

The March of the Green Treefrogs

by Mike Quinlan

According to the *Guide to Reptiles and Amphibians of Eastern and Central North America* (Conant and Collins, 1981), the Green Treefrog (*Hyla cinerea*) inhabits “swamps, borders of lakes and streams, floating vegetation... almost any place well supplied with water or dampness.” Sound familiar? Clearly, Jug Bay and the surrounding area fit the bill. Despite this fact, historic evidence of this frog’s presence in the immediate area is nonexistent. Although the range map for this species includes Jug Bay, it seems that most past sightings have been confined to the Delmarva



Green Treefrog

Photo by Jamie Zambo

Peninsula, coastal areas of the Western Shore, and the lower Potomac drainage, including southern St. Mary’s and Calvert Counties. All that began to change dramatically about four years ago, when the cowbell-like chorus of the Green Treefrog first appeared at Jug Bay .

Intrigued by this relatively sudden appearance, I have tried to determine the pace of the Green Treefrog’s northward advance, as well as its extent. There is not much documented evidence to go on, so I relied heavily on the observations of experienced park naturalists and others familiar with the frog’s appearance and calls. A survey by the Maryland Herpetological Society in 1975 reported the one historical record I could find: along the Patuxent River, midway up in Calvert County, in the general vicinity of Eagle Harbor. That’s about 15 miles south of the Sanctuary. Greg Kearns, a naturalist at Patuxent River Park, photographed a Green Treefrog along Cocktown Creek, near King’s Landing Park in Calvert County, about 15 years ago. In 2000, I spoke with a naturalist at

King’s Landing Park who said the frogs were, and had been, quite common there and could be readily found on the park’s buildings, some distance inland. This is not unusual behavior for this species, as they are excellent climbers and will travel away from the water to consume insects, which are attracted to buildings’ lights. King’s Landing is about 10 miles south of the Sanctuary.

By about 1994, Kearns began to hear the frogs calling near his home in Nottingham, Prince George’s County, about five miles south of Jug Bay. Arlene Ripley, a

Sanctuary volunteer who lives west of Dunkirk, almost a mile from the river and about four miles south, said that she has seen and heard them regularly for the last three years, and especially the last two. Prior to that, she only encountered them occasionally.

Then came the summer of 2000! Danny Bystrak, another volunteer who lives just south of the Sanctuary, was the first to detect the frogs calling in this area, on June 30. Judy Burke first heard them on July 17 of that year. On July 21, they were detected for the first time on one of our regular frog calling surveys by Karyn Molines and Gary Pendleton. On July 22 and 25, Gregory Bulté, a Summer Research Intern, canoed across the river to the vicinity of Jackson’s Landing at Patuxent River Park and caught the frogs on audio- and videotape, to confirm their presence.

Although heard in full chorus at night, activity the first summer was restricted to the tidal Spatterdock and Cattail marshes on both sides of the river. Frogs were not seen (except during Greg Bulte’s nighttime forays)—just heard. On the east side of the river, activity seemed to be concentrated in the area off the north end of the Marsh Boardwalk.

The most interesting development in the ensuing years has been the remarkable increase in actual sightings of the frogs. Now Green Treefrogs can readily be seen, even during daylight hours, especially on vegetation along the north end of the Marsh Boardwalk, and in the Native Plant Garden and on the lawn, adjacent to the Wetlands Center. By the end of

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the summer of 2003, Green Treefrogs were spotted as far inland as the Wet Forest amphibian trap site, the upper Two Run Creek flood plain, and near Mark's Pond. Additionally, calling activity has been noted in the upper Beaver Pond.

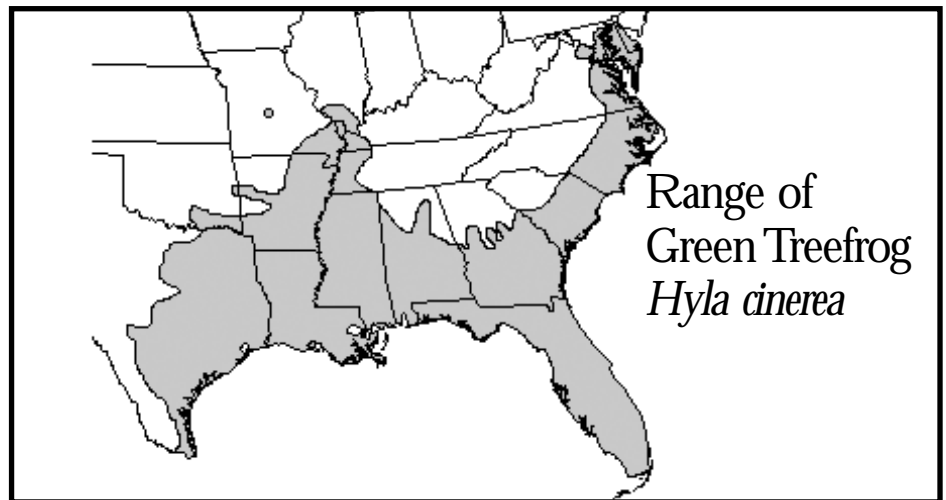
Graduate student T'Shaka Touré, who studied the colonization of reptiles and amphibians in a created wetland, reported having captured or observed Green Treefrogs at Wooton's Landing Wetland Park, approximately five miles north of Jug Bay, in 1996. He did not have any observations or captures, despite a comparable level of effort, in 1995. I conducted several nighttime calling surveys at Wooton's from 2000 through 2002, but never detected Green Treefrogs calling. I did, however, possibly hear one calling from a wetland near the Patuxent River, just north of Bowie, in 2002.

Then, starting in the late 1990s, a significant push northward along the river corridor commenced.

Perhaps what we are seeing is a northern expansion of their range in bounds or pulses. They were apparently well established for some time along the southern Patuxent, at least in Calvert County, with possible sporadic activity north of there. Then, starting in the late 1990s, a significant push northward along the river corridor commenced. For the time being, major activity seems to have halted here at Jug Bay, but we could see another push northward, up the river, and we should be on the lookout for it.

What caused this range extension along the Patuxent River valley? One can only speculate about positive or negative influences that might have caused this expansion. This question does, however, underscore an important point about attempts to preserve habitat and protect wildlife; we can only be effective in saving what we know about.

Unfortunately, in Maryland, we lack an up-to-date, authoritative, centralized database of our herpetofauna. Range extensions, such as the one discussed in this article, and populations of certain species, are not only



often small and localized, but they go unnoticed and unreported. A herp atlas would rely on the efforts of professionals and volunteers to collect current, comprehensive data on the relative

abundance and distribution of the state's reptiles and amphibians. It would seem an ideal project for the Department of Natural Resources or an academic institution to coordinate. Any takers?

Sanctuary Management Plan Being Finalized

By Chris Swarth

We are making final changes and additions to the draft Sanctuary management plan that was presented for public comment in February. The plan describes how we will manage the entire Sanctuary (all 1250 acres) and sets policies for public access and appropriate activities. We posted the plan on our web site and presented it to citizens who attended a public meeting. Many helpful suggestions and comments were received from the Friends of Jug Bay, the Scientific Advisory Committee, the Department of Natural Resources, volunteers, teachers, and others. Most written and oral comments indicated general concurrence with the policies and stewardship goals described in the draft. Specific comments focused on the growing white-tailed deer population, the precarious nature of the recovering wild rice stands, and greater attention to controlling invasive species (especially Phragmites and resident Canada Geese). Managed hunting to control deer is a tool we may use in the future, although some respondents are opposed to allowing hunting in a nature preserve. More cooperative activities with our neighbors at Patuxent River Park were suggested. Some want all current Sanctuary policies applied to the entire 1,200 acres, whereas others want to modify our mission to permit dogs (on leash), horseback riding, and bikes. Commercial activities in the Sanctuary will not be allowed. Our limited access policy will continue at the main Sanctuary; visitors may drop in at the Preserve on Saturdays for hiking. We thank everyone who examined the draft plan and made his or her opinions known to us. The management plan will be finalized this summer.

Another purpose of creating a new management plan was to allow public comment about designating National Estuarine Reserve status over the entire Sanctuary. Only 25% of the Sanctuary is now within the Reserve. There was universal public support for expanding the Reserve over 100% of the Sanctuary. We are now finalizing the Memorandum of Understanding between NOAA, the State of Maryland and Anne Arundel County to make this designation official.