



Apr 14th, 9:00 AM - 10:00 AM

Assimilation of Dissolved Organic Matter By Nauplius Larvae of / Artemia / SP.

Oluwakemi Onajin, '09
Illinois Wesleyan University

William Jaeckle, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Onajin, '09, Oluwakemi and Jaeckle, Faculty Advisor, William, "Assimilation of Dissolved Organic Matter By Nauplius Larvae of / Artemia / SP." (2007). *John Wesley Powell Student Research Conference*. 25.

<https://digitalcommons.iwu.edu/jwprc/2007/posters/25>

This Event is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation P61

**ASSIMILATION OF DISSOLVED ORGANIC MATTER BY
NAUPLIUS LARVAE OF /ARTEMIA/ SP.**

Oluwakemi Onajin and William Jaeckle*
Biology Department, Illinois Wesleyan University

Artemia sp. is an aquatic crustacean commonly known as Brine Shrimp or Sea Monkey. Each generation begins when females lay cysts containing developmentally arrested embryos. Their free-living life cycle begins when embryos are activated and hatch as nauplius larvae. Nauplius larvae have three appendage pairs that are used for locomotion and collection of particulate foods. Owing to the presence of a cuticle, they are considered incapable of assimilating dissolved organic material (DOM) from seawater. We exposed nauplii to a fluorescently labeled protein (0.5 mg/mL) in seawater and evaluated the distribution of the label using fluorescence microscopy. The label initially appeared only in the digestive system. With continued exposure, fluorescence was seen throughout the larval body suggesting that materials were distributed into the blood vascular system. Nauplii of *Artemia* pass seawater through their digestive system and are capable of assimilating DOM and their diet consists of both particulate and dissolved foods.