

Angela Barclay

From: Stamer, Marc -FS [mstamer@fs.fed.us]
Sent: Thursday, May 08, 2014 8:17 PM
To: Angela Barclay
Subject: FW: Follow-up on West Tank Feb 14. Results and Observations
Attachments: DNASamples.xls

Follow Up Flag: Follow up
Flag Status: Flagged

Here is the email from Cat regarding CHLF. Cheers

From: Crawford, Cat [mailto:cat_crawford@fws.gov]
Sent: Monday, April 28, 2014 11:47 AM
To: Stamer, Marc -FS
Cc: Cat_Crawford@fws.gov; Michael Sredl
Subject: Fwd: Follow-up on West Tank Feb 14. Results and Observations

Hello Mark,

Here is a summary of the die-off of Chiricahua leopard frogs at West Tank in the Santa Rita Mountains. I apologize that you were not notified about the die-off; I should have contacted you directly.

On February 13, 2013, I received a call from Brian Lindenlaub of Westland Resources to let me know that Erik Pavolka of Rosemont Copper noticed about 20 dead frogs floating in West Tank. I told him that I would contact Arizona Game and Fish Department (AGFD) to try to get someone out to do some testing right away, and requested that Westland Resources contact the Coronado NF and let them know about a potential die-off. I worked with Christina Akins at Arizona Game of AGFD to coordinate a sampling effort: Tim Snow from AGFD Region V in Tucson accompanied by Eric Wallace of Westland Resources went to West Tank on February 14, 2014. Tim and Eric found over 90 dead frogs, sampled 22 of these frogs, and delivered the samples to me on February 15, 2014. I gave them to Christina Akins on February 19, 2014. See Eric Wallace's email below dated February 21, 2014 that described the visit to West Tank. Christina Akins sent samples to Pisces Laboratory, and received results back on March 15, 2014. Please see her email below that describes the testing results (Debbie Sebesta was included on this email). David Hall conducted visual encounter surveys of other CLF tanks near West Tank in the Santa Ritas during the weekend of February 14th and did not detect any other die-offs.

We discussed the die-off at length at the CLF local recovery meeting for the Santa Rita/Empire Cienega Management Area on April 7, 2014; unfortunately no one from the Coronado NF was able to attend this meeting although both you and Debbie Sebesta were included on the notification emails. As a result of the discussion at this meeting, we are planning to do some additional sampling of CLF for Bd in the Santa Ritas and Las Cienegas areas over the next year. Mike Sredl and others are currently working on a sampling protocol. I will ask Mike to keep you in the loop on the protocol development since you were not at the meeting. Christina has not sent out meeting notes yet, but I will make sure you receive them. Christina did send out a spreadsheet that characterizes recent Bd sampling in the Santa Ritas and Empire Cienega MA, which I have attached. Here is the language from her April 22, 2014 email that she sent with the spreadsheet (I will also forward this to you separately, but wanted you to have all of the information in one place):

"All,

Attached is an excel spreadsheet displaying locality information and disease results from samples collected in the Santa Rita and Empire Cienega MA since 2011. The purpose of sharing this data is to provide insight to a baseline of Bd presence in both MAs. As you can see from the excel spreadsheet, we have only sampled opportunistically at only a few localities. This data should only be used to inform recovery and management decisions within the Santa Rita and Empire Cienega MAs between Local Recovery Group members.

Field in the spreadsheet:

If there is a blank cell in the "results" column it is because 1) a result has not been received from the lab, 2) AGFD did not send the samples out, or 3) we did not receive results from a sender other than ourselves. If there is an N/A in the "results" column it is because the samples was collected for CLF DNA or immunogenetic purposes, not Bd analysis."

That is all of the pertinent information I have regarding the die-off at West Tank. Please contact me anytime if you have any questions or would like to discuss further.

Sincerely,
Cat

Cat Crawford
Arizona Ecological Services Office
US Fish and Wildlife Service
201 N Bonita Avenue, Suite 141
Tucson AZ 85745
(520) 670-6150 x 232 voice
(520) 670-6154 fax

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has. --Margaret Mead

----- Forwarded message -----

From: **Christina Akins** <CAkins@azgfd.gov>

Date: Mon, Mar 17, 2014 at 12:52 PM

Subject: Follow-up on West Tank Feb 14. Results and Observations

To: Eric Wallace <EWallace@westlandresources.com>, Cat_Crawford@fws.gov, Michael Sredl <MSredl@azgfd.gov>, karnold@rosemontcopper.com, sdonaldson@rosemontcopper.com, EPavolka@rosemontcopper.com, Sharon Lashway <SLashway@azgfd.gov>, Hunter McCall <hmcCall@azgfd.gov>, David Hall <davidhall31@gmail.com>, dsebesta@fs.fed.us

Cc: Tim Snow <TSnow@azgfd.gov>, Amanda Best <abest@westlandresources.com>, Brian Lindenlaub <blindenlaub@westlandresources.com>, Tom Jones <TJones@azgfd.gov>, "Abigail D. King" <AKing@azgfd.gov>, Cody Mosley <CMosley@azgfd.gov>, Aaron Miller <AMiller@azgfd.gov>

All,

I just receive the results from samples collected by Eric Wallace and Tim Snow on February 14 2014. Ten of the 22 samples were B.d. qPCR positive, however some of the qPCR scores were very low (i.e. only 1 or 2 DNA sequence copies in the sample). This could have been due to the sample being in lysis buffer. Although some came back low, all of the samples that came back positive did show very clear, exponential amplification of the fluorescent signal so the lab was confident with the results. Huge thanks again to all the partners – because of the initial observation and follow-up communications between FWS, Westland Resources, and AGFD, Tim and Eric were able to get out their quickly and recover tissue.

On a side note, Cody Mosley, Sharon Lashway and I (AGFD) conducted a night survey at the site on March 5th – we did not see any live frogs or tadpoles. There were a few skeletal remains of frogs under bunch grass in the water. We also surveyed Bowman Tank and observed 4 adult frogs, 1 recently metamorphosed frog and a few tadpoles – no dead frogs. We counted over 40 live frogs and heard a few males calling at Greaterville tank, no dead. We observed 3 frog plops at Granite Tank (north of the road).

Debbie, the Ophir Well spring box known to house 2 large CLFs, is extremely low and full of trash and debris (bottles, aluminum cans, misc trash). Perhaps if someone is in the area, they can use frogs nets to retrieve the trash. I did not see the 2 CLFs.

If you would like copies of datasheets, please let me know. Thanks.

Please forward to anyone I have missed.

Christina M. Akins

Wildlife Specialist, Ranid Frogs Project

Amphibians & Reptiles Program, Nongame Branch

Arizona Game and Fish Department

623-236-7189



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From: Eric Wallace [mailto:EWallace@westlandresources.com]
Sent: Friday, February 21, 2014 5:47 PM
To: cat crawford (Cat_Crawford@fws.gov); Michael Sredl; 'Kathy Arnold' (karnold@rosemontcopper.com); Sam Donaldson (sdonaldson@rosemontcopper.com); EPavolka@rosemontcopper.com
Cc: Christina Akins; Tim Snow; Amanda Best; Brian Lindenlaub
Subject: Trip Report - West Tank - 14 February 2014

Greetings All,

Tim Snow (AGFD) and I visited West Tank in California Gulch on Friday, 14 February 2014, to follow up on observations made by Eric Pavolka (Rosemont Copper) of a Chiricahua leopard frog die-off at West Tank in California Gulch. Eric reported his observations to Kathy Arnold (Rosemont Copper) who then passed this information on to WestLand Resources. WestLand contacted Cat Crawford (USFWS) and Mike Sredl (AGFD) to report the die-off.

We observed approximately 90+ individual dead frogs and observed no live frogs. Most frogs were in an advanced state of decomposition and had likely died several weeks prior. We swabbed those frogs that were the least decomposed for future testing by AGFD for the presence of chytrid fungus. We also collected tissue samples from individuals for potential genetic testing, in the future, by AGFD or USFWS.

Additionally, we observed an even-aged cohort of approximately ≥ 100 Chiricahua leopard frog tadpoles.

I have attached four photos illustrating West Tank during the site visit and the condition of a few of the frogs we encountered.

Please let me know if you have any questions.

Thanks,

Eric

Eric Wallace | Biologist

WestLand Resources, Inc.

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