Undergraduate Research Symposium Poster Presenter Abstracts – Late Additions

Name: Nicholas Bischoff

Major(s): Chemistry

Institution: Bowling Green State University

Faculty Advisor(s): Robert Midden, Chemistry

Poster #: 104

Evaluation of Wastewater Treatment to Reduce Nutrient Transport

This research project is aimed at reducing the nutrient runoff from liquid CAFO manure used as fertilizer on farm fields. Polymer and coagulants are added to liquid manure to coagulate the solids and bind the nutrients. The solid treated manure is dried and the release of its nutrients are tested using rain simulations. Ideally the nutrients will be released at a rate in which the crops planted in the fields can use them so they do not enter waterways in rain runoff. Overall, the main goal of this project is to develop a more efficient manure fertilizer that will promote environmental sustainability from an agricultural standpoint.

Name: Brynn Busalacchi

Major(s): History

Institution: Bowling Green State University

Faculty Advisor(s): Amilcar Challu, History

Poster #: 105

Study of Delbert Latta's Involvement in Environmentalism from

Examining the Delbert L. Latta Congressional Papers Collection from the Center of Archival Collections, I looked at his involvement and acknowledgement of local environmental concerns from 1970-1976. Through letters from his constituents and contact with the Department of Natural Resources, Department of Parks and Recreation and The Ohio Environmental Protection Agency, he is involved with the creation process of watersheds, dealing with air pollution affecting tree growth and complaints about the toxic waste from local companies.

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Name: Jackson Wheeler

Major(s): Geology

Institution: Bowling Green State University

Faculty Advisor(s): Yuning Fu, Geology

Poster #: 106

Surface deformation caused by aquifer in Hamilton county, Ohio

The correlation between the Earth's crustal deformation and the water level to determine whether there's an aquifer present beneath the subsurface.

Name: Michelle Sire

Major(s): Psychology

Institution: Bowling Green State University

Faculty Advisor(s): Dara Musher-Eizenman, Psychology

Poster #: 107

The Effects of Mindful Eating in Preschoolers

Food neophobia, a fear of unfamiliar foods, and problematic mealtime behaviors are common among young children. Child neophobia has been linked to poor dietary variety and nutrient intake, potential risk factors for establishing long-term, unhealthy eating habits (Johnson, Davies, Boles, Gavin & Bellows, 2015). Among adults, mindful eating (i.e., being present and aware of eating in the moment) has been associated with reduced calorie consumption and healthier snack choices; however, minimal research has explored the relationship between mindfulness and eating behaviors in young children (Jordan, Wang, Donatoni, & Meier, 2014). The present study describes a new mindful eating intervention for young children and examines whether it increases child mindfulness and decreases child neophobia and problematic mealtime behaviors. A sample of 30 preschoolers will be included in the intervention. So far, nine preschoolers, ages 4-6, and their parents have been recruited from a local daycare in Bowling Green, OH. Parents completed pre- and post- intervention questionnaires about their feeding practices and their child's mealtime behaviors. The preschoolers participated in 10 brief intervention sessions, as well as pre- and post-tests assessing their neophobia and mindfulness. Preliminary findings on this subsample suggest that the number of senses being used have increased from pre-tests and post-tests. The average number of senses used during pre-test for toys went from 3.78 to 4. The average number of senses used also increased from food pre-test

post-test, from 3.56 to 5.4. The number of senses used in the pre-food test compared to the post food test came close to achieving statistical significance (p = .082). Further research will add a control group in which preschoolers will be exposed to novel foods without a mindfulness intervention.

Name: Kevin Connell

Major(s): Biology

Institution: Bowling Green State University

Faculty Advisor(s): Kevin Neves, Biology

Poster #: 108

Use of Fish Farm Waste for the Culture of Freshwater Prawn (Macrobrachium rosenbergii) as Part of an Integrated Multi-Trophic Aquaculture System

Aquaponic research project that studied the growth of lettuce with freshwater prons. The Prons were feed different diets (Fish food, Fish Feces, and a mix of both) and the growth of the lettuce plants were observed. Along with plant growth we monitored water quality and Pron health.