

TYPE LOCALITIES OF THE BADLANDS OLD WORLD SWALLOWTAIL IN ALBERTA

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Type specimens are important for taxonomic study because they represent the original concept of the organism to which a name was applied. Similarly the collection locations of type material are important because they indicate where persons doing subsequent study can find specimens representative of the taxon being studied.

The Badlands Old World Swallowtail (*Papilio machaon dodii*) was described by McDunnough primarily on the basis of specimens collected along the Red Deer River in Alberta.² The original description was vague on the collection localities of the type material.

The holotype and paratypes were collected by F. H. Wolley-Dod along with Red Deer River "50 miles NE of Gleichen" according to McDunnough.² Wolley-Dod's publications were vague on the exact location of his collections here and subsequent authors often erroneously assigned much of the pertinent material simply to Gleichen. Bird and Harper assigned Dorothy as the place where Wolley-Dod collected the Badlands Old World Swallowtail.¹ Prior to publication of Bird and Harper's paper, I had independently arrived at the same conclusion. Therefore, the type locality of the Badlands Old World Swallowtail is now fixed as Dorothy, Alberta.

There remains now to clarify the location of the allotype specimen collected by C. H. Young on 8 July 1917. McDunnough stated that the allotype was collected "in the same general region" (as the holotype).

However, this is not correct because Young's field itinerary as published by Taverner shows that the allotype was collected along the Red Deer River near Nevis, about 100 km NW of Drumheller.³

The *machaon* complex of swallowtails (in Alberta represented by the species names *zelicaon*, *machaon*, and *bairdii*) has received considerable attention by taxonomists but there are still more questions than answers. Specimens with intermediate characters and variation of 'black' phenotypes make it difficult to pigeonhole many specimens. Distribution and ecology are also poorly documented in the literature. Research presently underway by F. Sperling at the University of Alberta will surely help to clarify this interesting group of swallowtails.

¹BIRD, C. D. and A. M. HARPER 1980. F. H. Wolley-Dod, Alberta's leading pioneer lepidopterist; Alberta Naturalist 10:49-55.

²McDUNNOUGH, J. H. 1939. A new race of *Papilio* belonging to the *machaon* complex. Canadian Entomologist 71:216-217.

³TAVERNER, P. A. 1919. The birds of the Red Deer River, Alberta. Auk 35:1-248-265.

EDITOR'S NOTE: The type specimen (holotype) is the individual from which is made the original taxonomic description of the species. Paratype specimens are additional specimens cited in the original taxonomic description. An allotype specimen is a paratype of the opposite sex to the holotype and is designated in the original description.