

Public Comments Processing Attn: FWS-R8-ES-2012-0100 & FWS-R8-ES-2012-0074
Division of Policy and Directives Management US Fish and Wildlife Service
4401 N Fairfax Drive, MS 2042-PDM
Arlington, VA 22203
Re: Comment on proposed listing of Frog & Toad Docket No. FWS-R8-ES-2012-0100 & 0074

To whom it may concern,

July 27, 2013

Please accept this letter on behalf of AMRA members and our supporters of the mining and public land access community. These comments are intended to express our collective view and opinion on the proposed designation of critical habitat for the Sierra Nevada Yellow-Legged Frog (*Rana Sierrae*), Northern Distinct Population Segment of the Mountain Yellow-Legged Frog (*Rana Muscosa*) and the Yosemite Toad (*Anaxyrus Canorus*), as published in the Federal Register / Vol. 78, No. 80 / Thursday, April 25, 2013.

We appreciate the opportunity to exercise our right to comment on behalf of our public, when originally, public input was denied. Public lands are just that, public. They are not owned by the Government, nor any agency created to represent the public. Agencies such as DFG are made up of public servants, people who are supposed to work for, and represent the public interests and not impose over burdensome regulations and deny that public from accessing their lands based on little or no factual scientific studies or facts. As required by law, the public has a fundamental right to be informed of what its governing agencies are planning, regulating, changing and instituting on their lands and to provide feedback, comments and their opinion on what their regulatory agencies are doing on the behalf of the public.

The listing and proposal for the frog and toad clearly appear to be based not upon science, but conjecture and a desire to deny the public access to their lands without any factual evidence to support doing so. We strongly object to any listing and designation of public lands without the evidence to support such an oppressive move to deny the public access to their lands.

To list these amphibians and to deny the public access to nearly 2 million acres of their land, science must prove the public at large is responsible for the depletion of the habitat or animals listed. Neither of these have been proven with facts. Based upon the scientific facts we have obtained, there are numerous reasons for the decline of both of these amphibians.

Firstly, chemicals/pesticides are significantly responsible for the depletion of the amphibians. Widely used pesticides can kill frogs within an hour, suggesting the chemicals are playing a significant and previously unknown role in the catastrophic global decline of amphibians. As quoted from a study performed by the University of Pittsburgh researcher Rick Relyea "The most striking result from the experiments was that a chemical designed to kill plants killed 98 percent of all tadpoles within three weeks and 79 percent of all frogs within one day".

The scientists behind the study said it was both "astonishing" and "alarming" that common

pesticides could be so toxic at the doses approved by regulatory authorities. The most striking results were for a fungicide called pyraclostrobin, sold as the product Headline by the manufacturer BASF and used on 90 different crops across the world. It killed all the common European frogs used as test animals within an hour when applied at the rate recommended on the label. Other fungicides, herbicides and insecticides also showed acute toxicity, even when applied at just 10% of the label rate, with the insecticide dimethoate, for example, killing 40% of animals within a week. Monsanto products such as "RoundUp" are included in these studies and opinions of the scientific community.

Secondly, chytrid fungus infections are responsible for a significant reduction in the amphibian populations not just in the California area, but worldwide according to numerous scientific studies by accredited colleges, universities and laboratories. Apocalyptic, catastrophic, devastating: All words used to describe chytrid fungus infections that are wiping out amphibians around the world, including hundreds of frog and salamander species. "It did a really huge number on an entire genus of frogs in Central America," said Marm Kilpatrick, a disease ecologist at the University of California, Santa Cruz (UCSC). The fungus probably caused several species of the harlequin frog (*Atelopus*) to go extinct, he added. (Related: "Endangered Frogs Get Helping Hand.") To also quote UCSC "Chytrid is also largely responsible for endangering California's mountain yellow-legged frog (*Rana muscosa*)". To quote the study by PLOS ONE published April 25 2012, "Fungi have not traditionally been regarded as highly virulent pathogens in terrestrial vertebrates. Yet the fungal pathogen *Batrachochytrium dendrobatidis* (*Bd*), which causes a skin disease known as chytridiomycosis, is implicated in global amphibian declines and extinctions".

This one paragraph from their study is telling in what is truly transpiring with the Yellow Legged Frog and the Yosemite Toad, "In this system, *Bd* (*Batrachochytrium dendrobatidis*) was initially detected in a small number of individuals and then spread within and between populations in a wave-like pattern across the landscape, causing mass die-offs in mountain yellow-legged frogs (a species complex consisting of *Rana muscosa* and *Rana sierrae*,). *Bd* was detected in populations using a non-invasive, quantitative diagnostic technique that allows an estimate of the infection intensity in individual hosts. In individual frogs, disease development and mortality were linked with intensity of infection; the *Bd*-load (number of infectious zoospores) increased until the infection intensity exceeded a threshold value (~10,000 zoospore equivalents,). Mortality and rapid population decline consistently occurred beyond this fungal load level, which established the quantitative diagnostic of *Bd*-load as a reliable indicator of severe disease. Similar patterns of disease spread have been documented in other regions including other frog and salamander populations, but few systems have been studied in such fine detail as in the Sierra Nevada.

According to David Wake, professor of integrative biology at UC Berkeley who performed an exhaustive study on these amphibians in 2008, "Our own backyard provides a striking example, Wake said. He and his colleagues study amphibians in the Sierra Nevada, and the picture is grim there, as well. "We have these great national parks here that are about as close as you can get to absolute preserves, and there have been really startling drops in amphibian populations there, too,".

Thirdly, dating back to the 1940's when it was found that the African clawed frog would lay its eggs when injected with a pregnant woman's urine, it was widely used for the standard pregnancy test in America. The African clawed frog is a non-native species and it is now known that it introduced *Bd* (*Batrachochytrium dendrobatidis*) which is responsible for the dramatic decline in the amphibians proposed in this listing. The frogs, *Xenopus laevis*, carried the infection in Africa decades before it showed up in North America, the research finds.

Additionally, there are other possible carriers for *Bd*, including the American bullfrog, which has

also been moved around the world by people who farm bullfrogs for their meaty legs. Because of the importing of certain frogs for human consumption (particularly from Asia) which contain the deadly fungus, the disease is allowed to be introduced and spread among the native species. These frogs for human consumption are supposed to be sold dead, but pet stores sell these species live and find their way into the American ecosystems infecting the native species.

It is abundantly clear the scientific community as a whole agree the decline in amphibian populations is not from the public accessing their lands, but because of pesticides, fungus and importing products which infect the populations with deadly diseases.

We strongly, and unanimously oppose the proposed rules to list as endangered/threatened, and to designate millions of acres of public lands for the Yellow-Legged frog and Yosemite Toad which is not based upon science, but conjecture.

Sincerely,

Mr. Shannon Poe

President, AMRA

American Mining Rights Association

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<http://imgace.com/pic/tag/chytrid-is-also-largely-responsible-for-endangering-californias-mountain-yellow-legged-frog-rana-muscosa/#ddly4cU8emd11fMw.99>

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