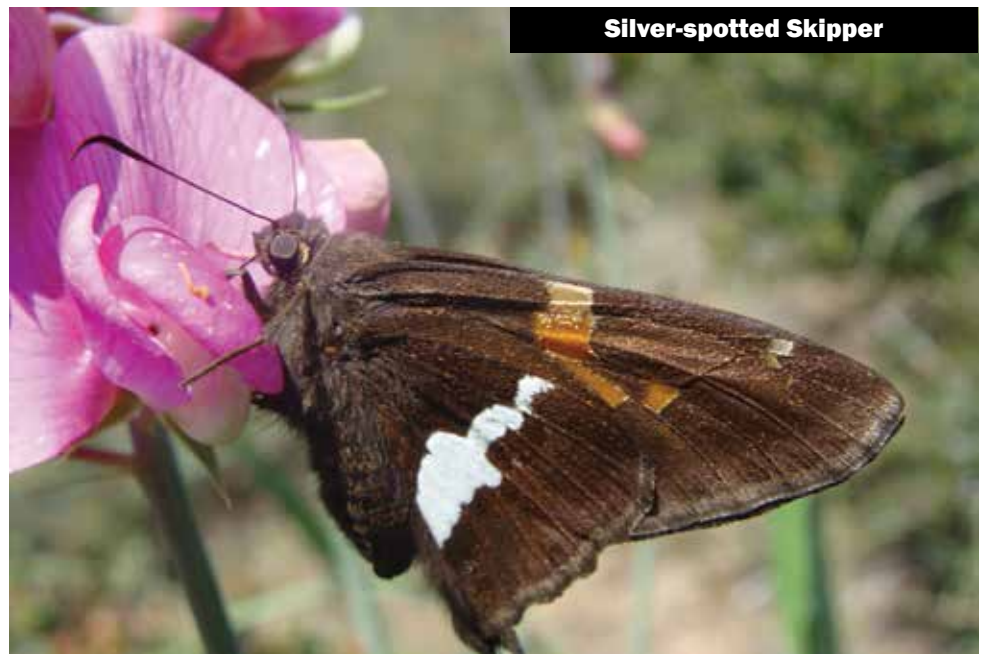
Silver-spotted Skippers

BY LINDA KAPPEN


Silver-spotted Skipper

The Silver-spotted Skipper (*Epargyreus clarus)* is North America's largest skipper. It belongs to the butterfly family Hesperiidae and a group of skippers called spread-winged skippers.

Skippers differ from other butterflies by having (1) a plump-looking thorax, (2) triangular-shaped wings, and (3) shorter, curved club-hooked antennae, while butterflies have straight, clubbed antennae. Most skippers are small and speed along, stopping and moving again quickly.

The Silver-spotted Skipper can be seen in flight from early April to late August with one brood in the Pacific Northwest and two broods in warmer parts of North America. It can have a wingspread of two inches or more. When its wings are open, golden-orange patches stand out against a soft darker-brown background. When it's in flight, a silver, irregular-shaped spot flashes by quickly, making it unmistakable from any other species. While perched on flowers or the ground in its usual pose with wings folded (see photo), it allows the viewer a close-up look.

The male will perch on taller plants or trees to watch other insects near the host plants and to keep an eye out for females. The female will lay a ribbed green egg capped in red on the host plant. The larvae will grow and live in a leaf nest while feeding, then pupate or overwinter near the host plant. Host plants are wisteria, legumes, and particularly lotus. As adults, they nectar on lotus, dogbane, and other legumes.

The range of the Silver-spotted Skipper is throughout North America and southern portions of Canada. Locally, it can be common at times and is found in lower- to mid-range elevations in open clearings, riparian habitats, and roadside ditches where stands of lotus and dogbane grow.

This past winter brought much needed moisture. As a result, healthy patches of lotus are thriving as well as dogbane, which is an important nectar plant to many butterflies. Often these are seen growing near the ditches on our county and mountain roads.

We have seen many Silver-spotted Skippers this past spring and summer. I haven't seen a population this large locally since 2012. I would like to encourage people to research the lotus species and spreading dogbane to recognize them and keep them safe from spraying or removal. Hopefully, we will have an even better winter and see more Silver-spotted Skippers next spring.

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Linda earned a naturalist certification from Siskiyou Field Institute and hosts butterfly courses there. Photo by Linda Kappen.

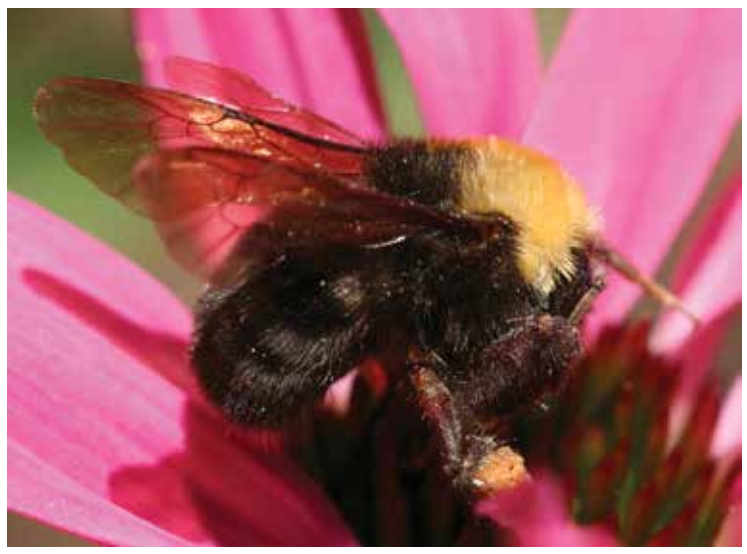
Bee on the lookout

BY SUZIE SAVOIE

The Klamath-Siskiyou ecoregion is home to many iconic species that grow or live nowhere else on earth: Siskiyou salamander, Port Orford cedar, Brewer's spruce, Gentner's fritillary, and the Kalmiopsis plant, to name a few. One species that should be included on this iconic list is Franklin's bumblebee (*Bombus franklinii*). Known only in a historic range from southern Oregon and northern California between the Coast and Sierra-Cascade ranges, Franklin's bumblebee had the most restricted range of any bumblebee in the world.

Once readily found throughout its range, the population of Franklin's bumblebee has dropped steadily since 1998 according to surveys conducted in the 1990s by preeminent bee researcher Dr. Robbin Thorp. It is now feared that this unique species has gone extinct! In the last sighting of Franklin's bumblebee, in August 2006 on Mount Ashland, only a single worker bee was found. Subsequent annual surveys have failed to locate the species, including large surveys conducted by Dr. Thorp on Mount Ashland this past July, where 30 people combed meadows looking for the bee.

Franklin's bumblebee used to be found at various elevations in moist meadow habitat containing an abundance of flowering plant species. The flight season of Franklin's bumblebee was from mid-May to the end of September. According to Dr. Thorp, Franklin's bumblebee was a generalist forager and had been observed collecting pollen


Franklin's bumblebee photo by James P. Strange, PhD, research entomologist, USDA Agricultural Research Service.

on lupines and California poppies and nectaring on horsemint (*Agastache urticifolia*) and coyote mint (*Monardella odoratissima*). As a social, ground-nesting species, Franklin's bumblebee would have used abandoned rodent burrows or clumps of bunchgrasses for nesting, making undisturbed grassland habitat important to its survival.

The "buzz pollination"—a technique used by some bees to release pollen—that bumblebees provide makes them excellent pollinators for crops such as tomatoes and peppers, which may have led to the extinction of Franklin's bumblebee. Dr. Thorp believes that commercially reared Franklin's bumblebees that were brought to the United States from Europe may have introduced a virulent European disease that wiped out the species. Franklin's bumblebee would also have been sensitive to habitat alteration, pesticides, and competition from European honeybees for limited floral resources.

Although there are many historical records for this species from around the region—both published and in museums—two sightings in the Applegate stand out: Franklin's bumblebee was documented in the town of Copper (now covered by Applegate Lake) in 1968 and in Ruch in 1990. Those who have lived in the Applegate Valley for more than 20 years may have seen Franklin's bumblebee buzzing around without realizing it.

Many other native pollinators are also in decline, including the western bumblebee (*Bombus occidentalis*), which has seen similar declines as Franklin's in our area, but thankfully can still be found at very low numbers. There's still time to save the western bumblebee from the same fate as Franklin's bumblebee.

The decline and disappearance of Franklin's bumblebee is part of the drastic and widespread decline of native pollinators in North America. It is estimated that 15 percent of our annual food crops, valued at $3 billion, rely on the pollination services of our native pollinators. Natural and intact ecosystems also rely on pollinators for the production of fruits, nuts, and berries that wildlife depend on for their survival. Continued pollinator declines are expected to contribute to a decrease in crop pollination and food production, as well as native plant reproduction.

"Bee" on the lookout for Franklin's bumblebee! If you see one, carefully net it and collect it into a viewing jar for positive identification. Take a photo, release it back to the spot you found it, and contact the Xerces Society for Invertebrate Conservation, the US Forest Service, or US Fish and Wildlife Service.

A lot of people in the Klamath-Siskiyou ecoregion are rooting for Franklin's bumblebee and hoping it will once again be found and put in its rightful place alongside the iconic and endemic species that make our region special and unique.

For more information about Franklin's bumblebee, visit the Xerces Society website at xerces.org/franklins-bumble-bee.

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