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CONSERVANCY CONNECTION

SUMMER 2022

IT'S TIME TO THINK BIGGER



OUR MISSION

Working toward a sustainable future for the Amargosa River and Basin through science, stewardship and advocacy.

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SINCERE THANKS

The landscape of our lives always mimics the landscape of our internal world. Thank you for supporting our work and what we do to keep this landscape protected and in a state of continual beauty. Please join us in learning about some of the endless beauties present in this place and our accomplishments this year. We would not be able to do what we do without the generous support from you and the many organizations we partner with. To another successful year!

Ashley Lee,
President

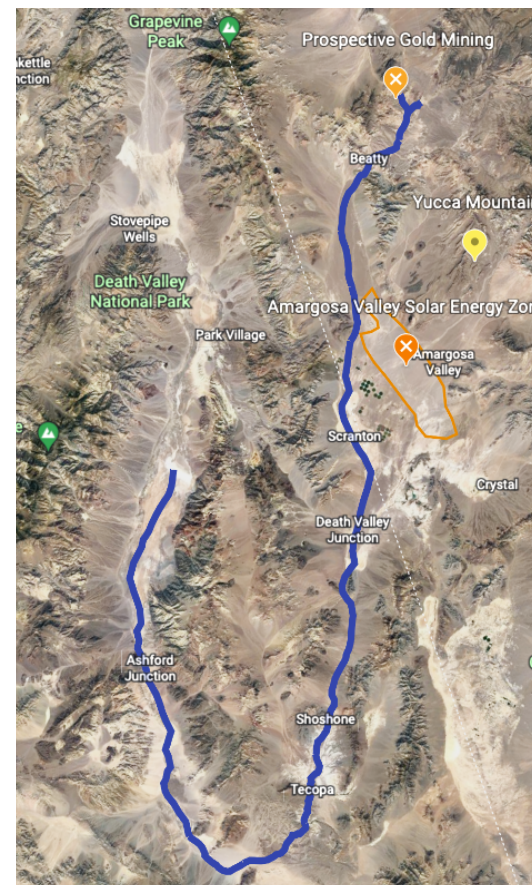
Like the river we serve, our organization is learning to adapt to changes in the landscape. The Amargosa Conservancy started as the Amargosa Land Trust, a scrappy grassroots organization working to secure protections for some of the most vital and vibrant wetland habitat in the Mojave Desert. We've had some big wins since we got started, including helping designate a spectacular 33.8 mile stretch as the Amargosa Wild and Scenic River in 2009. In the years following, we have restored crucial habitat, mitigated invasive species such as tamarisk, and increased public access through the development of the Willow Creek trail system.

But we are moving into a new chapter of the Anthropocene, an epoch in which human activity is the dominant influence over the climate and the environment. This epoch will be marked by higher average temperatures, megadrought, and increased development pressures. If we are to meet the challenges facing the Amargosa River in this new age of the Earth, we believe it is time for our organization to change once again. It's time for us to think bigger.

Climate change coupled with increased human presence and development have forced many of us working to conserve wild rivers in the American West into triage mode, and perhaps nowhere is this more true than in our reach of the Mojave Desert. In landscapes this large, the work to be done is always greater than the day is long. Working with limited resources and few staff members often makes choosing where to focus our effort to make the largest impact a difficult decision. If we are to meet the moment, many organizations like ours must use what capacity we have as a lever to move management in the direction of sustainability.

The Amargosa Conservancy believes landscape-scale conservation is our best chance at securing a vibrant future for the river and the human and non-human communities that call it home. Though our heart has always been in the Wild and Scenic portion of the river, the interconnectedness of this vast and complex watershed requires us to perceive and respond to threats throughout the Basin.

Groundwater pumping continues to diminish nearby spring flows. Gold mining, industrial solar and the ever-looming threat of the Yucca Mountain Nuclear Waste Repository pose risks of dewatering and contamination around the Amargosa Basin. Without a management plan that attends to the watershed in its entirety and is inclusive of all its stakeholders, the future of our beloved Amargosa Wild and Scenic River will remain in jeopardy.





But despite the complexity of the crisis, one thing remains clear: developing scientifically sustainable and politically equitable solutions for managing our nation's water resources will require a significant investment in collaborative conservation. Without landscape-scale collaboration in the very near future, all of our rivers are endangered.

So how can small organizations like ours with limited resources and time work towards such a lofty aspiration? We believe we can make the biggest impact by investing in authentic relationships with our regional partners. This includes the federal and state agencies, Tribal nations, NGOs, local businesses and community leaders that are the greatest decision makers and stakeholders in our watershed. We believe our organization needs to be a builder of community, and then we need to find ways to give that community a voice. We need to share our stories, research, and expertise as often and as eloquently as possible. We need to advocate for watershed charters and bi-state water compacts to guide conservation efforts into alignment with a collective vision.

In short, we need to create opportunities for land managers and stakeholders to come together and start planning what future we want to live in for ourselves and for the river we serve. There has never been a better time for organizations great and small to start thinking bigger, and the best way to think bigger is to do that thinking together.

We hope you'll join our community of scientists, historians, birders, hikers, artists and advocates that have been forever changed by their experiences in the Amargosa Basin. Only as a community can we create the future we want to see for ourselves and for this wild and wondrous place we love.

— Mason Voehl,
Executive Director



VIRTUAL EVENTS

Amargosa Conservancy Presents

SUMMER SEMINAR SERIES 2022

SEMINAR DATES

6:30p.m., Wednesday, June 29th — History of the Old Spanish Trail, John Hiatt
6:30p.m., Wednesday, July 20th — Rare Plants of the Amargosa Basin, Naomi Fraga
6:30p.m., Wednesday, August 24th — Geology of the Amargosa Region, Bill Neill

Free for all AC members. Suggested
donation of \$20.00.
Scan the QR code for more details and
to register!



Sponsored by our generous donors, Jeffrey Steinkamp and Corey Hermanson

RARE PLANTS OF THE

AMARGOSA WILD AND SCENIC RIVER

The plants of the Amargosa River are a sustaining resource in the incredibly rich and arid Mojave Desert of California and Nevada. Critical ground-water supplies supports lush riparian vegetation and provides vital habitat for rare and endangered animal populations such as the Amargosa vole (*Microtus californicus scirpensis*), least Bell's vireo (*Vireo belli pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), Amargosa pupfish (*Cyprinodon nevadensis amargosae*), and Amargosa speckled dace (*Rhinichthys osculus nevadensis*).

The Amargosa River, of which 33.8 miles in California is designated as wild and scenic under the National Wild and Scenic Rivers System, is a rich source of plant diversity, supporting numerous rare and endemic plants and important wetland vegetation. Often called the "Crown Jewel of the Mojave Desert," the Amargosa Wild and Scenic River is home to five federally listed species, including two plants: the Amargosa niterwort (*Nitrophila mohavensis*), and the spring-loving centaury (*Zeltnera namophila*).

This past year, along with my colleagues at the California Botanic Garden, I completed a botanical inventory of the Amargosa Wild and

Scenic River. This project was supported and funded by the Bureau of Land Management and conducted in partnership with the Amargosa Conservancy. The majority of the plants of conservation concern that we documented are associated with wetland habitats that are supported by the deep groundwater aquifer that feeds the Amargosa River. The rare plants of the Amargosa Wild and Scenic River have restricted distributions in California, because they occupy rare habitats such as alkali wetlands or carbonate rock outcroppings. They are vulnerable due to their limited habitat availability and threats to those habitats (e.g.

hydrological alteration and groundwater pumping that affects alkali wetlands). The major threats that are impacting the rare plants of the Amargosa River Basin include hydrological alteration, groundwater decline, climate change, proliferation of invasive species, off-highway vehicle activity, and habitat degradation.

Below you will find a brief summary of a few of the fascinating rare plants of the Amargosa River Basin. The Amargosa Wild and Scenic River supports extensive wetlands including alkali meadows, hanging meadows, seeps, springs, and riparian habitat. The rare plants profiled in this article rely on the extensive groundwater aquifer that feeds the Amargosa Wild and Scenic River. Decline in groundwater resources and alteration of hydrology are the most significant threats to plant diversity in this region. Water is arguably the most essential resource that defines this region, supporting endemic species and rich biodiversity. It is an honor to work hand in hand with the Amargosa Conservancy. The work of the Amargosa Conservancy to protect these essential water resources is fundamental to supporting conservation of these unique species.



Amargosa niterwort

Did you know?

The Amargosa Wild and Scenic River is home to five federally listed species , including two plants.

CHLOROPYRON TECOPENSE (TECOPA BIRD'S BEAK)

Tecopa bird's beak is an annual herb that is partially parasitic and blooms from July to October. Its primary host plants are thought to be *Distichlis spicata* (salt grass) and *Sporobolus airoides* (alkali sacaton), and it frequently occurs in open salt encrusted areas within alkali wetlands with saturated clay soils. We documented several occurrences of this species throughout the Amargosa Wild and Scenic River. Some of the impacts we observed to this species include vehicle trespass in the wetland along Hwy 127 south of Shoshone, where vehicle tracks were observed on non-designated routes. Outside of the Amargosa River Basin, this species also occurs at Ash Meadows Wildlife Refuge at Saratoga Spring in Death Valley National Park and 200 miles north in Fish Lake Valley, Esmeralda County, Nevada.



Tecopa bird's beak

FIMBRISTYLIS THERMALIS (HOT SPRINGS FIMBRISTYLIS)

Hot springs Fimbristylis is a perennial herb that blooms from July to September and occurs in alkali meadows, near springs and seeps, and often near hot springs. This species historically occurred in Shoshone, although it has not been observed there since 1930. We documented a previously unknown occurrence in the Amargosa River Canyon near a seep in a side canyon just south of Tecopa. Locally this species also occurs in Ash Meadows Wildlife Refuge and Death Valley National Park. It is widespread in its distribution occurring in Arizona, California, Nevada, Utah and Mexico, but despite its widespread occurrence it is considered vulnerable and rare because it lives in isolated habitats that are sensitive to disturbance such as hot springs and alkaline seep meadows.



Fimbristylis thermalis



Amargosa Canyon

ZELTNERA NAMOPHILA (SPRING LOVING CENTAURY)

Spring loving centaury is federally listed as threatened and is endemic to the Amargosa River region. It is an annual herb that blooms from July to September and occurs in alkali meadows and near seeps and springs. This species was historically documented in Tecopa and Shoshone between 1930 and 1965, but there are no recent observations of it in the Amargosa Wild and Scenic River. There is potential habitat for this species within the Wild and Scenic River designation, but we did not document any populations as of 2021. We hope to continue surveying for this species in 2022 and beyond in the hope of relocating it in Tecopa and Shoshone.

— Naomi Fraga

SUPPORT THE TECOPA WATER KIOSK

Want to join me in making a difference for a community in need? Follow the QR code to support access to safe drinking water for the residents of Tecopa, CA.





HISTORY OF CHINA RANCH: AN INTERVIEW WITH

BRIAN BROWN

China Ranch is a family-owned date farm and portal for hiking to the central portion of Amargosa Canyon. It is located along Willow Creek, a fresh water tributary that flows into the Amargosa River, and provides critical habitat for Mojave Desert flora and fauna. We asked long-time proprietor Brian Brown about the property's early history and about the Amargosa Conservancy's assistance with trailhead development and habitat improvement.

AMARGOSA CONSERVANCY

First, what was the early history of China Ranch and how did your family acquire ownership?

BRIAN BROWN

The name is derived from the historical presence of a Chinese man here in the 1890's, who farmed here and provided this remote area with hay, some fresh fruits and vegetables, and livestock for meat. These items were in especially short supply in this extremely remote mining region at that time. The Pacific Coast Borax Company recruited Chinese workers from the San Francisco Bay area in the 1880's and 1890's to scrape borax salts off of the playas in Death Valley and Tecopa, and Ah Foo, the farmer, was part of this labor force. Apparently he

somehow left the Borax Company and began to farm along Willow Creek. It became known as the Chinaman's Ranch, and later just China Ranch. The ranch seems to have a history of repeated efforts at traditional western ranching and farming, as well as periods when it was nearly abandoned. In earlier times it was an extremely difficult place to make a living, considering the extreme climate, isolation, and distance to any other city or town. Ownership changed hands many times in the 1900's, as various owners or tenants became discouraged and left. It came up for sale again in 1969, when my father and his sister purchased it. My late

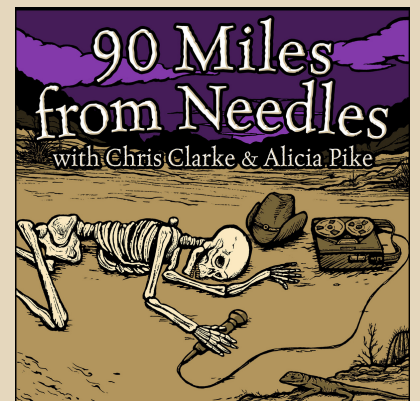
wife Bonnie and I moved here in 1969, and were determined to figure out how to make a successful living here somehow. We spent the next 36 years until her passing in 2015 working on this life-long project. The presence of the old date trees here turned out to be the clue. In 1989 we began to plant young date palms, eventually expanding the farm to about 25 acres, around 1,500 trees. In 1996 we opened the retail store here, opened the ranch to the public, and began publicizing the new business. It became apparent quickly that it was going to work, and in 1998 I was able to quit my outside job as a school teacher and work on the ranch full-time.

(continues)

NEW PODCAST!

Check out this New Desert Protection Podcast from AC Board Member Chris Clarke.

90 Miles from Needles' cohosts Chris Clarke and Alicia Pike bring you stories from far out in the American outback.



90milesfromneedles.com

AC

How did the conservation easement by the Nature Conservancy (TNC) come about?

BB

Around 2001 the other fractional owner of the property wanted to split the property, most likely to do some type of subdividing and sell off small parcels. Bonnie and I were determined not to let this happen; it would have changed the fundamental nature of the ranch. Eventually we were able to come up with a solution: selling a conservation easement to the Nature Conservancy. With the money from the sale of the easement and funds raised from private donors we were able to give the other owner the appraised value of his portion of the ranch; Bonnie and I got full ownership, and the Nature Conservancy holds a conservation easement on the property. It wasn't perfect, but basically everyone got what they needed out of the deal. The easement is essentially a set of deed conditions that travel in perpetuity with the ranch. These conditions protect the conservation values of the property, and assure that inappropriate development won't happen here in the future. This is when I met Bill Christian with TNC, who ushered the process through some arduous negotiating that went on for several months. Bill would become a star advocate for the Amargosa region and a good personal friend. He passed in 2020 and is dearly missed by those of us who knew and worked with him.

AC

The trailhead development by the Amargosa Conservancy: whose idea, when was it done and how did it work?

BB

The Amargosa River Trail that begins here at the ranch was an interesting challenge. Since its inception, the Amargosa Conservancy had wanted a reasonable trail into the prime section of the river canyon, about 1–2 miles below China Ranch. It was frustrating, because there was no feasible route over exclusively public land into the canyon. After several false starts at other locations and over several years we were finally able to put together an agreement that made the trail possible. It was a collaboration between the BLM, the State of California, Bonnie and me as private landowners, and the AC as a sponsoring NGO. The AC applied for and was awarded a river parkways grant from the State. The BLM did the necessary environmental clearances, since most of the trail is on federal land. China Ranch agreed to allow the structures to be built on the property, and to allow public passage to and from the trailhead and picnic area from dawn to dusk daily.

It was a very long process over many years, and to this day it requires cooperation between the partners to maintain the trail and facilities. And, once again, Bill Christian was a driving force behind this effort. He helped us draft the actual grant, and to negotiate with the various other parties. We hope it can be a template of sorts for other cooperative efforts between the various agencies and organizations in this region. In my view, it was a win-win-win-win!

AC

In the Amargosa Conservancy's early years, you were part-time staff as Resource Advocate; what was your role and job description?

BB

In the early days of the AC I worked part-time as "Resource Advocate", a title we created. I was essentially the public face of the organization. I went into the local communities and did Powerpoint presentations. During the cool season we sponsored monthly walks and talks, a series of field trips and lectures to educate and entertain anyone interested. I went to many, many meetings with the land management agencies and other NGO environmental groups and public comment meetings. You have to remember that 20 years ago there really wasn't much environmental awareness of this region by anyone. We wanted to put our region on the map, raise awareness of what is here, goad the agencies into fulfilling their stated missions, and help the staggering local economy in the process. I believe that our efforts were successful.

In March of 2021 we had a disastrous fire here at China Ranch, which burned about 32 acres, much of it lush willow forest habitat that served as nesting grounds for several species of critical birds that come to this area. Over the last year, we have been very fortunate to get help from the U.S. Fish and Wildlife Service, The Nature Conservancy, the BLM, and local volunteers to pursue a restoration plan for the burn area. So, once again cooperation between the various parties is going to have a beneficial outcome. I'm confident that in a few more years the fire will be a distant memory and the area will be recovered.



Bill Christian





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**The Amargosa Conservancy is a
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