

# Frog and Toad Survey 2001

By Heather Arrowood and Bob Hay

## **Abstract**

The number of frog survey routes decreased to 89 in 2001 from 97 in 2000. The number of sites with chorus frog, wood frog, spring peeper, mink frog, green frog, and bullfrog present were at or above their long-term averages. Of the 12 anuran species, 7 showed an increase in percent occurrence in 2001 from 2000 levels. These were the Wood frog, Spring peeper, Chorus frog, Cope's gray Treefrog, Pickerel frog, Mink frog, and Green frog.

## **Introduction**

The Wisconsin Department of Natural Resources (WDNR) has coordinated a volunteer frog and toad survey since 1984. The survey arose from concerns about declines in populations of some frog species and was endorsed and expanded by the WDNR Surveys committee in 1990. Wisconsin has 12 anuran species. One species (Blanchard's cricket frog) is endangered and 2 species (Bullfrog and Pickerel frog) are included on the Natural Heritage working list as "special concern". In general, anurans are considered to be good indicator species for the habitats where they are found.

## **Methods**

Survey routes are distributed statewide, with a goal of 2 survey routes in each county of Wisconsin. Survey routes consist of 10 sites which are monitored 3 times yearly, 8-30 April, 20 May - 5 June, and 1-15 July. Surveys are started at dusk on evenings with wind velocities of less than 8 miles per hour. Water temperature is recorded at each stop where possible. The occurrence of each frog species is determined at each site by presence or absence of their song. The abundance of each species is ranked by the relative number of calling individuals. Stops with species calling in which individuals can be counted and there is no overlap in calls has an abundance rank of 1. When calls of individuals can be distinguished but there is some overlapping of calls the abundance rank is 2. When calls are constant, continuous and overlapping (full chorus) the abundance rank is 3. Percent occurrence is determined for each species specific to geographic range and peak calling periods. Survey data are analyzed using the Statistical Analysis System (SAS). The calling index for each species was summed to provide an index to the route population each year. These route populations are regressed on time to create a species population trend.

## **Results**

The number of survey routes run decreased, from 97 in 2000 to 89 in 2001. Observers decreased from last year's level of 95 to 89 in 2001 (Fig. 1). The number of routes run in each county is still well below our goal of 2 per county (Fig. 2). Additional routes will be added for the first time in several year beginning in 2002, after a period of testing the Wisconsin survey protocols against the North American Amphibian Monitoring Program's (NAAMP) protocols.

