### Applegater Fall 2015 13

# Painted Ladies in flight through fall

#### **BY LINDA KAPPEN**

The Painted Lady is the most widely distributed butterfly species in the world, inhabiting five continents—Antarctica is too cold and Australia is too isolated. Because of its wide range it is referred to as a "cosmopolitan" butterfly.

**These butterflies migrate yearly** from their warm winter habitats in the south to more temperate climates in the north for breeding. Some years,

Painted Lady on coyote mint

southern populations of the Painted Lady will reach large numbers, producing a mass phenomenal migration northward that has caused road closures in places.

With our warm winter of 2014-2015, a noticeable but not excessive migration occurred early this past spring. It was not a mass migration as recorded in the early 2000s, but the butterfly was seen in large numbers moving north before dispersing,

reaching well into the state of



The Painted Lady is often mistaken for the monarch butterfly as it migrates. The difference is that Painted Ladies migrate in groups, while the monarch, after leaving their overwintering sites, will migrate singly. Early spring reports from north of overwintering sites talked about "groups of monarchs" flying north when, in fact, they were Painted Ladies.

This past spring I saw in a puddling area a painted lady laying eggs on gravel, small sticks, and also on a nearby thistle. I believe the type of host plant they use and surrounding conditions can sometimes have a direct effect on the size of the adult butterfly.

The Painted Lady (Vanessa cardui)

is of the Nymphalidae family of butterflies. Its wingspan can reach two to three inches. With wings open, it has black tips with white spots. Shades of orange and brown pattern the wings. On the underside of hind wings, colors are gray to brown with four small eyespots.

Males will perch in shrubs

**and aggressively patrol** for females. A female will lay up to 500 eggs singly on the tops of host-plant leaves. Caterpillars will make a silk nest to live in and eat the leaves of the host plant. Painted Ladies can produce up to three broods or flights a year. Because these butterflies use as many as 300 host plants, as recorded in databases, they are great pollinators. Some of their favorites are mallow, thistles, hollyhocks, and some legumes.

Painted Ladies use nectar as their adult food. They will use thistles, asters, milkweeds, joe-pye weed, rabbit brush, cosmos, dandelion and almost any garden plant or native flowers and shrubs.

The Painted Lady habitat is anywhere from gardens to open spaces and forests. You can see these butterflies in flight from early April to November.

If you would like to learn more about butterflies and moths, I welcome you to the Facebook page, "Butterflies and Moths of the Pacific Northwest." There you may find yourself visually stimulated with an accompanying desire to get outdoors more often.

Linda Kappen humbugkapps@hotmail.com Linda earned a naturalist certification from Siskiyou Field Institute and hosts two-day butterfly courses there. Photos: Linda Kappen.



## **Rearing and tagging monarchs**

#### **BY SUZIE SAVOIE**

At only ten percent of their former abundance, monarch butterflies have been declining in population at a precipitous rate for the past 20 years. Conservation groups have petitioned the US Fish and Wildlife Service to protect the monarch under the Endangered Species Act, and it is now a candidate for listing. With some endangered species, such as the polar bear or loggerhead sea turtles, for example, it is difficult to feel like you can make a difference in their survival. But with monarch butterflies you can make a tangible difference right in your own backyard.

**Planting milkweed**, the only larval food source for monarch caterpillars, and nectar plants for adult monarchs is the easiest thing to do, but some passionate conservationists in our area are also trying to reverse the downward population trend by rearing monarchs indoors and saving wild monarch eggs and caterpillars from voracious predators such as wasps, ants, birds, spiders, or the tachinid fly. Historically, these natural predators kept a balance with monarchs, but with human-caused habitat loss through development and agriculture, combined with pesticide and herbicide use, it is all the more important to protect monarchs during their vulnerable larval stage. Linda Kappen has been rearing monarch butterflies at Applegate School for 12 years. During this time she estimates that she has released 180 monarch butterflies. In May 2014, Linda started working with David James, associate professor of entomology at Washington State University, who has been studying monarch butterfly breeding and migration biology in the Pacific Northwest. Part of his research has included a monarch tagging program

to track the migration of our western population of monarchs—those that live west of the Continental Divide and overwinter along the coast of California. Not as much is known about our western population, and David's research is integral to the long-term conservation strategy for the monarch butterfly.

Weighing just two percent of a monarch's body weight, the tags are small stickers that don't impact movement or flight. As an example, on September 30, 2014, Linda tagged a monarch in the Applegate Valley. On October 10, 2014, a man found it in his yard, 330 miles away, in San Mateo, CA.

After growing milkweed for over a decade and watching caterpillar after caterpillar either disappear or be eaten by a predator, I decided to join Linda in both rearing and tagging monarchs this summer, in hope that my work as a citizen-scientist may help in the recovery of this amazing species. I purchased butterfly-rearing cages and diligently watched for eggs and caterpillars on my milkweed patches. I found the first eggs on April 18, and from that point on I was hooked. I have tagged and released nearly 50 butterflies so far this year, and the season isn't over yet. **Rearing monarchs is no easy** task: it takes daily work and access to a big milkweed patch. Once an egg or caterpillar is found outside on milkweed, it is very carefully transferred onto potted milkweed plants or cut stems in the rearing cage. As the caterpillars get bigger they will eat a lot and will typically need to be fed on a daily basis. All this eating means a lot of cleaning out of the "frass" (aka poop). A caterpillar goes through five stages of growth, referred to as instars, eventually reaching 2,000 percent of its original size. When ready

to start metamorphosis, the caterpillar will find a place in the rearing cage to hang in a J-shape and transform into a chrysalis. **Watching the monarch** 

**emerge** from the chrysalis is fascinating, but releasing a monarch, safe and sound, out into the wild world is pure joy. The female butterflies I released left on their migratory path immediately, while some of the males stayed to hang around my milkweed patch, waiting for a female to come along to mate.

After having raised these monarchs I felt an intimate connection to the tagged butterflies that flittered around my wildlife-friendly garden for part of the summer. The knowledge that I'm helping with the recovery of an at-risk species, from the comfort of my own home, is uplifting in a world where the extinction of endless species of wildlife can get you down.



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Photos at right: (top) Just released tagged monarch nectars on showy milkweed in author's garden. (middle) Linda Kappen tags a wildcaught monarch near a rare patch of heartleaf milkweed in the Applegate Valley. (bottom) Inside of author's rearing cage with newly emerged butterflies, chrysalides, and a caterpillar.





### For more information about monarchs

- Online resources: Xerces Society, Monarch Watch, and Journey North, to name a few. YouTube has excellent videos on rearing monarchs.
- Facebook page for researcher David James: www.facebook.com /Monarch ButterfliesInThePacificNorthwest.
- Southern Oregon Monarch Advocates: www.somonarchs.org.