English name island large marble

Scientific name *Euchloe ausonides insulanus*

Family Pieridae (Whites, Marbles and Sulphurs), subfamily Anthocharinae (Marbles and Orangetips)

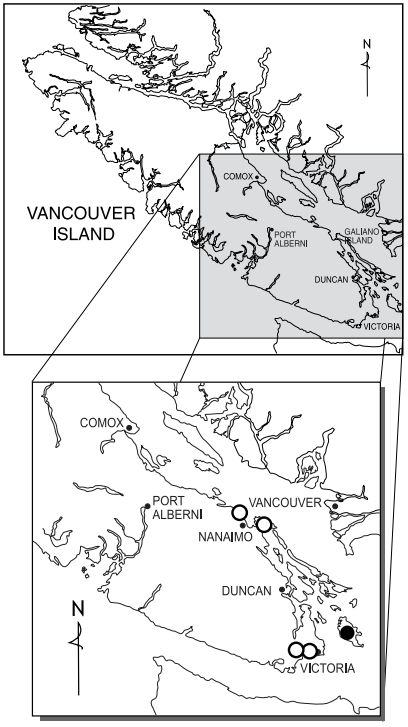
Other English names island marble

Other scientific names *Euchloe ausonides* ssp. 1 or undescribed subspecies

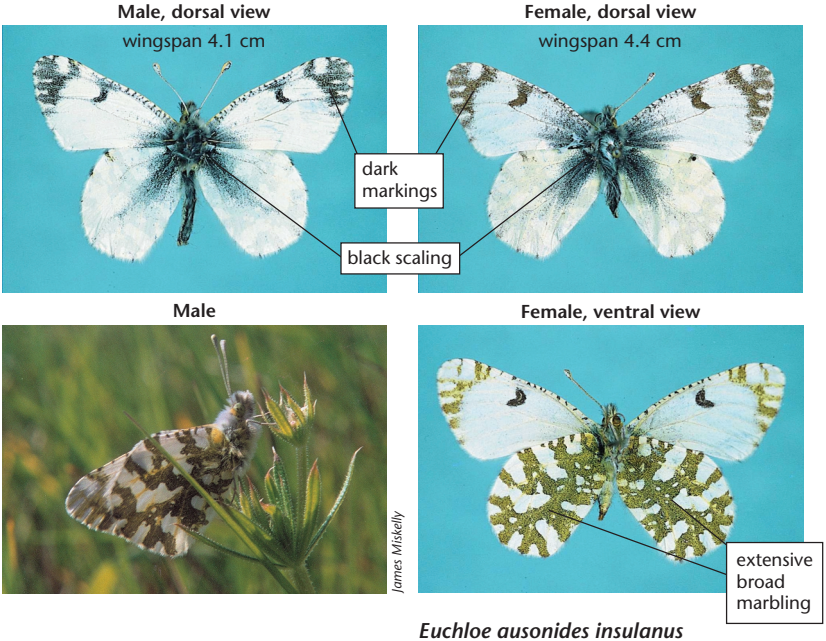
Risk status
BC: extirpated (SX); red-listed
Canada: COSEWIC: extirpated
Global: critically imperilled (G5T1)
Elsewhere: Washington – critically imperilled (S1)

Range/Known distribution
The historical range of the island large marble is limited to southeast Vancouver Island and the Gulf Islands in British Columbia and the San Juan Islands in Washington. This subspecies has only been recorded at Gabriola Island, Nanaimo, the Greater Victoria area and the San Juan Islands. It was likely never very common. The last recorded specimen in British Columbia was from Gabriola Island in 1908 and the island large marble is now considered extirpated from British Columbia and Canada.

The island large marble was thought to be extinct until two populations were discovered on San Juan Island, Washington in 1997.



Distribution of
Euchloe ausonides insulanus
● recently confirmed sites
O known historical sites



Euchloe ausonides insulanus

All photos: Crispin Guppy excepted as noted

Field Description

Marbles are large, white butterflies with **black wing markings dorsally and marbling on the ventral hindwings**. The island large marble, a subspecies of the large marble, has **pronounced expansion of the ventral marbling** and this marbling is frequently hairy and covered with yellow scales. Females are larger and duskier than males.

Identification tips

The island large marble can be readily distinguished by the marbling on the ventral hindwings. **This is the only marble species in the Georgia Depression**.

Immature stages: Eggs are bluish-green when laid, turning light orange, then vermillion and finally yellow-brown just prior to hatching. Young larvae (caterpillars) have black heads and orange-yellow bodies before the first moult; after this moult they develop greenish bodies. Larvae at later stages are grey-green above the spiracles (lateral pores) and green below. All larvae have a yellow-green stripe down each side of the back.

Life History

Island large marbles have only one generation per year. Adults fly during April and May.

Eggs are laid on the leaves, stems or flowerheads of the larval foodplants, which include native rockcresses such as the hairy rockcress (*Arabis hirsuta*) and other plants of the mustard family (Brassicaceae). Young larvae feed on leaves and flower buds and mature larvae feed on the seed pods. Island large marbles hibernate as pupae.

The San Juan populations of island large marbles use mostly introduced species of rockcress as larval food plants.

Habitat

Butterfly and skipper populations are very closely linked to the availability of larval and adult foodplants. Island large marbles are found in locations with a plentiful supply of plants from the mustard family (especially rockcresses), places such as beaches, cliffs, open areas and disturbed sites. The San Juan populations are found in open grasslands in Garry oak woodland and lower south-facing slopes with open habitat.

Why the species is at risk

The reason for the disappearance of the island large marble is unknown, but it is suspected that intensive grazing by cattle and sheep eliminated the larval foodplants. The disappearance of suitable habitats such as Garry oak and associated ecosystems may also have contributed to the loss of the species. In addition, there may have been impacts from non-native parasites associated with the introduced cabbage white butterfly* (*Pieris rapae*).

What you can do to help this species

Management practices should be tailored to the needs of this species and its habitat. Potential management tools will depend on the specific circumstances and may require experimentation prior to implementation. **Before taking any action, expert advice should be obtained, and no action taken without it. Please refer to the introductory section of this manual.**

If patches of suitable habitat can be maintained, this may eventually permit natural re-colonisation or human assisted re-introduction of this species and will also benefit other native species that rely on these habitats.

If you see this species, DO NOT CAPTURE it, but take clear photographs if possible and record other pertinent information. Detailed information should be given to the Conservation Data Centre in Victoria (srmwww.gov.bc.ca/cdc).

References

Guppy, C.S. and J.H. Shepard. 2001. *Butterflies of British Columbia*. UBC Press, Vancouver, British Columbia in collaboration with the Royal British Columbia Museum.

Shepard, J.H. 1998. Draft COSEWIC status report on the Island Marble, an undescribed subspecies of *Euchloe ausonides*. Committee on the Status of Endangered Wildlife in Canada, Ottawa, Ontario.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at: www.goert.ca.

*Refers to non-native species.