



SPOILS OF WINTER
Bronx River Forest

Photographs by Francisco Molina Reyes II

According to the Bronx River Alliance, "The Bronx River Forest is one of the oldest forests in New York City and a remnant of the magnificent hardwood forest that once blanketed the region." The [Forest Floodplain Trail between Burke Bridge and Kazimiroff Boulevard](#) begins just a few minutes walk from where I currently reside. Despite many promises, the forest continues to go neglected by the State. Fortunately, there are still local groups of young budding eco-warriors led by community environmentalists who come together yearly to plant gems of hope in this region. What will Spring bring forth, as Winter leaves The Bronx?

SPOILS OF WINTER Bronx River Forest

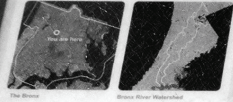


BRONX RIVER OVERPASS, GUN HILL ROAD



BRONX RIVER FOREST, BURKE BRIDGE ACCESS

Bronx River Forest Floodplain Restoration



Local River History

The Bronx River once wound through floodplain forests, wetlands, beaver ponds and beech traves, and ended in an expanse of salt marsh at the East River. Many of these features were lost as the river was straightened and filled to make way for development, and dammed for small industry or other uses. A rail and canal were once located in the Bronx Forest by example, and three dams exist downstream today. The Bronx River Parkway, finished by the 1940s, filled over 10 acres of floodplain through the center of the forest. At its worst, the Bronx River was treated as an open sewer, but the degraded water quality of the river improved with better regulations in the late 1900s. River habitat continued to degrade, however, with high sediment loads from upstream, frequent flash floods after storms, and loss of adjacent woody vegetation. Flooding and development also reduced water infiltration through the soil to the groundwater and channel, thus lowering seasonal water levels in the river and reducing habitat.

Restoration

Restoration work in the Bronx River Forest focuses on reconnecting the river to the floodplain, increasing in-stream habitat structures, controlling invasive plants, and re-establishing native vegetation. Some measures already implemented include:

- Removing fill in the floodplain and on the banks in key locations
- Planting dense stands of native trees and shrubs
- Installing landscape fabric to block invasive plants
- Placing habitat and bank-protection boulders and large wood in the channel
- Constructing boardwalks for increased access through the year.



A division of the New York City Department of Parks & Recreation, the Natural Resources Group (NRGO) is dedicated to the acquisition, preservation, assessment, restoration, and stewardship of natural areas throughout the City. NRGO inventories and monitors the City's flora and fauna, develops management plans, and otherwise works to restore fragile ecological areas within the parks. NRGO partners with other government agencies, as well as conservation organizations and community groups.

Information

To volunteer, report a problem, or request information about parks, call 311. Outside of NYC call 212-NEW-YORK or visit us on the web at www.nyc.gov/parks.

Funding for this project was provided by the New York State Department of Environmental Protection and the Clean Air/One Water Bond Act.



Floodplain Functions

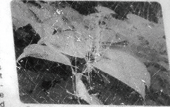
The flat area of land to your left is a restored floodplain. Floodplains are low-lying, naturally flooded lands adjacent to rivers that are created by the river depositing, eroding, and accumulating sediment over time. They support a diverse community of plants and animals, including the river's periodic flooding. Floodplain trees like willow can send out roots to get oxygen when submerged too long or buried by sediment. Grasses, like dogpaw, bend readily, minimizing the damaging force of floodwaters, and other water-dependent organisms. Floodplains also serve the river system by slowing and storing floodwater and trapping sediment. This reduces downstream scour, flooding, and sediment deposition. Rain and floodwater filter through the porous, mineral floodplain soils, slowly infiltrating down to the groundwater and laterally back to the channel. This helps improve water quality and replenishes the river during dry periods.



The frequently flooded field to your left was reclaimed for the forest (A). Fill was excavated from the floodplain to reconnect it to the river (B), and it was planted with floodplain shrubs, trees and grasses which can have an advantage over exotic species in wetter soils (C).

Exotic and Invasive Species

Exotic invasive plants are plants not native to the landscape that tend to spread out of control, often because of their ability to germinate, grow, flower, and produce abundant seeds rapidly. They are adapted to human disturbance and, once established, dominate their surroundings and reduce native plant diversity. The most visible invasive species along the River is Japanese knotweed, a bamboo-like plant that thrives under sediment deposition and drought - conditions common in an urban watershed like that of the Bronx River (D). Japanese knotweed grows up to 12 feet high and sends out expansive rhizomes (sprouting underground stems) that can regenerate from debris buried fragments. In the process, knotweed bulks on steep and tall river banks from trapped sediment and the biomass plant material it produces (E). These altered banks inhibit the growth of more flood-tolerant trees and shrubs close to the water's edge, such as silver maple, that provide shade, cover, and stability at the toe of the riverbank.



To restore riverbanks in the forest, banks are graded to allow planting, landscape fabrics are installed to control erosion and spreading weeds, and native woody species are densely planted (F). Co-log logs are installed at the edge of water to provide woody structure.



Definitely
I had
Diverse
Plants
Bamboo
River Bank
Co-log
Logs

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