

***Euphydryas editha taylori* (W. H. Edwards), 1888**
Taylor's Checkerspot
(Nymphalidae: Melitaeinae: Melitaeini)



Photo by Dana Ross.

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(Other photos are available upon request.)

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SUMMARY

Taylor's Checkerspot is in imminent danger of going extinct. There are only fourteen known populations in Washington and Oregon, with almost three-quarters of the known population at only two sites. Taylor's Checkerspot is threatened most by the degradation and destruction of its habitat. Agricultural and urban development, encroachment of trees, and spread of invasive plants all continue to threaten the native grasslands in which it is found. In addition, pesticide use and recreational activities pose a direct threat to the butterflies themselves.

CONSERVATION STATUS

Xerces Red List Status: Critically Imperiled

Other Rankings:

Canada – Species at Risk Act:	Endangered
Canada – provincial status:	N/A
Mexico:	N/A
USA – Endangered Species Act:	Candidate Endangered
USA – state status:	WA: Species of Concern
NatureServe:	G5T1

SPECIES PROFILE

DESCRIPTION

Taylor's Checkerspot is the darkest subspecies of the Edith Checkerspot (*Euphydryas editha*). It is a medium-sized, colorfully checkered butterfly with a wingspan less than 2.25 inches. The ventral surface of the wings are primarily orange with bands of white cells. The dorsal surface of the wings has a proportionate mix of black, orange, and white. Compared to other *E. editha* subspecies, Taylor's Checkerspot has the stubbiest, roundest wings. The dorsal side of the wings have more black separating the spot-bands than other subspecies.

TAXONOMIC STATUS

Euphydryas editha taylori (W. H. Edwards), 1888. It is also known as the Whulge Checkerspot.

LIFE HISTORY

Taylor's Checkerspot is known from open grasslands and oak balds where food plants for larvae and nectar sources for adults are available. Taylor's Checkerspot larvae have been documented feeding on members of the figwort or snapdragon family (Scrophulariaceae), including harsh Indian paintbrush (*Castilleja hispida*), as well as several species of plantains, including the native seashore plantain (*Plantago macrocarpa*) and goose tongue (*P. maritima*) and the non-native narrow-leaf plantain (*Plantago lanceolata*).

DISTRIBUTION

Taylor's Checkerspot was once found throughout grasslands in the lowlands west of the Cascade Range from Oregon's Willamette Valley, through the Puget Sound area of Washington, to south Vancouver Island in British Columbia. The historic range and abundance of Taylor's Checkerspot is not precisely known because exhaustive searches did not occur until recently. Northwest grasslands were formerly more common, larger, and interconnected – conditions that would have supported a greater distribution and abundance of Taylor's Checkerspot. Before its dramatic decline, Taylor's Checkerspot was documented at more than seventy sites in British Columbia, Washington, and Oregon. Currently, it is extirpated from British Columbia and restricted to twelve sites in Washington and two in Oregon.

THREATS

All through its historic range, Taylor's Checkerspot has been extirpated from location after location due to loss of its prairie habitat. In all, since European settlement of the region, more than 99 percent of lowland prairie has been destroyed. The reasons for this are varied but prairie areas include both prime agricultural land and prime development sites, which account for 63 percent of the lost prairie. In addition, open prairie has become overgrown with scrub and forest due to fire suppression and introduced invasive

plant species. Other threats include trampling due to recreation activities, aerial spraying with Btk to control gypsy moth in forests, and collecting.

CONSERVATION STATUS

Taylor's Checkerspot is in imminent danger of going extinct. The butterfly is recorded at fourteen locations, most of which contain fewer than fifty individuals based on surveys conducted in 2002. The total population is approximately 2,000 adults, with about 75 percent at the two Oregon locations. The species is clearly in decline, which is best exemplified by (1) its recent extirpation from British Columbia and (2) the recent loss of a Washington site that in 1997 had close to 7,000 individuals.

Taylor's Checkerspot has been a candidate species under the U.S. Endangered Species Act since 2001 (*Federal Register* 66: 54808-54832). Given the precipitous population decline in recent years, a petition for emergency listing as endangered was submitted in December 2002.

In Canada, Taylor's Checkerspot was listed as endangered under the Species at Risk Act on January 1st, 2000.

In Oregon, the state's Threatened and Endangered Species List excludes invertebrates from being listed, so despite its precarious status, Taylor's Checkerspot receives no protection under state statute.

In Washington, Taylor's Checkerspot is listed as a Species of Concern under state legislation and the Washington Department of Fish and Wildlife (WDFW) has an active conservation program for the Taylor's Checkerspot. Two of the sites are on Washington State owned land.

CONSERVATION NEEDS

The primary need is to protect existing prairie habitat and restore degraded areas. The Xerces Society is working to ensure protection and management of the Oregon populations in two ways. With a local land trust, it is endeavoring to see if a conservation easement or purchase can be arranged with the private landowner, and with a county parks department it is working to maintain appropriate management of a county-owned site.

Washington DFW has initiated surveys and research into habitat needs of the state's populations and has recently initiated research into captive rearing.

The Xerces Society is continuing to search for additional Oregon populations and is working with agencies to present workshops for biologists and land managers on the biology of the butterfly and management of habitat.

RESEARCH NEEDS

Surveys to both locate new populations and to better understand the dynamics of metapopulations at known locations would be valuable. Studies of habitat requirements

and appropriate ways to protect and manage sites are needed. Given the low level of natural populations, development of a protocol for captive rearing for augmentation will be needed.

RESOURCES

CONTACTS

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