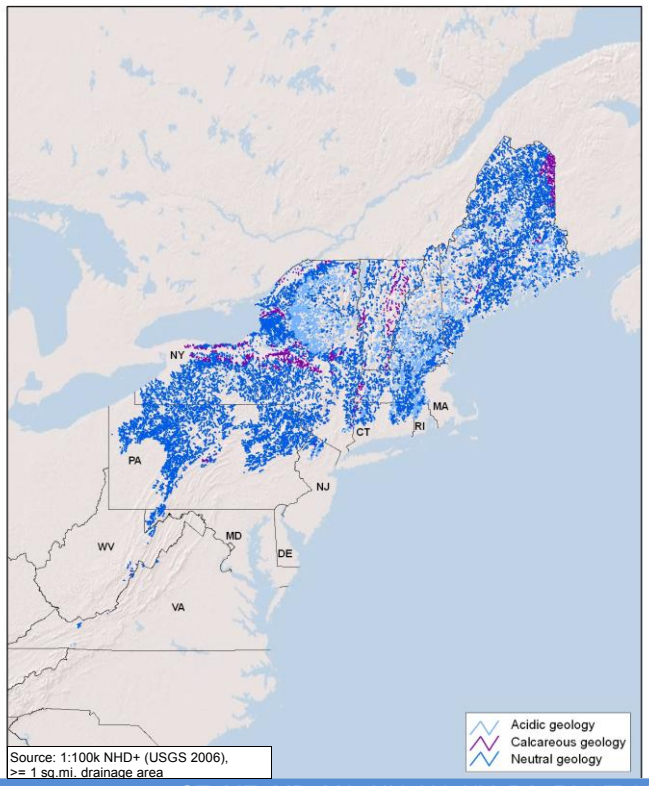
Moderate Gradient, Cold, Headwaters and Creeks

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.



East Aspetuck River, © H. Morrow Long

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

Total Habitat (mi): 32,073

% Conserved: 17.8 Unit = Acres of 100m Riparian Buffer

State	State Habitat %	Miles of Habitat	Acres GAP 1 - 2	Acres GAP 3	Total Acres Unsecured
NY	38	12183	883	777	7672
ME	27	8815	163	992	5739
PA	17	5439	120	719	3313
NH	6	1974	43	244	1236
VT	4	1352	25	79	923
MA	4	1227	22	182	744
CT	2	577	17	53	371
NJ	1	169	37	5	88
MD	0	135	4	14	87
RI	0	101	3	10	67
WV	0	64	2	10	36
VA	0	38	2	4	23

Description:

Cold, moderately fast-moving, headwaters and creeks of hills and gentle slopes. These small streams of northern regions or high elevations, occur on hills and slopes at moderate to high elevations in watersheds less than 39 sq.mi in size. They have cold moderately fast-moving waters 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 occassional small patches of boulders. The predominant source of energy to the stream is terrestrial leaf litter or organic matter (these are allochtonous streams). Permanent cold water temperatures in these streams means coldwater fish species, such as brook trout, likely represent over half of the fish community. 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:

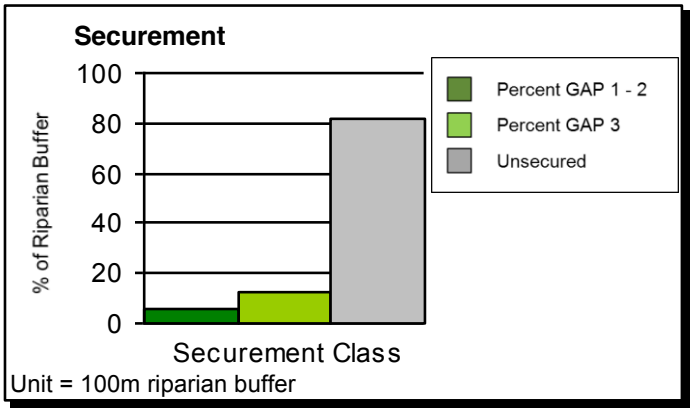
These moderate gradient streams are transitional types and often exhibit some charcateristics of both the higher and lower gradient streams. Cold moderate gradient streams typically flow into moderate or low gradient cold and cool rivers in areas of less topography.

Places to Visit this Habitat:

Sucker Brook, Boughton Park | NY Stony Brook, State Game Land 57 in Tunkhannock | PA Houghton Brook, Mount Blue | ME Boody Brook, Baxter State Park | ME North Branch Nulhegan River, Wenlock WMA | VT

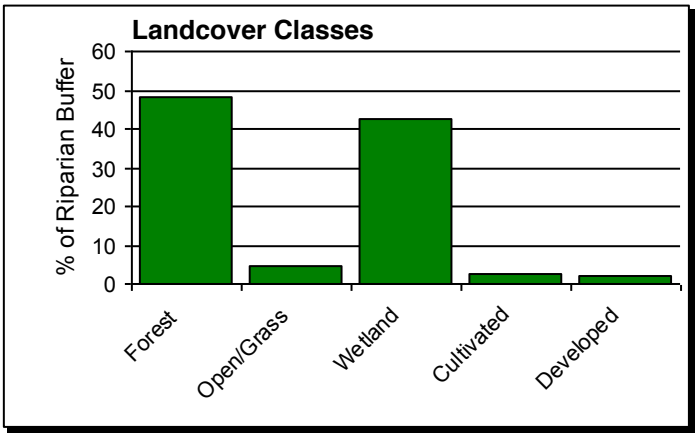
Associated Fish:

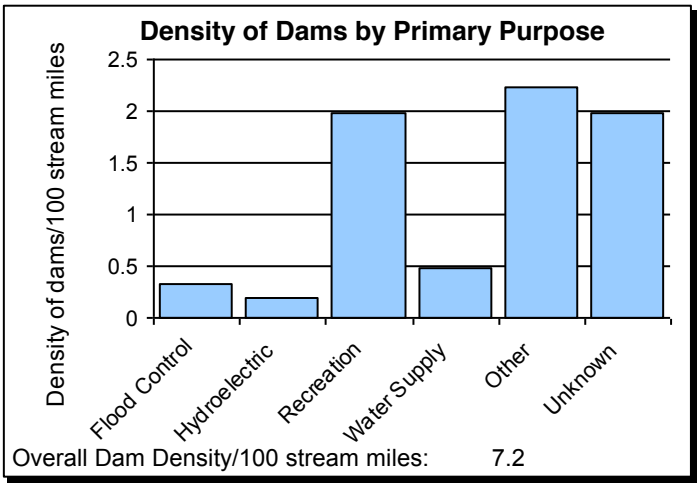
Most Abundant: brook trout, slimy sculpin, longnose dace, eastern blacknose dace, creek chub, white sucker, common shiner. Less Abundant: central stoneroller, mottled sculpin, fathead minnow, fallfish, bluntnose minnow, brook stickleback, tessellated darter, fantail darter, blue ridge sculpin, atlantic salmon, mountain redbelly dace, trout-perch, river chub, spottail shiner, northern hog sucker, finescale dace, rainbow darter, burbot, longnose sucker



Species of Concern (G1 - G4):

Fishes: mountain brook lamprey, bridle shiner, american brook lamprey
Crayfish, Mussels, and Snails: eastern pearlshell, vernal physa
See Appendix 2 for scientific names





Crosswalk to State Names:

Vermont: Brook trout, Brook trout-slimy sculpin, Blacknose dace-Slimy sculpin. New Hampshire: Lower gradient cold-water streams; High gradient, very cold streams. New York: Rocky headwater stream, Marsh headwater stream. Maryland: Cold Water Streams, Highland Streams. Pennsylvania: Atlantic Basin Fish Coldwater Community, Ohio-Great Lakes Basins Fish Coldwater Community.

Slimy Sculpin, © Geoff Kimber