Alaska Natural Heritage Program
Alaska Center for Conservation Science
University of Alaska Anchorage

Alaska Natural Heritage Program Conservation Status Report

Glaucopsyche lygdamus - Doubleday, 1841

Common Name: Silvery Blue

ELCODE: IILEPG4020	**Taxonomic Serial No.:** 188519

Synonyms:

Taxonomy Notes: Numerous subspecies of *Glaucopsyche lygdamus* are referenced for North America (Pelham 2008). Specimens from Alaska correspond to *Glaucopsyche lygdamus couperi* (Grote, 1873). The majority of butterfly records were determined only to species. We therefore only treat this butterfly at the species level for conservation assessment while recognizing that currently Alaskan specimens are considered to fall under (name of subspecies) - as treated by Ferris 2016. NatureServe concept reference: Opler & Warren (2002).

Report last updated – 21 May 2017

Conservation Status

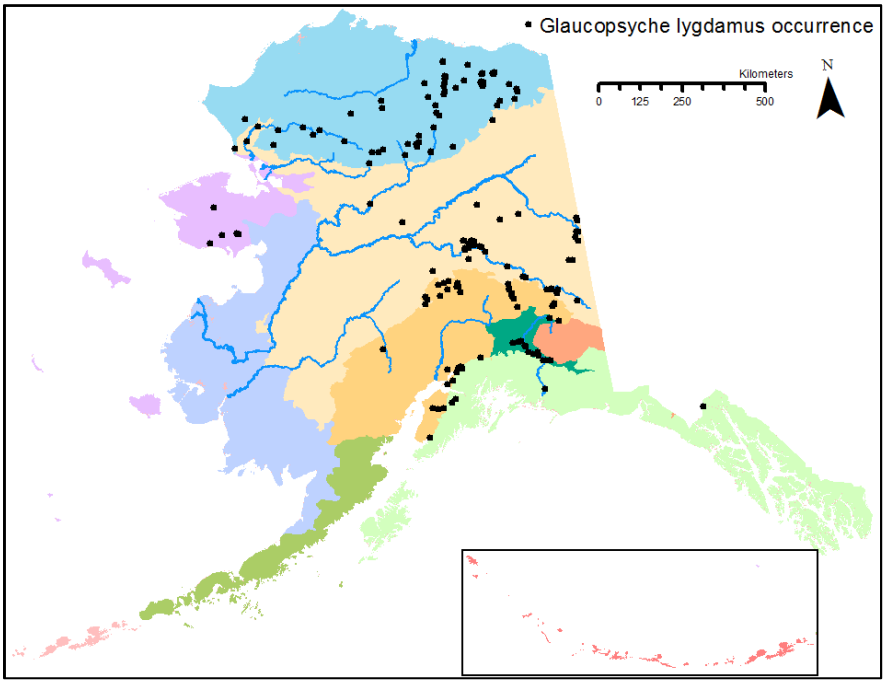
G5 S5	ASRS: not yet ranked

Occurrences, Range

Number of Occurrences: number of museum records: 981 (KWP 2017, UAM 2017), number of EOs: 186

AK Range Extent: 1,030,454 km^2

Occupancy 4 km^2 grid cells: 191



Nowacki Ecoregions: Eastern Arctic Coastal Plain, Brooks Range and Seward Peninsula through interior Alaska to the Kenai Peninsula and southeastern Alaska; encompassing Arctic Tundra,

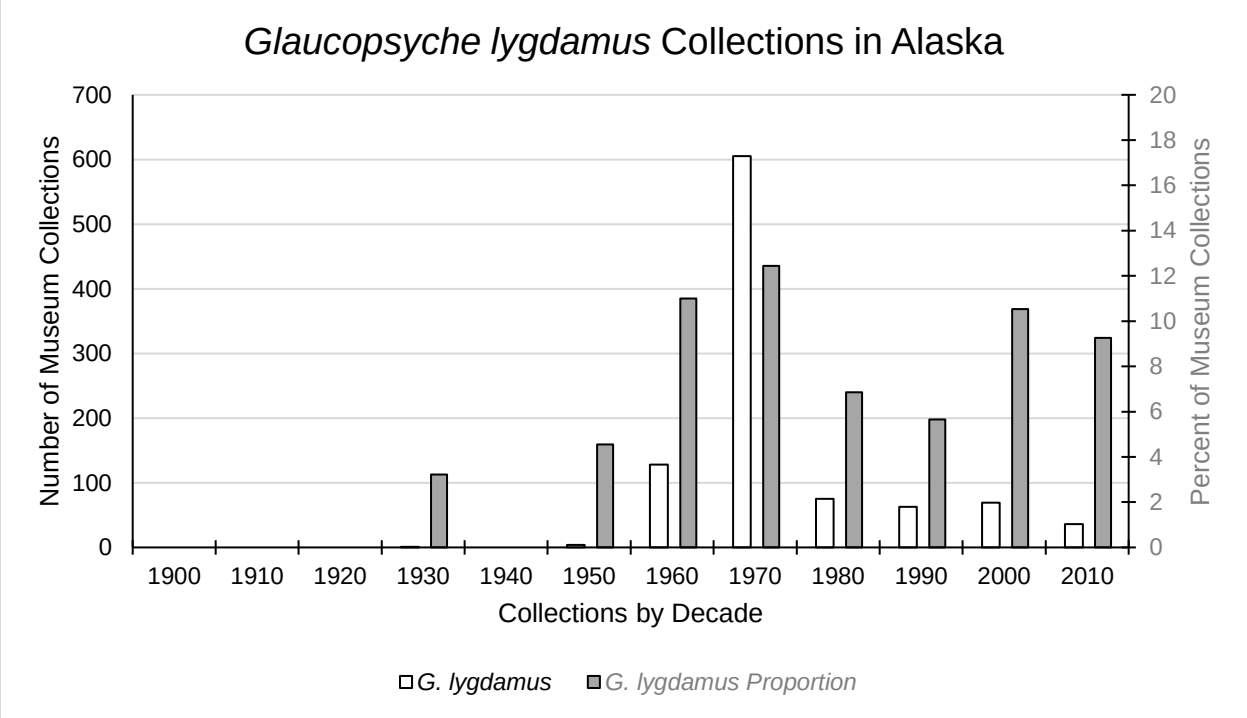
Bering Tundra, Intermontane Boreal, Alaska Range Transition, and Coastal Rainforest Ecoregions. The absence of collections of this species in southwestern Alaska is likely a reflection of low sampling intensity in that region (Philip & Ferris 2016).

North American Distribution: Widespread in North America, from Alaska south through the western states to Baja California, east through Canada to Nova Scotia (BAMONA 2017).

Trends

Short-term: Proportion collected has remained stable (<10% change).

Long-term: Proportion collected has remained stable (<10% change).



Threats

Scope and Severity: Most threats (including development, pollution, biological resource use, etc.) are anticipated to be negligible in scope and unknown in severity. Climate change and severe weather has the potential to affect populations; however we cannot anticipate the scope or severity of such impacts.

Comments:

Ecology

Habitat: A range of habitats, including open woods and forest margins, road edges, prairies and meadows, coastal dunes, rocky moist woods, and brushy fields (Philip & Ferris 2016, BAMONA 2017).

Host Plants: Members of the Fabaceae, including: *Astragalus*, *Hedysarum*, *Lotus*, *Lupinus*, *Melilotus*, *Oxytropis*, *Lathyrus*, *Vicia*, and others (Philip & Ferris 2016, BAMONA 2017).

Life History: Flight period is in June and early July in Alaska (Philip & Ferris 2016). Typically, males patrol near the host plants in search of females. Females lay eggs on flower buds and young leaves of host plants, and the larvae feed on flowers, fruits, and young leaves. Larvae are often tended by ants. This species hibernates as a pupa (Philip & Ferris 2016, BAMONA 2017).

Intrinsic Vulnerability: Some subspecies of *Glaucopsyche lygdamus* are thought to be extinct. Subspecies *xerces* is TX – "Presumed extinct". This subspecies was last observed in the 1940s and its habitat has been destroyed (NatureServe 2017). Subspecies *pseudoxerces* is listed as T1 – "Critically Imperiled" and listed by the USFWS as Endangered in 1980; most individuals of this subspecies persist in a captive rearing program; much of the habitat and hostplant *Astragalus leucopsis* on the Palos Verdes Peninsula near Los Angeles, California has been lost, though there is more unoccupied habitat where this butterfly could be established (NatureServe 2017). These cases in southern California are unlikely to reflect intrinsic vulnerability to populations in Alaska, however.

Literature

BAMONA. 2017. Butterflies and Moths of North America. Attributes of *Glaucopsyche lygdamnus*. http://www.butterfliesandmoths.org/species/Glaucopsyche-lygdamnus. Accessed 21 May 2017.

KWP, Kenelm W. Philip Lepidoptera Collection. 2017. Date Accessed 24 April 2017.

Opler, P. A., and A. D. Warren. 2002. Butterflies of North America. 2. Scientific Names List for Butterfly Species of North America, north of Mexico. C.P. Gillette Museum of Arthropod Diversity, Department of Bioagricultural Sciences and Pest Management, Colorado State University, Fort Collins, Colorado. 79 pp.

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. Journal of Research on the Lepidoptera, vol. 40. xiv + 658.

Philip, K. W. and C. D. Ferris. 2016. Butterflies of Alaska: A Field Guide. Second Edition. Alaska Entomological Society. Clifford D. Ferris. Laramie, Wyoming.110 pp.

Scott, J. A. 1986. The Butterflies of North America: A Natural History and Field Guide. Stanford University Press, Stanford, California. 583 pp.

UAM Arctos Museum of the North 2017. Date Accessed 24 April 2017.