

# First Record of the Butterfly *Euchloe naina* (Lepidoptera: Pieridae) from North America

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Kondla, Norbert G., and Jonathan P. Pelham. 1995. First record of the butterfly *Euchloe naina* (Lepidoptera: Pieridae) from North America. *Canadian Field-Naturalist* 109(2): 259.

The presence of the Green Marble (*Euchloe naina*) Kozhantschikov, 1923, is reported in the Ogilvie Mountains of Yukon Territory, Canada. This butterfly was previously known to occur only in central and northern Asia and thus represents an addition to the known North American butterfly fauna.

Key Words: Green Marble, *Euchloe naina*, Lepidoptera, Pieridae, Ogilvie Mountains, Yukon Territory.

The Green Marble (*Euchloe naina* Kozhantschikov, 1923) was first collected in North America from 17 to 28 June 1972 by E. M. Pike at kilometre 131 of the Dempster Highway, Yukon. Since then, occasional specimens have been collected by various researchers including a few by N. G. Kondla on 17 June 1987 at kilometre 131 Dempster Highway and some by Pelham and L. Crabo in the Windy Pass area (kilometre 146-156 Dempster Highway) from 9 to 28 June 1989. In 1993 Kondla explored these two areas more carefully between 7 and 17 June. He found that *E. naina* is abundant on some steep, dry, barren limestone scree mountain slopes at elevations from 1050 m to 1350 m.

Adults take nectar avidly at flowers of *Parrya nudicaulis* (L.) and females oviposit on *Braya humilis* (C. A. Mey) as well as *Draba* sp. In the breeding habitat both males and females were observed to fly slowly about 15 cm above the scree surface, even on wind-free days. The occasional individual in dispersal mode was seen flying at heights of 50 to 100 cm along valley bottom rocky stream channels and roadsides. In these lower elevation sites adults flew sympatrically with *Euchloe creusa* (Doubleday) and displayed the same flight behaviour. *Euchloe creusa* was not seen on the steep scree slopes.

Comparison of specimens with individuals of the described North American *Euchloe* species [*E. creusa* (Doubleday), *E. ausonides* (Lucas), *E. hyantis* (W. H. Edwards), *E. ogilvia* Back, *E. olympia* (W. H. Edwards) and *E. guaymasensis* Opler] revealed that the Yukon taxon is unlike any described North American species. This northern Ogilvie Mountains population of *Euchloe naina* has a number of distinctive phenotypic features that allow for easy separation from other northwestern *Euchloe*. *Euchloe naina* has dense black scaling along the dorsal forewing costal margin from the base to the discal cell bar; the dorsal hindwing has a very pronounced linear smudge of black scales; the ventral hindwing is 80% to 95% solid dull green; the ventral hindwing veins are green rather than yellow;

and the forewing shape is blocky rather than pointed. Both *E. ogilvia* and *E. ausonides* have the ventral hindwing green color in distinct bands while *E. creusa* has ventral hindwing green color as fine marbling and is smaller in size. Fresh individuals of *E. naina* are decidedly nacreous on the dorsal surface and white areas of the ventral hindwing are strongly silvered. The females are strikingly distinctive due to extensive melanic scaling on the dorsal surface. Back (1990) provides color plates of both *E. naina* and *E. ogilvia*.

The species and subspecies status of Palearctic *Euchloe* have been in flux over the past 100 years. *Euchloe naina* has been variously placed as a subspecies of *E. ausonia* (as were many other now valid *Euchloe* species), a subspecies of *E. simplonia* Freyer (Back 1990), and as a valid species, but no thorough revision or analysis appears in the literature to unequivocally support any one of these interpretations. Consistent with the treatment by Tuzov (1993), we use the species name *Euchloe naina* here. Examination of color plates in Back (1990) shows that the Yukon specimens are most like his taxa *E. simplonia jakutia* and *E. simplonia naina*.

## Acknowledgments

We thank Michael Hassler of Bruchsal, Germany and Andrei Sourakov of Gainesville, Florida, for providing the literature cited. Without this help we might well still be searching for the most appropriate name for this butterfly.

## Literature Cited

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Received 2 March 1995

Accepted 29 March 1995





Kondla, Norbert G. and Pelham, Jonathan P. 1995. "First record of the butterfly *Euchloe naina* (Lepidoptera: Pieridae) from North America." *The Canadian field-naturalist* 109(2), 259–259. <https://doi.org/10.5962/p.357623>.

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**DOI:** <https://doi.org/10.5962/p.357623>

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