



Patuxent Science Meeting 2004 Poster Abstract

Macroinvertebrate abundance, water chemistry, and basin characteristics affect distribution of waterfowl broods in Maine

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Abstract

We sampled 10 wetlands in 1982 in southeastern Maine and collected invertebrates with a sweep net to relate mean numbers of invertebrates per wetland to water chemistry and basin characteristics. Shallow, beaver-created wetlands with the highest phosphorus levels and abundant and varied macrophytes supported greater densities of macroinvertebrates and numbers of broods ($n = 46$) in contrast to deep, glacial type wetlands with sparse vegetation and lower invertebrate densities that supported fewer broods ($n = 5$). Although acidity negatively affected some invertebrate taxa, and the highest mean number of Insecta per wetland was from one of those wetlands with $\text{pH} < 5.5$, other Classes and Orders of invertebrates were more abundant on wetlands with $\text{pH} > 5.5$. Broods (39 of 51, 76%), however, used wetlands with $\text{pH} \leq 5.0$ more than wetlands with $\text{pH} > 5.5$ (24%). Lentic wetlands created by beaver activity clearly contained the vegetative structure and nutrients that provided cover to support invertebrate populations that are primary foods of waterfowl ducklings.

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