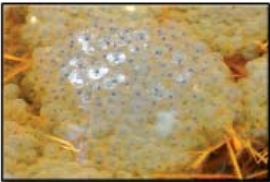
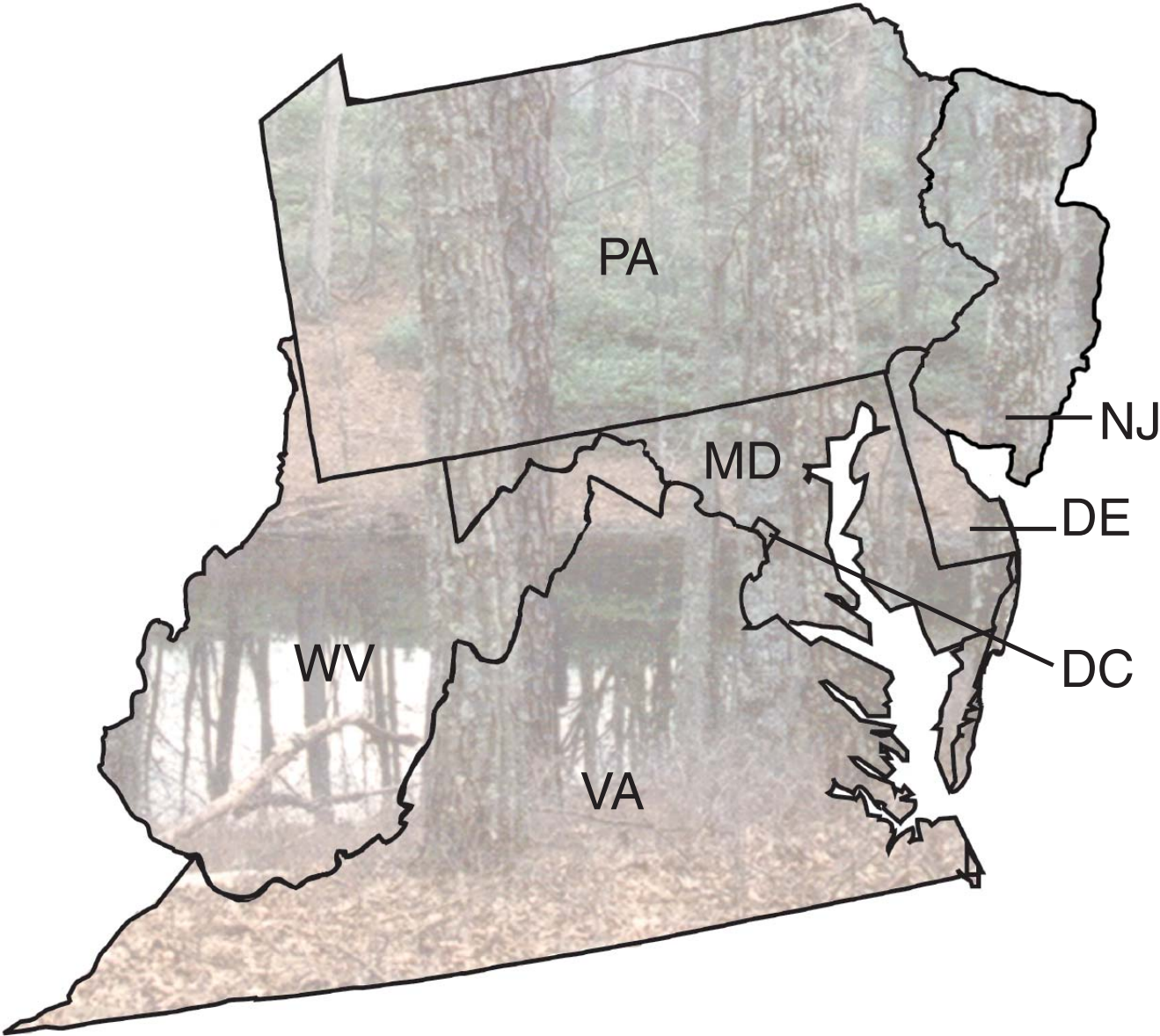


An Introduction to Mid-Atlantic Seasonal Pools

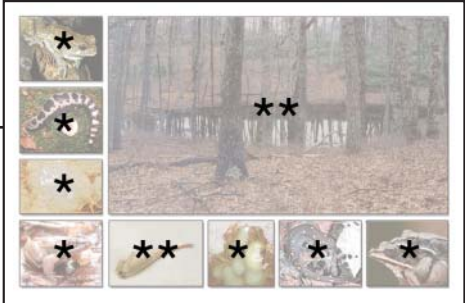


MID-ATLANTIC STATES



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- * USGS PWRC
- ** Lesley J. Brown



An Introduction to Mid-Atlantic Seasonal Pools

Prepared for:

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Mid-Atlantic Integrated Assessment
701 Mapes Road
Fort Meade, MD 20755-5350

by:

Lesley J. Brown¹
Robin E. Jung²

¹ Perot Systems Government Services
701 Mapes Road
Fort Meade, MD 20755-5350

² USGS Patuxent Wildlife Research Center
12100 Beech Forest Road
Laurel, MD 20708-4038



NOTICE

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ABSTRACT

Seasonal pools, also known as vernal ponds, provide important ecological services to the mid-Atlantic region. This publication serves as an introduction to seasonal pool ecology and management; it also provides tools for exploring seasonal pools, including a full-color field guide to wildlife. Seasonal pools are defined as having four distinctive features: surface water isolation, periodic drying, small size and shallow depth, and support of a characteristic biological community. Seasonal pools experience regular drying that excludes populations of predatory fish. Thus, pools in the mid-Atlantic region provide critical breeding habitat for amphibian and invertebrate species (e.g., spotted salamander (*Ambystoma maculatum*), wood frog (*Rana sylvatica*), and fairy shrimp (Order Anostraca)) that would be at increased risk of predation in more permanent waters.

The distinctive features of seasonal pools also make them vulnerable to human disturbance. In the mid-Atlantic region, land-use changes pose the greatest challenges to seasonal pool conservation. Seasonal pools are threatened by direct loss (e.g., filling or draining of the pool) as well as by destruction and fragmentation of adjoining terrestrial habitat. Many of the species that depend on seasonal pools for breeding spend the majority of their lives in the surrounding lands that extend a radius of 1000 feet or more from the pools; these vital habitats are being transected by roads and converted to other land uses. Other threats to seasonal pools include biological introductions and removals, mosquito control practices, amphibian diseases, atmospheric deposition, and climate change. The authors recommend a three-pronged strategy for seasonal pool conservation and management in the mid-Atlantic region: education and research, inventory and monitoring of seasonal pools, and landscape-level planning and management.

Key Words: seasonal pools; vernal ponds; wetlands; amphibian conservation; Mid-Atlantic; aquatic ecology



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