

OREGON SPOTTED FROG EGG MASS COUNTS AT CONBOY LAKE NATIONAL WILDLIFE REFUGE – 1997

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Introduction:

The Oregon Spotted Frog (*Rana pretiosa*) has suffered a rapid decline in Washington. Therefore the existence of an intact population at Conboy Lake National Wildlife Refuge was an opportunity to study the location of breeding sites and associated habitats, and conduct a baseline census of egg mass counts. Breeding sites for *R. pretiosa* on the Conboy Lake National Wildlife Refuge were previously unknown. In March of 1997, Joe Engler, Wildlife Biologist with the U. S. Fish and Wildlife Service at Conboy Lake located egg masses on refuge property. Subsequently, between March 21 and April 4, 1997, Char Corkran, Russ Gibbs, and I assisted in surveying potential breeding sites for egg masses. We walked designated areas, as suggested by Harold Cole, Refuge Manager, and Joe Engler. Egg masses were counted and staged and areas were flagged. Habitat types were also noted.

Area Description:

Conboy Lake National Wildlife Refuge is situated south of Glenwood, Washington, and east of Trout Lake, Washington, on the east side of Mt. Adams and the Cascade crest. Large open fields used for haying hold water in the winter and spring, providing a wet meadow habitat. A system of irrigation ditches allows for control of water inundation.

Project Results:

A total of 664 Oregon Spotted Frog egg masses were located on Refuge property, as reported to me by Joe Engler (pers. comm., 5/7/97). The majority of breeding sites located by Char, Russ, and me appeared to be in shallow flood water (less than 0.5 m deep), covering a short stubble of grass and *Juncus* sp. The egg masses were found either floating by themselves, or slightly attached to a substrate (often sedges). When staged, egg masses were close to hatching at the end of March, and on April 4th some were found hatching or hatched out already. In these cases, tadpoles were found clinging to adjacent vegetation.

For the most part, egg masses were found widely distributed on Refuge property, where the appropriate habitat was present. There was, however, one region directly off the main BZ-Glenwood Highway, where 115 egg masses were concentrated. These masses, located by Char and Russ, were described as large and with few mortalities. Surveys terminated on April 4th due to the apparent hatching out of the egg masses.

Future Study Ideas:

This project will not be continued at the Conboy Lake National Wildlife Refuge due to lack of financial support. However, there are some questions that may be raised in the future.

- Do females with the highest fertility concentrate their efforts in the best breeding sites?
- If so, what determines their success at dominating these breeding sites?
- Are the concentrated breeding sites a result of healthy male competition during the short breeding season?

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