

Passing along Torrey Pine Fungal Culture Scan

Inbox



d williams <dwill4@gmail.com>

Tue, Apr 13,
10:04 AM

to tgaasterland, dworden, ddruker, tmartinez, dquirk, ajones, jbride, terra.l

4/13/2021

Re: Torrey Pine Fungal Culture Scan

To: Environmental leaders, local officials and concerned citizens

Hi. I'm passing along this fungal culture scan that found our Torrey Pine Trees are infected with the pathogen *Fusarium circinatum*, the cause of pitch canker disease, attached. *Fusarium circinatum* is an especially mean pathogen that usually starts by girdling branch tips cutting off water supply. Needles turn brown and fall off leaving bare branch ends and can lead to tree mortality. Pine trees infected with pitch canker are often attacked by engraver beetles. Monterey Pines along California's central coast have been devastated by it.

This is significant because it confirms that yet another factor is involved in the Torrey Pine die-off. (Note that authorities still promote an oversimplistic story that beetles invaded because of drought.) Once one realizes that other factors are involved, it becomes painfully obvious they are caused or made worse by the distribution of particulate pollution into our sky by jets.

It's too bad that you and I, and our environmental scientists, are not allowed to investigate particulate pollution from jets as a cause of the decline. If we could, we would probably also find that it's a primary cause of our honeybee die-off, insect die-off, bird die-off, increasing intensity of our red tides and increasing intensity of wildfires, all documented in peer-reviewed papers at [my web site](#).

State Parks and TP Docent Society will try to hide this diagnosis. I encourage others to follow up and confirm with their own testing. Wilted branch tips on trees nearer to the ocean or golf course would be a good place to start. The samples I submitted were from a tree in the golf course parking lot and a tree near south broken hill trail.

Dale Williams

Retired landscape architect and

Former Torrey Pines docent 2015-17

www.TorreyPineTreesNeedaLabTest.net

Copies sent to (partial list):

Scott Bentley, City of San Diego Interim Deputy Director, Golf Division

Rich McIntosh, Torrey Pines Golf Course Superintendent

Ed Drobnicki, Horticulturist, City of San Diego, Golf Division

Del Mar City Council (TGaasterland, DWorden, DDrucker, DQuirk, TMartinez)

Joe Bride, Del Mar Public Works Director

Pat Nolan, Plant Pathologist, County of San Diego Dept of Agriculture

Cheryl Blomquist, Plant Pathologist, Ca Dept Food & Agriculture

Todd Gloria, San Diego Mayor

Joe LaCava, San Diego City Councilmember

Brian Widener, San Diego City Forester

Armando Quintero, Director, Ca State Parks

Darren Smith, Natural Resources Manager, Ca State Parks

Dylan Hardenbrook, Torrey Pines Supervising Ranger

Ingo Renner, Ca State Parks

Peter Jensen, Torrey Pines Association President

Torrey Pines Docent Society (JSmith, BWallach, LTruong, RIsaacson)

Jill Hamilton, Torrey Pines Consultant, North Dakota State Univ.

Elsa Cleland, Professor Ecology, Behavior and Evolution, UCSD

Doug Gibson, Executive Director, Nature Collective (San Elijo)

Tony Gurnoe, Horticulturist, San Diego Botanic Garden

Stephanie Steele, San Diego Zoo, Institute for Conservation Research

Steve Rodecker, Director, San Diego Science and Engineering Fair

Kim Prather, Professor Atmospheric Chemistry, UCSD/Scripps

Joseph Sochor, Ca. Native Plant Society

Tom Zink, Soil Erosion and Restoration Group, SDSU

Tom Gordon, Professor Emeritus Plant Pathology, UC Davis

Todd Dawson, Professor Integrative Biology, UC Berkeley

Terra Lawson Remer, San Diego County Board of Supervisors

Smith, Darren@Parks <Darren.Smith@parks.> Fri, Apr 16, 4:54 PM (3 days ago)

to Armando@Parks, Dylan@Parks, renner, Roger, Barbara, J, Jill.hamilton@ndsu.edu, Vogelr3@cox.net, Gina@Parks, Cara@Parks, Charles, me

Hi Mr. Williams,

Thank you for alerting us to the presence of *Fusarium circinatum* in the Reserve. We recently tested some pines with the tip damage for pathogens and did not pick up *Fusarium circinatum* but we observed some milder pathogens (see

attached results). I have passed on your results to some experts in the field and we will assess the significance of *Fusarium circinatum* in the Reserve and find out if any treatment options are feasible.

We are still observing that most if not all tree mortality in the Reserve is caused by an abundance of California five-spined Ips beetles (*Ips paraconfusus*). The greater abundances of pathogens and bark beetles is likely related to environmental stressors and the reduced ability for plants to defend themselves. We have seen patterns of larger-scale tree mortality since the 80's and these have coincided with extended drought. It is very clear that we are experiencing less annual rainfall, warmer temperatures, and less coastal fog. These factors reduce the ability of the trees to defend themselves.

I agree with you that there are other factors that weaken the trees (introduction of invasive insects and microorganisms, competition from non-native plants, habitat fragmentation, pollution, and others). Among these factors air pollution is probably the most difficult to study, understand and control. This type of work is not something that we as land managers are equipped to address. There has been some good science detailing the effect of automotive pollution on soils and type conversion but I don't know that there is a feasible treatment option other than to support any efforts reducing automobile emissions. I'm not aware of any scientific work about particulate pollution from jets as related to trees and native vegetation but there has been some scientific agreement casting doubt about the intentional pollution that is described in your communications (see attached paper from Shearer *et al.*).

We are currently focusing our efforts on a reforestation effort that focuses on prioritizing sites with enough moisture availability to sustain Torrey pines in the long term. We appreciate your concern for the Reserve, the Torrey pine trees, and your discovery of a concerning pathogen. We are unsuited to pursuing a causal relationship between Jet pollution and Torrey Pine health especially when there are other more likely factors.

Sincerely,

Darren Smith
Senior Environmental Scientist
San Diego Coast District
4477 Pacific Highway
San Diego, CA 92110
(619) 952-389



d williams <dwill4@gmail.com>

Tue, Apr 27,
2:24 PM

to Darren@Parks, Dylan@Parks, jensen.jasmine, Lynne, Armando.Quintero, Jill.hamilton, Barbara, renner, Roger, Charles, Gina.Moran, Cara.Stafford, Vogelr3, J, bcc: Bruce, bcc: Joe, bcc: Yuching, bcc: jakemumma, bcc: Daniel, bcc: hjproctor, bcc: garnetroehm, bcc: Karen, bcc: mcguiredp, bcc: Linda, bcc: kyle.knox, bcc: tgunoe, bcc: stevegsdsef, bcc: Olivia, bcc: Joseph.Sochor, bcc: Frank, bcc: ssteele

April 27, 2021

To Darren Smith, Senior Environmental Scientist, Ca. State Parks

This is in response to your note of April 16, 2021. Thanks for replying, for sharing what you've done, and for starting to look at factors beyond drought and beetles.

If you are passing along the pathogen scan to "experts to assess its significance", it should be to a private sector lab. The plant pathologist from Ca. Department of Food and Agriculture, Cheryl Blomquist, will resist finding anything that varies from the "official story". The same goes for Pat Nolan's lab at San Diego County Department of Agriculture. They will look for problems with the samples and come up with reasons why they can't figure it out, such as the tissue is not suitable for culturing, or they can only find a weak pathogen, or they need a half-dead/half-live sample, etc. I attached my correspondence with them from 2018 to show their history of not figuring it out. A private sector lab would be able to just do a fungal culture analysis without the whining and acting baffled. It costs about \$140.

I attached a rebuttal to the *Shearer, et al.* paper you sent attempting to show scientific agreement on the nature of trails left behind aircraft. The *Shearer et al.* paper is not a scientific paper, and it misrepresents the information published in scientific literature. A paper such as this serves only to deceive the public. See the attached rebuttal for details.

This public deception under the guise of science is intolerable. Our environmental scientists are pressured to conform to the scientific consensus if they wish to remain in their career. It came about primarily because our environmental science is funded by the government. The rules were written in the 1950's and based on consensus only, which ignored truth and integrity. I

compiled a short [5 minute video here](#), featuring former President Eisenhower and J.M. Herndon, Ph.D. that explains this better than I can.

You mentioned not seeing any scientific work on particulate pollution from jets, so I attached a couple documents. The first one shows "Radiometric Evidence" of particulates in the trails. This peer-reviewed paper in the Journal of Geography, Environment and Earth Science International took radiometric measurements in the ultraviolet range through open sky and through a trail left behind a jet. The readings showed significant absorption through the trail. This absorption is wholly inconsistent with almost negligible absorption by ice crystals, but is consistent with absorption by particulates.

The second paper is one I'm proud to have co-authored with Dr. Mark Whiteside, Medical Director of the Florida Department of Health in Monroe County, and J. Marvin Herndon, Ph.D. in nuclear chemistry here in San Diego. It's titled, "Previously Unacknowledged Primary Factors in the Demise of Endangered Torrey Pines: A Microcosm of Global Forest Die-offs." The paper evaluated a sample of condensed fog that dripped off our pine needles. It was found to contain extremely high levels of chemical toxins, especially aluminum, that can damage stomata, injure roots, and more. The levels were so horribly high that it was postulated cycles of deposition and evaporation concentrated them on the needles. The composition of the toxins were found to match the composition of coal fly ash which is probably a main ingredient of the persistent trails left behind jets.

I'm asking Del Mar if they're willing to help out by getting those young Torrey Pines at Powerhouse Park tested at a private lab. They certainly look like they're infected with *Fusarium*.

Dale Williams

retired landscape architect and former TP docent

www.TorreyPineTreesNeedaLabTest.net