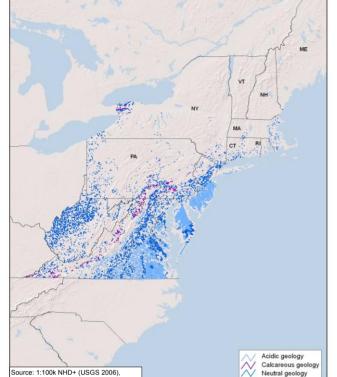
Low Gradient, Warm, Headwaters and Creeks



Small Creek in Maryland, © MD DNR

Macrogroup: Headwaters and Creeks





State Distribution:CT, DE, DC, MD, MA, NH, NJ, NY, PA, RI, VT, VA, WV

Total Habitat (mi): 17,704

% Conserved:		9.0 Unit = Acres of 100m Riparian Buffer			
State	State Habitat %	Miles of Habitat	Acres GAP 1 - 2	Acres GAP 3	Total Acres Unsecured
VA	42	7455	26	162	5449
WV	15	2649	24	56	1898
NJ	13	2360	266	231	1337
MD	10	1727	58	145	1119
PA	9	1637	48	38	1148
DE	6	1087	23	59	761
NY	3	473	4	14	341
MA	1	161	5	29	93
СТ	1	123	5	9	82
RI	0	29	2	6	15
DC	0	1	0	0	1
NH	0	1	0	0	0



Description:

Warm, slow-moving, headwaters and creeks of low-elevation flat, marshy settings. These small streams of the Mid-Atlantic region occur at moderate to low elevations on flats or very gentle slopes in watersheds less than 39 sq.mi in size. The warm slow-moving waters may have high turbidity and be somewhat poorly oxygenated. Instream habitats are dominated by glide-pool and ripple-dune systems with runs interspersed by pools and a few short or no distinct riffles. Bed materials are predominenly sands, silt, and only isolated amounts of gravel. Some examples flow through wetlands and these segments may be dominated by silt, muck, peat, marl deposits, organic matter, and woody or leafy debris. These low-gradiient streams may have high sinuosity, but are usually only slightly entrenched with adjacent floodplain and riparian wetland ecosystems. Warm water temperatures in these streams means the fish community will contain a higher proportion of warmwater species relative to coolwater species, and 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:

Headwaters and creeks also occur at higher elevations and on higher slopes, but these tend to have coarser substrates, faster, and cooler water. Warm low gradient streams typically flow into low gradient warm rivers.

Places to Visit this Habitat:

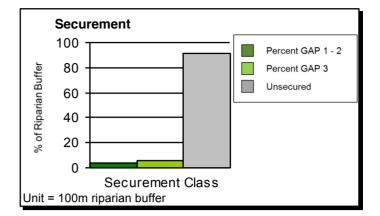
North Branch Metedeconk River headwaters, Turkey Swamp | NJ Manasquan River headwaters, Manasquan River Linear Park | NJ South Branch Rahway River headwaters, Merrill Park | NJ Little Gunpowder Falls, Gunpowder Falls State Park | MD Wolf Den Branch, Cedarville State Forest | MD

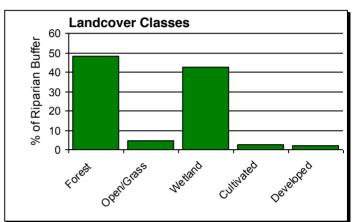
Associated Fish:

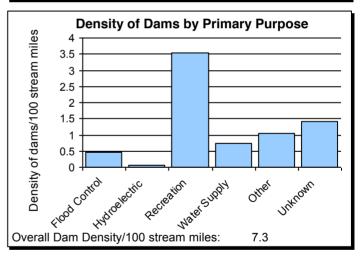
Most Abundant: white sucker, pumpkinseed, redbreast sunfish, goldern shiner, eastern blacknose dace, bluntnose minnow, tessellated darter, mottled sculpin, longnose dace, central stoneroller, fantail darter, bluehead chub, bluegill, black crappie, creek chub, common shiner, striped shiner, american eel, emerald shiner, spottail shiner, rosyside dace, swallowtail shiner, banded killifish, yellow perch, chain pickerel, brown bullhead, yellow bullhead, swamp darter. Less Abundant: creek chubsucker. redfin pickerel. banded sunfish. satinfin shiner, pearl dace, fallfish, eastern mudminnow, rock bass, green sunfish, mummichog, margined madtom, northern hog sucker, banded sculpin, crescent shiner, golden shiner, creek chubsucker, greensidedarter, johnny darter, river chub, smallmouth bass. mountain redbelly dace, spotfin shiner, rainbow darter, silverjaw minnow, pirate perch, longear sunfish, fathead minnow, torrent sucker, largemouth bass, cutlip minnow, rosyface shiner, bluespotted sunfish, sandshiner, saffron shiner, roanoke darter, bigeye chub.

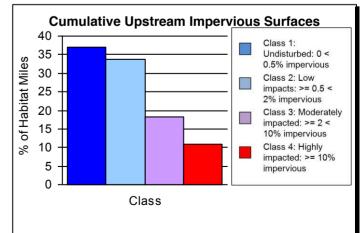
Species of Concern (G1 - G4):

<u>Fishes:</u> carolina darter, kanawha minnow, tennessee dace, potomac sculpin, blackbanded sunfish, glassy darter, tonguetied minnow, speckled killifish, american brook lamprey, whitemouth shiner, ironcolor shiner, new river shiner, appalachia darter, stripeback darter <u>Crayfish, Mussels, and Snails:</u> chowanoke crayfish, dwarf wedgemussel, cumberland bean, yellow lance, tennessee clubshell, tennessee pigtoe, roanoke slabshell, tennessee heelsplitter, slippershell mussel, eastern pondmussel, kidneyshell *See Appendix 2 for scientific names*









Crosswalk to State Names:

<u>New York</u>: Marsh headwater stream, Coastal plain stream. <u>Maryland</u>: Coastal Plain Streams, Blackwater Streams, Limestone Streams, Piedmont Streams: low gradient variant. <u>Pennsylvania</u>: Atlantic Basin Fish Warmwater Community 1, Ohio-Great Lakes Basins Fish Warmwater Stream Community

DNR

Bluntnose minnow, ©

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