

***Pyrgus ruralis lagunae* Scott, 1981**
Laguna Mountains Skipper
(Hesperiidae: Pyrginae)

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SUMMARY

The Laguna Mountains Skipper is only known from a handful of sites in San Diego County, California, in the Laguna Mountains and on Mount Palomar. It occupies montane meadow habitats between 4,000 and 6,000 feet altitude within yellow pine forests. The larvae of the Laguna Mountains Skipper feed solely on Cleveland's horkelia, a plant that is similarly restricted to montane meadows in San Diego County and the neighboring Riverside County. A major factor in the decline of the Laguna Mountains Skipper is the decreasing abundance of their hostplant due to grazing and trampling by cattle.

CONSERVATION STATUS

Xerces Red List Status: Critically Imperiled

Other Rankings:

Canada – Species at Risk Act:	N/A
Canada – provincial status:	N/A
Mexico:	N/A
USA – Endangered Species Act:	Endangered
USA – state status:	None
NatureServe:	G5T1
IUCN Red List:	N/A

SPECIES PROFILE

DESCRIPTION

The Laguna Mountains Skipper is a small (~3 cm wingspan), checkered member of the family Hesperiidae (Skippers). It is similar to the other nominate *Pyrgus ruralis* subspecies, *P. r. ruralis*, but can be distinguished by the extensive white wing markings rather than the overall black coloration of spp. *ruralis*.

TAXONOMIC STATUS

Pyrgus ruralis lagunae Scott, 1981. The Laguna Mountains Skipper is one of two subspecies of *Pyrgus ruralis*, and is only known from higher elevation areas of southern California. The other, *P. r. ruralis*, is much more widespread, occurring over much of the western U.S.

LIFE HISTORY

The larvae of the Laguna Mountains Skipper feed solely on Cleveland's horkelia (*Horkelia clevelandii*), a perennial in the rose family. There appear to be two adult flight seasons each year during which the butterflies mate, one in mid spring (April-May) and a second in late summer (June-July). Adults lay eggs on the underside of horkelia leaves, apparently preferring plants on thin rocky soils. Cleveland's horkelia is important to the adults as well, because they rely heavily on the larval host plant as a nectar source.

DISTRIBUTION

The Laguna Mountains Skipper is only known from San Diego County, California. It occupies montane meadow habitats between 4,000 and 6,000 feet altitude within yellow pine forests of the Laguna Mountains (where a single population survives) and Mount Palomar (six sites).

THREATS

A main factor in the decline of the Laguna Mountains Skipper may be the decreasing abundance of their host plant, Cleveland's horkelia (*Horkelia clevelandii*). This plant is restricted to montane meadows in San Diego and Riverside Counties. These grasslands have been degraded through development, grazing, and recreational activities. Grazing and trampling by cattle seem to be the principal threats, especially during the second (late summer) brood period when there is less alternative fodder available to the cattle due to the dry conditions.

CONSERVATION STATUS

There have been limited surveys for the animal but for four of the last six years (1994 - 2000), surveys in the Laguna Mountains have never recorded more than two adults in any single year. Estimates for the Palomar Mountains are that the skipper seems to be holding its own but at low numbers of individuals. There is a fairly strong population at Mendenhall Meadow. The annual populations are so small—no more than a few hundred individuals may exist each year—that this taxon could easily slip to extinction.

It was designated a Federal Endangered Species in January 1997 (*Federal Register*: 62-2313).

Recovery plan (ESA): None.

Critical habitat (ESA): None designated.

The California Endangered Species Act does not allow listing of insects, so despite its precarious status, the Laguna Mountains Skipper has no protection under state legislation. The California Department of Fish and Game includes this butterfly on its Special Animals list.

CONSERVATION NEEDS

The montane meadows that support populations of the larval hostplant, Cleveland's horkelia, must be protected. Grazing pressure is a major factor limiting the growth and availability of the hostplant on those meadows that remain. There is likely only a single population of the Laguna Mountains Skipper remaining in the Laguna Mountains. It would be a great shame for the butterfly to be extirpated from its namesake range.

RESEARCH NEEDS

There is a need for more surveys for additional individuals and populations and for additional studies of the natural history of the butterfly and of the impacts of grazing and other threats.

RESOURCES

CONTACTS

U.S. Fish & Wildlife Service: Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Carlsbad, CA 92009. Telephone: (760) 431-9440.

Richard Arnold, Entomological Consulting Services, Ltd., 104 Mountain View Court Pleasant Hill, CA 94523-2188. Telephone: (925) 825-3784.

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