



**Natural Heritage  
& Endangered Species  
Program**

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*Massachusetts Division of Fisheries & Wildlife*

**Dune Sympistis  
*Sympistis riparia***

State Status: **Special Concern**  
Federal Status: **None**

**DESCRIPTION:** The Dune Sympistis (*Sympistis riparia*) is a noctuid moth with a wingspan of 30-35 mm (Forbes 1954). The forewing is olive tan in color, frosted with white scales, particularly toward the costal margin; the subterminal area has a series of faint to prominent black dashes, each outlined with white, extending from the wing apex to the anal angle. The forewing has a black basal dash that extends into a white, elongate claviform spot. The orbicular spot is also white and elongate, finely outlined with black. The reniform spot is obscure, consisting of a diffuse patch of white scales, often with a small black dot at the inner edge. The forewing fringe is checkered with alternating olive tan and white scales. The hind wing is tan, pale proximally and darker toward the outer margin, with a faint discal spot and white fringe. The head, thorax, and abdomen are all tan, frosted with white.



*Sympistis riparia* ▪ Specimen from MA: Barnstable Co., Wellfleet, collected 18 Jun 2001 by M.W. Nelson

**HABITAT:** In Massachusetts, the Dune Sympistis inhabits coastal dunes, dunegrass grasslands, and bluffs, as well as coastal sandplain grasslands and heathlands.

**LIFE HISTORY:** In Massachusetts, adult Dune Sympistis moths fly from mid-June to mid-July, with stragglers into late July. The larval host plant is undocumented. Species of *Sympistis* overwinter in either

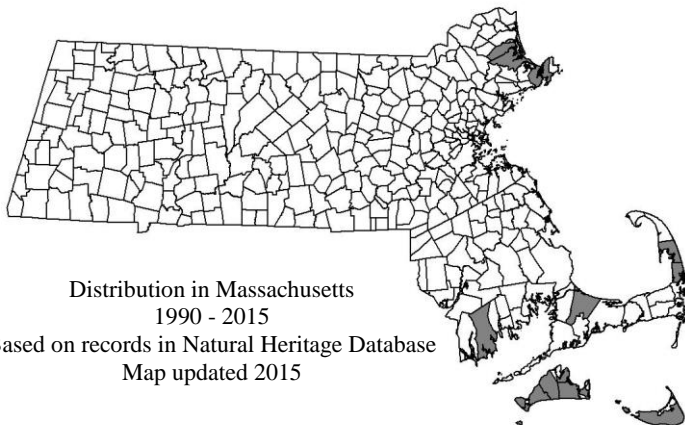
**Adult Flight Period in Massachusetts**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

the egg or pupal stage (Wagner et al. 2011).

**GEOGRAPHIC RANGE:** The extent of the global range of the Dune Sympistis is unclear due to confusion with several closely related species (McDunnough 1941, Troubridge & Crabo 1998), but at least consists of the coastal Atlantic region from the Canadian Maritime Provinces south to North Carolina. Specimens from the Great Lakes States are transitional in wing pattern to the western *Sympistis major* (Forbes 1954). Specimens from west of the Great Lakes States likely represent *Sympistis major*, or another closely related species. In Massachusetts the Dune Sympistis occurs along the coast, in both the northeastern and southeastern parts of the state.

**STATUS AND THREATS:** The Dune Sympistis is threatened by habitat loss and fire suppression. Other potential threats include introduced generalist parasitoids,



**A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**

**Massachusetts Division of Fisheries & Wildlife**

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aerial insecticide spraying, non-target herbiciding, off-road vehicles, and light pollution.

### **Literature Cited**

- Forbes, W.T.M. 1954. *Lepidoptera of New York and Neighboring States*. Part III. Memoir 329, Cornell University Agricultural Experiment Station, Ithaca, New York. 433 pp.
- McDunnough, J. 1941. *Oncocnemis riparia* Morr. and its races. *Canadian Entomologist* 73: 171-174.
- Troubridge, J. and L. Crabo. 1998. New *Oncocnemis* (Lepidoptera: Noctuidae) from the Pacific Northwest. *Journal of the Entomological Society of British Columbia* 95: 33-51.
- Wagner, D.L., D.F. Schweitzer, J.B. Sullivan, and R.C. Reardon. 2011. *Owlet Caterpillars of Eastern North America*. Princeton University Press, Princeton, New Jersey. 576 pp.

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