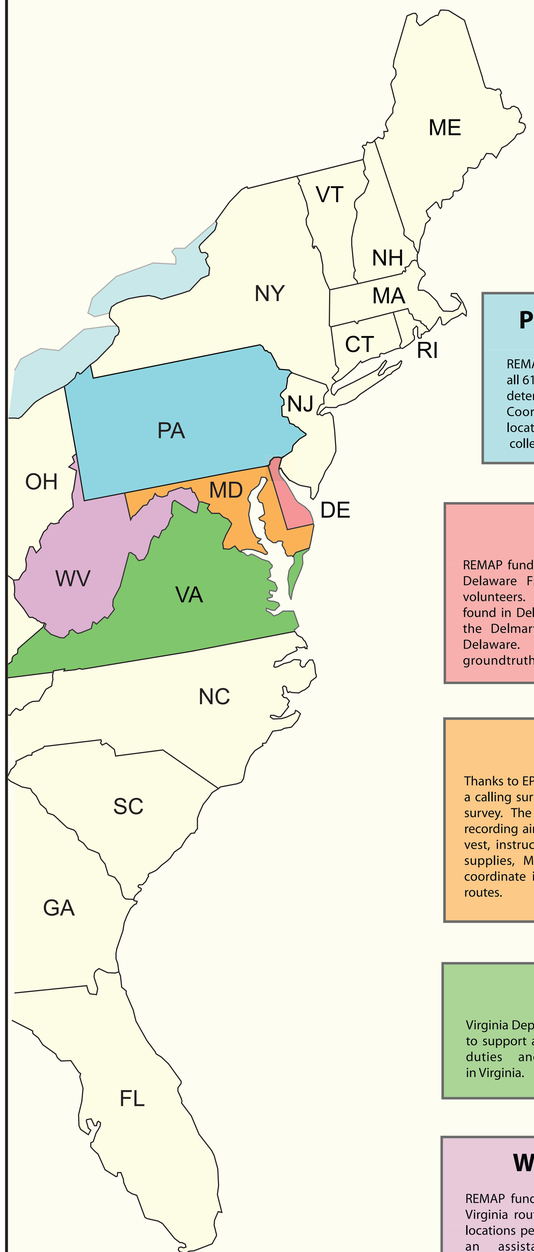
Amphibian Monitoring in the Mid-Atlantic

EPA Region III



Pennsylvania:

REMAP funding provided resources to have all 61 Pennsylvania routes groundtruthed to determine the 10 stop locations per route. Coordinate information for all stop locations of the Pennsylvania route were collected using a GPS unit.

Delaware:

REMAP funding was used to create a training CD, "Calls of Delaware Frogs: a reference and training guide" for volunteers. The CD covers the 16 frog and toad species found in Delaware, as well as one species that is found on the Delmarva Peninsula but is yet undocumented in Delaware. Funding also supported a technician to groundtruth routes and establish stop locations.

Maryland:

Thanks to EPA funding the volunteers of Maryland received a calling survey kit to provide all materials needed for the survey. The survey kit included a digital thermometer for recording air temperature, a timer, flashlight, orange safety vest, instructions and datasheets. In addition to these supplies, Maryland purchased a GPS unit to gather coordinate information for the stop locations of all the routes.

Virginia:

Virginia Department of Game and Inland Fisheries was able to support a seasonal assistant to help with coordination duties and expansion of the volunteer base in Virginia.

West Virginia:

REMAP funding provided resources to have all the West Virginia routes groundtruthed to determine the 10 stop locations per route. Resources were also used to support an assistant for coordination of volunteers.

Concerns about amphibian populations have been increasing in recent years. Unlike for fish and other aquatic organisms, there is little region-wide, large scale monitoring of these organisms. The North American Amphibian Monitoring Program (NAAMP) was created to try to fill this void and is currently active in 25 states. The program is supported by the efforts of voluntary "citizen scientists" and focuses on the use of amphibian vocalizations, i.e. breeding calls, to monitor amphibian populations. It utilizes stratified, random, roadside surveys, conducted three to four times per year, depending upon the species assemblage of a region. The NAAMP coordinator is located at the Patuxent Wildlife Research Center and provides centralized coordination and administrative support.

In FY 98-99 NAAMP received funding from EPA's Regional Environmental Monitoring and Assessment Program (REMAP) and in collaboration with EPA Region 3, supported the development of NAAMP in the Mid-Atlantic states. The boxes on the left highlight how the REMAP funding was used. The resources also allowed the development of an Internet-accessible database for the storage of the NAAMP calling survey data and direct entry of the data collected by the volunteers. The public access portion of the database allows data to be displayed (Figure 2) and will be expanded to allow downloading of data.

It takes 5-10 years of data before assessments can be initiated that may detect trends in the amphibian populations. Hopefully, these assessments can be used in a variety of efforts to help protect amphibian populations: wetlands assessment, certification programs to protect vernal pools, public outreach and education programs on the importance of protecting amphibian habitats.

Linda Weir
USGS NAAMP Coordinator
USGS Patuxent Wildlife Research Center
Laurel, Maryland 20708-4038

Dave Bradford
EPA/NERL
Environmental Science Division
Las Vegas, Nevada 89119

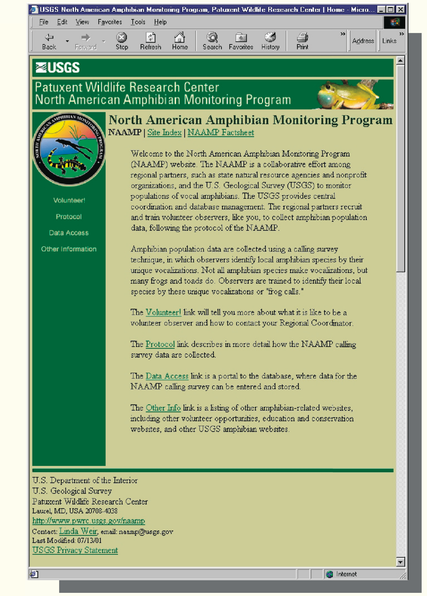
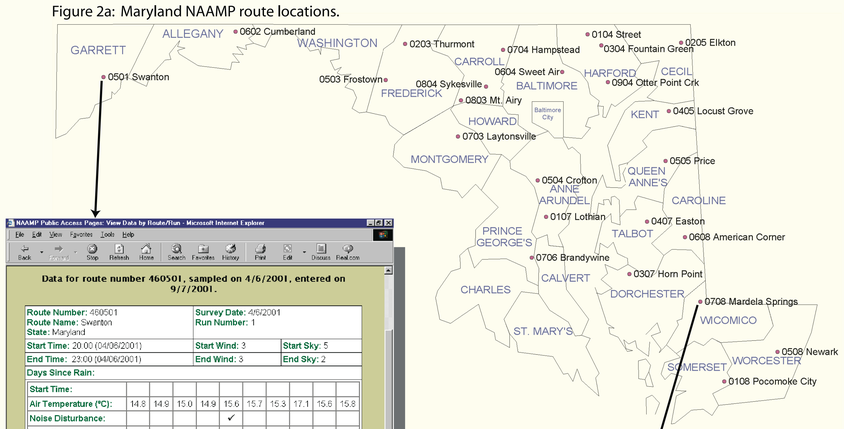


Figure 1: Main page of the NAAMP website

Figure 2a: Maryland NAAMP route locations.



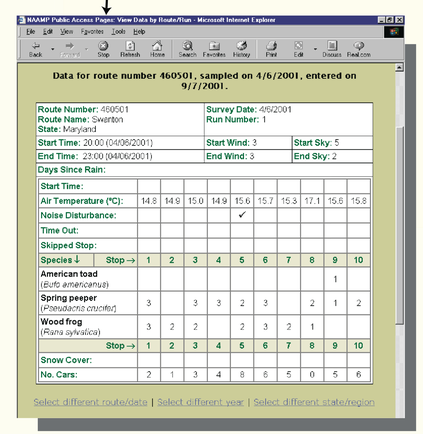


Figure 2b: Example of early calling season data from western Maryland.

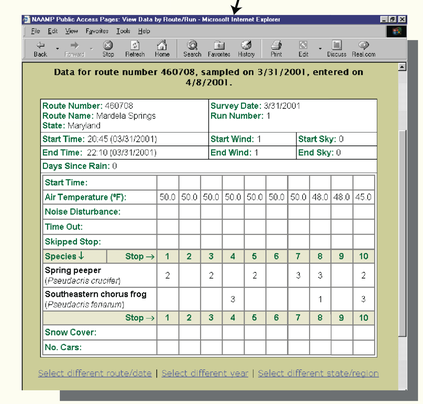


Figure 2c: Example of early calling season data from the Eastern Shore of Maryland.

Visit the NAAMP website at:

www.pwrc.usgs.gov/naamp

For more information contact:

Ronald Landy
EPA Region III
Fort Meade, Maryland 20755
Ph: 410.305.2757