SURVEYS FOR STREAM AMPHIBIANS

1. Make sure that you have a Scientific Taking Permit, that you know the property boundaries, and that the project boundaries have been clearly marked. If the site is too large to completely survey all streams, or the stream is too long to completely survey, start with the most likely sections, which include silt-free gravel and cobble areas.

2. Wait for low stream-flow periods (late summer and early fall for large streams) to reduce the amount of water to survey, and to concentrate amphibians in a smaller area. Any weather is okay, but lots of sunlight and no rain or wind is best for visibility.

3. Make sure your boots, nets, and other gear were disinfected and cleaned of weed seeds after previous visits to other sites. Avoid getting suntan lotion or insect repellant on your hands.

4. Start at the lower end of each stream section to be surveyed, to avoid silt obscuring visibility. Check and record air and water temperatures and any other water quality parameters at the beginning of the survey. Record the number of surveyors and the start and end times of the survey.

5. Survey the streambanks, especially cobble or gravel areas, by looking under all or most cover objects (bark, wood, small logs and rocks) and then returning them. Gently rake fingers through wet gravel.

6. Survey each small section of the stream, especially areas with cobble or gravel substrate, by first looking for amphibians without moving any rocks. Holding a piece of clear plexiglass on the surface greatly improves visibility in flowing water (make a box or replace the bottom of a 5-gallon bucket). Wearing polarized sunglasses cuts the glare. A headlamp can help see into dark places. Look for tadpoles on non-mossy rocks in any part of the stream. Salamanders are often in pools and can be captured by slow stalking with a dipnet or aquarium net (it may require a second person and net to corral them). Although you may have to move a number of rocks to capture a spooked salamander, afterwards return all rocks as closely as possible to their exact positions.

7. Then work your way up the stream by holding a net downstream of each rock as you lift the downstream side of it, letting the current sweep animals into the net. Also check the underside of rocks for tadpoles. Return each rock to its original position.

8. Record all amphibians found. If you are not sure of identification, take close-up photos and/or sketch details. During identification and measurement, keep amphibians cool and in water, preferably in a clean plastic bag or tub. Release all amphibians at the exact capture sites.

9. Clean and disinfect all field gear.

Charlotte C. Corkran
Northwest Ecological Research Institute
130 NW 114th, Portland, OR 97229