Investigating Rowan County Lepidoptera biodiversity, part five: Nymphalidae and Riodinidae

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ABSTRACT

According to Charles Covell’s 1999 work “The Butterflies and Moths (Lepidoptera) of Kentucky: An Annotated Checklist and its new supplement, the existing checklist of 2439 species of Lepidoptera (butterflies, moths, and skippers) known from Kentucky, with 563 of these occurring in Rowan County (RC). Our project updates Covell’s records from RC via data from The Society of Kentucky Lepidopterists and the current Lepidoptera field guide Eastern Butterflies by Paul Opal (1998) was used to determine phenotype, sex, and habitat. Photographs were taken of A. Jonathan Smith’s (JS) specimens or downloaded from websites.

RESULTS

We found eleven NCRs* in Nymphalidae and none in Riodinidae.

- Nymphalidae: Heliconiinae, Limenitidinae, Nymphalinae, Polygoniinae, Satyriinae

- Riodinidae: Charaxinae

INTRODUCTION

The superfamily Papilionoidea contains the approximately 20,000 “true butterflies” and its members are subdivided into five families: Papilionidae, Pieridae, Lycidae, Nymphalidae, and Riodinidae. Of these, around 800 can be found in North America with 95 in Kentucky. In previous posters, we updated Rowan County (RC) records for four families. Here, we show updated records for the families Riodinidae (2001) and Nymphalidae (2005, 2006, 2010). We conclude our research updating the superfamily Papilionoidea and contain many iconic species, such as the American Snout and the Red Admiral. We hope this work will interest local butterfly enthusiasts.

* NCRs: New County Records

MATERIALS & METHODS

Previous RC biodiversity records were derived from Covell’s 1999 “The Butterflies and Moths of Kentucky: An Annotated Checklist and its three supplements (Covell et al., 2000, Gibson & Covell 2006, Covell & Gibson 2008). Updated records were assembled from the collections of the Muséum (MSU), A. Jonathan Smith (JS), and The Society of Kentucky Lepidopterists. Field guides Eastern Butterflies by Paul Opal (1998) was used to determine phenotype, sex, and habitat.

DISCUSSION

Butterflies have been well catalogued in terms of described species and general ranges, but their work is incomplete since it provides more precise ranges. Covell (1999) recorded several of our NCRs from nearby KY counties. The NCRs may have been recent migrants, and most likely represent insufficient collecting prior to Covell’s catalog. Covell (1999) noted just two Riodinidae species in KY and both are said to be uncommon. Of the 42 Nymphalids known from KY, we now know at least 29 occur in RC. This correlates well with RC’s large species and diverse habitat. Almost all brush ski subfamilies are found in KY except for Charaxinae, which is a largely tropical group that may have one uncommon species recorded in KY.

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