ORAL PRESENTATION

BIODIVERSITY AND ECOLOGY OF EPHEMERAL ROCK POOL DIATOMS IN SOUTHERN OKLAHOMA

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Because granite rock pools are a harsh environment for most aquatic life, diatoms living in rock pools habitats may be specialists – or not. Our objectives were to inventory rock pool diatom communities, and relate community composition to spatial, physical, and chemical variables. We sampled 20-30 rock pools at each of three geographically isolated granite outcrops in southern Oklahoma (A total of 74 were sampled). We also sampled variables of pool morphology and water chemistry, and recorded spatial coordinates. Rock pools were strongly dominated by species of *Stauroneis, Hantzschia*, *Luticola* and *Pinnularia*, which comprised almost one-half of the 90+ species. Most of the remaining species were rare. Some species do not fit known descriptions and a few are known primarily from arctic habitats. The three outcrops are distinguished by differences in the relative abundance of a few common species and by presence or absence of rare species. Rock pool diatom communities include specialists, tolerant species, and accidentals.