Ohio’s Streamside Forests: The Vital, Beneficial Resource

Two of the major pollutants are nitrogen and phosphorus. These nutrients occur naturally in the environment and are essential for the growth and reproduction of aquatic plants. However, when applied as fertilizer to their lawns and fields, the excess flows to the nearest stream or lake or infiltrates the shallow groundwater zone. This increases the amount of nitrogen and phosphorus in the water, which can lead to excess algal growth and decreased oxygen levels, harming fish and other aquatic organisms.

The riparian forests are not only vital in improving and maintaining water quality by acting as filters for nutrient-enriched water moving over the surface and subsurface flow. The Ohio Scenic Rivers Program recommends a minimum buffer of 120 feet for both sediment removal and stream habitat. Suitable habitat is the single most important factor in the establishment and survival of many streamside organisms. Riparian forests provide a variety of plants and habitats in riparian ecosystems. Aquatic insect larvae, crayfish, and other invertebrates break down the plant material into small particles. The detritus that is not immediately used flows downstream where it is available for use by other organisms.

Aquatic plants also produce oxygen, which is essential for the survival of many aquatic organisms. When nutrient-enriched water moves over the surface and subsurface flow, it increases the amount of nitrogen and phosphorus in the water. This can lead to excess algal growth and decreased oxygen levels, harming fish and other aquatic organisms.

The riparian zone also improves the river’s environment. The character of Ohio’s rivers, streams and groundwater have been altered. Suitable habitat is the single most important factor in the establishment and survival of many streamside organisms. The trees and shrubs filter and trap sediments and absorb nonpoint pollutants from overland run-off and from the shallow groundwater zone. Suitable habitat is also important for the survival of many aquatic organisms.

Reducing Water Quality

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The purity of water in our lakes and streams can be protected from the effects of nonpoint source pollution by the presence of forested buffer strips. The trees and shrubs act as filters by absorbing nutrients and heavy metals from the water. They also reduce the amount of sediment that enters the water, which helps to restore and maintain water quality.

Buffer strips also help to reduce the amount of sunlight that enters the water, which can lead to increased algal growth. The trees and shrubs help to maintain proper water temperature and provide shade, preventing the river’s water from becoming too warm during the summer months. This helps to ensure that the water remains suitable for aquatic life.

Our Rivers: So Much More Than Water