

It is human nature to keep things neat and tidy. We clean our homes, wash our cars, and manicure our lawns. However, our forests should be left with their natural leaf litter and layers of vegetation. A messy forest is a healthy forest and it will greatly benefit brook trout across Maryland beyond the shading benefits.

Brook trout are Maryland's only native salmonid (i.e. trout) and are an important indicator of stream health and water quality. Brook trout thrive in the coldest, cleanest and least disturbed areas of the state. Therefore, any measurable impact on land will have considerable consequences to brook trout populations and their habitat within the adjacent stream corridor.











Leaves and woody material that fall from trees provide the following benefits to streams and brook trout:

- 1. Leaf litter that falls into the stream is shredded by insects which brook trout feed on. Leaves are the bottom of the food chain in small streams. Reducing the amount of leaves that enter the stream will ultimately lower the food supply for trout.
- 2. Overflow from logs or logjams creates new riffle and pool habitat. Deep pools provide year round habitat for larger adult brook trout. Brook trout then spawn in areas between pools and riffles where they make their redds (i.e. nests).
- 3. Woody debris provides overhead cover to protect from birds and other predators.
- 4. Woody debris also helps to trap leaf litter and provide holding areas for aquatic insects for trout and other species to feast on.
- 5. Buffers provide groundwater benefits too because the limbs that fall onto the ground pile up and decompose, creating a spongy soil composition which absorbs rain better than compacted soils. This will help maintain higher/cooler stream flow during summer months.
- 6. Large woody debris also slows water down which minimizes soil erosion during runoff events, and encourages additional groundwater infiltration which also helps maintain more cold ground water during the hot summer months.



Completely forested watersheds provide the best case scenario for brook trout protection.

However, in watersheds with human development, agricultural, and industrial activities, protected riparian buffers can be the next best line of defense for preserving brook trout populations.

These buffers provide adequate shade to the stream corridor and help maintain cool water temperatures. Brook trout require less than 68 degrees Fahrenheit to live. Planting buffers at least 50 feet wide is recommended but up to 150 feet is ideal. Leaves and woody debris that fall from trees within your buffer provide all the food sources, cover, and habitat that brook trout require. Previous work has shown that 70 percent of woody debris originates from trees within 60 feet of the stream. Keeping this portion of your riparian buffer intact is important.

Allowing this material to fall into the stream and remain will ensure that brook trout are getting everything they need, so don't clean it up!

Remember, a healthy forest is a messy forest. Brook trout can't survive in a bathtub.

To maintain a buffer, you DON'T have to do much!

DON'T mow up to the stream bank.

DON'T rake leaves and sticks up that fall to the ground under your riparian buffer.

DON'T pile yard waste up along the creek bank. It will kill native vegetation and cause additional soil erosion.

DON'T broadcast herbicide along the streambank or gutters/ditches that feed it.

DON'T remove large logs or fallen trees from the stream bank or bed.

MINIMIZE foot traffic and heavy equipment within the buffer itself. Constant compaction will reduce plant growth and groundwater infiltration.

For more information about how to protect your buffer and ensure a healthy aquatic ecosystem on your property, contact your local forestry office or Maryland Fishing and Boating Services at 410-260-8200.





