

Cleveland National Forest

Laguna Mountains Skipper on Cleveland National Forest

Background

The Laguna Mountains Skipper (LMS) is a small butterfly native to the Peninsular Mountains of San Diego County. LMS can be found in meadows between 4,000-5,500 feet in elevation. Currently, LMS are only documented on Palomar Mountain. LMS were historically observed in the Laguna Mountains as well, with the last documented observation occurring near El Prado Campground in 1999.



Adult Laguna Mountains Skipper.

The LMS was listed as federally endangered by the US Fish and Wildlife Service in 1997 and critical habitat was designated in 2006.

Identification

Adult LMS are only seen during their flight season of April-July. LMS have a roughly one-inch-wide wingspan with several white markings on the wings. An X-shaped pattern is observed on the forewing, and they exhibit a rapid, direct flight.

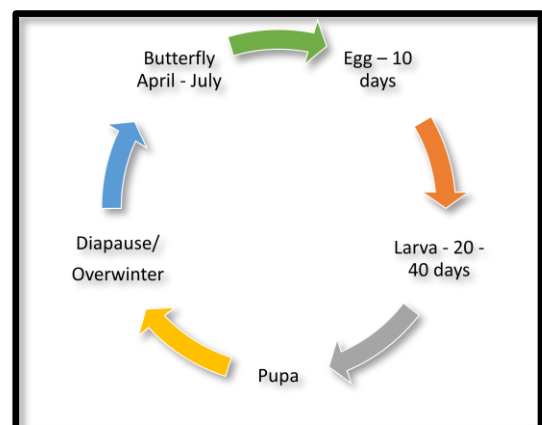
Host Plant

LMS is highly dependent on its host plant, Cleveland's Horkelia (*Horkelia clevelandii*), which is found in mountain meadows in San Diego County. Adult LMS use horkelia as both a food source where they forage on nectar, and a host plant where they deposit eggs on the underside of the leaves. LMS larvae (caterpillars) feed on Horkelia leaves after hatching.

Life Cycle

LMS produce two generations per year (known as bivoltine reproduction) and two separate flight seasons occur. The first in April-May and the second in June-July.

Adult female LMS deposit their eggs on the underside of horkelia leaves where the eggs hatch and larvae forage before entering their pupal (chrysalis) phase, from which they emerge as butterflies. Some adults emerge from their pupae in the same year, but the majority of LMS overwinter in their pupae and emerge as adults next spring. Adults only live up to 20 days after emerging from their chrysalis.



Life cycle of the Laguna Mountains Skipper.

Threats

The biggest threats to LMS populations are:

- Grasses may outcompete horkelia in fire and grazing excluded meadows.
- Drought
- Climate change
- Wildfire
- Small, isolated LMS populations

How Cleveland National Forest Manages for LMS

- Working with USFWS to protect and improve LMS habitat.
- Grazing management to protect Forest meadows.
- Monitoring for LMS on the Forest.
- Participating in a joint LMS reintroduction program.
- Maintaining a fenced exclosure of important LMS habitat at Laguna Campground.
- Managing trails to reduce visitor impacts to LMS.
- Interpretive signage and programs that inform Forest visitors of LMS.

Ways You Can Help

- Recognize and follow Forest Service closures to preserve LMS habitat.
- Do not remove or tamper with Forest gates, fences, or other barriers.
- Remain on designated hiking trails.
- Follow campground rules and guidelines.
- Read interpretive materials about threatened and endangered species on the Forest.
- Keep pets on leash while hiking.
- Become a Forest volunteer.

858-673-6180 | www.fs.usda.gov/cleveland | www.facebook.com/clevelandnf | Twitter @ClevelandNF

USDA is an equal opportunity provider, employer, and lender.