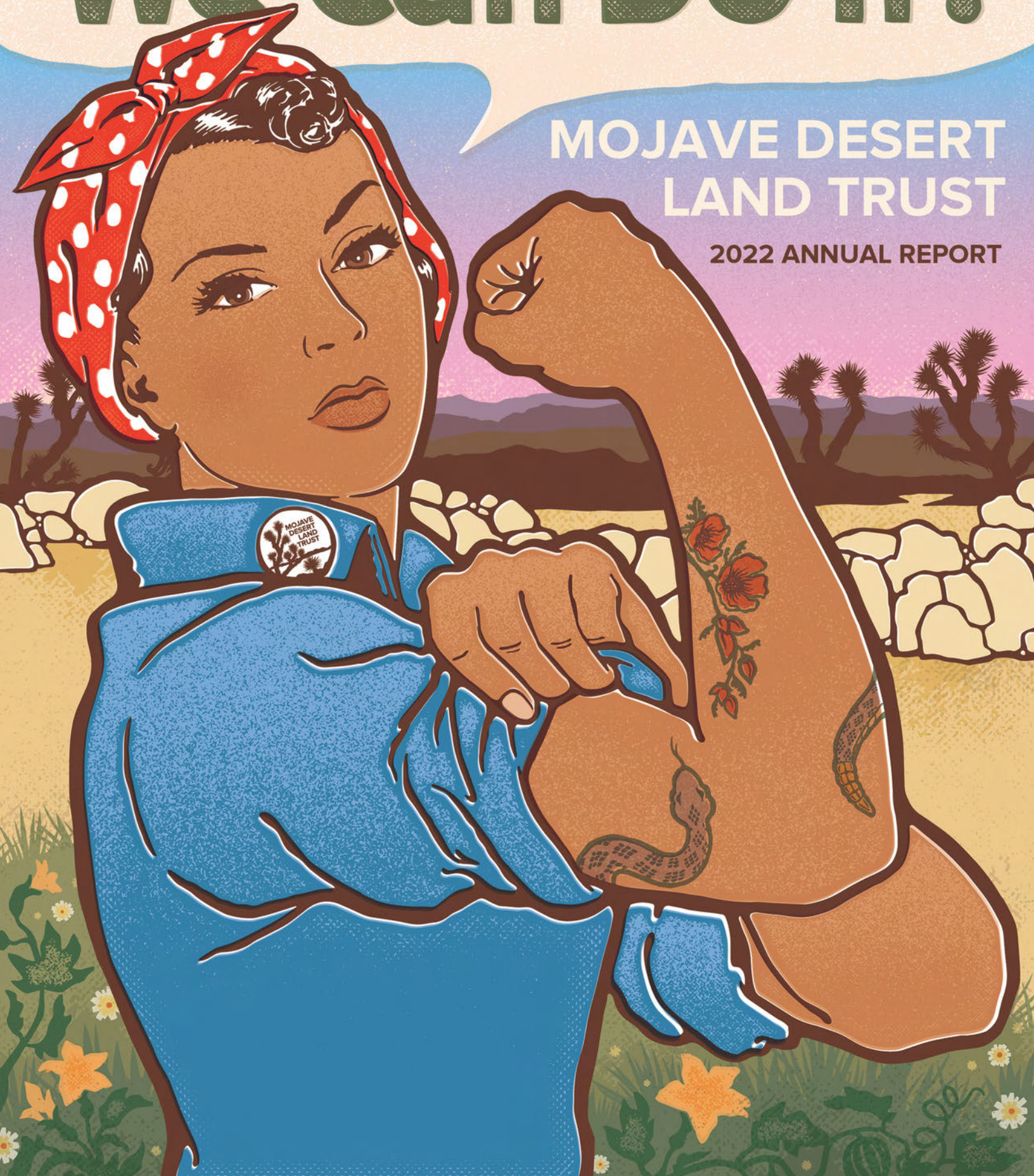


# We Can Do It!

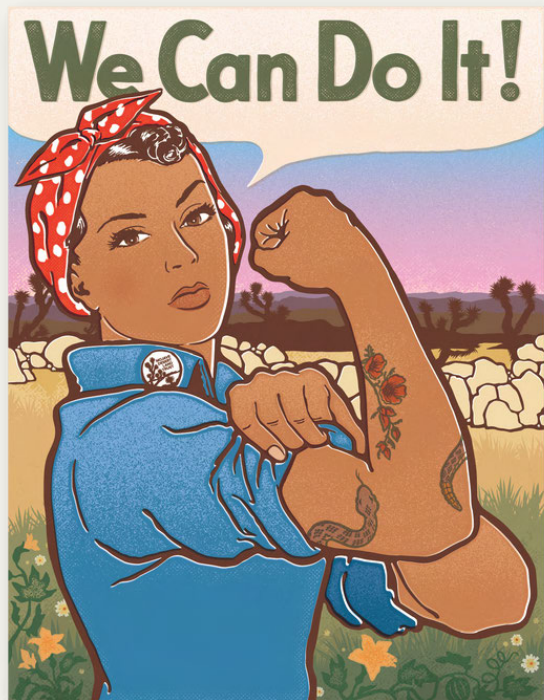
## MOJAVE DESERT LAND TRUST

2022 ANNUAL REPORT





# CONTENTS



Cover art illustrated by Andrea Good  
Concept by Jessica Graybill

## About this issue

The California desert is at a critical juncture. We need to work together to protect this region from the twin overarching threats of climate disruption and habitat loss. But how? This fight will require our collective passion, energy, and skills.

For this special edition of our annual report we reimagined Rosie the Riveter, a popular symbol of strength, resilience, and societal change. Within, you can learn about the majesty and mysteries of the desert, explore the biggest threats to the region, and revisit the progress made in 2022 thanks to our supporters. Read on to find out what more needs to be done and how you can be a part of this story.

There is life here	4
The California desert is under threat	8
Making a difference	10
Board and staff	12
Saving land	14
Restoring the ecosystem	16
Expanding the Mojave Desert Seed Bank	18
2022 in numbers	19
Inspiring young stewards	20
Connecting people to the desert	22
Budget report	24
Grant partners	25
It takes a village	26
Donor stories	27
Why I'm donating my estate	28
Sponsorships	29
Imagine the desert in fifty years	30
Digital extras	31





We take on the greatest challenges facing the California desert, permanently protecting land, restoring habitat, and preserving native seeds. We defend the dark night skies, water, and critical species that make up a thriving desert ecosystem. We recognize this work is only possible through collaboration with the wider community and by inspiring the next generation of desert stewards. We believe in the transformative power of this landscape, and that everyone deserves access. We're determined to maintain the California deserts as an intact and biodiverse ecosystem for generations to come. Thank you for joining us.

**Cody Hanford and Kelly Herbinson**  
Joint Executive Directors



# THERE IS LIFE HERE

Kelly Herbinson, Joint Executive Director

The desert dry lake is a paradox. You might see its crust of jagged, cracked mud as the cinematic backdrop for desolate alien landscapes, or car commercials requiring rugged, dusty wheel slides. Or as the ubiquitous stock image for a Google search of the word “drought.” But like most things in the desert, it holds a secret. A gorgeous and mysterious secret.

Rain is the catalyst for magic in the desert. The creosote leaves get tacky and fragrant, moss that once appeared as a charcoal black smudge on a granite boulder transforms into a mat of lush, greenery.

The shallow depression a tortoise plowed into the soil months ago catches enough water to entice her out of her burrow for a drink. Tiny seeds lodged just under the surface of the soil, sometimes years old, swell with moisture, setting off a series of microscopic events resulting in the most magical miracle of all: germination. A miniscule shoot emerges from the seed and pushes up through the soil to reach the sun, taking its one shot at life. It will grow, flower, get pollinated and go to seed all in a matter of weeks. Quietly depositing the next generation back into the ground.

But behold the mystery at the bottom of our beloved dry lakes, basins, and pools; all those low spots you never notice until they fill with rain. After the rainwater unfurls down the mountains in swollen ropes, descends through rocky valleys and along meandering washes, it collects, finally, in the once-dry lakes and pools. It seems like these pools are everywhere after a big rain, some the size of a hula hoop, others a football field. The mud at the bottom softens, swells, and settles. And in some of them, scores of tiny eggs that have been lying dormant since the last rain expand, flex, and break open, hatching swarms of tiny shrimp.

Shrimp! Fairy shrimp, tadpole shrimp, clam shrimp! A whole bevy of desert shrimp that have been waiting to hatch. You may be questioning whether a massive hatching of shrimp is exciting, but trust me, it’s majestic. Tadpole shrimp are the desert’s very own horseshoe crabs. They are about two inches long, and they are ancient. Like, these species were around when there were dinosaurs, ancient.





Clam shrimp are unrelated to clams, but slightly resemble them with their bivalve shells, and fairy shrimp are related to brine shrimp, which you may have kept as pet sea monkeys. Just like those sea monkeys came to you desiccated in a packet and magically came to life in a bowl of water, so do the desert's fairy shrimp. But shrimp are just a few of the species that rely on ephemeral pools across the desert. Countless other species that largely go unnoticed – tiny snails, algae, and insects – have life cycles reliant on these hidden ecological microcosms. And they each have their own story to tell.

The desert is filled with stories like these. Entire secret assemblages of life teeming in the crevices between boulders, within the branches of a creosote shrub, or inside a tortoise's burrow. These are not photogenic bighorn sheep, or majestic mountain lions, or those ponderous wizards, the desert tortoises, protected, researched and relatively well-known. These are legions of invertebrates, fungi, and those-not-easily-categorized that flop from one taxonomic group to another.

Many are not researched enough to even know if they need protecting. Many are not known at all to science. Many are certainly in need of protection. And many have already gone extinct.

As climate disruption unleashes its wrath of intense heat, drought, and uncertain precipitation, as habitat loss continues, as wildfires and invasive species increase, all these perfect, secret, and mysterious, but critical species will be impacted. More will certainly go extinct before we even get a chance to save them.

But that's what we, MDLT and you and our whole community, are here to fight for. The western deserts are the last relatively intact ecosystem in the US, and thankfully we still have a chance to protect it and all the brilliant, strange, and hidden life it contains. We'll do it by permanently protecting land, restoring the native plants and habitat, and preserving seed for the future. We'll do it by listening to and working with our local, native tribes. We'll do it by training the next generation of desert protectors and weaving our community of desert lovers like you into the fabric of our work. There is life here, and we intend to save it all.

**Let's get started.**







### **OUR MISSION**

The Mojave Desert Land Trust protects the Colorado and Mojave Desert ecosystems and their natural, scenic, and cultural resources.

### **OUR VISION**

Dark night skies, clean air and water, broad views and vistas, and an abundance of native plants and animals.

The Mojave Desert Land Trust has cultivated a multi-faceted conservation strategy that uses land acquisition, restoration, stewardship, plant cultivation, and education to ensure the long-term preservation of the California desert. Our service area spans nearly 26 million acres - the Colorado Desert and the entire California portion of the Mojave Desert. Since our founding in 2006, MDLT has protected over 110,000 acres of ecologically significant land and grown over 100,000 native plants for restoration and community use.

We envisage the California desert as a vital ecosystem of interconnected, permanently protected scenic and natural areas that host a diversity of native plants and wildlife. Views and vistas are broad. The air is clear, the water clean, and the night skies dark. Cities and military facilities are compact and separated by large natural areas. Residents, visitors, land managers, and political leaders value the unique environment in which they live and work, and recognize that climate change is impacting the desert ecosystem.





Photo: Emmalyn Snead





# THE CALIFORNIA DESERT IS UNDER THREAT



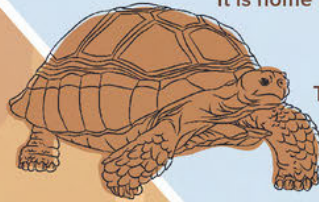
Did you know?

**90%**

of the state's 40 different lizard species are found in the desert.

THE CALIFORNIA DESERT is one of the more *biodiverse* regions of the country.

It is home to over **30%** OF CALIFORNIA'S NATIVE FLORA.



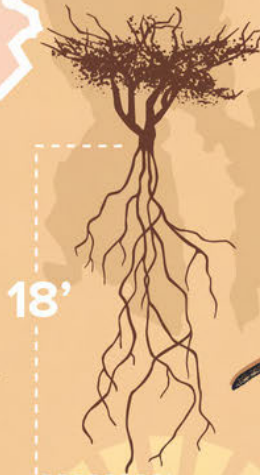
The **DESERT TORTOISE** population has decreased by **90%** in some areas due to habitat loss and other human impacts. As a *keystone species* its burrows are used by other animals.



The California desert stores **10%** OF THE STATE'S CARBON EMISSIONS deep underground and in plant biomass.

**DESERT SOIL** is very fragile. Soil damaged by illegal OHV traffic can take **100 YEARS TO RECOVER.**

To survive in the desert, *catclaw acacia* has developed incredibly deep roots. Roots may penetrate **18 FEET OR MORE** into the soil.



**PLATE TECTONICS, FAULTS, AND FRACTURED ROCKS** created the desert's remarkable *geology*.

Under review at the start of 2023:

**9** MINE EXPANSION OR EXPLORATION PROJECTS

**16** RENEWABLE ENERGY PROJECTS



Did you know?

Desert wildlife are sensitive to noise. The **KANGAROO RAT** uses its 32 mm hind feet to send morse code warnings to other rats. It develops damaged hearing from development projects.

Southern California has warmed **1.5 °C (2.7 °F)** IN THE LAST CENTURY.

There are more heatwaves and rainfall is more variable.



Human diversion and flood control measures have altered the desert's *hydrology* to supply agriculture and cities with water. Groundwater extraction plans threaten enormous biodiversity loss for the desert.

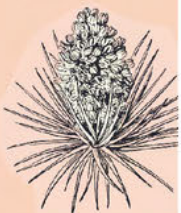
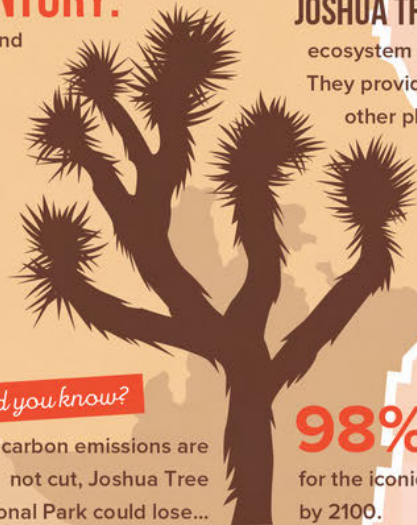
**THE SALTON SEA** is one of the Pacific Flyway's most critical inland wetland habitats. Water levels have dropped by **1/3** SINCE 1997. Dry lakebed dust now causes respiratory problems for nearby residents.



**JOSHUA TREES** are crucial to the ecosystem of the Mojave Desert. They provide food and habitat for other plants and animals.

Did you know?

If carbon emissions are not cut, Joshua Tree National Park could lose... **98%** OF ITS SUITABLE HABITAT for the iconic Joshua trees by 2100.



**THE VAST MAJORITY** of culturally and historically significant areas in the desert are no longer under *tribal ownership* or control. Development further threatens these sites.



Access to traditional plant materials is *critical* to Native cultures. Many plant populations are isolated or lost due to development, commercial harvesting, and climate change.

**CLIMATE CHANGE**

was a major driver of a **40%** DROP IN BIRD SPECIES documented in the Mojave Desert in the last century.





# UNDERSTANDING THE THREATS

Biodiversity loss and climate change are the greatest threats to the stability of the California desert ecosystem. And yet, the desert is a nature-based solution to climate change. The region sequesters 10% of the state's carbon emissions, and is expected to play an even greater role under rising CO2 levels. The main thing that compromises that storage capacity is disturbance of the fragile desert soil.

Every year, thousands of acres of desert habitat is fragmented and degraded from human activities such as urban growth, illegal off-highway vehicle activity, large-scale development, and resource extraction.

Faced with these pressures, wildlife need space to migrate to maintain genetic diversity. More linkages are needed to help connect populations of plants, pollinators, and other organisms, so they can forage, find shelter, mate, and thrive.

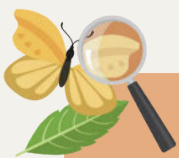
Habitat connectivity supports the desert's long-term ecological health. Development and resource extraction contribute significantly to habitat loss. Over 20 new mining or large-scale renewable energy projects were under consideration in the California desert at the start of 2023. Mining can impact the desert by introducing toxic chemicals like cyanide into aquifers, while poorly sited utility projects scrape the desert bare of vegetation across thousands of acres, often in functioning ecosystems.

The desert serves increasingly as a transport hub. Nitrogen deposition from vehicle and other emissions has led to soil nitrification. Invasive species thrive under these altered conditions, becoming sources of fuel for wildfires and shifting habitat towards non-native grasses and forbs. Human water diversion and flood control measures have altered the desert's hydrology to supply agriculture and cities.

Sacred sites and ancestral homelands are a fundamental part of tribal life today. But development across desert lands threatens long-held spiritual connections with ancestry and cultural artifacts that connect the past to the present.

Despite this alarming backdrop, the region's stark beauty, world-class recreational opportunities, and iconic species are attracting more visitors every year. Over five million people visited the desert's national parks in 2021, experiencing first-hand their natural, cultural, and historic resources.

The Mojave Desert Land Trust aims to ensure the California desert remains an interconnected ecosystem that works to support biodiversity and human life. Through community engagement, conservation work, advocacy, and hard-won milestones we have a chance of overcoming the greatest threats facing the region. Please join the effort to preserve the California desert.



## CALIFORNIA DESERT BIODIVERSITY AT A GLANCE

93 species of mammals

425 species of birds

56 species of reptiles

16 species of amphibians

16 species of fish

2,000+ species of native plants



# MAKING A DIFFERENCE

## Advocating for species

*Yucca brevifolia* (the western Joshua tree) is under threat from climate change, development, drought, wildfire, and non-native species. It has been a candidate for listing under the California Endangered Species Act since 2020. The candidacy was reviewed by the California Fish and Game Commission twice in 2022. MDLT was one of the leading organizations mobilizing support for the listing. Over 100 people attended a rally at MDLT HQ, an MDLT petition attracted 900 signatures, and 437



people sent emails of support through our website. In February 2023, the Commission voted to postpone its decision on candidacy while a new trailer bill, the Western Joshua Tree Conservation Act, is under review. MDLT is working to ensure the bill provides impactful and sustainable avenues that secure the long-term protection of the species.

**Your donations help us provide ways for the public to take action on policy issues.**

## Preserving the desert tortoise

The desert tortoise population is in steep decline due to habitat loss and other human impacts. In some areas, the population has decreased by 90%. MDLT manages areas of critical tortoise habitat and twice a year does special monitoring of these lands looking for signs of this threatened species.



Determining the presence — or absence — of *Gopherus agassizii* (Agassiz's desert tortoise) helps MDLT and the California Department of Fish and Wildlife understand the conditions and health of tortoise populations and habitat. In 2022, teams spent 117 hours visiting sites. They recorded six live tortoises, 10 carcasses, and 17 burrows. In one location without previous tortoise signs, the team found one tortoise, a burrow, and 12 scat. Biologists judged all these sites to have conservation value for desert tortoise.

**Your donations help fund these field visits by paying for operational costs such as fuel and staff time.**

Photo: Emmalyn Snead



# MAKING A DIFFERENCE

## Storing carbon

Land acquisition is a nature-based solution to climate change and a way we can reduce greenhouse gas emissions. Arid soils provide the third largest global pool of carbon storage potential. In California, the desert sequesters nearly 10% of the state's carbon, and it is expected to play an even greater role in carbon storage under rising CO2 levels. MDLT acquires intact natural habitats that will sequester carbon into the future. As one of the leading land trusts in the country, we have conserved over 110,000 acres of the California desert since 2006. In 2022, we protected another 6,983 acres.

**Your donations help us proactively acquire land with significant ecological value.**

**Watch a video about restoring Palisades Ranch:**



## Supporting biodiversity

Palisades Ranch is one of the few locations along the Mojave River where water flows aboveground year-round. This unique 1,647-acre property was acquired by MDLT in 2018. The many habitats and topographic features of Palisades Ranch attract 40 federal and state listed special status species. The land has been impacted by illegal off-highway vehicle activity, invasive plants, human agricultural development, and most recently, fire. MDLT is taking active steps to protect the rich biodiversity. In 2022, MDLT installed signage and 17,900 feet of fencing along the entrance of the property and upland habitat where OHV trespassing occurs. Vertical mulching helped restore an additional five degraded acres, and decompaction, seed dispersal, and vertical mulching will help repair an additional five acres.

**Donations help us in the daily management of this important property.**

Photo: West Cliff Creative



# MESSAGE FROM THE BOARD OF DIRECTORS

With the passing of P-22, the iconic mountain lion who resided for a decade in Griffith Park in the heart of Los Angeles, our thoughts turned to connectivity and resilience. To reach his adopted home, P-22 embarked on a remarkable 50-mile journey from his birthplace in the Santa Monica Mountains, traversing an urban landscape including two freeways. P-22 was part of an Ecologically Significant Unit (ESU) of mountain lions in Central and Southern California, including those in the desert. The ESU is a candidate for listing under the California Endangered Species Act.

Challenged by habitat loss and fragmentation, these lions are struggling to stay connected to one another. Scientists have long known that as a rule, there must be a minimum of at least 500 individuals to maintain a healthy population of a species. In the face of habitat loss and fragmentation, that's hard for mountain lions to achieve; a single territory can be up to 150 square miles. If mountain lions or other top predators drop out of an ecosystem, their absence can have cascading effects, including the potential loss of other species. In the absence of a top predator, mid-size predators may become overabundant, causing the local extinction of animals they prey on, such as songbirds.

Recognizing the importance of connectivity, MDLT is dedicated to identifying and protecting habitat linkages and is working with partners, including Caltrans, to construct wildlife crossings where roads have fragmented habitat. P-22 touched the spirit of a large and diverse community of people, many of whom in their day-to-day lives have little opportunity to experience nature. This is because P-22 was the very embodiment of nature and wilderness. With your help, MDLT will continue its work to preserve important linkages and habitat for mountain lions like P-22 and all the other wonderful plants and animals who call the desert their home.

Geary Hund, Board Secretary

## Board of Directors

### **John Simpson, President**

Founding member of MDLT, real estate executive

### **Abdel Reid, Vice President**

Co-Founder and Managing Partner of Jacobs and Reid

### **Geary Hund, Secretary**

Former California Desert and Monuments Program Director for the Wilderness Society, retired senior wildlife biologist for US Fish and Wildlife, and former MDLT Executive Director

### **Peter Brooks, Treasurer**

Former marine, water industry executive, and defense writer

### **Gwen Barker, Director**

Rimrock Ranch Owner and marketing extraordinaire

### **Terrysa Guerra, Director**

National Political Director at United for Respect

### **Robyn Helmlinger, Director**

Partner with Orrick, Herrington & Sutcliffe

### **Steve Hely, Director**

Television writer, author, and co-host of The Great Debates podcast

### **Ron Radziner, Director**

Architect and Design Partner at Marmol Radziner

### **Brad Wilson, Director**

Partner and Chief Executive Officer of Ace Hotel Group and the brand's in-house creative agency Atelier Ace





"Before I worked for MDLT, I volunteered for the Acquisitions Department and saw a place where someone could have genuine pride in what they did and accomplished. Being a part of MDLT changed my entire life, from my career, to my interaction with the area I live, to time with my family and overall happiness. Spending a small portion of my time here turned into a life-altering journey."

– Dustin Scott

"I hope people remember that we are not going to be here forever, but the desert will be. People will come and go, what matters is the legacy we leave. For me, making sure I leave this world better than I found it is my purpose in life; healing the Earth, everything else is fluff."

– Yanina Aldao Galvan



## OUR TEAM

Yanina Aldao Galvan, Project Coordinator - Lands  
 Madena Asbell, Director of Plant Conservation  
 Ross Beazell, Natural Resources Technician I  
 Alexander Boice, Natural Resources Program Coordinator  
 Susy Boyd, Public Policy Coordinator  
 Lani Brown, Director of Operations and Human Resources  
 Mary Cook-Rhyne, Education Program Manager  
 Jessica Dacey, Director of Communications  
 Ella DeMaria, Social Media and Outreach Coordinator I  
 Kellie Flint, Donor Relations Manager  
 Corina Godoy, Lead Production Assistant  
 Jessica Graybill, Content Manager  
 Cody Hanford, Joint Executive Director  
 Joelle Hazher, Natural Resources Program Coordinator  
 Kelly Herbinson, Joint Executive Director  
 Brandy Ivener, Chief Financial Officer  
 Allyson Lavender, Director of Lands  
 Mackenzie Nelson, Outreach and Volunteer Coordinator II  
 Rylee Nutter, Acquisitions Coordinator  
 Lenna Pettersson, Nursery Manager  
 Raechel Pietraszak, Operations Coordinator  
 Dustin Scott, Acquisitions Manager  
 Steven Talbot, Director of Philanthropy  
 Kirby Urtiaga, Field Technician

(Current at the time of publication)



# SAVING LAND



MDLT permanently protected 6,983 acres of the California desert in 2022. One of the wildest acquisitions of the year spans 640 acres in the Cadiz Valley at the heart of Mojave Trails National Monument. The property is at an average elevation of 1,153 feet. As there is little human disturbance, this special property has ample signs of wildlife, with numerous animal tracks visible in the sandy soil. MDLT has now preserved 8,567 acres within this national monument.

Another highlight was a 232-acre acquisition in the southwestern corner of Death Valley National Park. Its steep hills afford breathtaking views of the park and the area's fascinating geology. A former mineral extraction site also exists within the parcel boundaries. The land is in the Crystal

Hills, a mountainous area known for the Epsom Salts Monorail – a 28-mile-long Lartigue Monorail system that carried epsomite from a deposit in the Owlshead Mountains to the Trona railway.

MDLT plays an important role in purchasing private land from willing sellers within national parks. This helps piece together our public lands. In fact, MDLT has conveyed more tracts of land to the NPS than any nonprofit since 2006.





# SAVING LAND

Expanding on our work in Kern County, MDLT assumed ownership of 1,440 acres of Caliente Creek. The Trust for Public Land completed the acquisition of this property and arranged for it to be assigned to MDLT. The property is bounded by the Piute, Sierra Nevada, and Scodie Mountains. It contains an important water source for wildlife and its rolling oak-studded hills serve as key habitat linkage between the desert and the mountains.

These acquisitions help tackle climate change. The California desert stores 10% of the state's carbon emissions in the soil and plant biomass. Protecting these lands ensures carbon is not released through development and soil disturbance.

To date, MDLT has conserved over 110,000 acres of ecologically significant lands across the California desert.



Pictured: 2022 acquisitions in Mojave Trails National Monument (facing page, top left), Death Valley National Park (facing page, bottom left), and Caliente Creek (above).

## HOW YOUR DONATIONS HELP US ACQUIRE LAND

Your donations allow us to proactively acquire conservation land by funding things like:

- Escrow fees
- Property taxes
- Staff time
- Property research and review
- Property inspections

SCAN  
TO DONATE:





# RESTORING THE ECOSYSTEM



## Restoration at work

The majority of the plants grown in our nursery are destined for restoration. In one project, staff and volunteers planted 136 native plants at a degraded site in Pioneertown Mountains Preserve as part of a contract with The Wildlands Conservancy. Staff spent 18 months growing buckwheat, cheesebush, and catclaw in our nursery; all grown from seed that we collected by hand. We will be monitoring the site, weeding out invasive species, and watering the plantings regularly for the next two years.



Right: Volunteers Bruce Guthrie and Ted Phillips plant buckwheat.

## Increasing seed for the Bureau of Land Management

In an on-going collaboration with the Bureau of Land Management, our plant conservation team grew annual wildflowers for a project that aims to develop propagation and collection protocols for seed production for desert tortoise habitat restoration.

The Mojave Desert tortoise (*Gopherus agassizi*) has been listed as a federally threatened species since 1990, and in 2020 was listed as endangered by the state of California. Their populations are declining due to urbanization, disease, predation, vehicle strikes, and other forms of habitat loss and degradation.



In 2022, we focused on desert dandelion (*Malacothrix glabrata*) and desert pincushion (*Chaenactis fremontii*), two common winter annuals that are food plants for the desert tortoise. As the plants grow, flower, and go to seed, we will be evaluating and comparing our different growing methods to determine which treatment produces the most seed.



# RESTORING THE ECOSYSTEM



## Stewarding the land

Staff and volunteers restore the land by clearing away trash, removing graffiti, maintaining trails, and repairing degraded areas. A highlight of this year was the removal of 10 tons of waste from three parcels within Mojave National Preserve. These lands will one day be conveyed to the National Park Service. Before the clean-up, NPS archeologists determined which items were historic and needed to remain in place, and which had to be removed to help return the land to a healthy ecosystem. Overland Bound Trail Guardian members then worked tirelessly alongside NPS rangers, MDLT volunteers, and staff to fill two roll-off dumpsters. Thank you to everyone who took part in this major clean-up effort.



## Stewardship snapshot:

Property inspections: 48 parcels

Clean-up events: 22

Garbage collected: 18.39 tons

Wildlife linkage signs posted: 10

Fencing installed: 17,900 feet

Wildlife surveys conducted: 12

Mylar balloons found: 130

## HOW YOUR DONATIONS HELP US STEWARD THE LAND

Your donations allow us to grow more plants for restoration projects, and help us plan and execute large-scale clean-ups in sensitive habitats throughout the California desert by paying for things like:

- Plant containers
- Water
- Growing medium
- Staff time
- Safety materials
- Dump fees
- Infrastructure maintenance
- Tools
- Vehicle maintenance

SCAN  
TO DONATE:





# EXPANDING THE MOJAVE DESERT SEED BANK

We established the Mojave Desert Seed Bank in 2016. Seven years later, we've amassed over 700 seed collections representing over 210 taxa - approximately 10% of the Mojave's native species. Our goal is to have every native species in the Mojave Desert represented, and with that in mind we'll be making some big improvements to our plant conservation space.

Thanks to a generous anonymous donor, in the coming year we'll be adding a new building to MDLT headquarters. The enhanced Mojave Desert Seed Bank will give our dedicated volunteer seed cleaners more elbow room and allow us to welcome more volunteers so we can process and prepare collections faster. Walk-in refrigerators will allow more storage space for new seed collections, and at least one freezer will be on-site for rare collections. The facility will also provide a space to host future classes and workshops for the community.

The seed bank functions as an insurance policy for the Mojave Desert in the face of climate change and habitat disruption. Because plant populations can differ genetically, it's important to collect seeds of the same species from a variety of locations. Restoring land with plants grown from site-specific seed helps preserve biodiversity in the Mojave's variable ecosystems and microclimates. We are excited to be adding more lab space to increase our capacity for both ongoing and future restoration projects, like our partnership with the Bureau of Land Management (more on page 16).

This year we added a germination chamber to our plant conservation toolbox that allows us to work independently of the constraints of the changing seasons, thanks to funding from California Plant Rescue. This machine can be programmed to control light and temperature, allowing us to run tests on seeds to determine their ideal germination conditions. It will also help us test the viability of our existing collections so we'll know to collect more seed if needed.

It's impossible to say when we'll have all of the Mojave's native plants documented in our seed bank. The species that remain are also the hardest ones to find, and the ability to make new collections depends entirely on what plants are flowering and when. However, we are grateful for the opportunity to grow into this beautiful new facility and look forward to sharing many more conservation accomplishments in the years to come as a result of this generous donation and ongoing support from our community.

Scan here to support the  
Mojave Desert Seed Bank:





# PLANT CONSERVATION IN 2022

13 NEW SEED COLLECTIONS



4,143 PLANTS GROWN



## LAND CONSERVED IN 2022 6,983 TOTAL ACRES

846  
ACRES

IN NATIONAL PARKS



115  
ACRES

IN WILDERNESS AREAS



75  
ACRES

IN WILDLIFE  
CORRIDORS



1,813  
ACRES

IN CRITICAL HABITAT



1,239  
ACRES

IN NATIONAL MONUMENTS



2,895  
ACRES

IN CONSERVATION  
EASEMENTS



## 3,711 VOLUNTEER HOURS IN 2022

1,084  
HOURS

STEWARDSHIP



1,465  
HOURS

NURSERY



1,032  
HOURS

OUTREACH  
& EDUCATION



130  
HOURS

ADMIN





# INSPIRING YOUNG STEWARDS

Throughout the hottest months of 2022, three women regularly headed out to the Mojave Desert to collect data on insects and birds. For some of these researchers, it was their first time experiencing the desert's extremes and wildness.

As interns with the Mojave Desert Land Trust's Women In Science Discovering Our Mojave (WISDOM) program, they were doing quantitative surveys of tamarisk beetles, a current management concern for the Bureau of Land Management in the lushest area of Mojave Trails National Monument. They also recorded avian species found in the area.

In a special online storymap, interns Lauren Casas, Christiana Saldana, and Kaeliegh Watson shared the results of their findings and reflected on how this internship impacted their desire to enter the field of conservation. Scan the QR code at right to explore.



Former MDLT WISDOM intern Roseanna Colston spent time as a lab assistant with the Amargosa River Vole survey after completing the WISDOM internship and has since moved to San Diego to work as an Environmental Health Specialist.

“The Mojave Desert Land Trust opened doors to many opportunities where I was able to perform conservation work as a WISDOM intern and later as a researcher for UC Davis. If it wasn’t for MDLT, I wouldn’t be the professional in Environmental Science I am today.”

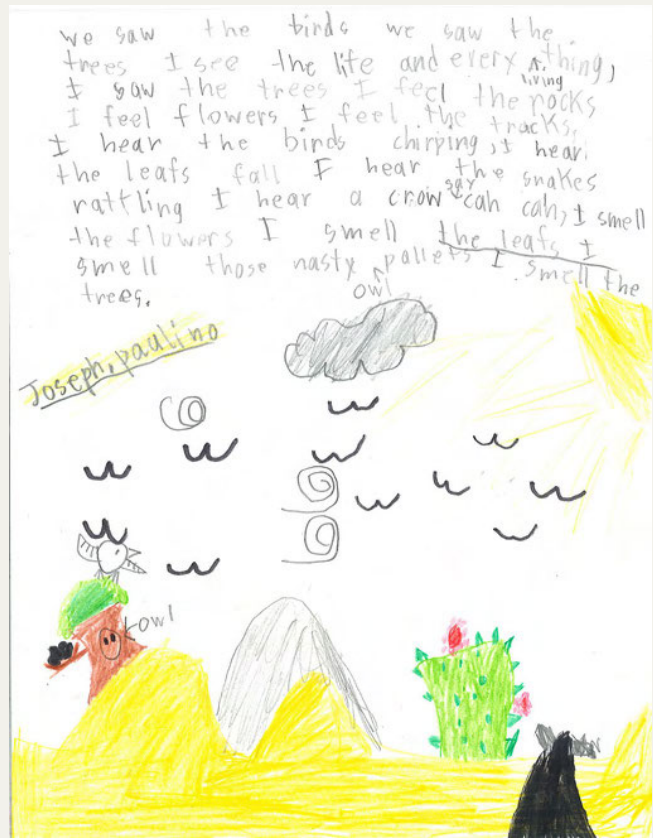


# INSPIRING YOUNG STEWARDS

The Autumn 2022 edition of the Cholla Needles Young Writers and Artists magazine features poetry and artwork by 100 budding local artists. The collection provides insight into the experience of growing up in the Mojave and Colorado Deserts.

Each piece was created as part of MDLT's Desert Discovery Field Studies curriculum, an immersive program that helps students become inspired advocates of the desert. The magazine was published by Joshua Tree-based nonprofit Cholla Needles Arts & Literary Library in partnership with MDLT.

Read more about DDFS on page 26.



## HOW YOUR DONATIONS SUPPORT MDLT'S EDUCATIONAL PROGRAMS

In addition to paying for staff time, your donations allow us to purchase educational materials for our classroom lessons and field supplies for WISDOM interns, like:

- Markers
- Eyedroppers
- Owl pellets
- Solar car kits
- Mineral testing kits
- Binoculars
- GPS devices
- Clipboards
- Sunscreen
- Tools for measuring
- Joshua trees
- Sun hats

SCAN TO DONATE:



### Education snapshot:

In 2022 MDLT delivered educational programming to 469 students throughout Southern California.



# CONNECTING PEOPLE TO THE DESERT

MDLT reached a new milestone in 2022: We have grown over 100,000 plants for restoration and community landscaping since 2016. This achievement was made possible through the long-term support of donors and volunteers.

After a two-year pandemic hiatus, we returned to an in-person Native Plant and Salvage Sale in October. Hundreds of eager shoppers lined up outside our headquarters to secure their favorites. Over 2,200 plants went to new homes - twice the number sold in previous in-person sales. We are grateful to everyone who purchased plants, donated, and became members!



## HOW YOUR DONATIONS SUPPORT MDLT EVENTS

Offering affordable, accessible, relevant, and engaging events to the desert community is critical to our conservation mission.

Your donations allow us to provide necessities like:

- Staff time
- Educational materials
- Refreshments
- Advertising
- Audio/visual equipment for virtual and hybrid events
- Promotional materials
- Rentals like portable toilets, chairs, propane tanks for heaters.

SCAN  
TO DONATE:



Check out  
upcoming events:



A highlight of the year was a Native American Heritage Month event exploring the importance of Native foods in Indigenous lifeways. In this special program organized and hosted by the Native American Land Conservancy, naturalist Sienna Thomas gave a presentation about traditional medicinal native plants and the Agua Caliente Band of Cahuilla Indians Pai nik tem Bird Singers shared stories in song.





# CONNECTING PEOPLE TO THE DESERT



Photo: Alex Boice

How volunteers are saving the desert:



Over 1,000 volunteers have been a part of MDLT's conservation work over the last 16 years. These passionate desert defenders have provided tens of thousands of hours of service, and MDLT's achievements would not have been possible without their hard work and dedication. Thank you to all our volunteers! Scan the QR code above for a 2022 storymap exploring how volunteers have made an impact.

To ALL of YOU at MDLT,

Dec 2022

Thank you for being here with your vision and mission to protect the desert environment.

Your work is critical for the preservation of lands and the species dependent upon them.

I can't tell you how many times I think, "Thank goodness for MDLT saving these special places".

Your educational outreach to the public is so important too.

The successful plant sales and overwhelming interest in our native species is testimony in part. If only the developers and so-called landscape gardeners and companies would pay attention.

The garden looks lovely. Quite a transformation from what was there before.

I'm honored to be a volunteer and do something useful to help (besides complain, which doesn't). Working with everyone at seed cleaning is one part of the big picture, and we do laugh a lot!

Always, Pean 😊

## Volunteer snapshot:

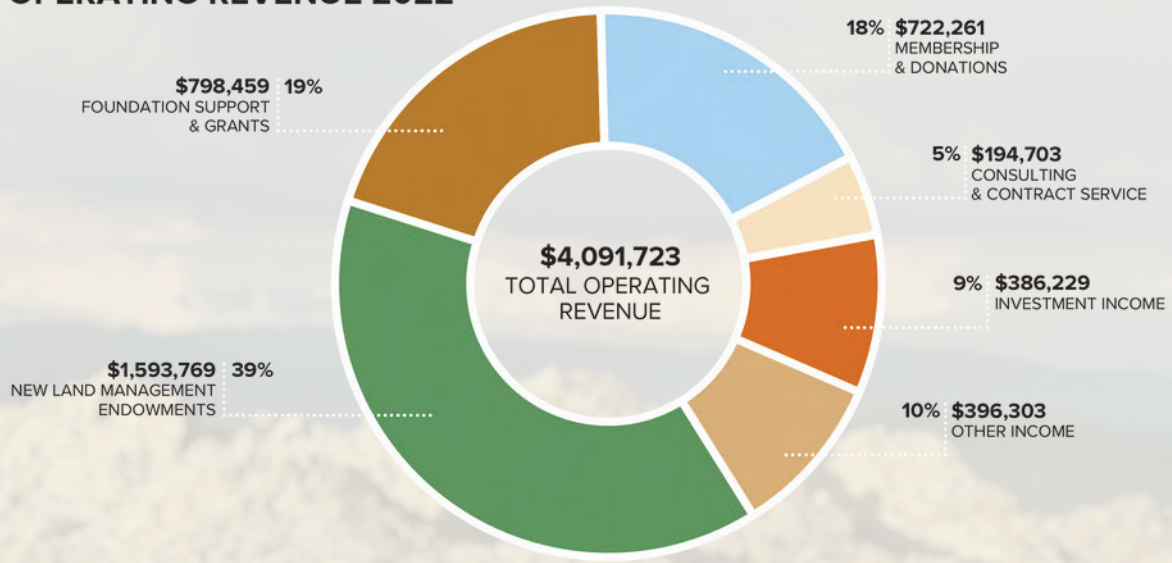
In 2022, volunteers provided 3,711 hours in land stewardship, native plant and seed bank support, and essential administration.

If you are interested in volunteering, please email Volunteer Coordinator Mackenzie Nelson: [Mackenzie@mdlt.org](mailto:Mackenzie@mdlt.org)



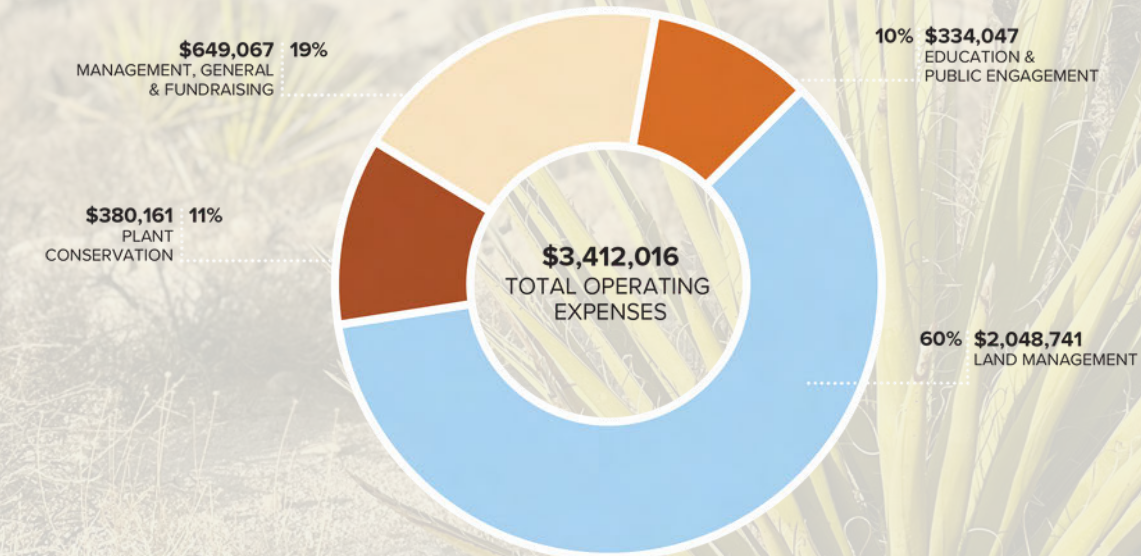
# 2022 BUDGET REPORT

## OPERATING REVENUE 2022



OPERATING REVENUE	\$4,091,723
LAND ACQUISITION GRANTS	\$3,915,472
<b>TOTAL REVENUE</b>	<b>\$8,007,195</b>

## OPERATING EXPENSES 2022



OPERATING EXPENSES	\$3,412,016
NEW LAND PURCHASES	\$1,551,026
<b>TOTAL EXPENSES</b>	<b>\$4,963,042</b>

\*These are unaudited numbers and subject to change.

Background photo: Emmalyn Snead



# GRANT PARTNERS

The following foundations and agencies supported the programs and services of the Mojave Desert Land Trust with generous contributions in 2022:

Bureau of Land Management  
California Department of Fish and Wildlife  
California Plant Rescue  
California State Parks  
California Wildlife Conservation Board  
CLIF Family Foundation  
Conservation Lands Foundation  
Inland Empire Community Foundation  
Mojave Water Agency  
Resources Legacy Fund  
San Manuel Band of Mission Indians  
S. L. Gimbel Foundation, a component fund at  
The Inland Empire Community Foundation  
Society for Science  
The Fund for People in Parks  
Tides Foundation  
U.S. Fish & Wildlife Service



# IT TAKES A VILLAGE

MDLT believes the key to long-term conservation is community engagement. We created the Desert Discovery Field Studies (DDFS) program to invest in the next generation of desert scientists, conservationists, and advocates through hands-on experiential learning. DDFS provides underserved students from desert communities with innovative lessons designed to boost their understanding of desert ecology and conservation. And of course, we make it fun.

These learning labs integrate into the California public school content standards and focus on important environmental themes like climate change and desert ecology. When students investigate and share their discoveries with others, they learn faster, understand better, and retain information for longer. Teachers and school administrators value the program because it gives students an opportunity to apply knowledge gained in the classroom to the real world.

As with all MDLT programs, DDFS was made possible by funders dedicated to investing in the next generation. DDFS was started in 2017 with seed funding from Edison International and Southern California Edison. In the years since, support from a community of foundations and corporate grant partners has allowed us to sustain and grow the program. During the pandemic, support from Anderson Children's Foundation and Trilogy at La Quinta Community Services allowed us to pivot to online content delivery to ensure that students, parents, and teachers would have access to high quality environmental educational materials. Support from Inland Empire Community Foundation, Society for Science, and Tides Foundation allowed us to serve additional classrooms in 2022. In 2022 we reached 469 children, and we are looking forward to reaching more in 2023. But we can't do it without your support.

Just as it takes a village to raise a child, it takes a community to support our desert educators. If you would like to join MDLT in these efforts by becoming a community grant partner for DDFS or any of our other programs, email MDLT's Grant Strategist: [robyn@mdlt.org](mailto:robyn@mdlt.org). Or, if you would like to support our education program, email [donations@mdlt.org](mailto:donations@mdlt.org).



**I love the programing for my 5th graders. It is great to have a part of our community come be a part of our learning. ALL students enjoy this program and are excited for the day to come that Miss Mary will be there!!!**

– Mrs. Beasley



Mrs. Beasley's students participate in eBird, one of the world's largest biodiversity-related community science projects.  
Photo: Mary Cook-Rhyne



# DONOR STORIES

The commitment of our donors enables MDLT to continue doing this vital work. We are deeply grateful for the many people and organizations that supported the Mojave Desert Land Trust in 2022. To see the full list of donors, scan the QR code at right or go to [mdlt.org/2022-donors](https://mdlt.org/2022-donors)



## What inspired your gift?



The Mojave Desert is one of my favorite ecosystems on earth and I cherish the times my family and I have spent camping, hiking and recreating all over this world-class area!

- Lucas B.

I have an affinity for the rich, vibrant life of the desert that is too often overlooked or misunderstood. The MDLT is doing extraordinary work in this most fragile of landscapes and ecosystems. I am grateful for and humbled by MDLT's passion and performance.

- Scott P.

Being part of the desert community the last few years has been such a blessing. We know MDLT will protect this beautiful land and ALL its inhabitants. We are SO grateful for all you do.

- Yasmeen M.

We love all that y'all do and are so grateful to play a role in protecting/rehabilitating this beautiful piece of nature!

- Jennifer F.



Photo: Eric Hian-Cheong

MDLT was honored to have been listed on newlyweds Jenny and Damon's wedding registry! We wish them many happy years of adventure and exploration.

If the desert is part of your love story and you'd like to celebrate your union with a gift to protect it, consider highlighting the Mojave Desert Land Trust on your registry! Friends and family can donate in your honor at [mdlt.org](https://mdlt.org).



# WHY I'M DONATING MY ESTATE

Donor Relations Manager Kellie Flint sat down with volunteer and donor Patty Domay to find out how she fell in love with the desert and why she's decided to join MDLT's planned giving society, the Desert Stars.

**KF: Thanks for talking with me today Patty! Tell us about yourself. How long have you lived in the desert and what brought you here?**

PD: I've been out in Landers in a homestead cabin for 20 years. Before that, I lived in Santa Clarita. I used to race motorcycles in the desert and one of the guys I raced with moved out here to Flamingo Heights. At the time, I thought well I can't afford a house in Santa Clarita, so I had to find someplace else to hang my hat.

**So then, how did you discover MDLT?**

I also do birding and one of my birder friends is involved here. I may have heard about it from her, I'm not really sure. But I just love what you do. I love that you're saving our beautiful desert and the habitat for the bobcats and mountain lions and wonderful coyotes, and maybe a rogue bear from Burns Canyon that comes down.

**Oh, that's so great. What motivates you to stay involved with our organization?**

I started doing the seed cleaning here, and I love it! The people here are very interesting, they're intelligent, they're interested in the desert, the animals. They care about the desert. And for me, that's extremely important.

**Why are you choosing to give to MDLT in your will?**

See this is....I'm sorry. It's a little emotional for me. I want the desert saved. I want the animals to have a habitat. I want people to come out here and instead of just going to a bar and drinking, or you know, doing one hike one time, I want them to fall in love with the desert. People need to walk out here and look and see.

**That's beautiful, Patty. Thank you for sharing, and thank you for trusting us with your legacy. What do you hope to accomplish through your philanthropic gifts to MDLT?**

Keeping habitat intact, and being able to plant more seeds here, grow more things, and save portions of the desert. In its native state, it's really beautiful. I got to know the desert from racing motorcycles which really tore up a lot of things you know, now I look back and go "bad girl!" - it was fun, but it wasn't good for the land. We've got to teach people about their carbon footprint. You know how the desert and the plants absorb carbon - that's fascinating to me. And the beautiful dark skies! I built my own telescope, I used to use it but gave it away because I'll be 83 this year and it's getting a little heavy to lift around. ✨



**To learn more or to join the Desert Stars, please email [donations@mdlt.org](mailto:donations@mdlt.org).**



# SPONSORSHIPS

Thank you to our 2022 sponsors:



Thank you to those who donated a percentage of their sales in 2022:



**Peter Bugg**

**Noah Klabin**



If you are interested in becoming a sponsor or donating a percentage of sales to the Mojave Desert Land Trust, please email [donations@mdl.org](mailto:donations@mdl.org).



# IMAGINE THE DESERT IN FIFTY YEARS

The desert can feel eternal. There are creosote rings in the Mojave that are eleven thousand years old. Or so I hear: the ones I see don't look a day over seven hundred.

That sense of timeless is part of the spiritual power and restorative nature of the desert. When we're in the Mojave, we're on desert time. We're forced to slow our pace and find our way to harmony with an ancient landscape.

When we look at the desert in 2023, climate change and habitat loss are realities. We here at the MDLT are working proactively to mitigate the effects of those changes. Preserving precious and threatened places, working to save key species, spreading the word about this fragile landscape: these are all part of our fight to keep the desert alive and thriving.

Picture the desert fifty years from now. People take deep breaths: the effects of climate change are balanced by this thriving biome full of bees, birds, and wildlife. The desert blooms with flowering native plants replenished by ancient springs, flowing rivers, underground aquifers. You can feel the magic in one of Earth's special places, preserved forever for future generations to experience, live in, and enjoy.

We can't do it alone. Many of us come to the desert looking for solitude and retreat. At the same time, deserts can foster close bonds as we share our passions, struggles, visions and hope. Our desert is no exception. We need all of your help to share the mission of the MDLT, communicate our goals, activate volunteers and donors, keep each other inspired, and mobilize the love so many of us feel for the Mojave into effective action that keeps the desert alive for generations to come. Our mission is to protect our vital desert. We can't achieve that mission without building a community among all of us who love the Mojave.

Steve Hely  
Board Member



# DIGITAL EXTRAS

Scan each of these QR codes to access bonus content and learn more about the Mojave Desert Land Trust, or visit MDLT.org.



2022 donors.



Watch a new video about our mission and vision.



Learn how volunteers are saving the desert.



Get involved!



Watch "Rewilding Palisades Ranch".



Check out our upcoming events.



Learn how the desert helps tackle climate change.



Donate today!





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Photo: Emmalyn Snead