ABSTRACT
Twenty-four species of mayflies are known from Belize, based on historical records. This is the lowest species richness for any Central American country, except for the comparably sized El Salvador, which has only eight species known to occur there. Based on research from neighboring Nicaragua and southern Mexico, we expect the species richness of Belize to be much greater than currently reported. 56 species are known from Nicaragua, and 140 species are known from all of Central America. Field work during spring and summer 2016 will help us to increase the number of species known from Belize. Many Belize species also exist in the United States, showing last effects of the natural historical movement patterns that have been called the Great American Intercrate. We compare the similarities between Belize and mayfly species to the north and south.

BACKGROUND
Ecological studies of differing climates are usually based on differing latitudes; the lower latitudes usually containing the warmer climates. These warmer climates have the studying benefit of supplying a large biodiversity to researchers who can take samples of the flora and fauna to compare to those in other areas. The country of Belize should contain a representation of both North American and South American insects, as well as some unique to the region, however research there is lacking. Only 24 species of mayflies are known from Belize (McCafferty & Jacobus, 2016). These species are only a small portion of those occupying the region; currently 140 species are known from all of Central America. Many of the same species present in the United States are thought to exist in Belize, however due to the higher rates of species adaptation in the tropics, there is the likelihood that variations will be found. It is also possible that native species may be found in Belize that there are variations of in the United States, showing natural

Biogeographic Affinities of Belize Mayflies
(Insecta: Ephemeroptera)
David W. Cool & Luke M. Jacobus
Division of Science, Indiana University Purdue University Columbus
Columbus, Indiana 47203, USA; lmjacobu@iupuc.edu

Checklist of Species Currently Known from Belize
(*species also found north of Mexico)
1. Ableptemetes distinctus (Allen & Brusca, 1973)
5. Callibaetis floridanus Banks, 1900 *
6. Callibaetis punctatus McCafferty & Provonsha, 1993 *
7. Camelobaetidius arriaga (Traver & Edmunds, 1968)
9. Campsorus cuspidatus Eaton, 1871
11. Euthyplocia hecuba (Hagen, 1861) (Fig. 2)
12. Falcion quilleri (Dodds, 1923) *
14. Farrodes texanus Davis, 1987 *
15. Isonychia sicca (Walsh, 1862) *
16. Latineosus cayo Sun & McCafferty, 2008
17. Leptophyes newcombean Allen & Edmunds, 1967 *
18. Leptophyes zolope Traver, 1958 *
19. Maccaffertium mexicanum mexicanum (Ulmer, 1920)
20. Paracloeodes minuta (Daggy, 1945) *
21. Thraulodes packeri Traver & Edmunds, 1967
22. Thraulodes zonalis Traver & Edmunds, 1967
23. Traverellia promifrons Lugo-Ortiz & McCafferty, 1996 *
24. Vaucernianus packeri (Allen, 1967) *

REFERENCES

FIELDWORK PLANNED FOR 2016
The field component of this trip will take place near the Toucan Ridge Ecology and Education Society hosting center (Fig. 3). The expedition will cover a range of sampling westward to the Mountain Pine Ridge Forest Reserve and southward into the Cockscomb Basin Forest Reserve. These areas will represent differing biogeographic regions of Belize and give better diversity to the possible species found.

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