

Stream Fire Study: Year 1 Report

In 2001, we initiated a pilot study to develop and refine appropriate methodology, locate study areas, and collect data on amphibian densities in burned (1 yr post-fire) and reference streams.

We sampled 13 streams in July and August 2001 on the Payette National Forest, Idaho (Table 1). Seven of these streams were located in the Frank Church-River of No Return Wilderness in ponderosa pine/Douglas fir forests that burned, at varying intensities, in the Diamond Peak Wilderness Fire Complex of 2000. We sampled 6 unburned reference streams in the South Fork Salmon Sub-basin in unmanaged ponderosa pine/Douglas fir forests. Reference streams flowed through forests that had not burned in more than 70 years, a period longer than the historic fire return interval for the area.

In each stream, we searched for amphibians in approximately 30 one m (x variable stream width) randomly chosen transects over a 1km length of stream. This technique worked well for the tailed frog (*Ascaphus montanus*); we captured 561 tadpoles and 22 adults or juveniles in 432 transects. In the 6 streams within their range, only 32 Idaho giant salamander larvae (*Dicamptodon aterrimus*) were captured suggesting that either our method was not suitable for this species or densities were very low. We suspect giant salamander densities are naturally low in our study streams, because our sampling methodology has worked well in Oregon where salamanders occur at higher densities and are less patchily distributed. Habitat conditions recorded at each transect will be used to examine amphibian habitat associations.