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Ken Sanchez
Assistant Field Supervisor
US Fish and Wildlife Service
2800 Cottage Way, Room W-2605,
Sacramento, CA, 95825,

Dear Mr. Sanchez:

I have read the proposed listing “Endangered Status for the Sierra Nevada Yellow-Legged Frog and the Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and Threatened Status for the Yosemite Toad” and will provide detailed comments in an attached document. First, I wanted to make a few general comments about the proposed listing and critical habitat designation.

Taxonomy:

There are numerous problems throughout the text regarding *Rana sierrae* and *Rana muscosa* that I believe add a lot of confusion that can be easily cleared up. The taxonomy is not complicated; there are two distinct species, *Rana sierrae* and *Rana muscosa*. The common name for *Rana sierrae* is the Sierra Nevada yellow-legged frog and the common name for *Rana muscosa* is the southern mountain yellow-legged frog (common names do not need to be capitalized unless they are part of a title). The text refers to *Rana muscosa* many times as the “mountain yellow-legged frog.” This is not correct and will confuse everyone. In fact, the title of the listing incorrectly refers to the “Northern Distinct Population Segment of the Mountain Yellow-legged Frog.” Unfortunately, this common name is no longer useful. The correct way to refer to *Rana muscosa* in the Sierra Nevada would be “Northern Distinct Population Segment of the Southern Mountain Yellow-legged Frog.”

The taxonomy (both *Linnean* nomenclature and common names) are clearly described in the Vredenburg et al. (2007) publication that formally described the mountain yellow-legged frog complex as two independent, morphologically, genetically, and acoustically identifiable species. The term “mountain yellow-legged frog complex” refers to both species: *Rana muscosa* and *Rana sierrae*.

The document refers to these two species in various ways and it would be helpful if at the very beginning of the document it was made clear that the “Mountain Yellow-legged Frog” is actually no longer a valid common name. To avoid confusion, these two species need to be referred to separately either using their *Linnean* nomenclature (i.e., *Rana sierrae*, *Rana muscosa*) or their accepted common names. When the text is referring to both species together should they be called the “mountain yellow-legged frog species complex” or simple *Rana sierrae* and *Rana muscosa*.

Threats to *Rana muscosa* and *Rana sierrae*:

The threat of the pathogenic fungus, *Batrachochytrium dendrobatidis* (Bd), which causes the lethal disease chytridiomycosis in amphibians, in my opinion is under-represented in the text. Both *Rana sierrae* and *Rana muscosa* are clearly vulnerable to this pathogen as has been shown in Vredenburg et al. (2010). The text of the proposed rule refers to this pathogen as one that has limited geographic effects on these species. I believe this is not correct. It is true that the Vredenburg et al. (2010) study was performed three metapopulations of these frog species in Sequoia Kings Canyon National Parks and this does not represent the entire range of either species, but that does not mean that the effects are limited to those areas. There are two reasons why I believe this threat needs to be expanded in the document: 1) Bd is known to affect populations even in enzootic states by reducing the survival of sensitive life stages (e.g. amphibians going through metamorphosis are known to be more susceptible to diseases than at later life stages), and 2) analysis of Bd emergence in museum collections of *Rana muscosa* and *Rana sierrae* show that this pathogen emerged in throughout these populations throughout the range relatively recently and are coincident with general declines of the species throughout their ranges (Vredenburg et al., unpublished). I will send two figures (currently unpublished) that show data to support this point.

In a subsequent email I will send additional documentation to address these and other points. Thank you very much.

Sincerely,



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