

# Floodplain Good Habitat for Turtles and Birds

By Chris Swarth

Two Run Creek and its floodplain are a rich habitat for turtles—particularly the Spotted and Eastern Box Turtle. These species prefer cool, moist soil, and dense tangles of shrubs and vines. Here they find tender herbaceous plants and aquatic and



terrestrial invertebrate prey. Spotted turtles spend days in the creek where they swim slowly along the creek edge foraging among roots and branches. The omnivorous Spotted only feed underwater where they also take tadpoles and small crustaceans and fish. Spotted use the vernal pools in the upper floodplain and if you're lucky, you might see one basking on one of the small hummocks that dot these pools.

When we began our Box Turtle study in 1995, we blithely assumed that Two Run Creek served as an effective barrier to the movement of these “terrestrial” reptiles. We believed the creek was too deep and wide for a turtle to cross. How naïve we were! We now know that turtles easily cross the creek and a few years ago we learned that they can even swim across the mighty Patuxent River. Through our telemetry study we've tracked over a dozen radio-tagged turtles as they crossed and re-crossed Two Run Creek. So why does the turtle cross the creek? To search for food, for

mates and for sunny nesting sites. And we've seen several Box Turtles completely underwater. However, the surrounding floodplain provides the most important resources they need. Box Turtles occur in higher densities in the floodplain than anywhere else in the Sanctuary. For example, among the Spicebush, Viburnum and Red Maples where the footbridge crosses the creek, we've observed at least 50 different, individually-marked turtles.

Box Turtles move out of the floodplain for two important activities: nesting and hibernating. Cool, shady conditions and the risk of summer time flooding make the floodplain unsafe for nesting; females must find high, well-drained soil for excavating their nests.

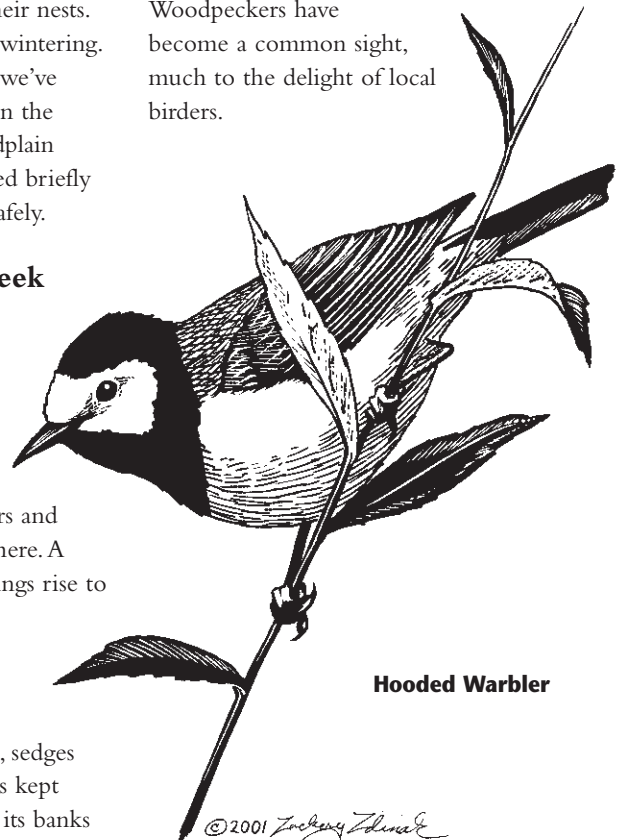
Adults also need dry soil for overwintering. Of the 15 overwintering turtles we've studied, only one overwintered in the floodplain; next to a vernal floodplain pool. Her hibernating site flooded briefly in the spring, but she emerged safely.

## Songbirds Over the Creek

The Two Run Creek floodplain is a favorite haunt for birds that like moist, shady environs. High overhead, the maples and tulip poplars soar to great heights, providing an almost unbroken canopy. Warblers and other insect-eating birds forage here. A lower canopy of shrubs and saplings rise to 10 or 15 feet. Cardinals, wrens, sparrows, and towhees favor this habitat. In places where sunlight strikes the ground, a third plant community composed of grasses, sedges and vines grows where the soil is kept moist when the creek overflows its banks

Based on our 15-year bird banding study—where we capture songbirds in the creek floodplain, forest and along the river's edge—we know that many locally breeding species are most abundant in the floodplain. These include the Louisiana Waterthrush, Common Yellowthroat, Hooded Warbler, Worm-eating Warbler, Northern Parula, White-eyed Vireo and Red-eyed Vireo. The floodplain supports a variety of food, and the stream provides a place for drinking and bathing. Many birds nest in the tall trees and shrubs, while the waterthrush builds its nests in the fern-covered banks that slope down to the creek. A number of northerly-breeding songbirds that pass through in the spring are also captured at a much greater frequency here: Canada Warbler, Northern Waterthrush, American Redstart and Black-throated Blue Warbler. A healthy creek with plenty of flow volume is critically important for supporting the plants, and in turn the food, that these birds require.

Downstream in the beaver pond we also find Wood Ducks, herons, kingfishers, and in the tall dead trees, Red-headed Woodpeckers have become a common sight, much to the delight of local birders.



Hooded Warbler

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