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**FIRST DOCUMENTED RECORD OF *OARISMA POWESHEIK*
(LEPIDOPTERA: HESPERIIDAE) IN CANADA**

P. M. Catling and J. D. Lafontaine¹

ABSTRACT

During a brief survey of the prairie areas near Vita, Manitoba, July 1985, *Oarisma powesheik* Parker was found to be abundant, although often local. Specimens collected constitute the first documented record for the species in Canada.

Tall-grass prairies have survived in the general region of Vita, Stuartburn, and Gardenton in southeastern Manitoba, because the shallow, rocky, and highly calcareous soils have permitted only grazing, and the ground has never been broken. The relatively small size of some of these prairie glades, and periodic drought resulting in a rather sparse and depauperate cover, has made even grazing unprofitable in some areas. Fires, a natural prairie phenomenon, are encouraged to promote better pastures, and portions of the Vita prairies are burned every year. These prairies are of particular interest since they represent the northern limit of certain tall grass prairie elements (Catling, in press).

Oarisma powesheik was found in each of seven natural prairies visited. Three specimens are deposited in the Canadian National Collection in Ottawa.

THE DISTRIBUTION OF NORTHERN *OARISMA* SPP.

Although the early literature confused *O. powesheik* and *O. garita* (Reakirt), it has become clear that *O. powesheik* is a species of wet, tall-grass prairie in the midwestern United States, while *O. garita* occurs in dry prairie in the northern and western Great Plains and Rocky Mountains (Johnson 1972, MacNeill 1975, Opler 1982). Opler (1982) showed only one record of *O. garita* east of the Red River, but it is common farther west in the Dakotas (T. L. McCabe, pers. comm.). There is, however, a remarkably disjunct colony of *O. garita* on Manitoulin Island, Ontario, 1000 km east of the Minnesota colony (Catling 1977). The distribution of *O. powesheik* shown by Opler (1982) and documented elsewhere (Holzman 1972, Irwin and Downey 1973), indicates that it is widespread in Minnesota and Iowa, and follows the prairie peninsula into the southern Great Lakes. It is rare and local farther to the west (Johnson 1972; T. L. McCabe, pers. comm.). Judging by Opler's map which showed *O. powesheik* near the Manitoba border, its occurrence in southern Manitoba is not surprising, and certainly less remarkable than the disjunct occurrence of *O. garita* in Manitoulin district, Ontario.

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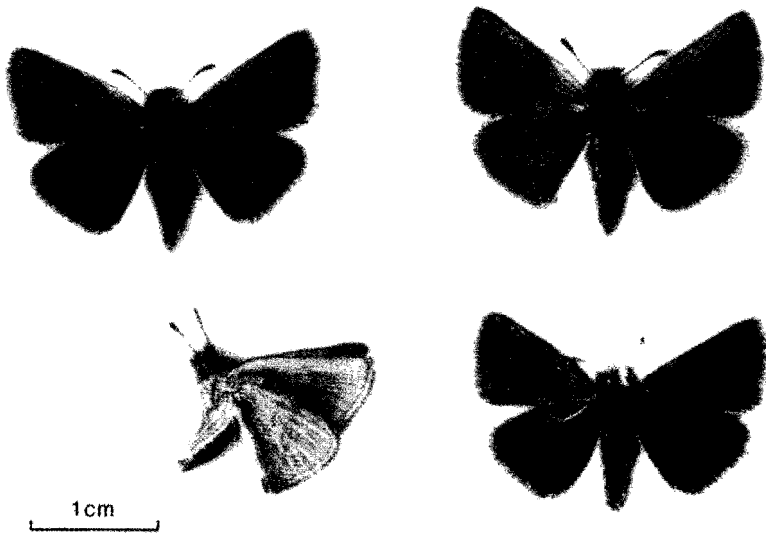


Fig. 1. *Oarisma garita* collected at Beulah, Manitoba by J. Dennis, the basis of an earlier report of *O. powesheik*.

STATUS OF MANITOBA RECORDS OF *OARISMA POWESHEIK*

Gregory (1983) indicated that *O. powesheik* had been reported from Manitoba, and his listing was apparently based on one, or both, of two reports. Klots (1951) noted that "it enters our area in Minnesota and probably also in North Dakota and Manitoba." Thus Klot's allusion is speculative. A much more relevant report was that of Masters (1973), who reported nine specimens collected at Beulah, Manitoba, 10–20 July 1902–1920, by J. Dennis. The Dennis collection is housed in the Manitoba Museum of Man and Nature, and consists of 400 homemade Riker mounts. The nine specimens which Masters reported as *O. powesheik* are together in one small Riker mount. They were originally labelled as "*O. garita*," and reported as such by Brooks (1942). Our examination of these nine specimens clearly indicates that they are *O. garita*. They are not generally dark above and below; lack the solid black shading on the fold on the hindwing below and on the underside of the forewing; have poorly defined, instead of pronounced white veins on the hindwing below; and they are relatively small (Fig. 1). All unpublished reports of *O. powesheik* from dry prairie habitats in western Manitoba have turned out to be *O. garita* (P. Klassen, pers. comm.). No *Oarisma* spp. have previously been reported from southeastern Manitoba. With all previous records discounted, the discovery of *O. powesheik* (Fig. 2) on the Vita prairies, although not an unexpected range extension, represents the first authentic record for Manitoba, and for Canada.

HABITAT IN SOUTHERN MANITOBA

The Vita prairies vary from small (0.4–0.8 ha) to large (300 ha) elongate openings more or less separated by groves of bur oak, aspen, and American hazel. The lower and periodically wetter parts of the open prairies are dominated by *Deschampsia caespitosa*, *Agrostis stolonifera*, *Carex praegracilis*, *Carex tetanica*, *Carex buxbaumii*, *Juncus balticus*, *Juncus dudleyi*, *Juncus longistylis*, *Muhlenbergia richardsonis*, *Eleocharis elliptica*, *Senecio pauperculus*, *Senecio aureus*, *Lysimachia quadriflora* and *Prunella*

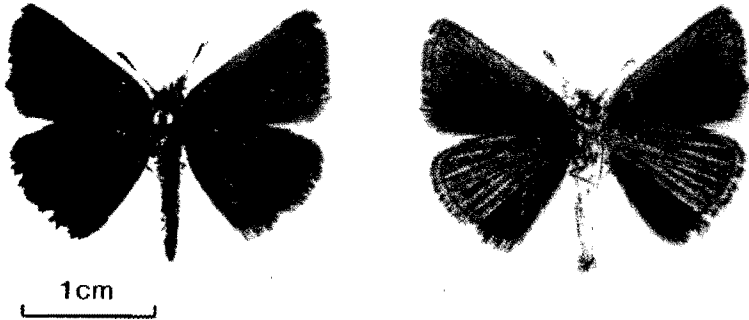


Fig. 2. Upperside (left) and underside (right) of *Oarisma powesheik* from the Vita prairies, near Vita, Manitoba, collected in 1985.



Fig. 3. Habitat of *Oarisma powesheik* on the Vita prairies. The location shown is 1.5 miles east of Stuartburn.

vulgaris, with scattered shrubs of *Salix petiolaris*, *Potentilla fruticosa*, and *Betula glandulosa*. The higher, drier parts are dominated by *Sporobolus heterolepis*, *Andropogon gerardii*, *Andropogon scoparius*, and include many other prairie species such as *Zygadenus elegans*, *Solidago rigida*, *Elaeagnus commutata* and *Liatris ligulistylis*.

The butterflies were concentrated in areas where flowering *Lobelia spicata* was abundant, and in the areas of transition between mesic and drier prairie (Fig. 3), but they were occasionally seen in either extensive dry or extensive wet areas. The butterflies frequently visited the flowers of *Lobelia spicata*, as reported for Michigan colonies

(Holzman 1972) and the foodplant (*Eleocharis elliptica*; see McAlpine 1972, Holzman 1972) is frequent in lower places.

The habitat of *O. powesheik* in Michigan (Holzman 1972), and habitats farther west in Minnesota, involve wet prairie meadows similar to that described above (T. L. McCabe, pers. comm.).

In contrast, *O. garita*, in the more continuous western range (e.g. Riding Mountain National Park), occurs in somewhat drier situations with a more sparse vegetation cover. The same is true to some extent for the disjunct colonies of *O. garita* in Ontario, but these locations, in their overall floristic composition (Catling 1977), do correspond closely with the Vita prairies. The principal difference being in the greater density, diversity and height of the prairie vegetation near Vita, and in the more extensive development of the wet and mesic phases.

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