

---

# Gillette's Checkerspot

## *Euphydryas gillettii*

---

Insecta — Lepidoptera — Nymphalidae

### CONSERVATION STATUS / CLASSIFICATION

Rangewide: Imperiled/Vulnerable (G2G3)  
Statewide: Vulnerable (S3)  
ESA: No status  
USFS: Region 1: No status; Region 4: No status  
BLM: No status  
IDFG: Not classified

### BASIS FOR INCLUSION

Lack of essential information pertaining to status; no trend data.

### TAXONOMY

*Euphydryas gillettii* was described in 1897 from specimens collected in Yellowstone National Park (Williams et al. 1984).

### DISTRIBUTION AND ABUNDANCE

This checkerspot occurs in discrete, isolated populations across the montane parts of Idaho, Montana, Wyoming, Alberta, and British Columbia. In Idaho, this species has been reported to occur in scattered localities throughout the central and eastern mountains. Individual populations are typically small, often comprising <30 adults, and widely separated from neighboring populations (Debinski 1994). Populations are biennial and can fluctuate greatly in abundance from year to year (Williams 1988; Williams et al. 1984).

### POPULATION TREND

Population trend is unknown.

### HABITAT AND ECOLOGY

This species is associated with open and sunny clearings in mesic habitat, often occurring near small streams or in marshy habitat. Many colonies occur at sites where fire-disturbed sites where the butterfly's host plant and nectar sources occur in openings in forested habitat created by fire (Williams 1988). Twinberry honeysuckle (*Lonicera involucrata*) is the primary larval host plant, and western valeriana (*Valeriana occidentalis*), lousewort (*Pedicularis* sp.), speedwell (*Veronica wormskjoldii*), and snowberry (*Symphoricarpus albus*) are also known to be host plants (Williams 1988). Abundance at a given site is correlated with the abundance of nectar sources.

Williams (1988) commented that "life in disturbed sites suggests that *E. gillettii* populations are subject to periodic extinction" and it is likely that the pattern of local extinction and recolonization (i.e. metapopulation dynamics) is the means by which the species persists (Debinski 1994).

## **ISSUES**

Williams (1988) commented that “the greatest conservation advantage this species has compared to other uncommon species is that its habitat lies largely in the mountainous areas that are not readily accessible and in which there is little immediate potential for human modification. Its greatest conservation disadvantage is its occurrence through a limited range in discrete, localized populations, which are individually susceptible to disturbance and extinction.” Fire suppression is a threat to habitat. Fires that cause forest and meadow habitat mosaics are beneficial because host plants and nectar plants are favored in this landscape. Vegetational succession eventually results in shaded habitat that is not used by this butterfly (Williams 1988).

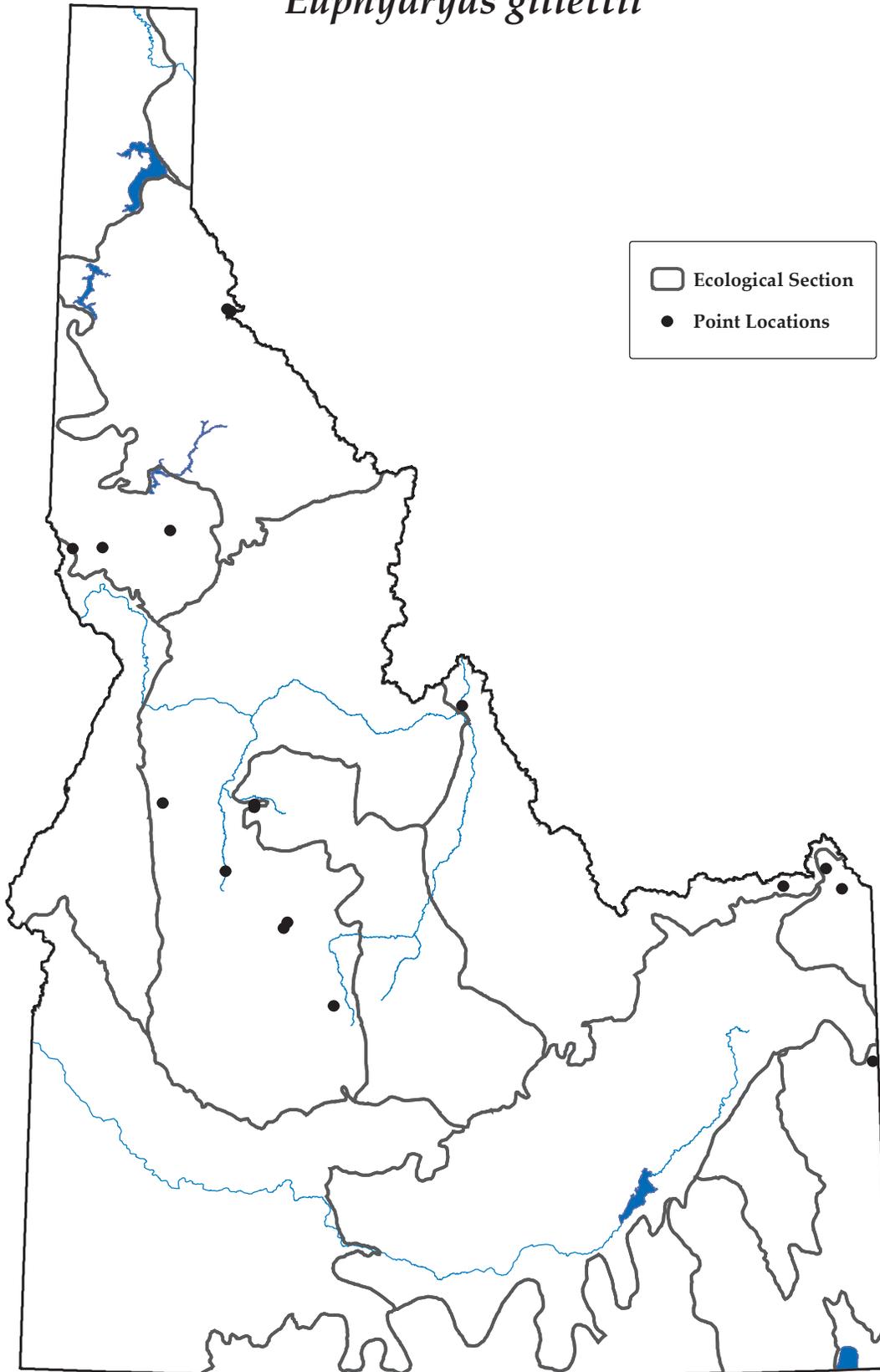
Williams (1988) noted that human development of recreation areas has led to loss of 1 *E. gillettii* population and the suspected loss of another.

## **RECOMMENDED ACTIONS**

Survey and monitoring efforts are needed to assess the current distribution and abundance of this species and the condition of the habitat in occupied areas. Prescribed fire regimes or other actions that promote the development of suitable habitat may deserve consideration.

# Gillette's Checkerspot

*Euphydryas gillettii*



2 August 2005  
Point data are from Idaho Conservation Data Center,  
Idaho Department of Fish and Game.

