Polites sabuleti (Sandhill Skipper)

Steve Cary,

Taxonomy

- **Class**: INSECTA
- **Order**: LEPIDOPTERA
- **Family**: HESPERIIDAE
- **Genus**: Polites
- **Scientific Name**: *Polites sabuleti* (Boisduval, 1852)
- **Common Name**: Sandhill Skipper
- **Synonyms**: Hesperia sabuleti Boisduval, 1852 Boisduval, 1852
- **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**: G4
- **NHNM State**: S2
- **NM Endemic**:NO

Description

Sandhill Skipper and the next species have black dots near ventral vein-ends. *Polites sabuleti* has a lighter, less grizzled, color below and veins are white. Males are yellower above than Draco, especially on the veins.

Description courtesy of Steven J. Cary, Butterflies of New Mexico, 2024

Habitat and Ecology

This species is found in alkali flats, moist meadows, lawns, salt marshes, coastal sand dunes, sagebrush shrublands, and alpine meadows (Opler and Wright 1999). Larvae feed on various grasses, including Bermuda grass (*Cynodon dactylon*), bluegrass (*Poa pratensis*), desert salt grass (*Distichlis spicata* var. *stricta*), sand lovegrass (*Eragrostis*

trichodes), rough bentgrass (*Agrostis scabra*), Idaho fescue (*Festuca idahoensis*), and alpine fescue (*Festuca brachyphylla*) (Lotts and Naberhaus 2023). At higher elevations there is one adult flight, from June to August and further south, in arid regions, and at lower elevations, there are 2-3 flights from March through October (Opler and Wright 1999).

Geographic Range:

The Sandhill Skipper occurs across much of western North America, from southern British Columbia south through California to Baja California Sur, in the west, and from northwestern Montana to northern New Mexico, in the east (Lotts and Naberhaus 2023, GBIF.org 2024, Opler and Wright 1999).

Conservation Considerations:

There are no conservation measures in place for this species, though the subspecies *Polites sabuleti sinemaculata* recently received a positive 90-day petition finding, suggesting listing under the Endangered Species Act may be warranted (USFWS 2023). Therefore the U.S. Fish and Wildlife Service has initiated a status review. Research is necessary to better understand the threats driving declines in this species. Habitat and population monitoring may be necessary to determine how best to slow declines.

Threats:

The threats causing widespread declines in this species are not well understood, though some inferences can be made, based on the habitats the species utilizes and the region where it is found. Many other butterfly species in the western United States have been experiencing declines due to climate change, habitat loss, and invasive species (Forister *et al.* 2010, 2021, 2023). Average precipitation and temperature appear to be strong drivers of decline in butterfly abundance (Crossely *et al*. 2021) and the western U.S. is predicted to get hotter and drier in the coming years (King 2024).

In addition to climate change, habitat loss is likely taking place at a localized scale across the range of the species. For example, the subspecies *Polites sabuleti sinemaculata*, which is restricted to a couple sites in Humbolt County, Nevada, is threatened due to habitat degradation and conversion (WildEarth Guardians 2010). Several of the habitat types this species depends on, such as alkali meadows, are dependent on groundwater resources, which are being diminished significantly as drought conditions increase and groundwater is extracted at higher rates to accommodate growing populations and agricultural expansion (Elmore *et al*. 2006). Another habitat the species utilizes, sagebrush shrublands, have declined by approximately 50 percent since the arrival of European settlers in the 1800s (Doherty *et al*. 2022). This decline is associated with altered wildfire regimes, invasive annual grasses, conifer encroachment, and development (Davies *et al*. 2011).

Population:

The population size is not known for this species, though it appears to be declining across its range.

References:

- Forister, M.L., Halsch, C.A., Nice, C.C., Fordyce, J.A., Dilts, T.E., Oliver, J.C., Prudic, K.L., Shapiro, A.M., Wilson, J.K. and Glassberg, J. . 2021. Fewer butterflies seen by community scientists across the warming and

drying landscapes of the American West. *Science* 371: (1042-1045).
- Forister, M.L., McCall, A.C., Sanders, N.J., Fordyce, J.A., Thorne, J.H., Oâ€™Brien, J., Waetjen, D.P. and Shapiro, A.M.. 2010. Compounded effects of climate change and habitat alteration shift patterns of butterfly diversity. *Proceedings of the National Academy of Sciences* 107: (2088-2092).
- WildEarth Guardians. 2010. Petition to list ten Great Basin butterflies under the Endangered Species Act. WildEarth Guardians, Santa Fe, NM : (49 pages).
- Lotts, K. and Naberhaus, T.. 2023. Butterflies and Moths of North America. 2023: (Dataset for *Amblyscirtes elissa*).
- Crossley, M.S., Smith, O.A., Berry, L.L., Phillips-Cosio, R., Glassberg, J., Holman, K.M., Holmquest, J.G., Meier, A.R., Varriano, S.A., McClung, M.R., Moran, M.D. and Snyder, W.E.. 2021. Recent climate change is creating hotspots of butterfly increase and decline across North America. *Global Change Biology* 0: (45304).
- Forister, M.L., Grames, E.M., Halsch, C.A., Burls, K.J., Carroll, C.F., Bell, K.L., Jahner, J.P., Bradfod, T., Zhang, J., Cong, Q., Grishin, N.V., Glassberg, K., Shapiro, A.M. and Riecke. T.V.. 2023. Assessing risk for butterflies in the context of climate change, demographic uncertainty, and heterogenous data sources. *Ecological Monographs* 93: (e1584).
- Doherty, K., Theobald, D.M., Bradford, J.B., Wiechman, L.A., Bedrosian, G., Boyd, C.S., Cahill, M., Coates, P.S., Creutzburg, M.K., Crist, M.R., Finn, S.P., Kumar, A.V., Littlefield, C.E., Maestas, J.D., Prentice, K.L., Prochazka, B.G., Remington, T.E., S. 2022. A sagebrush conservation design to proactively restore Americaâ€™s sagebrush biome. U.S. Geological Survey Open-File Report 2022â€“1081: (38). https://doi.org/10.3133/ofr20221081
- Davies, K.W., Boyd, C.S., Beck, J.L., Bates, J.D., Svejcar, T.J. and Gregg, M.A.. 2011. Saving the sagebrush seaâ€”An ecosystem conservation plan for big sagebrush plant communities. *Biological Conservation* 144: (2573â€“2584).
- U.S. Fish and Wildlife Service (USFWS). 2023. Endangered and Threatened Wildlife and Plants; 90-Day Findings for Five Species. *Federal Register* 88: (55991-55995).
- King, K.E.Cook, E.R., Anchukaitis, K.J., Cook, B.I., Smerdon, J.E., Seager, R., Harley, G.L. and Spei, B.. 2024. Increasing prevalence of hot drought across western North America since the 16th century. *Science Advances* 10: (eadj4289).
- Elmore, A.J, Manning, S.J., Mustard, J.F. and Craine, J.M.. Decline in alkali meadow vegetation cover in California: the effects of groundwater extraction and drought. *Journal of Applied Ecology* 43: (770-779).
- Opler, P.A. and Wright, A.B.. 1999. A Field Guide to Western Butterflies. Houghton Mifflin Company, Boston, Massachusetts : (540).
- GBIF.org. 2024. GBIF.org Occurrence Download: *Polites sabuleti*. 2024. https://doi.org/10.15468/dl.f9z7j7
- ITIS. 2023. Integrated Taxonomic Information System (ITIS). 2023. https://www.itis.gov/

More Information