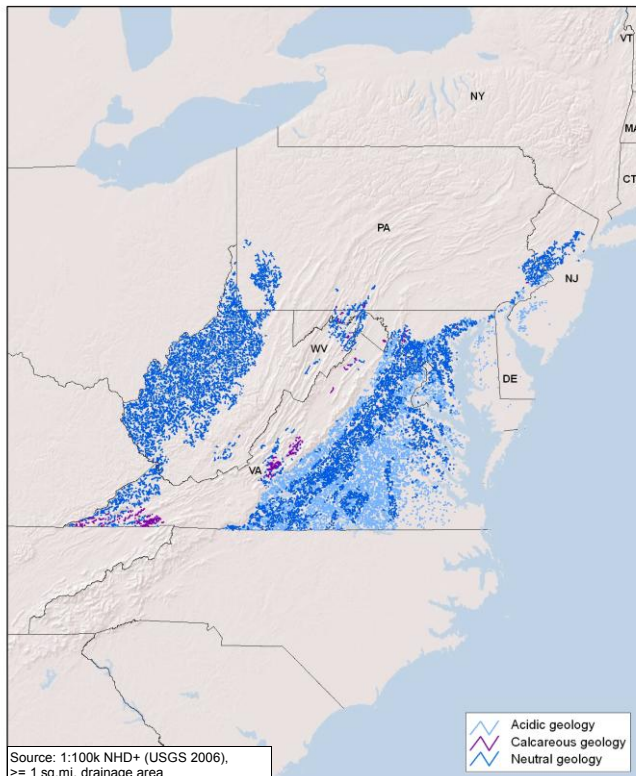


# Moderate Gradient, Warm, Headwaters and Creeks

## Macrogroup: Headwaters and Creeks

This map is based on a model and has had little field-checking. Contact your State Natural Heritage Ecologist or State Fish Game Agency for more information about this habitat.



Eightmile River, © Tom Henthorn

### Description:

Warm, moderately fast-moving, headwaters and creeks of low-elevation hills and gentle slopes. These small streams of the Mid-Atlantic region occur on hills and slopes at low to moderate elevations in watersheds less than 39 sq.mi in size. They have warm, moderately fast moving water with good oxygenation. Instream habitats are dominated by riffle-pool development with low sinuosity, moderately entrenchment, and moderately narrow valleys. They have substrates dominated by cobble, gravel, and sand with occasional small patches of boulder. The predominant source of energy to the stream is terrestrial leaf litter or organic matter (these are allochthonous streams). Warm water temperatures in these streams means the fish community will contain a higher proportion of warmwater species relative to coolwater species. These systems are unlikely to support any resident coldwater species. Additional variation in the stream biological community is associated with acidic, calcareous, and neutral geologic settings where the pH of the water will limit the distribution of certain macroinvertebrates, plants, and other aquatic biota. The habitat can be further subdivided into 1) headwaters that drain watersheds less than 4 sq.mi, and have an average bankfull width of 16 feet or 2) Creeks that include larger streams with watersheds up to 39 sq.mi. and have an average bankfull width of 32 feet.

### Similar Habitat Types:

These moderate gradient streams are transitional types and often exhibit some characteristics of both the higher and lower gradient streams. Warm moderate gradient streams typically flow into moderate or low gradient warm rivers in areas of less topography.

**State Distribution:** DE, DC, MD, NJ, NY, PA, VA, WV

**Total Habitat (mi):** 16,894

**% Conserved:** 4.3 Unit = Acres of 100m Riparian Buffer

State	State Habitat %	Miles of Habitat	Acres GAP 1 - 2	Acres GAP 3	Total Acres Unsecured
VA	56	9413	11	234	7101
WV	28	4717	17	66	3603
MD	9	1591	30	150	1062
PA	5	784	8	20	584
NJ	2	365	16	9	268
DE	0	18	0	3	11
DC	0	4	0	0	3
NY	0	2	0	0	1

### Places to Visit this Habitat:

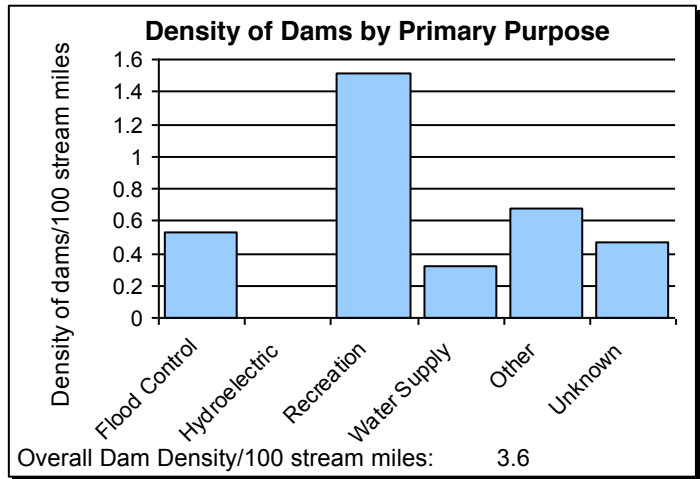
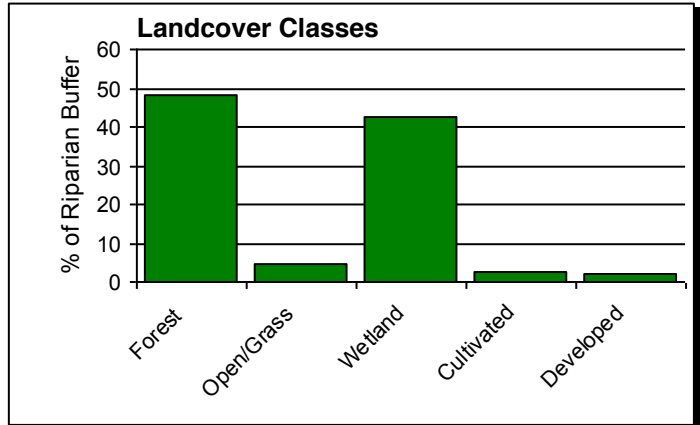
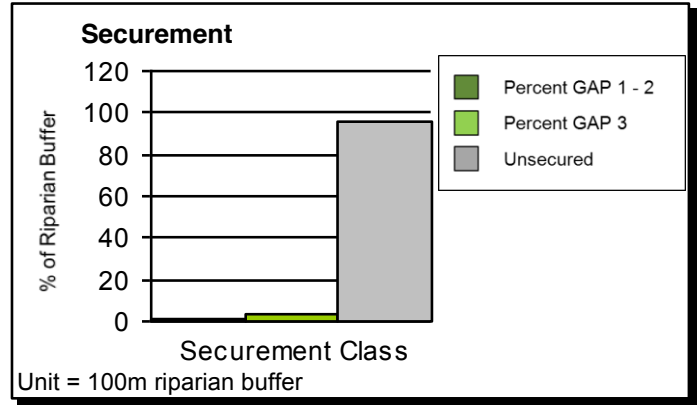
Hammond Branch, Hammond Park | MD Locketong Creek, Westcott Nature Preserve | NJ Patterson Creek, George Washington And Jefferson National Forest | VA Pimmit Run, Potomac Hills City Park | VA Panther Creek, Panther State Forest | WV

**Associated Fish:**

Most Abundant: eastern blacknose dace, creek chub, bluehead chub, mountain redbelly dace, central stoneroller, roside dace, fantail darter, striped shiner, crescent shiner, bluntnose minnow, white sucker. Less Abundant: rainbow darter, tessellated darter, silverjaw minnow, torrent sucker, bluegill, longnose dace, margined madtom, green sunfish, johnny darter, redbreast sunfish, mottled sculpin, northern hog sucker, banded sculpin, rock bass, cutlip minnow, fallfish, american eel, pumpkinseed, greenside darter, common shiner, roanoke hog sucker, rosefin shiner, creek chubsucker, highscale shiner, golden shiner, smallmouth bass, rosyface shiner, fantail darter

**Species of Concern (G1 - G4):**

Fishes: clinch dace, blackside dace, redbreast dace, tennessee dace, rustyside sucker, blackbanded sunfish, speckled killifish, bigmouth chub, new river shiner, appalachia darter, stripeback darter  
Crayfish, Mussels, and Snails: elk river crayfish, spiny scale crayfish, littlewing pearl mussel, tennessee heelsplitter, kidneyshell, appalachian springsnail  
 See Appendix 2 for scientific names



**Crosswalk to State Names:**

Maryland: Piedmont Streams. Pennsylvania: Atlantic Basin Fish Warmwater Community 1, Ohio-Great Lakes Basins Fish Warmwater Stream Community.



Bluehead Chub, © Outdoor Alabama

