

## Upper Quebec Run Watershed

This site encompasses the Quebec Run Watershed, much of which is within the Bureau of Forestry's Quebec Run Wild Area. Quebec Run itself is an exceptional value (EV) stream and flows, for most of its length, through the Wild Area of Forbes State Forest. The headwaters section of the stream is the location for two sites of an animal species of concern, the **Allegheny woodrat** (*Neotoma magister*). The rich woods in this watershed are composed of red oak (*Quercus rubra*), chestnut oak (*Q. prinus*), red maple (*Acer rubrum*), and black cherry (*Prunus serotina*). Understory species include cucumber tree (*Magnolia acuminata*) and sweet birch (*Betula lenta*). Herbaceous species are few and include wood nettle (*Laportea canadensis*), black cohosh (*Cimicifuga racemosa*), northern maidenhair fern (*Adiantum pedatum*) and blue cohosh (*Caulophyllum thalictroides*). Some moist, seepage areas contain waterleaf (*Hydrophyllum* spp.) and clearweed (*Pilea pumila*). In the upper reaches of the watershed, still within the Quebec Run Wild Area lies Barton's Cave, a limestone solutional cave. This cave is often visited by spelunkers.

The Pennsylvania Bureau of Forestry has proposed the lower sections of this site as a "wild area". Since 1972, the area has been managed as a wild area and within this next year it should be officially a "wild area". A wild area is "an extensive area which the general public will be permitted to see, use and enjoy for such activities as hiking, hunting, fishing, and the pursuit of peace and solitude." No development of a permanent nature is permitted so as to retain the undeveloped character of the area. These lands are essentially managed as wilderness areas, keeping in mind that there is no true wilderness left in Pennsylvania as defined in the Federal Wilderness Act. Recent policy changes have suspended any timber management within Bureau, of Forestry Wild Areas and as the new state-wide forest management plan is finalized, these areas may be managed differently than in the past.

### Threats and Stresses

Allegheny woodrats require rock outcrops and shelves in a relatively undisturbed, forested community. An intact forest canopy helps to maintain microclimate and the complex of plants that provide forage for the animals of concern. Possible activities that might affect immediate habitat include those that would result in a change in moisture or light levels and/or direct impact to the habitat. Increased access due to unplanned trail construction would likely degrade the habitat.

### Recommendations

For those sections of the site within private ownership, working with the landowner to make them aware of the presence and requirements of the animals would be a good first step in protecting the species here. In general, avoiding direct impacts to the outcrops that are utilized as habitat and minimizing disturbances to the forest community would help to assure the viability of this species population. More studies to get a better understanding of the species' habits will help in furthering their survival over the long term.

For those sections on public land, working with the Pennsylvania Bureau of Forestry to assure that all information collected about the species of special concern, natural communities and landscape features is incorporated into a forest management plan for this site would help guide recreation or resource management activities for the future. Additional survey and monitoring of natural communities and species of special concern at the site would allow for a more thorough understanding of ecosystem function and the needs for ultimate protection of this site.