

Oviposition on a Shrubby Dicot by *Ochlodes sylvanoides* (Boisduval)(Hesperiidae)

Author: Shapiro, Arthur M.

Source: The Journal of the Lepidopterists' Society, 68(1) : 65-66

Published By: The Lepidopterists' Society

URL: <https://doi.org/10.18473/lepi.v68i1.a10>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

OVIPOSITION ON A SHRUBBY DICOT BY *OCHLODES SYLVANOIDES* (BOISDUVAL)(HESPERIIDAE)

Additional key words: *Ceanothus cuneatus*, Buckbrush, Rhamnaceae, oviposition “mistake”

Most butterflies oviposit on their host plants; thus the first-instar larva does not need to forage actively. Some species that diapause as eggs avoid laying on plant parts that will senesce during the dormant period, and may instead lay on the ground or on litter near the growing point of the emergent host (Fordyce and Nice 2003). MacNeill (1964) described the seemingly anomalous oviposition behavior of the skipper *Hesperia lindseyi* (Holland) in Marin County, coastal northern California: eggs are laid on lichens on fence posts and trees and the larvae, which develop inside the shell but diapause, hatch in spring and drop to the ground to forage. Scott (1986) reports that eggs are laid “haphazardly” at one site and on annual lupine (Fabaceae) at another, localities not specified. I have seen *H. lindseyi* oviposit on apparently random dry litter at the soil surface in Colusa County, California. Scott also reports (echoing earlier anecdotes) that another skipper, *Polites sabuleti* (Boisduval), lays “on the host, on nearby dicotyledons, horsetail plants, soil, etc. (and on a sedge...which larvae refuse).” Different subspecies of *P. sabuleti* have very different life-cycles and may be uni-, bi-, or multivoltine; Scott does not differentiate among them in the oviposition records at the cited location.

On September 15, 2013 I saw a female *Ochlodes sylvanoides* (Boisduval) “disappear” into a clump of Buckbrush, *Ceanothus cuneatus* Nutt. (Rhamnaceae) on a serpentine “barren” at 1300m near the town of Washington, Nevada County, California in the foothills of the Sierra Nevada. Curious about what she might be doing, I observed her closely. Over a ten-minute period I saw her lay six eggs individually on twigs in the interior of this densely-branched shrub. She then flew to a nearby clump of *Ericameria* (Asteraceae) and began nectaring. This species is univoltine in late summer-

autumn at this site. There were dry bunchgrasses of several species growing less than a meter from the shrub.

All three of the skippers cited are presumed to feed on grasses (Poaceae) but as usual for grass-feeding butterflies, confirmed host records in the wild are rare. Supposedly, *P. sabuleti* overwinters as a part-grown larva and *O. sylvanoides* as a first-instar larva (both from Scott, 1992). If so, these records of strange oviposition substrates may be unrelated to winter egg dormancy. They could constitute an adaptation to “hide” the eggs from parasitoids that might key in on the larval host plant. In any case, there is a suggestion that grass-feeding skippers may frequently oviposit on non-host substrates, and this should serve as a warning to not take such oviposition “mistakes” as indicating actual or potential larval feeding without further study.

LITERATURE CITED

- FORDYCE, J.A. & C.C.NICE. 2003. Variation in butterfly egg adhesion: adaptation to local host plant senescence characteristics? *Ecol. Letters* 6: 23–27.
- MACNEILL, C.D. 1964. The skippers of the genus *Hesperia* in western North America (Lepidoptera: Hesperidae). University of California publications in Entomology, vol.35. UC Press, Berkeley, CA.
- SCOTT, J.A. 1986. *The Butterflies of North America*. Stanford University Press, Stanford, CA.
- . 1992. Hostplant records for butterflies and skippers (mostly from Colorado) 1959–1992, with new life histories and notes on oviposition, immatures, and ecology. *Papilio* (n.s.) 6: 1–185.

ARTHUR M. SHAPIRO, *Center for Population Biology, University of California, Davis, CA 95616.*
amshapiro@ucdavis.edu

Submitted for publication 17 September 2013; revised and accepted 18 October 2013.