

Virginia Frog and Toad Survey Protocols

Route creation

This is an international study. Routes are generated in a stratified random block design by statisticians at the USGS Patuxent Wildlife Research Center for all of North America or a modified random design by VDGIF and entered into the national database. Your route is part of a really big picture.

You have reviewed and mapped 10 sites along your route. These sites are geographically sequential and always more than ½ mile apart. You chose them during the day and groundtruthed good potential frog habitat. You are not disappointed if a site did not have frogs when you conducted the survey...you recognized that a froggy-looking site that had no frogs is very important information! Your map is so clear and your site descriptions so accurate your mother could find you. Your routes and each site will be CAST IN STONE and will never be changed (unless an irresolvable safety issue arises). You know that habitat destruction is important information and the site is not dropped for this reason.

Seasonal sampling periods

Routes are to be sampled a minimum of three times. The specific sampling windows were chosen to insure that all species might be heard. If you have Wood Frogs in your **vicinity**, you have the option to conduct an additional run.. This species typically breeds during a brief relatively unpredictable period in early spring when vernal ponds first melt and fill.

Nightly sampling conditions

A survey may begin 30 minutes after sunset or later. No matter what time a route is started, it should be completed by 1:00 A.M. Appropriate sampling conditions must be met. **Wind:** should be at level 3 or less. **Sky:** do not conduct survey during heavy rainfall; light rainfall is acceptable if it does not impair hearing. **Air Temperature:** minimum allowable temperatures vary for each sampling period. Review the sampling windows provided with this package for your specific route information. **Rainfall:** you must have rain during or within 3 days of survey.

Data collection

Sites are sampled in numerical order in one night by one observer. We hope that one observer can conduct all surveys of a route in a given year. If you have an assistant, let them fill in their own data sheet separately and independently...discuss variations after the 5-minute period. The purpose of this “**one observer per datasheet**” rule **insures that all surveys across the country are conducted with equal effort.**

Observers record the time, wind code, and sky code at the beginning and end of each survey to verify that the sampling conditions were met on the evening of the survey. Record number of days since last rainfall. Air temperature is recorded at each stop to verify that sampling conditions are maintained. At least eight of the 10 stops must meet temperature guidelines. All environmental conditions must be met or an Alert Flag will be posted when the data are entered.

At each stop the observer listens for 5 minutes and records the amphibian calling index for each species heard. The observer indicates whether background noise impaired his/her ability to hear using the yes/no checkbox. If there is a major noise or other **disturbance lasting one minute or longer**, the observer may break the listening period. After the disturbance ends, the observer would resume the 5-minute listening period finishing up with the remaining time. The time out should not be used for background noise.

Retirement of Site

Once the route has been groundtruthed and listening stations established, these locations are permanent. Locations may not be changed unless a safety issue arises. If habitat destruction occurs at a listening station, the location should be surveyed for three seasons beyond the destruction date. After three seasons of non-activity, the listening station may be retired, and null data will be assumed for this site. Do not retire a site because you have no frogs.