

WINTER
2025
Edition 45:4



Tortoise Tracks

Newsletter

EARLY SEASON STORMS CAUSE FLOOD DAMAGE IN AND AROUND THE DTRNA

Fall and winter rains are welcome in the Mojave Desert, but sometimes there can be too much of a good thing. In September, over three inches of rain – almost an entire year's normal total – fell on the Desert Tortoise Research Natural Area in only one day, and a November storm dumped at least another inch and half. These all-at-once deluges caused road and fence washouts over a wide area. Post-storm inspections revealed at least eleven significant fence washouts on the northern and southern boundaries of the DTRNA. The extensive storm damage required an all-hands-on-deck emergency response. It was critical to repair as much fencing as possible before the holiday season; Thanksgiving through New Year's week is a peak period for OHV recreation, and without fences and signage to indicate which areas are off-limits to motorized vehicles, possible harm to tortoise habitat within the DTRNA was of major concern.



Road washout and debris-clogged, half-buried fence

Photo: Jun Lee

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STORM DAMAGE (continued from page 1)

There's an old saying that goes, "A lock just keeps an honest man honest," and the same idea applies to fences. The vast majority of off-highway vehicle enthusiasts respect private and protected property. But a fence buried or flattened by debris can tempt potential trespassers. Fortunately, the DTPC's Director of Land Acquisition Jun Lee, with help from naturalists Madison and Nadia, stepped in to help. They recruited volunteers, and Jun enlisted help from a fencing contractor who happened already to be installing tortoise-exclusion fencing on DTPC-owned land adjacent to the DTRNA. Those efforts, plus assistance from Bureau of Land Management personnel, meant that the most urgent problems (i.e., major fence breaks abutting areas with the heaviest OHV use) were addressed by Thanksgiving with temporary emergency fencing. By December 9th, other critical areas were at least temporarily repaired and over three hundred no-trespassing/private property signs were installed. In addition to helping with the fence repairs, the BLM supported this effort with focused law enforcement patrols at the DTRNA during the peak OHV use periods.



Debris-clogged fence with temporary new post, wire, and signage

Photo: Jun Lee

There is more work to be done (and at the time of this writing, more rain was on the horizon). Temporary repairs must be made permanent, more signage is needed, and within the DTRNA washouts also damaged the trail system. Still, the emergency repairs certainly prevented many incursions into the DTRNA.

Needless to say, fencing isn't inexpensive. But habitat restoration after vehicle damage would have added even more costs – not to mention that the desert can take years to recover from misuse. A huge thank you to Jun, Madison, Nadia, and our BLM colleagues who stepped up to keep the DTRNA safe while its tortoises slept!

TORTOISE EXCLUSION FENCING: WHAT IS IT?

Speaking of fences, if you've visited the DTRNA you've probably noticed that its perimeter fences have a gap at ground level to allow tortoises to come and go. So if we want tortoises to live freely in the wild, why would anyone want to exclude them with a fence? The answer is that it's a matter of safety, particularly adjacent to roads. Roadways (both paved and unpaved) are dangerous places for wildlife, especially slow-and-steady animals like desert tortoises, which definitely didn't evolve to dodge automobiles.

Tortoise exclusion fencing steers tortoises away from deadly high-traffic areas and toward safer natural or human-designed wildlife crossings. The fencing prevents tortoises not only from ducking under, but from digging under: per U.S. Fish and Wildlife specifications, exclusion fencing is made of one inch by two inch wire mesh, to stop tortoises yet allow small creatures like lizards to pass through safely. The mesh also extends below ground a minimum of twelve inches, to prevent tortoises from easily burrowing underneath.



Photo: Tom Astle

SPRING NATURALIST PROGRAM SAVED

The DTPC is happy and relieved to announce that due to the generosity of our membership, helped by new donors who contributed after seeing our online "Giving Tuesday" campaign during the first week of December, we will be able to fund our 2026 spring naturalist program. It's a great outcome, and one that

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SPRING NATURALIST PROGRAM (continued from page 3)

was far from assured. You may recall from the last issue of *Tortoise Tracks* or from our annual fundraising letter that for the first time in our history, we have lost the annual grant from the Bureau of Land Management, which up until now was the naturalist program's primary funding source.

The spring naturalist program is much more than a way to meet and greet visitors at the DTRNA. Our onsite naturalists educate visitors to the DTRNA about desert plant and animal life, advise people on desert safety, conduct tours, and when possible help with tortoise spotting. The naturalists also keep a visitor log, data from which help us understand visitor demographics. Perhaps most critically, our naturalists monitor DTPC lands for illegal dumping (see photo below of a burned-out trailer reported by our naturalists earlier this year), OHV incursions, vandalism, and fence breaks. On the wildlife side, they monitor raven nests, record tortoise activity, and help with other conservation efforts such as last season's relocation of threatened Mojave ground squirrels.



Dumped and burned-out trailer near the DTRNA

Photo: Jun Lee

In short, our spring naturalist program is absolutely necessary for the success of the DTPC's preservation mission, and is important for ensuring that the DTRNA remains a safe, protected habitat for desert tortoises. The naturalist program is scheduled to run from March 15 to May 31, 2026. A heartfelt thank you to everyone who helped us fund the program during a time of unprecedented need. If you make a trip out to the DTRNA this spring, please say hello to our naturalist – with luck, they might even help you spot a tortoise!

A LONG WINTER'S NAP

Desert tortoises survive the cold winter snug in their burrows, a behavior called "brumation" (a similar period of inactivity during dry, hot weather is called "aestivation"). Living organisms use many strategies to endure periods of temperature extremes and limited food and water. Birds may migrate. Some plants produce anti-freeze chemicals to protect their living cells; others survive by dying back to their roots, which remain insulated underground; and annual plants wait out winter or times of drought as seeds.

Brumation and hibernation are similar, but brumation specifically describes the period of winter inactivity in reptiles and amphibians. As ectotherms, or "cold-blooded" animals, their metabolisms naturally slow down as temperatures drop and they retreat to a shelter where they can "power down" and wait out the cold. It's not always an uninterrupted nap – desert tortoises will sometimes emerge on warmer winter days or to drink from puddles during rainstorms.



Brumating lizard, Mojave Desert

Photo: Tom Astle

"Hibernation" is a term usually reserved for cold-weather dormancy in mammals. Hibernation can last from days to months (although shorter, less-extreme metabolic slowdown is usually called "torpor" rather than hibernation). A hibernating animal is not actually sleeping, but in a state of lowered body temperature and reduced heart and respiration rates. One question that scientists have pondered is whether, given that mammals require sleep, hibernation might cause a sleep deficit; it's now thought that some hibernating animals, like the Arctic ground squirrel (*Urocitellus parryii*), actually "wake up to sleep" – they temporarily raise their metabolic rate to come out of hibernation long enough to catch some needed Zs.

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A LONG WINTER'S NAP (continued from page 5)

Dormancy in arthropods like insects and spiders is called "diapause." It is literally a pause in development, typically cued by environmental factors such as temperature, day length, or food/water availability. Diapause can occur at any life stage, from egg to adult. To survive long droughts, some solitary native desert bee species can wait several years to emerge as adults. Probably the longest recorded diapause for a butterfly was for an individual of a species that can be seen at the DTRNA, the desert orangetip (*Anthocharis cethura*). A scientist in Utah reared a caterpillar until it metamorphosed into a chrysalis; it finally emerged as an adult butterfly after eleven years!



Desert orangetip butterfly (*Anthocharis cethura*) at the DTRNA, warming up on a chilly spring morning by angling its wings to face the sun.

Photo: Tom Astle

JOIN US ONLINE FOR DTPC'S ANNUAL MEETING – JANUARY 24, 2026

We invite you to attend our Annual Meeting on Zoom, from 10 a.m. to approximately 12:00 noon Pacific time on Saturday, January 24, 2026. This virtual membership meeting is an opportunity for you to have a front row seat as we review the DTPC's 2025 accomplishments and unveil exciting plans for 2026 and beyond. You'll hear updates from the DTPC Board and our partners in the BLM Ridgecrest Field Office.

We're especially excited to announce our two featured speakers for this year's meeting:

- **Tim Shields of OrniLogic, LLC (formerly with Hardshell Labs).** Tim is a professional biologist with decades of experience focused on desert tortoise conservation. He is a recognized leader and innovator in the critical field of raven population management. He is currently working with DTPC to develop an expanded "raven damage mitigation" program (to be launched in early 2026 with generous financial support from the Christine & Robert Young Raven Management Fund). Tim will talk about the latest technologies in raven management and how they can advance DTPC's efforts to reduce the impacts of raven predation on young desert tortoises.
- **Louis Sahagún, former Los Angeles Times writer and longtime tortoise conservation advocate.** In his 43 years at the LA Times, Louis reported on everything from the Latino communities of east LA, to the plight of the desert tortoise. And he got his start at the paper sweeping floors. He'll talk about his passion for the desert and his forthcoming book project.

No registration or password is required to participate in the Annual Meeting. For those unable to join the livestream on January 24, a replay will be available on the DTPC website.

Zoom link is below; members will also receive it via email, or you can watch for it on our Facebook page www.facebook.com/DTPC.inc or website events page: <https://tortoise-tracks.org/news-events/events/>

We hope to see you there!



Dedicated to the recovery and conservation of the Desert Tortoise (*Gopherus agassizii*) and other rare and endangered species inhabiting the Mojave and western Sonoran deserts.

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Tortoise Tracks is published four times a year.



ANNUAL MEETING ZOOM LINK & INFO

In case you miss the email, here is the Zoom link (and Zoom's phone-in options) for the Annual Meeting:

Roger Dale is inviting you to a scheduled Zoom meeting.

Topic: DTPC Annual Meeting 2026

Time: 1/24/2026 at 10:00 AM Pacific Time (US/Canada)

Join the Zoom Meeting by clicking this link, or by entering or copy/pasting it into your browser:

<https://us02web.zoom.us/j/81305856293>

Meeting ID: 813 0585 6293

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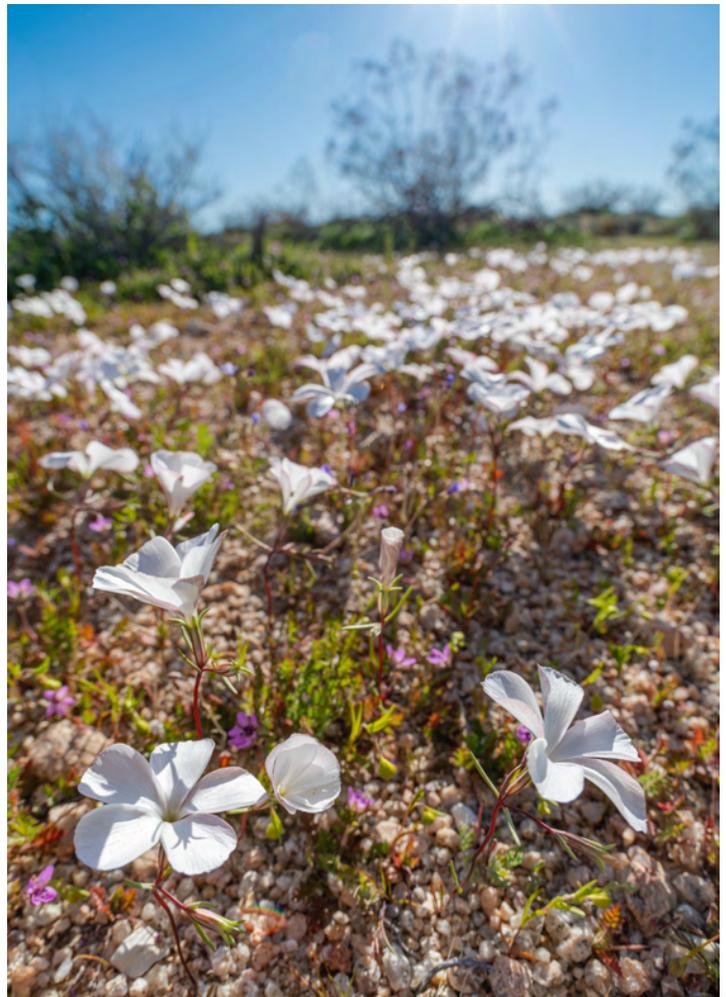


Photo: Tom Astle



Tortoise Tracks

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DTPC MEMBERSHIP/CONTRIBUTION FORM

1. YES, I want to help save the endangered desert tortoise and its habitat! Here is my tax-deductible **membership** contribution of:

- | | | |
|--|---|--|
| <input type="checkbox"/> \$40 Individual | <input type="checkbox"/> \$100 Sponsor | <input type="checkbox"/> \$400 Patron |
| <input type="checkbox"/> \$75 Family | <input type="checkbox"/> \$200 Benefactor | <input type="checkbox"/> \$2000 Life/Corporate |

2. My membership is current but here is an additional donation of \$_____. Please use it for:

- | | | |
|--------------------------------------|---|--|
| <input type="checkbox"/> Fencing | <input type="checkbox"/> Land Acquisition | <input type="checkbox"/> Where Most Needed |
| <input type="checkbox"/> Other:_____ | | |

3. I'd like to help you grow the DTPC **Donor Endowment**. Please accept an additional donation of:

- | | | |
|---|----------------------------------|--|
| <input type="checkbox"/> \$250 | <input type="checkbox"/> \$1,000 | <input type="checkbox"/> \$5,000 |
| <input type="checkbox"/> \$500 | <input type="checkbox"/> \$2,500 | <input type="checkbox"/> Other \$_____ |
| <input type="checkbox"/> Marketable Securities (Stock): Contact DTPC Investment Chairperson Greg Lathrop at 2redgrey@gmail.com or (415) 637-7187 for assistance | | |

Let's grow the Donor Endowment!

- | | |
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| <input type="checkbox"/> I would like my contribution to remain anonymous | I would like to receive <i>Tortoise Tracks</i> electronically ONLY <input type="checkbox"/> |
| | (please include email address); by mail ONLY <input type="checkbox"/> ; or BOTH <input type="checkbox"/> |

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Please make your check payable to **DTPC** and mail to:

**Desert Tortoise Preserve Committee
PO Box 940
Ridgecrest, CA 93556**

Thank you.

The Desert Tortoise Preserve Committee is an IRS tax-exempt 501(c)(3) California tax-exempt nonprofit corporation. Contributions and/or annual membership dues are tax-deductible, to the extent allowable by law. Contributor information is kept confidential and is not disclosed to third parties.

If you would like to renew your membership or donate online, please visit www.tortoise-tracks.org