

behavior, and productivity, were investigated from 1998 - 2000 on pristine and impacted streams as part of a statewide study on their effectiveness as a barometer of headwater stream health. Positive results encouraged the National Park Service to use the waterthrush and the overall riparian avian community as "vital signs" of ecosystem integrity from DEWA to the New River National Park in West Virginia. The Acadian Flycatcher is a hemlock-dependent species in the park, and recent studies using heavily impacted sites in DEWA in comparison with pristine sites at Powdermill Avian Research Center have shown declines in pair density with increasing infestation levels.

These and other studies and surveys of birds of early successional habitats and wetlands, many conducted by faculty and students of East Stroudsburg University in conjunction with various collaborators, have contributed to the rich history of avian studies in the Delaware Water Gap National Recreation Area.

Poster Abstracts

Lunar Influence on the Fall Migration of Northern Saw-whet Owls

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Seasonal migration is an important component in the life cycle of Northern Saw-whet Owls (*Aegolius acadicus*). We evaluated the influence of the four lunar events (new moon, first quarter moon, full moon, and last quarter moon) on nocturnal activity of Northern Saw-whet Owls based on captures during fall migration, 2000-2008. We found differences between the lunar events with

decreased capture rates during the full moon and the new moon. These results suggest lunar phase influences migratory movements and behaviors in this species. This may be attributed to predator avoidance during periods of relative brightness or darkness at night.

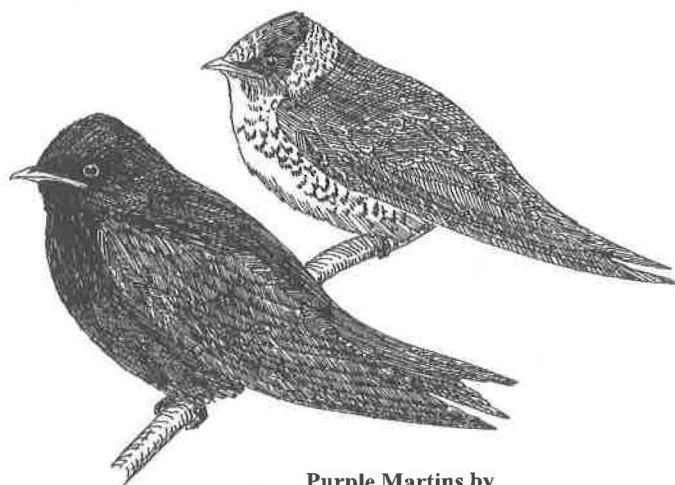
Ten Years at Kettle Creek: A Long Term Study of the Avian Community of Central Monroe County, Pennsylvania

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The Kettle Creek Wildlife Sanctuary is a 166-ac (67.2 ha) preserve located in central Monroe County, Pennsylvania, that is managed by the Monroe County Conservation District. The property features a number of different habitat types, including old fields, mature deciduous, and evergreen stands, as well as two ponds connected by a small stream. For the last decade, the Pocono Avian Research Center has operated a MAPS banding station at Kettle Creek. Here, we report on the current structure of the avian community of the sanctuary and some of the changes that the community has undergone over the course of the past ten years, a time when surrounding areas have faced the increasing pressures of human development.



Purple Martins by
George West