

[From Fall 1999]

## **Another Day at the Pond**

The end of summer always brings a bit of sadness to my ears. The nights are no longer filled with the highpitched "quanck" of the green tree frog or the deep "jug-o-rum" of the bullfrog. Each and every frog has evolved its own distinct call to express distress, alarm, or arousal. In most situations only the male is responsible for the late night chorus heard in your backyard or in the refuge moist soil management units. This usually begins in early spring and runs well into the summer months depending on the weather conditions of the area, and by September each year things begin winding down.

For over a year now, I have been fortunate enough to study the reptiles and amphibians of Chincoteague National Wildlife Refuge. To many my findings have been quite interesting.

### **Amphibian Species Encountered at CNWR in 1999**

<b>Common Name</b>	<b>Scientific Name</b>
Fowler's Toad	<i>Bufo woodhousii fowleri</i>
Green Tree Frog	<i>Hyla cinerea</i>
Bullfrog	<i>Rana catesbeiana</i>
Green Frog	<i>Rana clamitans melanota</i>
Southern Leopard Frog	<i>Rana schenocephala</i>

In order for amphibians to survive at the refuge, they have to be quite hardy. Conditions on a barrier island are not always conducive to the environmental requirements of these creatures. High winds, cool temperatures, sandy soil, and high salinity are all problems encountered on a daily basis.

You may have noticed that some of the more commonly heard species in your backyard such as the famous spring peeper or the American toad do not appear on the list. This may very well be due to the non-favorable conditions found on the refuge. There are certain physiological and ecological traits such as permeable skin and complex life cycles that make amphibians potentially excellent indicators of environmental health. Amphibians are very sensitive to changes in water quality and quantity, habitat alteration or destruction, and pollution.

Perhaps, however, their ultimate fate lies in our hands. All over the world amphibian numbers are dwindling. Particularly alarming is the disappearance of many species in some highly pristine areas such as Puerto Rico, Yosemite National Park, and the Colorado

Rockies. Theories of decline include habitat degradation, habitat loss, pollution, disease, UV radiation, acid rain, and introduction of exotic species.

Chincoteague National Wildlife Refuge provides a safe haven for several species of amphibians, due to the separation of the refuge from the mainland. Limited use of mosquito and invasive plant control methods, such as aerial spraying and burning, prevents the likelihood that declines in these populations would appear. The objectives of my research include determining the species present, determining the species richness and relative abundance, comparing the cost and effectiveness of several sampling techniques, and developing long term monitoring protocols for the species at the refuge. By providing this type of information to the refuge, management in all areas can reflect the needs of these animals.

There are several ways you can become an advocate for keeping those summer nights alive with choruses next spring. A few ways you can become involved include: leaving a few downed logs in your pond, leaving animals in their habitat, not over doing it when fertilizing your lawn, tolerating a few nights of biting insects without insisting on someone spraying, or becoming a volunteer with amphibian monitoring programs in your area.

If you are interested in becoming a volunteer to help conduct amphibian/reptile surveys at the refuge next spring please contact Holly at the refuge at (757) 336-6122.

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