

A second locality for *Xanthoparmelia idahoensis* Hale,  
an endangered vagrant lichen, new to Canada

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In North America, the genus *Xanthoparmelia* (Vainio) Hale comprises 55 species (Thomson 1993). Of these, several species can be characterized as vagrant, and in the western part of the continent, at least 8 such species have been recognized (Rosentreter 1993). Although chemical differentiation has been emphasized (Hale 1990), most of the species can easily be distinguished by morphological features (Rosentreter 1993).

In 1994, the senior author received a specimen of a seemingly vagrant lichen from southern Saskatchewan for identification. This specimen was identical in its chemistry to *X. idahoensis*, as it produced usnic, salazinic and consalazinic acids. It should be noted that protocetraric acid, which is reported as occurring in trace amounts in *X. idahoensis* (Hale 1990) has not been detected in either the Canadian material nor the isotype deposited in the herbarium of R. Rosentreter. Instead, both samples shared another compound reacting yellow after heat and acid treatment, which appeared, based on comparison with a chemical profile of *Menegazzia terebrata* (Hoffm.) A. Massal., similar to the unidentified Mtr-1 reported by Culberson et al. (1981).

*Xanthoparmelia idahoensis* was previously known only from two sites near Salmon, Lemhi County in Idaho, where it grew on calcareous lacustrine ash soil. This species appears to prefer frigid arid regions with very sparse vascular plant cover. Generally sites where this species occurs are considered relatively barren "badlands". The Idaho and Canada sites are similar climatically and vegetatively. Detailed ecological information for the Saskatchewan site are lacking. *Xanthoparmelia idahoensis* should be searched for in frigid arid steppes and badland sites within the arid intermountain region.

**Specimen examined:** CANADA, Saskatchewan, N. of Val Marie (E border of Cypress Hills), NW corner of grassland Park (W portion of park), W of Ecotour road (major road through park). T3 R12 S16, Bob Ellis, summer 1994 (ALTA, herbarium Goffinet, herbarium Rosentreter).

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