

Polites origenes rhenae (Rhenae Crossline Skipper)



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Taxonomy

- **Class:** INSECTA
- **Order:** LEPIDOPTERA
- **Family:** HESPERIIDAE
- **Genus:** Polites
- **Scientific Name:** *Polites origenes rhenae* (W. H. Edwards, 1878)
- **Common Name:** Rhenae Crossline Skipper
- **Synonyms:** *Pamphila rhenae* W. H. Edwards, 1878
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- **Taxonomic Name Source:** Pelham, J. P. 2008. A catalogue of the butterflies of the United States and Canada with a complete bibliography of the descriptive and systematic literature. *The Journal of Research on the Lepidoptera*. Volume 40. 658 pp. Revised 14 February, 2012.

Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [T3](#)
- **NHNM State:** S1
- **NM Endemic:** NO

Description

Crossline Skipper is decidedly less widespread, larger and more brightly marked than the similar Tawny-Edged Skipper. Separate it from Tawny-Edged by a narrower stigma on male DFW, as well as less contrast between VHW and leading edge of VFW. VHW often has a more obvious spot band. Postmedian white spots decorate all wing surfaces, but hindwing spots may be faint. Females have very little orange above. **Comments.** Our populations belong to western *Limochores origenes rhenae* (W. H. Edwards 1878).

Description courtesy of Steven J. Cary, [Butterflies of New Mexico](#), 2024

Habitat and Ecology

The Rhea Skipper is a prairie specialist that occupies old fields, open woodlands, and dry meadows (Scott 1986, Layberry *et al.* 1998, Opler and Wright 1999, Glassberg 2001, Swengel and Swengel 2015, Montana Natural Heritage 2024). They are closely associated with remnant patches of Big Bluestem (*Andropogon gerardii*) (Opler and Wright 1999).

As larvae, their hostplants are grasses (*Poaceae*); they are known to primarily use Big Bluestem (*Andropogon gerardii*) but individuals are also known to use Sideoats Grama (*Bouteloua curtipendula*), and Heller's Rosette Grass (*Panicum oligosanthe*) (now known as *Dichanthelium oligosanthes*) (Ferris and Brown 1981, Scott 1986; 1992; 2006, Layberry *et al.* 1998, Opler and Wright 1999, Cary and Toliver 2024, Montana Natural Heritage 2024). They hibernate as L3 and L4 instars above ground using grass nests and emerge the following spring (Scott 1979; 1986; 1992; 2006, Cary and Toliver 2024, Montana Natural Heritage 2024).

The butterfly has one flight starting in late June and lasting until late July (Scott 1986, Opler and Wright 1999, Cary and Toliver 2024). New Mexico records show the flight lasting from June 21 to July 21 (Cary and Toliver 2024). Adults feed on the nectar of native thistles (Opler and Wright 1999).

When looking for females, males will perch all day on prominent vegetation in grassy swales and valley bottoms. Females will lay greenish-white eggs on the undersurface of hostplants, five to 15 cm above the ground. (Scott 1975; 1986, Cary and Toliver 2024, Montana Natural Heritage 2024)

Geographic Range:

The Rhea Skipper is a prairie specialist living in grasslands and open woodlands east of the Rocky Mountains. It is primarily found on remnant patches of Big Bluestem (*Andropogon gerardii*) (Opler and Wright 1999). The northernmost part of its range includes eastern Montana and western North Dakota. The range then extends south along the Rockies to northeast New Mexico (Scott 1986, Layberry 1998, Opler and Wright 1999, Glassberg 2001, Cary and Toliver 2024, Montana Natural Heritage 2024). In New Mexico it is found in low transition zone grasslands between elevations from 1,676 to 2,438 m, with records in the following counties: Colfax, San Miguel, Union (Cary and Toliver 2024). Since 1994, in Montana it has been recorded at around 1,070 m in elevation in five counties: Carter, Custer, Daniels, Dawson, Richland (Montana Natural Heritage 2024, SCAN 2024). Records show it has been found in Colorado between elevations of 1,585 to 2,316 m (Brown 1957, Scott and Scott 1978).

Conservation Considerations:

There are no known range wide conservation actions in place for this butterfly. It is being considered for inclusion as a Species of Greatest Conservation Need (SGCN) in the New Mexico Department of Game and Fish (NMDGF) 2025 State Wildlife Action Plan (NMDGF 2024). This designation may make additional resources available to study the butterfly, though NMDGF does not have the authority to protect the State's insects, so no concerted management efforts are expected from NMDGF itself. Additional research is needed on the population size and trend and the threats.

Threats:

The primary historic threat to this species is likely habitat loss. At least 80% of North America's grasslands have been converted to agricultural or urban areas. The northern part of this butterfly's range includes tallgrass prairie, of which 99% has been lost (U.S. Fish and Wildlife Service 2024). The southern part of its range is shortgrass prairie, which is a critically endangered ecosystem, having declined by more than 98% (Noss *et al.* 1995). These grasslands have also been overtaken by invasive species, which decreases the diversity and hinders drought tolerance. Additionally, this

region is seeing longer and more severe droughts leading to increased loss in native grasses (Ludwig *et al.* 2017). Where native prairies do remain, they tend to be in isolated remnant patches, that continue to be threatened by habitat loss and degradation from urban development, intensive grazing regimes, pesticide use, silviculture, the invasion of non-native plants (Wright *et al.* 2003, Selby 2005).

Intensive grazing may be a threat to this species, as it has been shown to adversely impact other prairie butterflies, likely due to loss of nectar sources, loss of larval host plants, changes in vegetative structure and trampling of larvae and eggs (Dana 1991). Invasive species such as Smooth Brome (*Bromus inermis*), Kentucky Bluegrass (*Poa pratensis*), Leafy Spurge (*Euphorbia esula*), and woodland invasion by both native and non-native plants also threatens prairie remnant habitats. Pesticide use is also problematic, as many prairie remnants are surrounded by rangeland and cropland (Selby 2005). Management with prescribed burns can also negatively impact prairie butterfly populations if carried out late in the spring or in the fall, over too large an area, or too frequently (Dana 1991).

Oil and gas development may also be problematic across some parts of the range. Studies have shown oil well sites, when compared to relatively ungrazed grasslands surrounding leased oil well sites and sites with no oil wells, impact the soil pH, increase the presence and pervasiveness of nonnative plant species, and increase the percent of bare ground present (Nasen *et al.* 2011). These conditions could lead to a change in hostplant quantity and quality.

Another threat facing grassland butterflies is catastrophic fire or lack of fire. The impacts of fire on this species may depend on the intensity and size of the fire, as well as seasonal timing (USFWS 2004). With population numbers in small areas, a single fire could be catastrophic (Cary *et al.* 2004, Wasserman and Mueller 2023). However, with no fire these grasslands may grow senescent or be succeeded (Cary *et al.* 2004, Wasserman and Mueller 2023). The impacts of land use on fire intensity and spread may also be consequential. For example, grazing may temper a fire, as grazed meadows carry less fuel load, but the presence of some invasive grasses which are more abundant in grazed areas, such as Cheatgrass (*Bromus tectorum*), may cause more frequent fires due to invasive grasses adding novel and continuous fuels (USFWS 2004, Fusco *et al.* 2019).

In a recent paper, Forister *et al.* (2023) used biological, ecological, and climate data to rank the imperilment of western butterfly species. This butterfly's parent species, the Crossline Skipper (*Polites origenes*) is highlighted at potentially at risk, due to exposure to agricultural areas and other developed land (Forister *et al.* 2023).

Population:

The population size and trend are not known for this subspecies. Monitoring of population trends is necessary to ensure the population is stable. Especially as several widespread, relatively common species of butterfly are in decline across the western United States (Forister *et al.* 2021).

References:

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More Information

