found feeding, a quick check below the plant is often fruitful, because those that have finished eating, or are waiting to molt, will be in hiding. If no hiding places are available at the plant base, check the nearest available debris or grass clump.

Post diapause larvae of *E. colon nevadensis* and *E. gillettii* that feed on shrubs, are not as sensitive to warm, dry conditions, as other *Euphydryas*, and may be taken directly to the lab for rearing. All other *Euphydryas* must be reared to fourth instar where there is no artificial warmth. If brought into the lab before that, they will feed for a while, and then reenter diapause. Larvae that use either *Castilleja* or *Penstemon*, will readily switch to the other. I prefer using *Penstemon* in the lab because it holds up well, and is readily available all season.

Pre diapause larvae that are foodplant specific can be reared after diapause on some of the other plants of the genus. I have found post diapause larvae of *E. anicia* on *Lonicera involucrata*, and *E. phaeton ozarke* on *Castilleja*. I have reared *E. phaeton*, more than once, on *Penstemon*.

Genus *Chlosyne*

Chlosyne palla

Chlosyne palla: The LF for Chlosyne palla in the Wasatch Mountains is *Aster engelmannii*. The plant grows best in moist areas within the forest canopy. However, the females only oviposit on scattered patches of plant growing on the higher, drier, more open ridges.

Females can usually be collected in mid to late June, as they nectar in the general area of the LF. Obtaining ova from females is the surest way of getting immatures in good numbers. Pre diapause larvae can also be found in good numbers.

When I first collected *C. palla* in other areas, I could not find the LF. The three *Aster* species I offered the females might as well have been willows or grass. Now I use *A. engelmannii* exclusively as a host, and have always been successful.

I rear the larvae to diapause in numbers of fifty or so, in a three-gallon pail. I rear *C. palla* under continuous light and quite often, some larvae will not diapause. When this happens, the resulting adult has always been a female. The next spring when the *A. engelmannii* has grown large enough, I put the dormant larvae in a rearing container with fresh plant. As in the prior summer, I put fifty or so larvae into a container. Under constant light in the lab, it takes four days for the larvae to break diapause. I spray them twice a day until diapause is broken, to prevent desiccation. After the larvae have started feeding, I rear only about twenty per container. I spray the pupae once a day. If spraying is neglected, many of the adults will not be able to emerge properly.

The last time I reared *C. palla*, I started in spring with 87 larvae. Seven died, 29 went into diapause, and 51 went through all instars and emerged as adults. In nature I would guess that nearly 50 percent of the larvae diapause for at least one more season.

Chlosyne whitneyi damoetas: The LF for *C. whitneyi damoetas* in the Uinta Mountains of northeastern Utah is *Solidago multiradiata*. I could never identify it positively in the field. After another frustrating season in 2000, I decided that I would try *Aster engelmannii*. In July of 2001, I went to Powder River Pass in Johnson County, Wyoming, with some fresh *A. engelmannii*. The first half hour of collecting resulted in two female *C. whitneyi damoetas*, with very thin abdomens. The clouds rolled in about 11:00 hours. The rest of that day and the first half of the next resulted in nothing but wet clothes. At least I got something for the time spent looking for immatures on *Erigeron leiomerus*. I started home in the early afternoon, and as so often happens, thirty miles of travel put me under clear blue sky. I set up the two females offering both *A. engelmannii* and *E. leiomerus*, and put them on the seat beside me. Thirty minutes later I stopped for one of my frequent post trip coffee pit stops. Before leaving, I examined the plants and found a cluster of 31 eggs on *A. engelmannii*. Both females were dead the next morning and had not laid another cluster.

That same weekend, Todd Stout and Steve Sommerfeld were fighting clouds at Chepeta Lake, in the Uinta Mountains., Uintah County, Utah. When I got home, I was presented with a fresh female of *C. whitneyi* that Todd had collected. Sunshine and warmth are usually in short supply in *C. whitneyi*'s high altitude home. As a result it doesn't take much of either to get them active.

The first two egg clusters the female laid were in a container set in an unlit corner of my living room. She laid three more large clusters before she died. Steve Sommerfeld and I each reared larvae from the Chepeta Lake female. The majority of the larvae went into diapause in the second instar. A few fed a short while as third instars before entering diapause. Fourteen molted to fourth instar before entering diapause. This past spring, it took the larvae three and one half days to break diapause, twelve hours faster than the *C. palla*. Of the 31 Wyoming larvae, 29 grew one instar, molted and went back into diapause. The other two larvae went through all instars and emerged. I had 131 larvae from Chepeta Lake. Fourteen died after breaking diapause, and the other 117 grew an instar and reentered diapause. In natural conditions, all would have reentered diapause. Because they entered diapause at three different instars, I am only expecting a small amount of adults in 2003, a large number in 2004, with the remainder in 2005 or later. It will be interesting to see if my assumption is correct. However, being reared in a well lighted lab may alter the natural sequence.

As a side note, a couple of months ago Clyde F. Gillette showed me some transplanted *Solidago multiradiata*. I now know I have seen this plant many times without recognizing it.

Chlosyne hoffmanni: I received one live female in 2001, from Ken Hansen. I set her up on *A. engelmannii* and she laid one small cluster of 23 eggs. They entered diapause after molting to the third instar. This spring it took them five full days to break diapause. One larvae died, and the rest went through to adults.

Chlosyne gabbii: I still haven't reared *C. gabbii*. I am anxious to try this *C. palla* group species on the now famous *Aster engelmannii*. I would be surprised if they do not oviposit on it.

Chlosyne acastus: In Utah, *C. acastus* from the more arid areas in the west desert or the San Rafael Swell use *Chrysothamnus greenei* as their LF. The adults from these two areas are often quite different. In the higher less arid areas, *Chrysothamnus viscidiflorus* is the LF. In blend areas, these two plant species hybridize. I prefer using *C. viscidiflorus* to rear the larvae. Each leaf of *C. viscidiflorus* is several times larger than a *C. greenei* leaf, and fresh plant is just minutes away. This is a big help since *Chrysothamnus* dries out quickly in the rearing container, and does not keep well in the refrigerator.

Todd Stout has found post diapause larvae using a composite species, and recommended that I try *A. engelmannii*. I think Todd's idea is a good one because the *Aster* stays fresh much longer and the leaves are huge in comparison with the *C. visciflorus*. When rearing, the less trips to "the grocery store", the better. I have no doubts about its nutritional qualities.

Since I have 200 or so larvae in diapause (thanks to both Steve and Todd), I will try *A. engelmannii*, next spring. I collected and reared some post diapause last instar larvae which only fed a day or so before pupating. The rearing was easy, but the resulting adults were small and of poor quality.

Chlosyne neumoegini: *C. neumoegini* flies in Washington County, Utah. It is scarce except in wet springs following an equally wet winter. The worse the weather is for all the immigrant retirees, the better it is for the butterfly collectors.

When collecting larvae, they should be removed from the LF, *Machaeranthera tortifolia,* as carefully as possible. If other larvae are present and are disturbed, they will drop to the under story and roll into a tight ball. When they "abandon ship" they are very hard to find. When this happens, be patient, and after awhile they will uncurl and start to crawl away. This is true with practically all larvae regardless of the species. I mention this now because *C. neumoegini* larvae are "the fastest guns in the west" at dropping to the under story.

Chlosyne harrisii: Where good colonies exist, larvae are quite easy to find. The larval webs on *Aster umbellatus* are easily seen. If the larvae have left the plant to diapause, they will be grouped together in the litter at the plant's base. Post diapause larvae can also be collected in good numbers and reared to adults on *A. engelmannii*.

Chlosyne californica: This is another species that flies in an arid environment. If moisture levels have been sufficient, larvae can be collected in good numbers. The LF, *Viguiera deltoidea*, grows as a low shrub, mainly along washes and draws. The tiny leaves are miniature replicas of *Helianthus annuus* (sunflower) leaves.

Chlosyne lacinia: *Helianthus annuus* is the LF in Washington County, Utah. When they have a good flight, you can find many more larvae, than you want to rear. If the first larvae you find are quite small, keep looking. Before long you will probably find larger ones.

The adult coloration is controlled, all or in part, by photoperiod. Adults from larvae collected in late summer or fall, will all have yellow and orange bands. Larvae collected in late spring to mid July will produce both color forms of adults. Some will have the yellow and orange bands, and some will only have white bands. The white bands on some individuals are greatly reduced in size.

Chlosyne janais: I have collected *C. janais* in Medina County, Texas at the junction of US 90 and Hondo Creek. The LF, *Anisacanthus wrighti,* is a low, spreading shrub that grows in dense colonies. We collected all day in a strip no more than 200 yards in length, along the west side of the stream. The plants grew from the high water mark to perhaps 100 feet from the stream. At least in early autumn, immatures of all sizes can be found. We found two groups of newly hatched larvae, several of intermediate size larvae, about 70 fourth and fifth instar larvae, 8 pupae, and 3 adults that were drying their wings. We only collected the large larvae, pupae, and freshly emerged adults. The larvae were easily seen in the morning until the plants were in the sunshine. Within minutes, not one larvae could be seen. They all moved from the plants periphery, to the shady, and relatively cool, interior branches. It was so humid along the creek, that within a couple of minutes after leaving our vehicle, I bent over to examine a plant, and my glasses slid off my wet nose.

Genus *Chlosyne* [Subgenus *Thessalia*]

Thessalia leanira alma

Thessalia are more LF specific than most checkerspot groups, at least north of Mexico where *Castilleja* is their primary food source. The only exceptions are the three subspecies of *T. theona*. Although the larvae of *T. theona thekla* usually feed on *Castilleja*, it may occasionally uses *Brachystigma wrighti.* In Texas, *T. theona bolli* and *T. theona chinatiensis* use *Leucophyllum* species.

Thessalia theona bolli* and *T. theona chinatiensis: I treat both of these taxon together as they both fly in Texas, use the same LF, and intergrade in a blend zone, centered in Brewster County . I have not reared either of these subspecies, but I have collected adults in Brewster County. All of the adults I saw that day were in the narrow draws. These draws were filled with *Celtis* trees and assorted shrubs bathed in partial sunlight. I caught most of my specimens when they were nectaring on the occasional sunlit composites. After about 10:00 hours, the adults had to be flushed from within the shaded areas, where they were perched.

Thessalia theona thekla: If conditions are favorable, larvae of this *T. theona* subspecies can be collected in good numbers. The larvae of *Thessalia fulvia* and *Thessalia cyneas* may be found in the same area. The *T. theona* larvae are recognized by their lack of bright coloration.

Thessalia cyneas: On my only collecting trip specifically for this species, I was greeted with snow 8 inches deep at the juncture of Sawmill and Garden Canyon in the Huachuca Mountains of southern Arizona. For unknown reasons, this species is not seen every year.

Thessalia fulvia: Although I have reared the nominate subspecies of *T. fulvia,* I have only collected a few adults. A few springs ago, Steve Sommerfeld and I made more than one trip to the type locality of T. *fulvia pariaensis* located in Kane County, Utah. We were armed with both a map and verbal instructions from prior collectors. We only found 7 or 8 *Castilleja* plants in the whole area. On the last trip at least, judging by the plant's condition, our timing was correct. I would like to search the area one more time, during a wet spring.

Thessalia leanira: In the lab, larvae of this species takes 10 to 14 days to break diapause and begin feeding. This is double the time it takes for *Euphydryas* larvae. In the "West Desert" where *T. leanira alma* and *E. anicia wheeleri* are sympatric, the difference in timing is very evident. *T. leanira* larvae prefer to feed on the flowers, so the *Castilleja* must be mature. When the *T. leanira* larvae have broken diapause in good numbers, only an occasional *Euphydryas* larvae will be seen.

Post diapause *T. leanira* larvae can be collected in very good numbers when moisture has been sufficient. Even though crowded, large *T. leanira* larvae will not seek a new plant, until even the plant stalks are devoured. On more than one occasion, I have found 6 or 7 fifth instar larvae on a plant that only had inch long stumps remaining. In all cases but one, there were untouched plants less that 3 feet away.

Genus *Poladryas*

Poladryas arachne: *Poladryas arachne* has at least 2 broods in southern Utah, but only one in northern Utah. Egg clusters or larvae can be collected, usually in small numbers. The largest cluster of ova that I have found totaled 13 eggs.

Post diapause larvae refuse any *Penstemon* but their natural LF. Newly hatched larvae will eat and do well on *Penstemon cyananthus* abundant in the Wasatch Mountains. The *Penstemon* used by *P. arachne* is a very small, blue flowered species, that has narrow leaves.

To search for eggs, carefully look under all the basal leaves, some of which are laying on the ground. If reared under constant light, larvae from colonies with more than one brood, will not diapause. If the colony is single brooded, some larvae will diapause and some will not.

Genus *Phyciodes*

Phyciodes mylitta

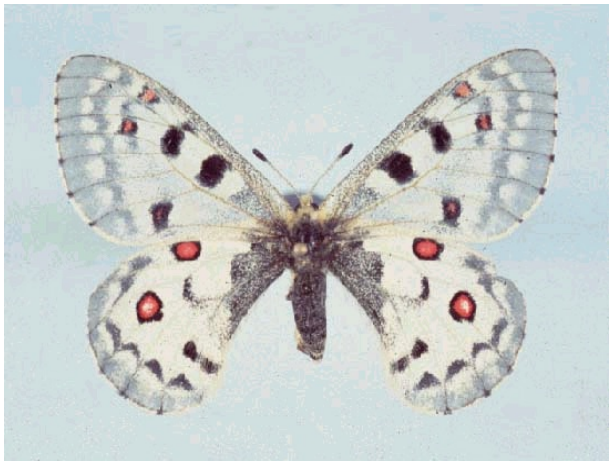
Although some species of this genus have only one brood, most have multiple broods. A few are single-brooded in some areas but double-brooded in others. The LFs used by this genus belong to many different families. Larvae of all species will not diapause if reared under 24 hours of light. In Utah, the usual LF for *Phyciodes mylitta* and *P. pallida* is *Cirsium undulatum*. This is also the most abundant and wide spread *Cirsium* species. *P. orseis* is only known to use *Cirsium cymosum*. But even larvae that have used *C. cymosum* , will switch to *C. undulatus* in the lab. I have found *P. cocyta* and *P. pulchella* using *Aster foliaceus* var. *parryi* in the

see **Checkerspots** p16

Red Pearls in Utah's Mountains

Visit the mountains of northern Utah in late spring and enjoy the dozens of beautiful american red pearl butterflies floating through the lush meadows and filtered sun of the yellow-green aspen forests. Hike the high ridges of the Wasatch and Uinta Mountains in early summer and see the flight of holarctic red pearl butterflies drifting down the brightly flowered alpine slopes. Watch them catch the wind and rise to the ridge tops only to drift down once again. Butterflies provide great opportunities to open our eyes to the wonders of the natural world.

American Red Pearl *Parnassius clodius*



Holarctic Red Pearl *Parnassius phoebus*

As a biology teacher at Timpview High School in Provo, Utah, I have found the great diversity and unique adaptations of insects including butterflies to be an excellent resource in helping students learn biological and ecological concepts. Along the way, my students quickly become aware of my passion for butterflies. Knowing this passion, one of my students while on a family trip to China, purchased a gift for me: a glass-framed specimen of a large white butterfly with black and red markings. The words *Parnassius bremer* were printed inside the glass frame. There were also words written in Chinese characters which I could not read. I placed the framed butterfly on its stand near the computer in my office.

Studying those big red eyes with quiet contemplation has been therapeutic, especially when things get wild around grading time. One morning another of my students, one of Chinese descent, came to my office to talk with me. I picked up the framed butterfly and asked if she could read the Chinese characters that were written below the butterfly. With pride, she read, "Red Pearl Butterfly." I was stunned! Of course! It was so obvious! I took back the frame and studied it with amazement. The beautiful, large, red pearls stood out with such clarity. For me, those "bright red pearls" have always been the most intriguing and distinguishing characteristic of Utah's two *Parnassius* species, *Parnassius clodius* and *Parnassius phoebus*. Jeffrey Glassberg in his book, *Butterflies through Binoculars The West,* uses the following opening line when introducing both *Parnassius clodius* and *Parnassius phoebus*, "Its large size, white ground color and **red spots** tell you this is a parnassian." The red pearls are without a doubt their defining character. So why not use this character for its common name? As my students would say, "It's a no brainer!"

I have always looked for ways to excite my students about nature. The use of scientific names can be intimidating to ninth and tenth grade biology students. Common names, especially those that help to define or identify the organism, are much more likely to spark an interest and be remembered than a scientific name. For this reason, I like the idea of establishing a list of English common names for the butterflies. The North American Butterfly Association (NABA) has produced a list to do just that. I like many of the common names on the NABA list, such as desert orangetip (*Anthocharis cethura*), which identifies the butterfly's typical habitat, small woodnymph, (*Cercyonis oetus*), which is the smallest of the four woodnymphs and rockslide checkerspot (*Chlosyne whitneyi*), which describes its annoying habit of flying over the rocky talus slopes of its high alpine home.

There are some common names on the NABA list that are not very helpful, particularly those that use the genus or species name, such as melissa blue (*Plebejus melissa)*, zebra heliconian (*Heliconius charithonia*), and clodius parnassian (*Parnassius clodius*). Clodius parnassian? We might as well use the scientific name! The Latin scientific names are fine for the scientist but meaningless to most young students and quite useless as a common name. I am not trying to downplay scientific names at all.

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Common Names

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Thanks to Linnaeus, we have an excellent system that works well for the scientific community and for many who want to study butterflies in

greater depth. But how many of us upon spotting a Monarch butterfly gliding along a path would say, "Wow! There goes a *Danaus plexippus!"*

Obviously, common names do have an appropriate use. Many butterflies already have excellent, well-established common names, such as pine white, southern dogface, western tailed blue, and eastern black swallowtail. However, many others do not.

Finding useful common names can be difficult. These names should help to identify or define the species in some way. Names that describe wing shape or color patterns are useful, as are names that identify larval foodplants, habitat or range. Colonel Clyde F. Gillette of Salt Lake City, Utah, has developed a list of common names for many butterflies using this sound approach. For example, he uses the common name willow hairstreak (*Satyrium sylvinum*), identifying its predominant larval foodplant, golden anglewing (*Polygonia satyrus*), describing its color and wing shape, and smoky arctic (*Oeneis melissa*), in reference to its overall appearance. I like many of his common names, although in some cases, he also relies on the use of genus or species names, such as anicia checkerspot (*Euphydryas anicia*), silver bolorian (*Boloria selene*) and american parnassian (*Parnassius clodius*). Descriptive common names will help many young students learn more about butterflies and eventually gain a better understanding of the ecosystems in which they live.

So it is with pleasure, that I propose the English common name for *Parnassius clodius* to be **american red pearl**, and for *Parnassius phoebus*, **holarctic red pearl**. The name red pearl butterfly grows on you. It is very descriptive. The Chinese use it. Why don't we? Come on now. Give it a try. It's a delightful name. Say it: "red pearl butterfly."

Alan R. Myrup
Editor, ULS Bulletin

Checkerspots
continued from p14

Wasatch Mountains. It's likely that other *Aster* species are also being used.

There are either two forms of *P. cocyta* that fly in the Wasatch, or Steve Sommerfeld collected eggs from a female *P. batesi*. Jim Scott examined some of these and does not believe they are *P. batesi*, but is not positive.

P. mylitta and *P. pulchella* larvae may be found occasionally. *P. orseis* immatures can be found with regularity. The females like to use plants that are growing against a rock, tree, or windfall. Quite often plants can be obtained at a nursery, to rear species that fly in other areas. Two examples are *Beloperone guttata* (*A. texana*), and *Phyla nodiflora* (*P. phaon*).

Editor's Note:
I would like to thank Jacque A. Wolfe for taking the time to share his knowledge gained through many years of experience in rearing butterflies. The tremendous amount of information in the above article will benefit many in their research on lepidoptera. I encourage other ULS members to share their knowledge and experience by submitting their work for publication in the *Utah Lepidopterist*, Bulletin of the Utah Lepidopterist Society.

Summit County
continued from p10

overtook SL UT and Ut UT as the lead Utah county.

Incidentally, bf species such as *Philotiella speciosa* (desert small blue), *Basilarchia astyanax arizonensis* (arizona redspotted-purple), *Anthanassa texana* (texas anthanassan), *Agraulis vanillae* (gulf fritillary), and *Oeneis alberta* (prairie arctic) have all been reported for Wa UT. However, none of these reportings met the criteria-standards necessary to be included in my compilation system for Utah butterflies. Strangely, the only singleton valid record known to me for *Anteos clorinde* (while angled brimstone) in Utah is from Salt Lake City, SL UT!

In the beginning of 2003, SL, Ut and Su Cos all had 106 butterfly species and Wa Co had 107. These totals do not include skippers. Then in the second half of the year, a highly unusual event occurred. On 17 Aug 2003, Dr. John L. Richards uncovered *Neominois ridingsi* (banded greyling) in Summit Co, raising that county's total to 107, which tied Su UT with Wa UT for first place! I definitely expected *Neo. ridingsi* colonies in Su UT, but not where John found them.

Then on 28 Oct 2003, CFG proved *Brephidium exile* (western pigmy blue) in Su UT, giving Summit Co a total of 108 bf species, the highest total for any of Utah's 29 counties!

Though I am quite certain it is there, I have no record of *Basilarchia archippus* (viceroy) from Su UT. There are much reduced chances for finding *Adelpha bredowi* (southwestern sister) and *Cercyonis sthenele* (scrub woodnymph), which would also be new county records for Su UT. Beyond that, any more hope for uncovering additional bf species in Summit Co lies with *Euphydryas gillettei* (middlerockies checkerspot), *Oeneis polixenes* (banded arctic), which I may have already found, and with *Erebia theano* (banded alpine). Someday, someone may get very lucky with *E. theano* in Utah, though I haven't been.

COL Clyde. F. Gillette
ULS President

A New World Record For *Erebia magdalena*

On July 11, 2003, I was working my way along the northeast side of Murdock Mountain, Duchesne County, Utah looking for *Chlosyne whitneyi damoetas* and nearly breaking my ankles trying to follow them across the boulder strewn landscape. The small grassy patches containing alpine flowers where they were stopping to nectar were few and far between. I had already been foiled several times by their nasty habit of diving into the rocks and out from under my net. Arrrh! Don't they know they are supposed to rise upward when netted like normal butterflies? As another butterfly escaped over the rocky terrain, I saw something large and dark fluttering in the wind and went over to investigate. To my surprise, there landed on a rock was a very large *Erebia magdalena*. Its wingspan had to be at least 11 inches in diameter! Of coarse, it was actually a printed photo of *Erebia magdalena* filling an entire 8.5 x 11 inch piece of paper and held down by a rock. I laughed and wondered what nutty collector had tried to lure in the dark velvet alpine butterflies with this crazy technique.

After I thought about it for a moment, I decided that getting them to come to me sounded much better than chasing them across the steep boulder fields. Collecting *Erebia magdalena* is just as bad as collecting *C. whitneyi damoetas*. However, their method of escape is much different. They simply rise up into the wind to be blown away over the mountaintop. At least you realize it would be worthless to try and go after them.

Later, I related the incident to Todd Stout, who started laughing just a little too hard for someone knowing nothing about the photo. Sure enough, Todd admitted to leaving the picture on the rock a few days earlier. He had heard that adult *Erebia magdalena* males would be attracted to a large photo of a female but had no success in drawing them in. I can just picture Todd dancing all over the mountainside waving the photo at every unsuspecting *Erebia magdalena* male that flew by.

Wayne Whaley, another Utah lepidopterist, also reported seeing the photo on the mountain side on another day. I guess it worked pretty well at luring in collectors.
Just how far are we willing to go to get a butterfly?

Alan R. Myrup
ULS Editor

President's Message 2004

COL Clyde F. Gillette

The Utah Lepidopterists' Society is now in its twenty-eighth year (Nov 1976 - 2004). We have weathered a few minor ripples and even a bigger wave, or two, but here we are still sailing strongly onward with high hopes for the future. Most of our members have enjoyed the advantages of good fellowship in their long-term associations with like-minded individuals. Nearly everyone, whether newer or older members, or lepidoptera-oriented friends, has benefitted through both individual and collective experience within the ULS to acquire much more knowledge and a higher level of expertise in lepidoptera matters.

Our accomplishments in the past have been wide and varied. Through time, we achieved the status of having the highest number of proven butterfly and skipper species distribution records, at the county level, in all the United States. We have recently established and sponsored the Utah Young Entomologists (Utah Bug Club). Currently, we are redesigning our ULS web site, striving to upgrade our Bulletin (*Utah Lepidopterist*), and working toward higher active membership. Also, plans are underway to publish an updated monograph on The Lepidoptera of Utah. Whether you are a beginning or experienced lepidopterist, or the parents or guardian of a child interested in insects we wholeheartedly welcome you.

2004 ULS Office Holders

President	**Vice-President**	**Sec/Treasurer**
COL Clyde F. Gillette	Shawn M. Clark PhD	John L. Richards
Bulletin Editor	**Webmaster**	**Librarian**
Alan R. Myrup	Todd L. Stout	Stephen W. Sommerfeld

We want to thank Bruce A. Dolen for the tremendous time, energy, and expertise he expended to establish our ULS website. His private business commitment precludes his being able to continue serving as our webmaster. Joel M. Johnson, our very capable leader of research and compilation of species-lists of Utah moths, has served as ULS Sec/Treasurer, and in other capacities, for quite some time. While remaining a mostly active member, Joel will no longer be serving as an office holder this year. Many heartfelt thanks to you, Joel, from all of us.

The Utah Lepidopterists' Society Information Page

Todd L. Stout, our ULS webmaster, has put in countless hours redesigning our webpage. The new update now features information on our history, mission statement, community involvement, ULS bulletin, ULS membership, Utah butterfly and moth checklists, Utah habitats, butterfly life histories, and links to other Lepidoptera sites. Todd has also designed the new Utah Bug Club webpage primarily for children and their parents. This webpage contains such things as how to start a collection, equipment and supplies, meetings and field trips, Utah habitats and collecting sites, life cycles, migration, self defense, camouflage, symbiosis and a clever design to help young collectors learn how to identify the eight butterfly families found in Utah. We invite everyone to check out these two websites and enjoy the information contained therein. The addresses are given below.

The ULS website address is www.utahlepsociety.org

The Utah Bug Club address is www.utahbugclub.org

Annual Membership in the ULS can be had by sending ten dollars to:
Sec/Tres John L. Richards, MD at 9708 South 2740 West, South Jordan, UT 84095
Ph: (801) 253-3442

Active members receive our bulletin *Utah Lepidopterist* usually published twice each year.

Editor's Note
The *Utah Lepidopterist* Bulletin listed as Volume 12 Number 1, January 2004 should have been designated as Volume 11 Number 1, January 2004. For this reason, the current Bulletin is listed as Volume 11 Number 2, July 2004 and the pages are numbered accordingly.

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