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the Tortuga Gazette

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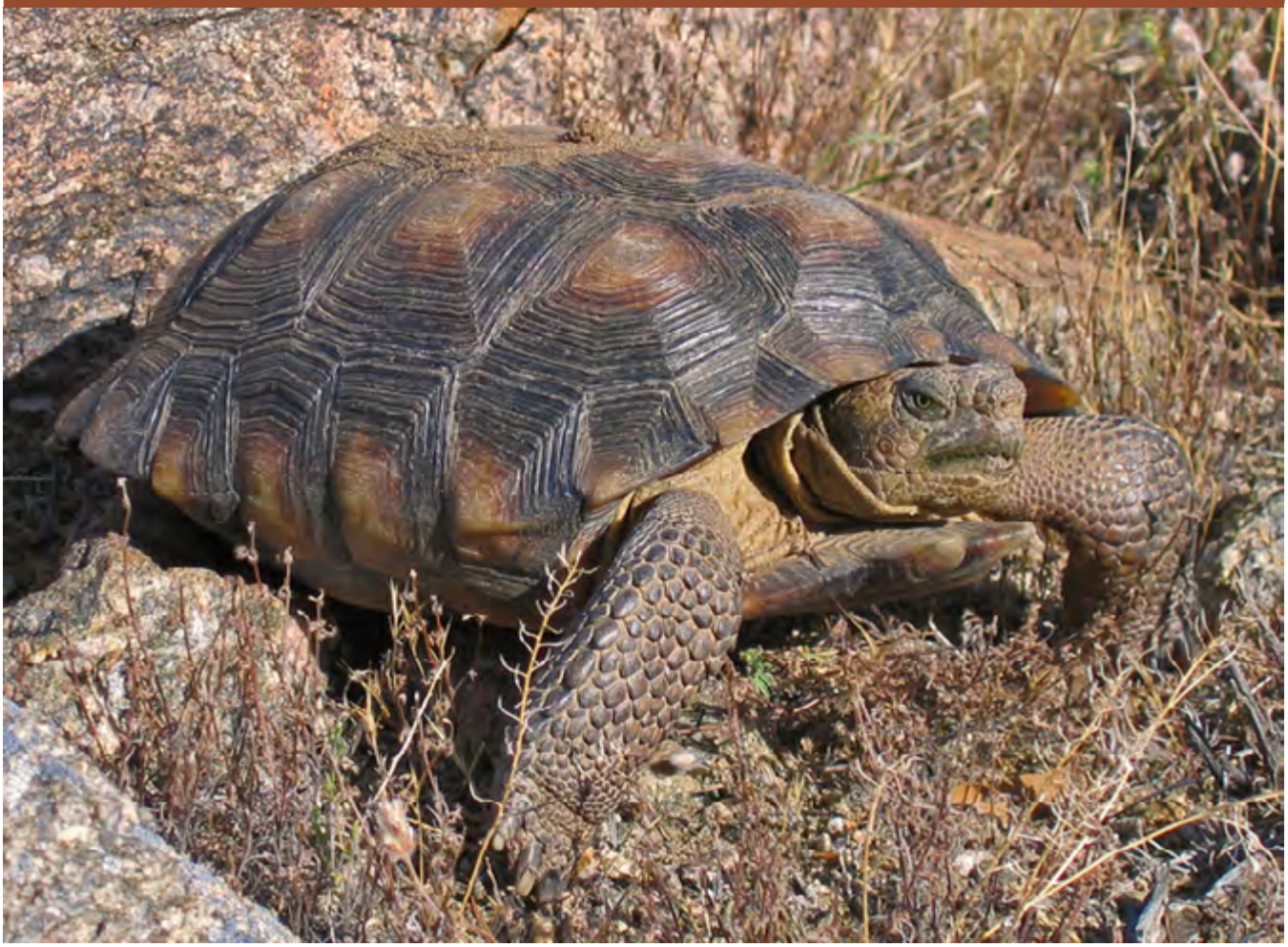

Sonoran or Morafka's desert tortoise, *Gopherus morafkai*. Photo by the United States Fish and Wildlife Service. Public domain.

featured species

Morafka's Desert Tortoise, *Gopherus morafkai* (Murphy, Berry, Edwards, Leviton, Lathrop & Riedle, 2011)

Gung-ho for GOMO

by Roger A. Repp

The preparation phase for this particular column led me to a file cabinet drawer that has not been opened in over 15 years. Said drawer contains endless files of raw data on the tortoises that were processed on my turf through my early herping years in Arizona. That's right, gentle readers, there was a time that I was a genuine tortoise researcher. I had my scientific permits, my carapace notching files, my datasheets, my mass-measuring scales, my ruler, my epoxy and my license plates all stuffed into my backpack with every field outing. And off I would go assailing every tortoise hapless enough to be in my path. There were many, and that is why I have an entire file drawer stuffed with datasheets. As I have not personally processed a tortoise since the year 2001, there has been no further need to open that drawer--until now.

We should address some of the finer nuances of the tortoises in the Tucson area before moving any further along with the narrative. The local clade has recently been reclassified as the Sonoran Desert Tortoise

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(*Gopherus morafkai*). There is a little nomenclature trick that I have adopted from the local researchers that combines the first two letters of the genus with the first two letters of the species for any given animal or plant species. Instead of writing "Sonoran Desert Tortoise (*Gopherus morafkai*)" many times over for this column, I can simply use this little four letter trick of theirs by simply calling them "GOMO."

We should also mention before continuing that nobody loves GOMO more than I. There might be some who love them as much, but certainly not more. Throughout my formative years, I always kept at least one tortoise of one sort or another. And when I moved to Arizona, the fact that I was now in a place where I could find one in the wild on any given lucky day has never been taken for granted. I feel blessed and elated to live in a place that has them. By loving the local variety of tortoises in such fashion, I can be called a "GOMOphile." (We can all be glad that the genus name for our local species of tortoise does not start with an H. That could lead to some problematic misconceptions).

The event that set up the explosive peak of my interest in wild populations of GOMO has already been documented in the March 1998 issue of the Bulletin. In order to avoid the risk of having hundreds of you injure yourselves in an all-out frenzy of closet-clearing effort seeking that issue, allow me to briefly describe some of the contents. In February of 1991, I was part of a gang of four who were involved with removing wild tortoises from the hillsides of a local mining corporation that was going to mow said hillsides down. Over time, we saved 17 different GOMO from certain death in the process, not to mention three Gila Monsters (*Heloderma suspectum*), or HESU, as those hillsides are now deep gorges. But on these outings, we were playing a simple game of find and remove. What was learned here was how to find a very cool herp. There have since been many variations of what to do with them when they are found.

During this period of time, GOMO was rapidly becoming the political football herp of the Tucson Valley. In short, there was money in GOMO studies. And that money not only kept every local wildlife biologist who favored herp projects gainfully employed, it pulled in many new faces from other states. Several of these wildlife biologists have since gone on to successful careers with GOMO-monitoring agencies as a result. Big shots they are now--and good on them, I say. Meanwhile, here was this author--fat, dumb, and happy, finding scads of GOMO simply because he liked seeing them. In time, the pros and I connected. I shared my spots with them, and they shared not only their money with me (not a lot—but they didn't get all that much either), but also got me what I really wanted. And all that I really wanted was to be able to legally get my hands on them, really get to know them, and mark some of them for future reference.

From 1993 through mid-1995, I often volunteered to assist the various researchers involved with GOMO work on their various plots. In some cases, we were following radio-transmittered individuals around. In other cases, various grad students visited my spots with me, and processed some of the tortoises there. By summer of 1995, I got involved with three researchers who were working full time for the University of Arizona as freelance herpetologists. None of these three actually ever moved up the corporate ladder of GOMO-dom, being instead content to move on to other things when the money ran out. It is out of respect for them that I mention them by name, for they were the first people who had enough trust and faith in me to get me a permit. They were Betsy Wirt, Peter Holm, and Brent Martin. Brent must have drawn the short straw between the three of them, for it was on 27 August that he went out with me to show me what was expected. After that, I was completely autonomous with my tortoise work. Every couple weeks, I copied my datasheets and handed them off to them. I only worked with this trio through 1995, but remained heavily involved with GOMO work for six years after that. That first summer of 1995, when I was working with them, was by far the most enjoyable.

For those unfamiliar with processing tortoises, a description of what is involved is in order. The first thing that must happen is to have the tortoise in hand. This is a pretty simple process when one finds one on the move across open ground.

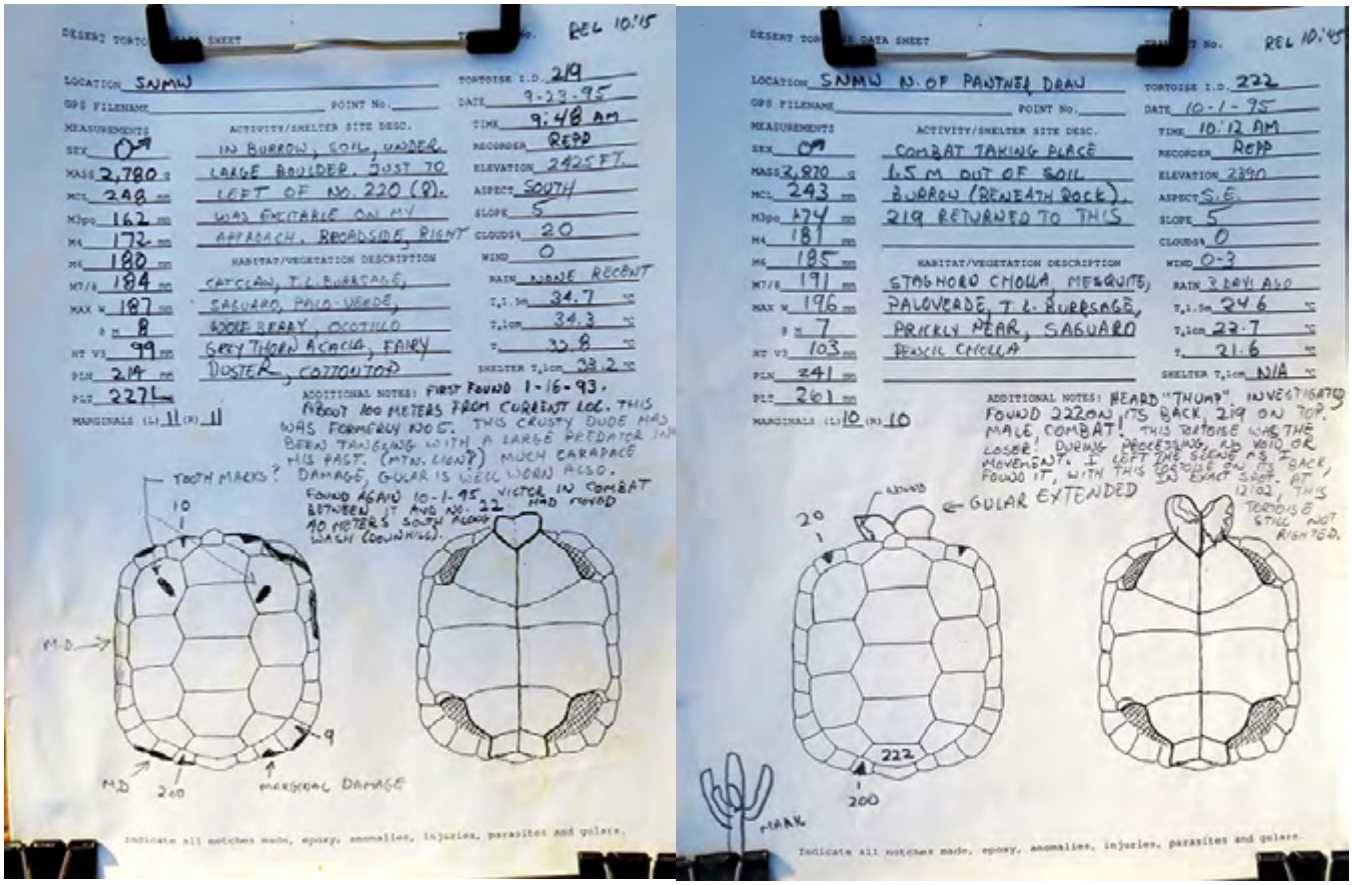
But it gets a lot more difficult if they are in a burrow. The deeper in the burrow that they are, the harder they are to remove. If I was able to touch them, I always succeeded in getting them out. If they were in beyond my reach, I left them alone—and came back later. Even though I was much leaner then, my size still limited me from going after the really deep ones. Once in the hand, out came a stiff caliper, which was used to measure length, width, and height at various intervals along the carapace, dictated by the marginal and vertebral scutes on the carapace. Next came the mass measurement. I learned to use bailing wire wrapped around the shell of the tortoise, the other end of the wire being affixed to a spring scale—much like those used by fisherman. Next came using a triangular-shaped file, used to carve notches into the marginal scutes. Each marginal scute (or scale) had a unique number assigned to it via any number of clever marking schemes developed by the mathematically inclined biologists. The last physical aspect of processing the tortoise was to epoxy a small, rectangular piece of index card to the rear-most vertebral scute, with the number inscribed by a magic marker. This was also known as a license plate. As these were the days before hand held GPS units were readily available, the location of the tortoise was marked on a contour map of the area being worked. Weather conditions and various other climatic information were also recorded on a formal datasheet, along with any circumstances considered interesting by the observer. We will refer the reader to some titillating images of actual datasheets at the appropriate time in the text ahead.

The vanquished "Bad Day" is on the left, with the victor "Lion Bait" on the right. Photo by Roger Repp. Reprinted with permission from the photographer.

As suggested earlier in the narrative, I basically handed some of my best GOMO turf over to the researchers. There was always a positive payoff in this practice. Many GOMO that I was watching wound up with a license plate and/or notched marginal scales, which made for much easier identification. The place that I showed Betsy, Peter, and Brent was one of my favorite stomping grounds, simply because it was absolutely infested with tortoises. The situation is ideal for GOMO. There exists a semi-circular ring of rugged peaks that form the rim of a massive, natural-shaped half-bowl. The slopes of the peaks along the rim of this half-bowl are south and west-facing, so they gather sunlight for most of the day. This becomes important in winter, as that is where the majority of the GOMO head during that time period. The arable soil that marches roughly mid-way up the steep slopes is cluttered with boulders great and small. Cutting through the bowl of the terrain below hillsides are a series of deep, steep walled arroyos, the embankments of which are pockmarked with holes and mini-caves. This is where the GOMO go in the summer and fall. There were so many tortoises in these arroyos that Betsy was at first against adopting the place, as she feared the burgeoning population there would reflect a biased and lopsided scorecard compared to normal patches of tortoise turf. But Peter and Brent wanted lots of tortoises, and talked Betsy into accepting the place. The Panther Peak Plot, as it would one day be named, yielded 110 different GOMO in just a one year timeframe! Throughout the remainder of the century, and on into Y2K, it became the playground for many up and coming tortoise Jedis.

Enough! The previous verbiage was all a sweet setup for what happened at Panther Peak Plot on 1 October 1995. As we begin the transition together to the actual event, we must first go one more step in the setup by asking you all one long question. We have a young and extremely jacked up Roger Repp, fully armed with scientific processing equipment, in the thick of a place that he knows is the best GOMO spot ever, on a mission to seek and mess with any GOMO found--what could happen?

Since you all have just endured the long set up, I will just tell you now that I heard a thump, which led me to the ending of a Genuine Gung ho GOMO Guys' brawl. The victor had his left-front, elephantine-club of a foot planted on top of his uprighted



Datasheets for the participants of the combat described in the text. The winner, #219, "Lion Bait," is on the left, and the loser, #222, is on the right. All things considered, their sizes are similar, but #219 had the advantage of experience. Lion Bait was one spunky old dude! Reprinted with permission.

vanquished foe, hooking his opponents' left front leg in the process and pinning him helplessly to the ground. Seeing the victor of this contest was where the first notion of "where the turtles are strong" came from. The camera that I carried at the time was little more than a crappy instamatic loaded with 35mm slide film. But once every hundred or so times, a passable image would accidently occur. The first image taken of the battle's aftermath is not only passable, but remains the best image of GOMO combat to ever pass before my eyes. (See cover of this issue, and for another angle, figure 3). Indeed, when some of the local tortoise nerds saw this image, they accused me of posing it! That would take some doing—and I have never had that sort of patience. No, this photo opportunity, as well as the subsequent images, were simply the result of more luck than brains.

But at this point in the observation, the "fun" was just beginning. It was now time for the Gung ho GOMOphile to mess with the dueling Gung ho GOMO Guys. I am pleased to report that the victor was not touched, as I had processed him the week previous. But for the vanquished, well, we can just say that it wasn't his day. "Lion Bait," as we shall henceforth call the winner of the bout, backed off the scene after remaining frozen for many images. He turned his back to me and slowly ambled off to a perfect soil burrow under a boulder roughly 1.5 meters north of the epicenter of the battle's conclusion. He likely knew what might be coming next, as we had already met. Hence, he sought the closest safe shelter to hunker down, and remained there unmolested and well-behaved. It should be mentioned here that if there was a female near the scene to trigger the trouble, she could have easily been behind Lion Bait in the burrow. I was deeply respectful of Lion Bait, and never got close enough to that burrow to look behind him. (In retrospect, that was rather stupid of me, but that is all history now).

Meanwhile, I must try to grope upward in the intelligence department so that I can relay to you what it was like to be the vanquished GOMO on this miserable day of his. We shall call him "Bad Day," as "Loser" seems a bit harsh. Here's my take of what Bad Day was thinking at the point that I entered the scene: "Okay….I just got my ass kicked, and this jerk has me nailed to the ground. It's hot here. This day can't get any worse, right?" Bad Day stoically endures the most humiliating moments of the ass-kicking in silent depression, and then his brain wakes up when there is suddenly a change to the situation. "Wow—he's getting off me? Cool! Thank you, kind sir. But waitaminute! Here's another jerk! A really big one! What's up around here? One jerk leaves, a bigger jerk arrives? What's he doing now? Oh no, is he going to mess with me?

He is going to mess with me! He's touching me, whoa, he's got me, is he going to eat me now? Wee, that tickles--no, what's this? Ouch—stop it!" And then one long 33 minute in duration: "GAAA, no, please….no…. no, not that¬¬--GAAAAAAAAA!"

Bad Day kept these thoughts to himself. He mercifully remained frozen in the shell for all that followed. My mighty N of one with processing a losing participant in GOMO combat would lead me to believe that they are ready to be compliant. He did not void during processing, which is always considered a plus. When I finished with Bad Day, I was faced with a bit of dilemma. Put him back as found, or leave him with his feet on the ground? As suggested earlier, this was not his day. I left him in the exact spot and situation that he was found. I was confident that he could flip himself over at will. Said confidence was seriously shaken when I returned roughly two hours later. Lion Bait was halfway between the burrow and his still overturned opponent, facing him, and clearly moving toward him. I turned my back to the scene, and left poor Bad Day for dead. My reason for leaving him upside down is because I didn't want the rightful victor of this contest to have to fight again—and possibly lose. What happened before I got there was meant to happen, and any meddling after that was messing with what nature had ordained. But I must confess that I did not sleep well for several nights after. The first report that 222 was still alive came in from the UA gang the week following. This news was most welcome!

Please refer to the datasheets in on page 4. Allow me to just pick off a few highlights, so we can keep the caption brief. Lion Bait is on the left, Bad Day on the right. The image/datasheets also give the actual numbers of #219 for Lion Bait, and #222 for Bad Day. It should be mentioned that, as noted on the datasheet, Lion Bait and I first met on 16 January of 1993. At that time, he was overwintering upslope of this observation, and was the fifth GOMO found in the area. I was not marking tortoises at that time, but a large carnivore of some sort—presumably a mountain lion, had marked him for me. Hence the name "Lion Bait." I hope that lion had permits! The datasheets, images, and observer experience agree that Bad Day is a much younger GOMO than Lion Bait. The younger GOMO also outweighs the older. The youngster has a much more pronounced gular, which is the crowbar-shaped bony prominence that projects outward under the plastron just below the throat. His gular should have given him an advantage, as Lion Bait had only a nub of a gular left to fight with. Lion Bait was a tad longer in carapace length, but otherwise, the size of the participants was nearly equal. As soon as I relayed this info to Betsy, she told me that everything she had read and heard indicated that in such cases as this, the older, more experienced tortoise almost universally wins. Did you hear that, young sprouts? Old age and treachery always trumps youth and skill. Keep your wits about you before you go messing with any old guys, lest you get the surprise of your lives!

In closing, it should be added this was not a long, knockdown, drag out fight. My own summation of the situation is that it was one highly audible "whump" and done. The blow was likely delivered by a head-on crash initiated by the old guy, who was no doubt charging downslope at top speed to hit that youngster. He likely knocked his younger counterpart head-over heels in the process, and quickly maneuvered to pin him. When this lone thump was heard, I was moving down a deep cut, and was already serendipitously moving straight for it as it happened. It was a thunderously loud "whump"—as if somebody raised a five pound boulder above their head and slammed it to the ground. Had there been any sparring, I would have heard a sound similar to two coconuts being slammed against each other several times. I have been close to GOMO battles on two other occasions, but also completely missed the sparring action both times. It is my opinion that with the Sonoran Desert variety of tortoises, combat is not a common occurrence. Nevertheless, as one who is always seeking cool, it is my earnest hope to one day photograph the coolest of the cool: an all out slug-fest between two equally sized male GOMO. Hey—it could happen!

This author is pleased to report that while a few long term monitoring plots still remain in this state, the overwhelming attention that the local tortoises once received has died down. To my knowledge, the last of the mass outings to the Panther Peak Plot stopped in 2003. I consider this a good thing. We now know how big they get, where they go, what they eat, when they reach sexual maturity, fight and mate, where, when and how they nest. All the attention that they got for the ten year time span under discussion was a form of loving them to death. As I pack my datasheets back into the file drawer from whence they came, I have arrived at the realization that the best way to conserve GOMO is to just leave them the hell alone. They are doing fine without our "help." This is how I know that nobody loves them more than I. There isn't enough money in the world to interest me in further disturbing them for any purpose—scientific or otherwise. I have made my peace with them, and will keep all future admiration at a distance.

This here is Roger Repp, signing off from Southern Arizona, where the turtles are strong, the snakes are handsome, and the lizards are all above average.

Roger Repp is an avid field herpetologist based in Tucson, Arizona, and a columnist who regularly contributes to the *Bulletin* of the Chicago Herpetological Society. Prior to his recent retirement from the National Optical Astronomy Observatory in Tucson, he served as the shop supervisor at the facility.

This article was originally published in the *Bulletin* of the Chicago Herpetological Society 52(5):89-92, 2017. Reprinted with permission from the author and from the editor of the *Bulletin*.

the Turtle's Garden
planting for chelonians
by M A Cohen

Yuccas of Arizona's Sonoran Desert

- *Yucca arizonica* (Banana Yucca)
- *Yucca brevifolia* (Joshua Tree)
- *Yucca elata* (Soaptree Yucca)
- *Yucca schidigera* (Mojave Yucca)

The inflorescence of the Mojave Yucca, *Yucca schidigera*. Photographed near Ash Creek Spring in the Calico Basin of the Spring Mountains in southern Nevada. Photo © 2008 by Stan Shebs. Source: Creative Commons; license GFDLCC-BY-SA-3.0CC-BY-SA-2.5.

Derived from the Spanish/American Indian word *yuca*, meaning cassava (*Manihot esculenta*), the genus *Yucca* comprises nearly 50 species and numerous subspecies belonging to the Asparagaceae family.

Yuccas have been used extensively by humans for centuries for building materials, food, and fiber. Yucca species are endemic to an extensive area within the Americas, ranging from southern Canada southward into Central America, including the Caribbean Islands.

The word "yucca" serves as both the genus name (*Yucca*) and the common name (yucca) for this group of succulent plants. Typically characterized as a desert dweller, the habitats of the genus *Yucca* vary, ranging throughout the Americas from montane habitats to true desert regions as well as many and various ecosystems in between the those types.

Yucca species are exceedingly adaptable evergreen perennials, and will thrive in many temperate, subtropical, and tropical landscapes worldwide if provided with proper care. Species range from stemless rosettes to tree-like, branched forms. A brief description of the Sonoran Desert species follows.

The current column profiles the four yucca species that are indigenous to the Sonoran Desert in Arizona; however, these species are also endemic to other regions of the southwestern United States and northern Mexico. With suitable placement and care, these species, except as noted, will grow in a variety of garden settings.

One note of caution: many yuccas bear leaves with an extremely sharp, rigid tips; in habitat, this armament serves to protect the plant from hungry animals. In some garden settings, the sharp leaf tips pose a risk to people and pets. In these situations, proper placement includes planting yuccas at a distance from paths, walkways, and other areas where foot traffic occurs. Some gardeners choose to remove the sharp tips from the leaves using a nail clipper or pruning shears.

The Yucca Inflorescence

Like many other succulent species, yuccas produce white or creamy-white, bell-shaped, edible flowers in an arrangement called an inflorescence, defined as a cluster of flowers grouped on a stalk occurring in several different configurations.

The minutiae of these flower arrangements is beyond the scope of this column; refer to a botanical text for more details. The yucca inflorescence typically bears dozens to hundreds of individual blossoms at full development.

Unlike agaves, yuccas do not die after flowering; instead yuccas produce new inflorescences each year providing there has been sufficient rainfall or irrigation.

Yucca Moths and Pollination

Tegeticula, a species of yucca moth, depositing a pollen ball on the stigma of a yucca blossom. Photo © Sherwin Carlquist. Source: Creative Commons; license CC-BY-SA-3.0.

Yucca plants and yucca moths exist because of a remarkable symbiotic relationship—neither the plant nor the moth would survive without the other.

According to the caption for the photograph above, Sherwin Carlquist writes, "The *Tegeticula* moth spends its entire life in association with yucca plants. Here is a female *Tegeticula* that has rolled pollen into a ball and is depositing it on the stigma. It will then lay eggs in the ovary. The larvae will destroy only a part of the seeds, which would not exist without the pollination by the moth."

This caption describes the partnership between yucca plants and yucca moths throughout their ranges. Several species of yucca moths associate with the many species of

yuccas, providing invaluable pollination service to the plants. The plants, in turn, provide a "nursery" in which the moths deposit their eggs, furnishing food and shelter for their larvae.

Edibility and Utilization of the Yucca

If able, wildlife will consume the blossoms and fruits fresh; wildlife eats fallen flowers and fruit as well.

Native Americans used both fresh and dried blossoms and fruit as food. They utilized the fibers of the leaves and trunk for weaving items such as baskets, rope, and horse blankets.

For uses of yucca saponins, see the section on the soaptree yucca.

Arizona's yucca species

Banana Yucca

Banana yucca, *Yucca arizonica* (=*baccata*). Photo of leaves, spent flowers, and edible fruit. Photographed in Kyle Canyon, in the Spring Mountains of southern Nevada. Photo © 2005 by Stan Shebs. Source: Creative Commons; license GFDLCC-BY-SA-3.0; CC-BY-SA-2.5.

Formerly known as *Yucca baccata* subspecies *arizonica*, *Y. arizonica* owes one of its common names to its fleshy, edible, banana-shaped fruit that grows up to 6 inches (15 centimeters) long. Another common name is Spanish bayonet, describing the shape of its leaves, each of which terminates in a rigid, sharp spine.

The banana yucca grows as a stemless rosette of blue-green leaves up to 3 feet (0.9 meter) tall with equal or greater spread, through time forming sizable clusters of individual plants. As with many other *Yucca* species, threadlike white fibers called filaments curl away from the margins of the blue-green leaves.

Appearing in spring and summer on an inflorescence up to 2 feet (0.6 meters) tall, its edible flowers range in size from 2 to 6 inches (5 to 15 centimeters) in diameter. Unlike most yucca inflorescences, the banana inflorescence remains within the rosette of leaves, or rises only slightly above them.

A Joshua Tree, *Yucca brevifolia*, photographed on the Joshua Tree Scenic Road in Arizona. Photo 2008 by Adrião. Source Creative Commons; license GFDL-CC-BY-SA-4.0,3.0,2.5,2.0,1.0.

Joshua Tree

Native to western Arizona, southeastern California, southern Nevada, southwestern Utah, and northern Baja California, the iconic Joshua tree, *Y. brevifolia*, is a tree-shrub form of yucca, typically displaying multiple branches. Generally reaching a height of 15 to 50 feet (5 to 15 meters) at maturity, the Joshua tree grows slowly in desert landscapes in dry soils with excellent drainage. *Y. brevifolia* will ***not*** fare well in ordinary garden conditions.

With spine-tipped leaves up to 16 inches (40 centimeters) in length grouped close to the ends of the branches, the Joshua tree is typically the only arborescent (treelike) plant species in much of its range, forming sizable woodlands above 3,000 feet (900 meters) of elevation.

The Joshua tree forms new branches following flowering; its short inflorescence generally appears in spring after a season of sufficient rainfall. The Joshua tree flowers are bell-shaped and greenish-white to cream-colored.

Soaptree Yucca

Yucca elata, known by the common name of the soaptree yucca, is a widespread species indigenous to the southwestern deserts of the United States and northern Mexico.

The trunk and roots of the soaptree yucca contain toxic saponins, substances that, when combined with water, foam up and produce a soap. The common name of the species derives from the Native American practice of extracting these saponins to use for cleaning their clothing and hair.

The soaptree yucca, photographed at the Desert Botanical Garden, Phoenix, Arizona. Photo © 2009 by Bernard Gagnon. Source: Creative Commons; license: GFDL-CC-BY-SA-3.0,2.5,2.0,1.0

Column concludes on page 16 ▶

Mike's Turtle Net Picks by Michael J. Connor, Ph.D.

A varied selection of recent articles, stories and sites on the Web that some of you may find as interesting as I did. This list is also posted at tortoise.org/turtlenetpicks

Outside LED Lamps Affect Sea Turtles | Increasing use of LED lamps may be affecting sea turtles, salmon, and birds, but the good news is that amber and green LEDs have less impacts.

North Carolina Organization Aims to Offer Free Amber LEDs | Hatteras Island Ocean Center is raising money through a GoFundMe to purchase amber LED bulbs to install free of charge to locals to mitigate harmful beach lighting

Link: **HIOC GoFundMe page**

Understanding Pacific Leatherbacks | Informative and well filmed NOAA Fisheries video on Pacific leatherback turtles.

Marine Plastic Threatens Leatherbacks | Autopsy of young female leatherback finds 13 gallon plastic bag in her intestine.

Turtle Odyssey 3D | *Turtle Odyssey 3D* follows the life of an Australian green sea turtle named Bunji and her incredible journey across the open ocean. Narrated by Russell Crowe.

Cincinnati Zoo Galapagos Tortoises Get Roomier Home | Video of Galapagos tortoises (and their keeper) settling in to their new exhibit space at Cincinnati Zoo.

Land Bill Threatens Desert Tortoise Habitat in Utah's Red Cliff's Reserve | Audio report on Utah congressman's bill to build a highway through Red Cliffs Reserve.

Clark County Want to Develop More Desert Tortoise Habitat | Over the opposition of both conservationists and OHVers, Clark County commissioners approved a resolution on June 19 calling for federal legislation to open more than 44,000 acres of public land for new development between Sloan and Jean.

Uncommon Indiana Turtles | Short story on the rarely seen turtles of the Hoosier State.

New Jersey Chooses State Reptile | And the winner is — the endangered bog turtle.

Black Spotted Turtles Suffering Massive Illegal Trade | "At least 10,321 live Black Spotted Turtles, *Geoclemys hamiltonii* were confiscated in 53 seizures between April 2014 and March 2016."

New Fossil Sea Turtle From Alabama and Mississippi | Paper describes new species of sea turtle — named *Peritresius martini* — from the Mississippi Embayment.

CTTC On Facebook | For breaking news updates, visit and "like" us on Facebook!

2018 Show Schedule

21 July: Inland Empire Annual Show at Redlands Senior Citizens Center, 111 W. Lugonia Ave., Redlands, CA; 10 AM–3 PM.

Request for Information and Photos for an Article about Max and Lillian Greene

Max and Lillian Greene raised a variety of tortoises at their home near Ojai, in Meiners Oaks, CA. They called their place "Turtletown," sometimes spelled "Turtle Town." Many of us CTTC members visited Turtletown and were treated to talks by Lillian and a tour of their collection. I am hoping that some members might have taken photographs while visiting Turtletown, and if so, would you be willing to share copies of them? Any photographs will receive full photo credit in the article.

I would also like to receive any recollections or anecdotes you might have of your visit for a future article in the *Gazette*.

The Greenes started their involvement with tortoises when Max retired. Lillian kept Turtletown going by herself after his death in 1993 until she died in 1999.

Please send your responses directly to Ralph Hoekstra via email at **rhoekstra@aol.com**

Geoclemys hamiltonii, the black spotted turtle, photographed at at Biswanath Ghat, Assam, India. Photo © 2014 by Rohit Naniwadekar. Source: Creative Commons; license: CC-BY-SA-4.0.

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IN MEMORIAM

Speed Bump the desert tortoise

text and photographs by Karen Berry

Many of you know Speed Bump, the desert tortoise who had been struck by a car, and survived with some help from his new friends at CTTC's Valley Chapter. You may have seen him at meetings, at events, and he is currently on the flyer for this year's Valley chapter show. He has been a poster child for the efforts of the Valley adoption team to rehabilitate animals that come in to us and require medical intervention. Some are very seriously injured and may have required surgery, or are ill, and need a long time to recover, if they are going to. Most have survived, and others have not. Speed Bump had to be humanely euthanized Tuesday night, April 17th, after a long battle to recover from his initial injuries, and a new development that started on New Year's Eve. He has crossed the rainbow bridge to somewhere where he is free from pain or suffering, and the good memories of him as the great little guy he was, will live on for those of us who knew and loved him.

Speed Bump on his "skateboard."

He was a vibrant, easy-going young tortoise, who never once gave up, kept a "can do" attitude, and found a place in my heart and that of many other members. Because of the damage to his back end, he was unable to put weight on his back legs, or walk. He used his front legs to pull himself around on the "skateboard". It was six months before he could negotiate under his own power, but he kept trying.

We took him to many events, he attracted a large crowd, had numerous photos taken of him, and with an audience, instantly became more interactive with everybody, most recently at the Chatsworth Nature Center Open House on April 7th. He was featured with other tortoises in a PowerPoint presentation on "Rehabilitation", and traveled to the chapters where it was presented, where other CTTC members fell in love with him, too. His last public appearance was April 9th, when we did the Rehabilitation presentation for the Ridgecrest chapter, and he made some new friends.

While he made great progress as far as walking and grazing on his own, with a few bumps in the road, he developed an issue that we were not able to resolve. On New Year's Eve, he was rushed to Conejo Valley Vet Hospital, for difficulty breathing. He became weaker as his ability to take in air lessened. He stabilized when fluid was removed from his bladder, and his breathing normalized. He had an additional lesser "attack" in February, but the worst was this past Tuesday evening, causing the greatest amount of stress and potential suffering. He again was rushed to the hospital on an emergency basis, and the vet on staff called his vet, consulting him regarding the symptoms that she saw. They agreed that while it could have another cause somehow connected to the original injury, it appeared to be heart-related, possibly something similar to congestive heart failure in humans and mammals. She told me he might not make it through the night. After a comprehensive discussion with the vet, and a call to our chapter President, it was decided that it was more humane to let him go, rather than him endure the suffering from these worsening attacks. As we sat together alone in the exam room, and I said goodbye to him, seeing his distress made it more obvious that it was the right thing to do for him, as painful as it was to make that decision.

Speed Bump represented one of the great things about CTTC, and what we do for the unfortunate animals who come into our care. It's a cornerstone of one of our multiple missions, and inspired by tortoises like Speed Bump, our work will continue. Rest in Peace, Speed Bump. We will never forget you.

2018 California Turtle & Tortoise Club Directory

Executive Board
General Information:
CTTCEBOfficers@tortoise.org
Chair: Abigail DeSesa
Vice-chair: Dave Zantiny
Secretary: Richard Roosman
Treasurer: Javier Gonzalez
Meeting: quarterly (January, April, July and October) at 11 AM the Los Angles County Arboretum, 301 No. Baldwin Avenue, Arcadia, CA 91007

Cen-Val Chapter
President/vice president: **Robert Scott**
Treasurer: **Diana Gatti**
Meeting: Second Thursday, 7:00 PM at Fresno Unified School District, Del Mar Elementary School, 4122 N. Del Mar Avenue, Fresno, CA 93704 (no meeting in July or August, as school is closed)

Chino Valley Chapter
President: **Jim Misiak**
Vice president: **David Bowman**
Secretary/treasurer/adoptions: **Lynda Misiak**
Meeting: Third Friday, 7:30 PM at Chino Girl Scout House, 5007 Center Street, Chino, CA 91710

Foothill Chapter
President: **Robin Robb**
Vice president: **Joanna Bolt**
Secretary: **Mardy Graves**
Treasurer/membership: **Jeanette Lea**
Meeting: Fourth Friday, 7:30 PM at Los Angeles County Arboretum, 301 No. Baldwin Avenue, Arcadia, CA 91007

High Desert Chapter
President/adoptions: **Dave Zantiny**
Secretary/adoptions: **Mary Dutro**
Meeting: Second Monday, 7:00 PM at Sterling Inn Regency Room, 17738 Francesca Road, Victorville, CA 92395

Inland Empire Chapter
President: **Monica Dirac**
Vice president: **Richard Roosman**
Secretary: **Vendy Martin**
Treasurer: **Robyn Kohr**
Meeting: First Friday, 7:30 PM at "The Ark" Church of the Nazarenes in the Fellowship Hall in Young Hall, 1307 East Citrus Avenue, Redlands, CA 92374

Kern County Chapter
President: **Heather Ponek**
Vice president/membership: **Javier Gonzalez**
Secretary: **Gina Mattson**
Meeting: Second Monday, 6:30 PM at St. Philip of the Apostle Church, St. Ann's Room (east side of church), 7100 Stockdale Hwy (on the north side, between Ashe and Gosford), Bakersfield, CA 93309

Low Desert Chapter
General Information: **Tony Vaninetti**
Secretary: **Marlies Dietrich**
Adoptions: **Bill Powers**
Meeting: First Monday of every even-numbered month 7:00 PM at The Living Desert Reserve, 47-900 Portola, Palm Desert, CA 92260-6156

Orange County Chapter
General Information:
orangecounty@tortoise.org
President/membership: **Stephanie Roberts**
Vice president: **Richard Montagna**
Secretary: **Joyce Keyak**
Treasurer: **Marian Bronston**
Meeting: Second Friday, 7:30 PM at Grand Street Center (First Presbyterian Church), 146 N. Grand Street, Orange, CA 92866

Ridgecrest Chapter
President: **Robert Parker**
Vice president: **Sue Parker**
Adoptions: **Montynne Yates**
Meeting: Second Monday, 7:30 PM at Maturango Museum,100 East Las Flores Ave., Ridgecrest, CA 93555

Santa Barbara-Ventura Chapter
President: **Don Williams**
Adoptions: **Wes Shipway**
Meeting: Contact the Chapter for meeting information.

Santa Clarita Chapter
President: **George Ordway**
Secretary: **Jennifer Fields**
Treasurer/membership/adoptions: **Abigail DeSesa**
Meeting: Third Saturday of odd-numbered months at 6:30 PM at Valencia United Methodist Church, 25718 McBean Pkwy, Valencia, California 91355

TOOSLO (San Luis Obispo) Chapter
President: **Brandon Froelicher**
Vice president: **Brian Kusko**
Secretary: **Lisa Winn**
Treasurer: **Kimberly LaMar**
Adoptions: **Bob Thomas**
Meeting: Second Wednesday, 7:00 PM at PG&E Community Center, 6588 Ontario Road, San Luis Obispo, CA 94505

Turtle & Tortoise Care Society (Long Beach) Chapter
President: **Richard Roosman**
Secretary/Membership: **Anita De Leon**
Treasurer: **John Wong**
Meeting: Third Friday, 7:30 PM at University Baptist Church, 3434 Chatwin, Long Beach, CA 90808-2613

Valley Chapter
President: **Bob Hazard**
Treasurer: **Karen Berry**
Adoptions: **Valley Adoption Team**
Meeting: Third Friday, 7:30 PM at Woodland Hills Christian Church, 5920 Shoup Ave., Woodland Hills 91367-3327

NOTE: The postal mailing addresses for each Chapter are listed on the last page of this newsletter.

Far and away the best prize that life has to offer is the chance to work hard at work worth doing.

— Theodore Roosevelt, Jr. (1858-1919), American statesman and writer

Celebrating Turtles, Tortoises, and the Armed Forces

Story by Karen Berry; photos by Cristina Perovich & Karen Berry, Valley Chapter

CTTC Valley Chapter held its annual educational and fundraising show May 19, 2018, and, since it was also Armed Forces Day, honored our military, both active duty and veterans, with free admission to the show.

▲ KNBC news host Michelle Valles and Valley President Bob Hazard on set.

The day had been greatly anticipated, for the opportunity to raise awareness of our shelled friends and educate those who have them as pets or are considering it. The show also raise money for our "sick & injured" fund that helps turtles and tortoises treated for serious medical issues and long-term rehabilitation for those that need it. But that was not the only reason show personnel were unusually anxious.....

▲ From the left: Cristina Perovich, Tim Perovich, host Michelle Valles, Karen Berry, President Bob Hazard, and "Lefty" on the table.

We sent out press releases and flyers to both print and TV media, and scored an interview with KNBC, Ch. 4, for their 11:00 AM news program, with host Michelle Valles. Our President, Bob Hazard, gave the interview, "assisted" by Lefty, Sheldon, and one of our hatchlings, designated "T.O."

Fortunately, all three tortoises were consummate professionals, and nobody made a mess on the table or on the host. But was this interview going to help bring people to the show, and help us meet our educational and financial goals ???

You can check out the KNBC interview online: **https://www.nbclosangeles.com/news/local/Clear-the-Shelters_-Amputee-Turtle_-Baby-Turtles-Need-Homes_Los-Angeles-482706371.html**

Show day started out overcast, but the sun came out before we opened, and the front gate staff waited expectantly to see if our wishes were going to come true.

People had been lining up outside, and at 11:00 AM they entered in large numbers, welcomed by festive red, white, and blue everywhere. Our guests spread out to check out the show, visit the gift shop, buy tickets for the largest raffle ever held at a Valley show, learn about bunny rescue from Vicki Anderholt, **www.adoptabunnyrabbit.org**, and get their health questions answered by Dr. Kenneth Coscarelli, from **Newbury Park Veterinary Clinic** at the "Ask the Vet" booth.

But what they really came to see were the stars of the show, the turtles and tortoises exhibited by our members. Attendance was way up from previous years, helped greatly by the interview and the online link to it, which went viral through Facebook. Perhaps even more importantly, we received a much larger number of adoption applications than usually are completed at the show, and a number of new members.

Putting together a show requires a lot of planning, and the newer and

▲ Jodi Inzerella (left) and Howard Suer (right) –our front gate staffers.

veteran members who took part in the before, during, and after, worked very hard together to make our show and salute to the Armed Forces a rousing success. Many thanks to all of them !!!

▲ Dr. Kenneth Coscarelli from the Newbury Park Vet Clinic staffing our "Ask the Vet" booth, with Speedy, who is one of his CTTC patients.

▲ Rose Haffey and Cory Stein staffing the Tortuga Gift Shop.

Valley Chapter's 2018 Annual Show photo gallery

▲ Kirk Weber's sulcata tortoise, "Bubba", was the official "greeter" of visitors to the show.

▲ Sioux Ratkovic's display of desert tortoise hatchlings was one of the most visited booths at the show.

▲ Maria Kennedy and one of her Russian tortoises.

▲ Valley President, Bob Hazard, aka "Bob the Builder" discusses housing with visitors.

▲ Succulents and decorative turtle planters were a bit hit in the gift shop.

▲ Cristina Perovich provided adoption and membership information, and recruited many new members and prospective adopters.

▲ Kevin Proulx with two tortoises he rescued from poor living conditions.

▲ Tim Perovich & Barbara Devries put on the Valley chapter's most successful raffle yet.

▲ A wide variety of raffle prizes were donated by members, local vets, and other businesses.

▲ Long time member Elaine Miller exhibits "Gimpy", a desert tortoise she rescued from kids who swung him around by a back leg, severely injuring him.

Study: Marine Mammals, Sea Turtles Protected by Endangered Species Act Are Recovering – 78 Percent of Studied Populations Grew, Just Two Species Declined After Listing

Oakland, California — 16 May 2018 — Most marine mammals and sea turtles in the United States that are protected by the Endangered Species Act are recovering, according to a new study by scientists at the Center for Biological Diversity.

Juvenile green turtle, *Chelonia mydas*. Photo by Mark Sullivan, NOAA permit 1013707.

The best available population data for 23 marine mammals and nine sea turtles shows that 78 percent of them — including most large whales, Florida manatees, California sea otters, and green sea turtles — experienced substantial population increases after being protected by this landmark federal law.

"The Endangered Species Act works. This is great news at a time when our oceans face growing threats from climate change, overfishing and pollution," said Dr. Abel Valdivia, the Center's ocean scientist and lead author of the study. "It's easy to get discouraged as we watch human activities destroy marine ecosystems. But our study shows we can still save whales and other endangered species if we just make the effort."

The study, which is under review at the scientific journal PLOS ONE and appears as a preprint in the BioRXiv server today, looked at all marine mammal and sea turtle species protected by the Act. The good news is being released just before Endangered Species Day on May 18.

The study analyzed only those species with reliable and high-quality data, making the findings of this comprehensive survey of the scientific literature a powerful indicator of endangered species' recovery.

According to the study, most species are on the path to recovery. Three species of marine mammals and two species of sea turtles remained unchanged after listing, which may indicate population stability. Just two marine mammal species, the Hawaiian monk seal and Southern Resident killer whale, continued to decline after being listed. No listed sea turtle populations declined.

Conservation measures triggered by the Act include habitat protections, science-based management measures to safeguard the species, and recovery planning. The Endangered Species Act has required devices that allow sea turtles to escape from fishing nets, protected whales from deafening sonar, reduced disorienting lighting from sea turtle nesting beaches, among other protections.

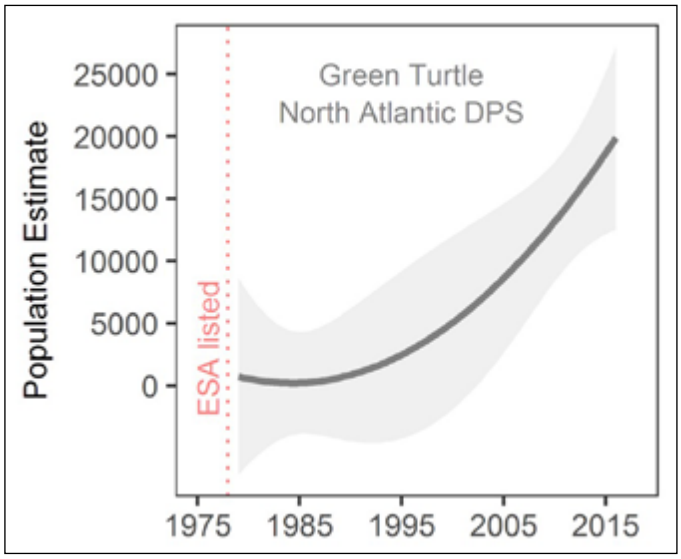
The study found that species listed for more than 20 years were more likely to be recovering than recently listed species, another sign the Act is effective if federal officials follow its mandates.

"People can see more humpback whales migrating along the West Coast, which is a success story everyone can appreciate," Valdivia said. "Yet Southern Resident killer whales still struggle against extinction, partly because the federal government missed its own deadline to expand critical habitat protections. The Act works well when officials effectively use the tools it provides."

The study, titled "Marine mammals and sea turtles listed under the Endangered Species Act are recovering," was primarily authored by Dr. Valdivia. Marine mammals and sea turtles make up 36 percent of the 161 marine species listed under the Act.

♲

— Center for Biological Diversity press release



Graph illustrating the recovery of the green turtle (*Chelonia mydas*) in the North Atlantic Distinct Population Segment since the listing of the population under the Endangered Species Act. Graph created by Dr. Abel Valdivia of the Center for Biological Diversity.

Meetings and Programs

Click on your Chapter's website link for the latest program information. Programs may be scheduled after newsletter publication.

Cen-Val: NO meetings in July or August (school is closed)

Chino Valley: 20 July; 17 August

Foothill: 27 July; 24 August

High Desert: 9 July; 13 August

Inland Empire: 6 July; 3 August

Kern County: 9 July; 13 August

Low Desert: 6 August

Orange County: 13 July; 10 August

Ridgecrest: 9 July; 13 August

Santa Barbara-Ventura: Contact the chapter for meeting information.

Santa Clarita: 21 July

TOOSLO (San Luis Obispo): 11 July; 8 August

TTCS (Long Beach): 20 July–Annual Luau with a performance by Tausala Polynesia; 17 August–Dr. Michael Tuma of the Desert Tortoise Council

Valley: 20 July; 17 August

Executive Board: 14 July. Meetings take place at the Los Angeles County Arboretum, Arcadia, CA.

Juvenile Sonoran desert tortoise cruising by fruit-laden prickly-pear plant. Public domain.

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Please make your check payable to the California Turtle & Tortoise Club.

Please send ad fee to: CTTC Tortuga Gazette, attn Treasurer, P. O. Box 7300, Van Nuys, CA 91409-7300.

Mail fee with ad copy to the Tortuga Gazette mailing address; OR mail fee to the postal address above, and email the ad copy to the **Gazette Editor**.

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Sonoran Desert Yuccas, continued from page 7

Y. elata begins life as a basal rosette, eventually growing up to 15 feet (5 meters) tall, and it may form up to seven branches when older. Its leaf margins feature long curling filaments, and the pale or bright green leaves terminate in short, sharp spines.

Appearing in late spring or early summer, the inflorescence of the soaptree yucca may rise as much as 6 feet (2 meters) above the leaves. Edible, white or cream-colored, 2-inch (5-centimeter) long flowers may be globular, pendant or bell-shaped.

Mojave Yucca

A stout, robust species, *Y. schidigera* inhabits the deserts of the southwestern United States and northern Baja California, but is most common in the Mojave Desert.

Starting as a basal rosette, it grows 5 to 16 feet (1.5 to 5 meters) tall at maturity. Terminating in sharp spines, its rigid, narrow, yellow-green leaves may be as long as 4 feet (1.5 meters), clustering near the top of the trunk in old plants. Older plants may develop branches or remain unbranched.

Yucca schidigera, photographed near the mouth of Oak Creek Canyon, Red Rock Canyon, southern Nevada. Photo © 2006 by Stan Shebs. Source: Creative Commons; license GFDLCC-BY-SA-3.0CC-BY-SA-2.5.

Appearing in spring, its inflorescence is typically less than 3 feet (1 meter) in length with cream or white, globular, edible flowers. Fleshy, edible fruits form following the flowers.

The trunk and roots of the Mojave yucca contain saponins used by Native Americans to make soap for cleaning.

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Yucca schidigera blossom Photo © 2005 by Stan Shebs. Source: Creative Commons; license: CC-BY-SA-3.0

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Membership in the CTTC and subscriptions to the Tortuga Gazette are handled through the CTTC Chapters. The Chapters also manage membership renewals.

Many members choose to join a nearby Chapter to participate in Chapter meetings and other activities. Print membership forms from the **CTTC website**.

Your Chapter and your renewal date (month/year) are displayed on your newsletter notification. Mail your new or renewal membership/subscription to the Chapter of your choice.

Membership fees

- Student membership .....$15^{00}
- Individual membership ...$25^{00}
- Family membership .....$35^{00}
- Life membership .....$500^{00}

Cen-Val Chapter: P.O. Box 16418, Fresno, CA 93755-6418

Chino Valley Chapter: P. O. Box 1753, Chino, CA 91708-1753

Foothill Chapter: P. O. Box 51002, Pasadena, CA 91115-1002

High Desert Chapter: P. O. Box 163, Victorville, CA 92393

Inland Empire Chapter: P.O. Box 2371, San Bernardino, CA 92406-2371

Kern County Chapter: P.O. Box 81772, Bakersfield, CA 93380-1772

Low Desert Chapter: P.O. Box 4156, Palm Desert, CA 92261

Orange County Chapter: P.O. Box 11124, Santa Ana, CA 9271

Ridgecrest Chapter: P. O. Box 1272, Ridgecrest, CA 9355

Santa Barbara-Ventura Chapter: P.O. Box 3086, Camarillo, CA 93011-3086

Santa Clarita Chapter: P.O. Box 4012, Castaic, CA 91310

TOOSLO Chapter: P.O. Box 14222, San Luis Obispo, CA 93406

Turtle & Tortoise Care Society Chapter: P O Box 15952, Long Beach, CA 90815

Valley Chapter: P.O. Box 7364, Van Nuys, CA 91409-7364

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