



# the Tortuga Gazette

California Turtle & Tortoise Club Founded in 1964

September/October 2008

Dedicated to Turtle & Tortoise Preservation, Conservation and Education

Volume 44, Number 5



The many faces of *Malaclemys terrapin*. Photography by Stephanie Pappas.

Turtle  
of the  
Month

## Diamondback Terrapin (*Malaclemys terrapin*) Schoepff 1793

### Gems of the Estuaries by Mary A. Cohen

Brackish water is less saline than sea water but more saline than fresh water. Brackish water has 0.5–35 parts per thousand (ppt) of dissolved salt per liter of water, equivalent to 0.5–35 grams of salt per liter of water. Fresh water typically has less than 0.5 ppt dissolved salt, and sea water typically has 35–50 ppt dissolved salt. Brackish water has wide-ranging degrees of salinity; the ecological term for this is a euryhaline environment.

Brackish water fills estuaries, tidal marshes, mangrove swamps, lagoons and

coves adjacent to barrier beaches and islands. These are areas where fresh water from the mainland and salt water from the ocean commingle.

Estuarine environments support an impressive variety of plant and animal life, including aquatic and semiaquatic plants, reptiles, birds, insects, snails, fiddler crabs and even a mammal, the muskrat. Estuaries are home to oysters, shellfish and crab. Many commercially valuable fish return from the ocean to spawn in estuaries. These unique environments act as buffers during violent

ocean storms, helping to protect shorelines from erosion. Estuarine microbes assimilate metals and nitrogen compounds into forms useful to the ecological community.

Brackish-water environments are home to the Diamondback Terrapin (*Malaclemys terrapin*), a singularly beautiful native turtle species. According to Barbara Brennessel, author of *Diamonds in the Marsh*, “the Diamondback Terrapin is unique. It tolerates fresh water, salt water, and everything in between.”



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California Turtle & Tortoise Club: a Society Dedicated to Turtle & Tortoise Preservation, Conservation and Education Since 1964. Promoting and Facilitating the Care, Rescue and Adoption of Native and Nonnative Turtles and Tortoises.

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### Description and Name

Johann David Schoepff (1752–1800) was a German physician who had studied mineralogy, zoology and botany. Travelling to the colonies as a surgeon in 1777, Schoepff became famous for his exploration of North America. His book *Travels in the Confederation* (1788) details the natural history of the Eastern Seaboard and the Bahamas. His formal description of the Diamondback Terrapin was published in 1793.

The genus name *Malaclemys* is derived from two Greek root words. The root word *malakos*, meaning soft, likely refers to its preference for soft-bodied mollusks as a food source, although according to Ernst and Barbour, it refers to the terrapin's gentle nature. The second part of the genus name is the root word *klemmys*, meaning a tortoise. The species name *terrapin* is an Algonquin Indian word for turtle.

### The Fossil Record

The earliest known fossils of the Diamondback Terrapin species – in fact the only known fossils – are two small bones from the shells of two different individuals. A nuchal bone (from the neck region of the shell) and a costal bone (from the side of the shell), both dating back to the Pleistocene epoch (1.65 million to 10,000 years ago), were found at Edisto Beach, Colleton County, South Carolina.

### Subspecies

Currently seven subspecies of *Malaclemys terrapin* are recognized. These subspecies are distinguished by the geographic localities in which they occur, by variations in carapace attributes, and by variations in the markings and coloration of their heads and limbs. Detailed descriptions of the physical appearance of each subspecies can be found in *Turtles of the United States and Canada* by Carl H. Ernst, Jeffrey E. Lovich and Roger W. Barbour and in *Diamonds in the Marsh* by Barbara Brennessel.

The Northern Diamondback Terrapin (*Malaclemys terrapin terrapin*) ranges from Cape Cod, Massachusetts to Cape Hatteras, North Carolina. The Carolina Diamondback Terrapin (*M. t. centrata*) occurs from Cape Hatteras to coastal northern Florida. The Florida East Coast Diamondback Terrapin (*M. t. tequesta*) inhabits the Atlantic Coast of Florida. The Mangrove Diamondback Terrapin (*M. t. rhizophorarum*) populates the Florida Keys. The Ornate Diamondback Terrapin (*M. t. macrospilota*) resides in the Gulf Coast from Florida Bay to the Florida

panhandle. The Mississippi Diamondback Terrapin (*M. t. pileata*) inhabits the Gulf Coast from the Florida Panhandle to western Louisiana. The Texas Diamondback Terrapin (*M. t. littoralis*) ranges along the Gulf Coast from western Louisiana to western Texas.

### Identification

Diamondback Terrapins are members of the Emydidae, a large and varied family of water turtles.

*M. terrapin* is a small- to medium-sized turtle species. The term “diamondback” refers to the somewhat diamond-shaped concentric markings on the carapace of the species. The carapace may have a smooth surface, or it may have a sculpted appearance. Coloration of the carapace will vary among the subspecies. Its light-colored skin is patterned with dark spots, stripes or blotches. No two terrapins have exactly the same coloration or markings.

Sexual dimorphism (physical appearance based on gender) is pronounced in terrapins. Males are considerably smaller overall than females. The carapace length of males ranges from 4 to 5.5 in. (10 to 14 cm); females' carapace length ranges from 6 to 9 in. (15 to 23 cm). Males have narrower heads and longer, wider tails than females. Females have broader heads with strong crushing plates on their jaws, and shorter, narrower tails than males.

### Natural History

*Malaclemys terrapin* resides in brackish-water ecological niches along the Atlantic Coast, the Florida Keys, and the Gulf Coast of the United States. The species is diurnal (active during daylight hours), during which it forages for food and basks on the banks of the wetlands in which it lives. At night, it appears to sleep buried in muddy bottoms of the wetlands.

The activity/dormancy cycle of the Diamondback Terrapin varies due to the fact that its range is extensive. In the northerly, temperate portions of its range, the species begins brumation in November and December, remaining dormant throughout the winter. Northerly terrapins emerge in April and May to commence feeding and mating. In the southerly, tropical portions of its range, *M. terrapin* is generally active from March through November, and may emerge from winter torpor to bask on warm days.

Juvenile terrapins are rarely seen. After emerging from the nest, they take to the water. They appear to spend their first years

under layers of floating plant debris in estuarine environments. These are often referred to as “the lost years,” because so little is known about this stage of a terrapin’s life. Sexual maturity occurs in males at about three years of age and in females at about six years of age in the wild. Captive terrapins of both sexes may reach maturity somewhat earlier.

### Reproduction

Mating in the wild occurs as early as March in the southerly terrapin ranges, and takes place later in spring in the northerly ranges. Nesting generally takes place from April through July. Their nests are usually located in sand dunes which face away from the sea, which offer some vegetative cover, and which lie above the high-tide line.

Clutch size varies from 4 to 18 eggs by locality: an average size clutch in the northern range (New Jersey) is 10 eggs; an average clutch size in the southern range (Florida) is 7 eggs. Females may lay multiple clutches in a season.

Incubation period for terrapin eggs in the wild varies from as few as 60 days to as many as 100 or more days, depending on several variables. Geography plays a part: eggs in warmer southern regions develop more rapidly than eggs in cooler northern areas. The temperature of the nest site, as related to nest location, is important. Eggs in warmer south-facing nests will develop more quickly than cooler north-facing nests. Nest depth and month of egg deposition are also influential.

*Malaclemys* has environmental-dependent sex determination, meaning that the incubation temperature of their nest influences the gender of the hatchlings. As is typical of Emydid turtles, a lower nest temperature tends to produce male hatchlings. Researchers have documented the temperature range as follows: Diamondback Terrapin eggs incubated at 75-82°F (24-28°C) produce all male hatchlings while eggs incubated at 86-90°F (30-32°C) produce all female hatchlings.

Hatching occurs over a period of one to four days. Hatchlings may emerge from their nests until autumn. Some clutches of hatchlings may overwinter in their nest cavities and emerge the following spring.

### Feeding and Foods

*Malaclemys* is an omnivore which takes a large variety of prey for food. The turtles, particularly the females, have strong jaws which are capable of easily crushing the hard shells of shellfish. Wild Diamondback Terrapins feed on mollusks such as mussels and clams, gastropods such as snails and periwinkles, and crustaceans such as crabs. They also feed on fish, carrion, marine annelids (segmented worms), insects and plant material.



Notice the heavily webbed feet and powerful jaws of this basking female Diamondback Terrapin. Photograph by Stephanie Pappas.

### Diamondback Terrapin Salt Glands

Both sea turtles and marine iguanas possess salt glands which enable them to deal with the saline environments in which they live. Regulation of the internal salt balance and excretion of excess salt are critical to their life processes. The Diamondback Terrapin possesses salt glands which function in a similar way.

The salt glands of *Malaclemys* are unique among Emydid turtles. The post-orbital glands (located behind the turtle’s eyes) lie beneath the skin. These lachrymal glands enable the terrapin to excrete highly saline tear-like secretions. By doing so, the turtle rids itself of excess salt which accumulates in its system as a result of living in brackish-water ecosystems.

### Predation

The Diamondback Terrapin faces several common predation threats from the egg stage through adulthood in the wild. Eggs and hatchlings are subject to predation by a variety of avian predators, including crows, gulls and shrikes. Mammal predators include foxes, muskrats, raccoons, rats, and skunks. The crustacean Ghost Crab (*Ocyrode*) also

preys upon eggs and hatchlings.

American beachgrass (*Ammophila brevifoligulata*) is a native of eastern North America and the Great Lakes region. Also known as dunegrass, it destroys significant numbers of terrapin eggs. Rootlets of the invasive grass penetrate terrapin eggs in the nest cavity to access mineral nutrients which are deficient in the barren dunes in which it sprouts.

“Humans are the main enemy of adult Diamondback Terrapins,” according to the Ernst, Lovich and Barbour. Collection for the gourmet food market decimated terrapin populations, particularly near large urban areas, in the late 19<sup>th</sup>–early 20<sup>th</sup> century. Fortunately for the terrapin, collection became unprofitable and tastes changed.

Today crabbing poses a serious threat to terrapins, which will enter crab “pots” (traps constructed of wire mesh) even when the traps are unbaited. Males are somewhat more likely to enter the narrow openings of the traps than females, and may become trapped and drown. Scientists are experimenting with “terrapin excluders,” simple devices which will allow the turtles to escape from the crab pots to safety.

### Terrapins in Peril

*Malaclemys terrapin* suffers from the myriad threats to the estuarine ecosystems in which it lives. These threats include land reclamation and development, coastal pollution, chemical contamination, and excessive sediment deposition. The resulting habitat destruction has a direct impact on all life forms within the ecosystem. □

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Please turn to page 10, column 3 for links to more information on Diamondback Terrapin conservation.



## The 2008 Valley Chapter Show

by Stephanie Pappas

The Valley Chapter of California Turtle and Tortoise Club had its annual turtle and tortoise show on the hottest May 17 in the history of Woodland Hills, California, May 17, 2008. Temperatures reached 101°F which set a record by one degree. Both reptiles and humans were seeking the shade on this day.

The only person that did not seem uncomfortable in the heat was Chen PelfNyok (Pelf), a conservation biologist from the University of Malaysia Terengganu, who is visiting



Chapter member Elaine Miller (L) with Chen PelfNyok (R). Photo by Chen PelfNyok.

the United States to attend the Asian Student Scholarship Program. Pelf was gracious enough to help with the CTTC Valley Chapter show this year. Apparently, Pelf is used to temperatures in the 100's. She took pictures,

chatted with members, and helped set up and dismantle the displays. After the show, she offered many new suggestions for next year's show.

Although the temperatures were extremely hot, many people still came to see all the turtles and learn about their care, conservation activities, and our organization. Every year the officers of the Valley Chapter wonder if it is worth the time and effort to organize the annual turtle show. However, when you hear the many questions that the public asks about turtles and see the looks of joy on children's faces, we realize that the time and energy involved in organizing these shows is well worth it.

This was our new President's first year organizing the annual Turtle show. Larry Reiners did an incredible job pulling together members to participate and helping with the show. Larry is great at cheering members on for their support and financial contributions. He realizes the importance of getting people from our organization involved, and that we rely on the help and support from our wonderful members to make this show successful every year.

Special thanks to all our members that, year after year, help with displays, manning

booths, preparing food and all of the other work involved in putting on these shows.



Young visitor with origami hat and animals. Photo by Chen PelfNyok.

We were extremely happy to have Leon Brown the origami teacher return to our show this year. He continues to be a favorite of the children that attend. He shows the kids how to make fun origami turtles and unique hats. As well, we always appreciate our friends from the Southwestern Herpetology Society who attend every year to display reptiles (other than turtles) and educational material.

Let's hope next year's temperatures are moderate and more people attend! Great job and thanks again to all of you who contributed to the show's success. Oddly enough, the following weekend it rained and the temperatures dropped into the cool 70's. □



TOO SLO Chapter  
Presents the  
**17th Annual  
Turtle, Tortoise  
& Reptile Show**



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- Exotic Turtles & Tortoises
- Reptile Displays
- Educational Exhibits

- Conservation Groups
- Care & Adoption Information
- Great Raffle Prizes!

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**Saturday**  
**September 27<sup>th</sup> 2008**  
10:00 am - 4:00 pm

San Luis Obispo  
Veterans Memorial Building  
801 Grand Ave

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Admission

Adults \$3.00  
Kids (6 - 12) \$2.00  
Kids (5 & under) Free

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## Lawsuit Filed to Stop Ft. Irwin Translocation Project From Killing More Desert Tortoises

—Center for Biological Diversity

LOS ANGELES, CALIFORNIA—July 2, 2008—The Center for Biological Diversity and Desert Survivors today filed suit in federal court against two government agencies over the relocation of hundreds of desert tortoises and transfer of land-management authority from the Army to the Bureau of Land Management without required environmental review.

“It’s time to overhaul Fort Irwin’s disastrous tortoise relocation program,” said Ilene Anderson, a biologist with the Center for Biological Diversity. “Though we can’t stop the Fort’s expansion, we can ensure that the relocation of these rare animals is done right. With the severity of the impacts to tortoises from the expansion, it’s imperative that the Army’s mitigation be as successful as possible.”

Despite the potential to drive the tortoise closer to extinction, in 2001 Congress authorized Fort Irwin to expand into some of the best desert tortoise habitat remaining in the western Mojave desert. As partial mitigation, in March the Army moved more than 770 tortoises from one expansion area onto lands acquired by the Army and now managed by the Bureau of Land Management. The new lands, however, provide much lower-quality habitat and contain pockets of diseased tortoises.

Desert tortoise relocation has never been attempted on such a large scale, and this spring’s relocated tortoises suffered devastating initial mortality from predators: within days more than 20 tortoises had been killed by coyotes. Healthy tortoises were also moved into areas where diseased tortoises live, which is in direct conflict with the recommendation of epidemiologists. The lands into which the tortoises were moved are far poorer habitat because of numerous roads, illegal off-road vehicle routes, houses, illegal dumping, and mines. (This is why the area currently supports low numbers of existing desert tortoise, some of which are diseased.) Subsequent phases of the relocation effort will involve over 1,000 tortoises, although the relocation sites have yet to be identified.

“Moving healthy tortoises into low-quality habitat that contains diseased tortoises is a recipe for disaster,” said Anderson. “And protection from predators is essential based on the last relocation’s tragedy.”

*Tortuga Gazette*

Having survived over 1 million years in California’s deserts, desert tortoise numbers are now crashing. The crash is due to numerous factors including disease, habitat degradation, crushing by vehicles, military and suburban development, and predation by animals. Because of its dwindling numbers, the desert tortoise, which is California’s official state reptile, is now protected under both federal and state endangered species acts.

Recently, population genetics studies have identified the desert tortoise in the west Mojave desert, including those at Fort Irwin, as distinctly different from its relatives to the west, east, and south. This finding sheds new light on why increased conservation and relocation success are more important than ever for the Fort Irwin relocation.

“The relocation plan could be much improved by reducing the number of tortoises being moved, making sure only healthy tortoises are moved into healthy populations, and improving the habitat quality in the relocation area by making it a tortoise preserve,” suggested Anderson, “where there are a minimal number of roads, no off-road vehicles, dumping, or mining allowed, coupled with strict enforcement.” □

California Turtle & Tortoise Club offers its condolences to the Malama Na Honu Foundation and the Honu Guardians for the loss of “Honey Girl,” one of the Green Sea Turtles that regularly bask on the beach at Laniakea, Oahu.

“Honey Girl” was affectionately nicknamed for her honey-colored shell. She was believed to be in her prime at 30-40 years old. She was brutally killed and mutilated; her remains were found on July 19, 2008.

“For in the end, we will conserve only what we love. We will love only what we understand, and we will understand only what we are taught.”

—Baba Dioum, *African conservationist*

## Kemp’s Ridleys Make History In Texas!

—Sea Turtle Restoration Project

FORT KNOLLS, CA—On June 3, 23 Kemp’s Ridley (*Lepidochelys kempii*) sea turtle nests were found on the Texas coast including 1 on Galveston Island, 3 on Matagorda Island, 1 on Mustang Island, one on North Padre Island north of Padre Island National Seashore, and 12 at Padre Island National Seashore, and 5 on South Padre Island. The 23 is the most Kemp’s Ridley nests documented on the Texas coast in a single day since record keeping began in 1980.

So far this year, 148 Kemp’s Ridley nests have been confirmed on the Texas coast including (north to south in state): Bolivar Peninsula 4, Galveston Island 5, Brazoria County just north of Surfside 1, Surfside Beach 1, Matagorda Island 10, San Jose Island 3, Mustang Island 5, North Padre Island 81, including 71 at Padre Island National Seashore, South Padre Island 31, and Boca Chica Beach 7.

The 148 nest total exceeds the previous record of 128 Kemp’s Ridley nests found in Texas set during 2007. This marks the fifth consecutive year that record numbers of Kemp’s Ridley nests have been recorded in Texas since record keeping began in 1980. This endangered sea turtle is a resident of the Gulf of Mexico and was near extinction in the mid-1980s.

This year is the 30th anniversary of a cooperative program between the Republic of Mexico and the United States to prevent the sea turtle’s extinction which began in 1978. The US federal requirement to place Turtle Excluder Devices (TEDs) on shrimp trawls to allow sea turtles to escape drowning combined with protection of the beaches in Mexico and the US and a vigorous program of releasing hatchlings is credited with the increased population of Ridleys.

“After working to protect the Kemp’s Ridleys for 26 years, I can tell you this is a very happy day,” said Carole Allen, Gulf Office Director of the Sea Turtle Restoration Project and founder of HEART (Help Endangered Animals—Ridley Turtles) in 1982. “There are many heroes and heroines to thank, but thousands of school children, many now adults, should also be thanked for writing letters to the government asking for protection for sea turtles.” □



# Landmark New Atlas Identifies More Than 1,300 Caribbean Sea Turtle Nesting Grounds

—Wider Caribbean Sea Turtle Conservation Network

BEAUFORT, NORTH CAROLINA—06/15/08 Why is it important to know where sea turtles nest? The answer is deceptively simple: to inform policy makers and coastal developers, to craft conservation management plans to reverse the trends of depleting populations, and to help countries work together to protect these fragile creatures.

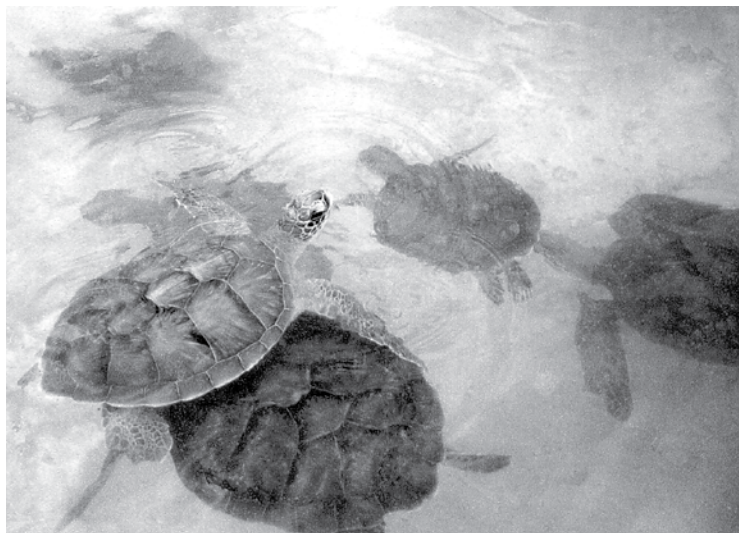
In collaboration with more than 100 experts in more than 40 countries, the Wider Caribbean Sea Turtle Conservation Network (WIDECAST), in partnership with The Nature Conservancy, has identified all known sea turtle nesting sites in the Wider Caribbean Region, including Bermuda and Brazil.

The landmark database identifies 1,311 nesting beaches, but because some sites host nesting by multiple species, 2,535 species-specific sites are named. The resulting digital landscape significantly expands scientists' understanding of habitat use and facilitates the creation of operational frameworks to gauge populations, monitor species recovery, and safeguard habitat in ways that have never been possible.

The entire database, available for interactive use, is accessible through OBIS-SEAMAP (Ocean Biogeographic Information System Spatial Ecological Analysis of Megavertebrate Populations) at <[seamap.env.duke.edu/widecast/](http://seamap.env.duke.edu/widecast/)>

Dr. Karen Eckert, WIDECAST executive director, says the objective of the two-year mapping project was "to generate the first standardized spatial database of active sea turtle nesting beaches in the central western Atlantic Ocean, to inform decision-making regarding the protection of critical habitat, to contribute essential species and habitat data to the eco-regional planning processes of international organizations and

intergovernmental entities, and to promote implementation of regional treaties and other agreements that protect sea turtles and their habitats."



Green Sea Turtles (*Chelonia mydas*). Photo by Treacy McGrath.

Information gaps can have significant consequences to management policy and conservation success. Absent such information, efforts by nations to collaboratively monitor the status of shared populations and to institute conservation programs are thwarted. Meanwhile, some of the largest nesting sea turtle colonies in the hemisphere have nearly vanished.

Recognizing their role in the ecosystem and identifying population declines is key to the sea turtles' survival. That's where the landmark atlas sheds new light, providing not just the locations of nesting beaches, but also information on breeding colony size, legal protections and threats to population survival. □

For more information, contact:

Karen Eckert, Executive Director, WIDECAST, [keckert@widecast.org](mailto:keckert@widecast.org)

The one process now going on that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us.

—E. O. Wilson, American biologist/conservationist

## CTTC show schedule

**September 27:** TOOSLO Chapter's 17<sup>th</sup> Annual Turtle, Tortoise and Reptile Show at the Veterans Memorial Auditorium, 801 Grand Ave., San Luis Obispo, CA. 10AM – 4 PM.

### Turtle Survival Alliance

**September 17 - 20:** 6<sup>th</sup> Annual Symposium on Conservation and Biology of Tortoises and Freshwater Turtles at the Sheraton Tucson Hotel in Tucson, AZ. Visit the TSA website for more information: <[www.turtlesurvival.org/news](http://www.turtlesurvival.org/news)>

*CTTC Gratefully Acknowledges the Generosity of its Donors*  
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## CTTC Meetings and Programs

- Cen-Val:** September 4; October 5
- Chino Valley:** September 19; October 17
- Foothill:** September 26; October 24
- High Desert:** September 8; October 13
- Inland Empire:** September 5; October 3
- Kern County:** September 16; October 21
- Low Desert:** October 6
- Orange County:** September 12; October 10
- San Jose Branch:** September 8 [note date change due to the Labor Day holiday]; October 6
- Santa Barbara-Ventura:** meetings are held in members' homes.
- TOOSLO (San Luis Obispo):** September 10; October 8
- TTCS (Long Beach):** September 19 - Tom Greek Ms., DVM; October 17
- Valley:** No meeting September 19; September 20 - field trip to American Tortoise Rescue, Malibu, CA; October 17
- Executive Board:** October 18; meetings are held at the Los Angeles County Arboretum in Arcadia, CA.

Check your Chapter website for the latest program information. <[www.tortoise.org](http://www.tortoise.org)> has links to all CTTC chapters. Programs may be scheduled after the newsletter is published.



Her name is Kobe, pronounced Ko-bay in Swahili, the African language in which the word *kobe* means “turtle.” She is, indeed, one lucky African Spurred, or Sulcata Tortoise (*Geochelone sulcata*).

Kobe is the school mascot of Burbank Community Day School (CDS) in Burbank, CA, an alternative school administered by Principal Christine Krohn at which Mr. James Dobkowski teaches Science.

It was Mr. Dobkowski’s wife Jennifer who found Kobe for sale through an online classified ad. Mr. Dobkowski assigned his science students the task of researching the care and housing requirements of the Sulcata species. Principal Krohn agreed that there was great potential for learning within this proposal. The students approached their task seriously. They gathered their information and held discussions as to the suitability of the species for their school. Then they held a vote, and the majority of students voted in favor of taking on the responsibility of Kobe’s care. So this is how Kobe came to the Community Day School.

**Enter Leadership Burbank 2008**

The Burbank Chamber of Commerce program known as Leadership Burbank has a mission: “To identify, educate and motivate current and emerging leaders in Burbank to develop ideas and solutions that make



Kobe at the ground-breaking ceremony strolling in her habitat-to-be. Photo by Baylis Glascock.

by Mary A. Cohen

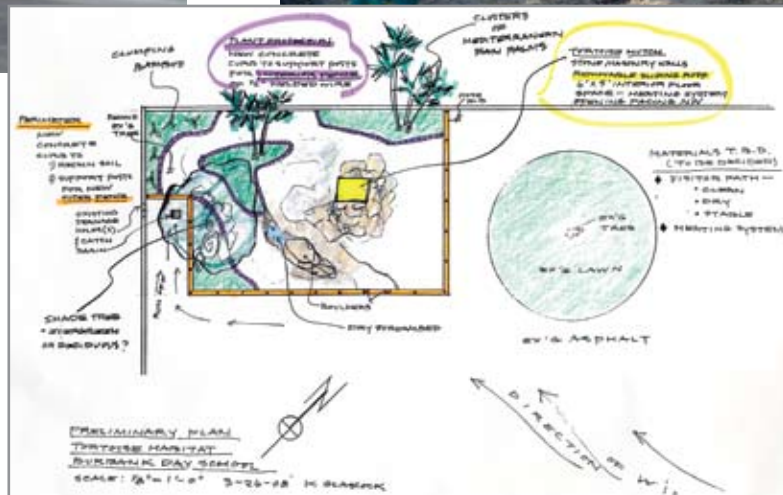
Outdoor Learning Laboratory and Tortoise Habitat for the school’s mascot Kobe. Not only is this project a bountiful learning experience for the students at the Community Day School, it will also serve as a field trip venue for other schools in the Burbank Unified School District.

**Designing the Habitat**

Principal Krohn contacted Katherine Glascock Landscape Design of Studio City to inquire about the landscape design portion of the project. A 50 ft. x 30 ft. (a total



The schoolyard before and after construction of the habitat. Photos by M. A. Cohen



of 1,500 sq. ft.) section of the schoolyard was set aside for the tortoise habitat. While researching appropriate plants materials for the tortoise habitat, the landscape designer came across my

Burbank a strong, sustainable and vibrant community.”

“Each year, every Leadership Burbank class is required to develop and execute a project that will have a positive affect on the community,” according to *Burbank Leader* reporter David Laurell. There are always several worthy projects from which to choose, and the choice is never an easy one. The chosen project for the Class of 2008 is an

articles on planting for tortoises on the CTTC website! We first met and became friends at Los Angeles Pierce College when we were concurrently studying horticulture. She contacted me and I was immediately on board, sharing my experiences as a horticulturist and a keeper of Sulcata Tortoises.

The plan for the tortoise habitat was presented to Leadership Burbank and it was approved. In addition to the habitat in the schoolyard, an adjacent plot of school property was destined to become a community garden of edibles for Kobe, giving students from an urban area a chance to enjoy the experience of planting and tending a garden for their beloved mascot.

### Ground-breaking and Dedication Ceremonies

On April 14, the ground-breaking ceremony took place. In addition to the Community Day School staff and students, Leadership Burbank officials and the class of 2008 were in attendance. Many local dignitaries were present as well, representing Burbank Chamber of Commerce, Burbank Unified School District, City of Burbank Emergency Services, among others. Now work began in earnest on the project at hand. Through networking in the community, many of the needed supplies and services were either donated or purchased at a greatly reduced cost. The Community Day School staff and students and the Leadership Burbank class of 2008 worked tirelessly to bring this project to fruition.

On May 21, shortly before the Leadership Burbank class of 2008 was to conclude, the dedication ceremony was held. The participants in the dedication included many people from the ground-breaking ceremony as well as other guests. It was a festive occasion and everyone was understandably proud of what they had accomplished.

### “Grow, Live, Learn”

The motto and logo of this project speak to its purpose. At least seven school subjects are involved in the development of the tortoise habitat: life sciences, physical sciences, social studies, math, English, art, and parenting. Several valuable life lessons also come to mind: the democratic process, cooperation for a common goal, the generosity of donation, and a sense of community. It was delightful to be involved in this project! □



# Gigantic George

text and photos by Debi Nowak-Hawkes and Colin Hawkes,  
CTTC Santa Barbara-Ventura Chapter



George in his backyard in Ventura, California where he lives with his devoted keepers, Debi and Colin.

By all measures, George is an enormous Desert Tortoise (*Gopherus agassizii*). Tipping the scales at 35 lbs (15.8 kg), he outweighs the largest wild tortoise on record, Maximus, by more than 10 pounds. Maximus weighed a hefty 23 lbs (10.5 kg).

George has a straight-line carapace length of 18 in. (45.7 cm); Maximus' carapace length measured 15 in. (38.1 cm) Although many Club members know about George, no one can figure out why he is so enormous.

There have even been suggestions that he is another species, but he has all the characteristics of a Desert Tortoise.

We acquired George about 20 years ago from neighbors that were moving and could no longer care for him. They had picked him up off the road in the desert when it was still legal to do this, so we don't know how long they had him before we took him in.

His diet consists mostly of grass and weeds which are readily available. He also eats Hibiscus flowers and leaves, rose petals and an occasional treat of corn on the cob or watermelon rinds.

The picture of him with his arms hanging down is a nice shot because that piece of wood is a 2" x 4" on end, so it helps provide perspective.

We have exhibited him at the Ventura County Fair and other tortoise shows with the Santa Barbara-Ventura Chapter of the California Turtle & Tortoise Club, and the chapter members know him well. He is always a welcome guest. He has a lot of personality and very handsome eyes. □



Debi and George at an event in 2001. George has grown larger in the seven years since this photo was taken.



## From the Chair...

by Michael J. Connor, Ph.D., Chair, CTTC Executive Board

This month's column is devoted to an update of Club news from the recent quarterly meeting of the California Turtle and Tortoise Club's Executive Board.

### CTTC Activities

We had a busy schedule at the July 12, 2008 Executive Board meeting. Topics of Club-wide interest included the following:

#### New Branch in San Jose

At the July Executive Board meeting it was announced that the San Jose Branch would hold its first meeting on August 4, 2008 while this issue of the *Tortuga Gazette* is in the press.

The Executive Board had established CTTC's new fledgling Chapter in the San Jose area at its April meeting. The San Jose Branch will be eligible for approval as a full Chapter after one year of successful operation.

Johnny Rodriguez, Vice-chair of CTTC's Executive Board, is the guest speaker at the first meeting of the San Jose Branch. The San Jose Branch is under the leadership of an enthusiastic cadre of officers and we all look forward to the successful development and growth of what will be the Club's first Bay Area Chapter. Visit the Branch webpage at <[www.tortoise.org/sanjose/](http://www.tortoise.org/sanjose/)> for more information.

#### CTTC Desert Tortoise Book

Jay Winderman and I presented a proposal for the Executive Board to produce a Desert Tortoise book. Many of you will know Jay as author of the *Thunder the Tortoise* series. The purpose of the book is to provide a comprehensive source of information about the desert tortoise that is written in plain English and that will appeal to a broad audience. The Board enthusiastically approved the project. Book chapters will be written by Club members and all proceeds from the sale of the book will go to CTTC.

If you are interested in helping by writing a chapter or part of chapter, or in contributing photographs or drawings for the book, we welcome your participation. Please feel free to contact me by e-mail at <[mconnor@tortoise.org](mailto:mconnor@tortoise.org)>.

#### Turtle Rescue

CTTC's turtle rescue and adoption programs handle thousands of turtles each year.

This includes a large number of individual chelonians that are "special status species" – species of turtle that require special consideration because of California state law and regulations.

The big three species that require special handling because of their legal status are Desert Tortoises which are state- and federally-listed as threatened, Snapping Turtles which are prohibited species and illegal to possess in California, and Western or Pacific Pond Turtles which are a California Department of Fish and Game Species of Concern that has a zero bag limit and so cannot be kept as a pet.

The Club's Executive Board is working on memorializing our relationship with the California Department of Fish & Game by developing a Memorandum of Understanding. At a minimum, this would cover "big three" species once they enter CTTC's adoption and rescue programs.

### Conservation News

#### Good News For California's Leatherback Sea Turtles!

CTTC supports regulations that restrict longline fishing off California's coast to protect the critically endangered Pacific Leatherback Sea Turtle. Longline fishing entails running multiple-hooked fishing lines that can be up to 60 miles long that are aimed at catching swordfish. Unfortunately, the hooks and lines trap many other animals besides swordfish including sea turtles.

The National Marine Fishery Service is yet again considering granting an exemption to the longline fishing ban off the California coast to benefit commercial fishing operations. CTTC supports keeping the restriction intact to help protect critically endangered Leatherback Sea Turtles and submitted comments on May 15, 2008 opposing granting these exemptions.

We were all encouraged to hear that on July 15, the California Legislature approved a resolution opposing federal proposals to permit swordfish longline fishing in this vital sea turtle habitat. Assemblyman Mark Leno's "Assembly Joint Resolution 62" specifically requests that the National Marine Fishery Service deny or delay consideration of new West Coast fishing permits for swordfish until critical habitat is designated for the

Pacific Leatherback Sea Turtle and ongoing studies determine if the Pacific Loggerhead Sea Turtle should be up-listed from "threatened" to "endangered" are completed.

#### Desert Tortoise News

Federal agencies involved with the Fort Irwin desert tortoise translocation were served with lawsuit in July (see the CBD Press Release on page 6).

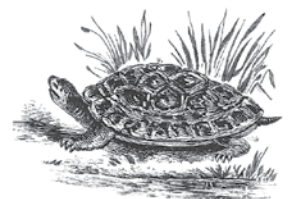
We are still waiting for the United States Fish and Wildlife Service to release the Draft Revised Recovery Plan for the Mojave Population of the Desert Tortoise. We expect it to be released for public review in August, while this issue of the *Tortuga Gazette* is in press. Links will be posted on the conservation page on the Club website at <[www.tortoise.org](http://www.tortoise.org)> once it becomes available.

The Executive Board coordinates activities among California Turtle and Tortoise Clubs's 13 Chapters and Branches, oversees the adoptions programs, and runs club-wide programs such as publication and distribution of the *Tortuga Gazette*, the <[www.tortoise.org](http://www.tortoise.org)> website, and conservation efforts. The Board meets quarterly at the beautiful Los Angeles County Arboretum in Arcadia. You can find information about CTTC programs on the Club Website at <[www.tortoise.org](http://www.tortoise.org)>, as well as support CTTC by making your book and other purchases from Amazon.com and Barnes and Noble by clicking through the special links. You might also like to join the CTTC\_Turtle\_And\_Tortoise\_List, CTTC's online community that is now nearly 600 strong. □

#### Diamondback Terrapin Conservation Links \*

- [www.terrarinconservation.org](http://www.terrarinconservation.org) [The Wetlands Institute]
- [www.dtwg.org](http://www.dtwg.org) [Diamondback Terrapin Working Group]
- [www.stockton.edu/~herlandr/terrarin](http://www.stockton.edu/~herlandr/terrarin) [Headstarting Diamondback Terrapins]
- [chenpn.com/category/turtle-talks/](http://chenpn.com/category/turtle-talks/) [Chen Pelf Nyok's blog on her terrapin work]

\* There are a few graphic images of road-killed turtles on these websites. However, the sites are very informative. The work of these researchers is crucial to the survival of the Diamondback Terrapin.





# Big News from Suzhou Zoo: Yangtze Giant Softshell Turtle Eggs!

FORT WORTH, TEXAS – May 21, 2008  
There are only four specimens of the Yangtze Giant Softshell Turtle (*Rafetus swinhoi*) left on Earth—one in the wild and three in captivity. In order to save this species from extinction, conservation partners from the Turtle Survival Alliance (TSA) and Wildlife Conservation Society (WCS), working in conjunction with partners from two Chinese zoos and the China Zoo Society, recently paired one of them. A still reproductive and more than 80-year-old female living in China's Changsha Zoo, has been introduced to the only known male in China, a more than 100-year-old living more than 600 miles away at the Suzhou Zoo.

The Bronx Zoo-based WCS and the Fort Worth Zoo-based TSA coordinated the critically important move—TSA provided much of the funding, animal reproduction and technical expertise while WCS provided veterinary and logistical support and coordination with wildlife partners in China and New York. Other project partners include Ocean Park and Kadoorie Farm and Botanic Garden, both in Hong Kong. On Monday, May 5 turtle biologists, veterinarians, and zoo staff from partner organizations convened at the Changsha Zoo to collect and transport the female to the Suzhou Zoo where she joined her new mate to potentially save their entire species. The move was coordinated to coincide with the female's reproductive cycle.

"I hate to call this a desperation move, but it really was. With only one female known worldwide, and given that we have lost three captive specimens over the past two years, what choice did we have? The risks related to moving her were certainly there, but doing nothing was much riskier," said Rick Hudson TSA co-chair and Fort Worth Zoo conservation biologist.

"This is a story of hope for a species truly on the brink," said Colin Poole the director of the Wildlife Conservation Society's Asia Programs. "We are extremely grateful to our conservation partners both in China and here in the U.S. who made this historic move possible. Now that the turtles are together, we are optimistic that they will successfully breed."

Listed at the top of the World Conservation Union's Red List, the Yangtze Giant Softshell Turtle is the most critically endangered turtle in the world. Its status in the wild has long been recognized as grim, but

extinction risk now is believed higher than ever. Much of its demise has been attributed to pollution, over-harvesting for Asian food markets and habitat alteration. Biologists saw no other alternative but to save the species by any means necessary. Still, the risks were high—relocating an animal this age can be highly stressful for it and research shows that breeding attempts by males can become aggressive. However, since the female has arrived safely and is settling well into her new habitat at the Suzhou Zoo, biologists are optimistic for breeding success. If interested in donating funds to support this project, visit [www.turtlesurvival.org](http://www.turtlesurvival.org)

## June 23, 2008 - *Rafetus* update

REALLY BIG news flash from China on *Rafetus* – updates from TSA's Rick Hudson

Our dreams came one step closer to reality last week when Gerald Kuchling arrived back at the Suzhou Zoo and began excavating the sand bank where the female had been observed digging recently. He uncovered a clutch of ping-pong sized eggs (18 showing...but probably more) which have been left in the sand for now. The incubators and media (thanks Bob and Sheri Ashley for the media donation) that we shipped over have finally cleared customs and we hope to have the eggs set up by tomorrow. Will keep you posted as this historic moment unfolds.

## July 3, 2008 - *Rafetus* update

TSA's Gerald Kuchling arrived back in China and on 23 June excavated the nesting area where "China Girl" [researchers' nickname for the female *R. swinhoi*] had been observed digging. A clutch of 45 eggs was excavated, 32 of which went into three incubators, the rest left in the sand for natural incubation. Four days later Gerald closely examined the eggs for development and reports that "17 show clear sign of development (clear round white patches, larger at higher temperatures), five with possible white patches, and 10 with no sign of development. Thus, 53%-68% of eggs have started to develop." And the female continues to come up on the beach and explore, leading to hopes that she will soon nest again.

With hatching expected in 50 – 70 days, and with egg laying estimated during the first week of June, we could have hatchlings by early August. Our next step is to get hatchling rearing units set up with adequate

filtration, temperature control and lighting before then. The TSA has also hired a young Chinese American grad student, Emily King, to be stationed at the Suzhou Zoo for the next two months. Emily's job will be to monitor egg incubation and husbandry, and to communicate her observations to us.

We have a new donor to the *Rafetus* project – long time supporter the British Chelonia Group. They have offered to cover the cost of the three Lyon incubators and shipping costs, total \$1,800 US. The TSA is also being asked to host the two Directors of the Suzhou and Changsha Zoo at the TSA conference in order to celebrate this historic event, and to build capacity for the long term future of this project. If anyone has a surplus of frequent flyer miles that can help with this request, or if you want to help support this effort, please let us know.

Editor's note: In Volume 44, number 2 (March/April 2008) of the *Tortuga Gazette* an article compiled by myself presented the *Rafetus* situation as known at that time. Since then, important developments have occurred.

On April 16, 2008, Cleveland Metroparks Zoo and the Cleveland Zoological Society announced that field biologist Nguyen Xuan Thuan, with Education for Nature in Vietnam, had found and photographed a wild Yangtze Giant Softshell Turtle basking on the surface of lake just west of Hanoi, Vietnam. The photo was instrumental in a positive identification of the animal. Only three other *R. swinhoi* are known to exist, the two currently at Suzhou Zoo in China, and one in the Hoan Kiem Lake in Hanoi. Cleveland Metroparks Zoo's Asian Turtle Program researchers appear to have found a fourth specimen.

The carefully orchestrated transfer of the female *Rafetus* and her positive response to her new surroundings was promising. The gentle interaction between the male and female turtles, and especially the laying of eggs, have further encouraged their keepers. Stay tuned.

The *Tortuga Gazette* has received permission to reprint the *Rafetus* updates which Turtle Survival Alliance publishes. We are grateful for this courtesy. To learn more about the TSA's and to donate, visit:

[www.turtlesurvival.org](http://www.turtlesurvival.org)



planting for chelonians by M. A. Cohen

(*Tropaeolum majus* L.)

# Nasturtium

Nasturtium (*Tropaeolum majus* L.) is an edible plant which is easy to grow and naturalizes readily. The Tropaeolaceae family is a group of annual and perennial herbaceous flowering plants native to Central and South America. This plant family is composed of 80–90 members divided into three genera.

The “L.” following the species name *majus* is the author citation for Carl Linnaeus (1707–1778), a Swedish botanist, physician and zoologist who developed the system of binomial (“two-name”) nomenclature. Linnaeus, known as the father of modern taxonomy (the science of classification), formally described the species in 1753.

*T. majus* is not to be confused with Watercress (*Nasturtium officinale*), a completely different plant which is a member of the Brassicaceae, or Mustard family. Both Nasturtium and Watercress contain an oil which gives them a tangy or peppery flavor. The name “Nasturtium” is derived from the Latin *nasus tortus*, meaning “twisted nose,” a reference to its pungency.

## Description and Culture

The leaves of *T. majus* are peltate (shield-shaped) with wavy margins. The petiole (small stalk attaching the leaf blade to the stem) is in the center of the leaf. Nasturtium flowers are orange and yellow in the original species. Plant breeders have expanded the color palette to include colors from maroon through rust to creamy white.

Two growth habits can be found in the common garden Nasturtium: climbing or trailing growth, which is sprawling, ram-bunctious and up to 6 ft (2 m) in length; and dwarf bedding-plant growth, which is compact, growing to a height of 12 to 18 in. (30 to 46 cm). Trailing Nasturtium is well suited to larger, informal garden spaces, while the bedding plant varieties are suitable for small garden areas and small containers.

Nasturtium can be grown directly in

garden soil and can also be grown in containers. In either case, the culture of *T. majus* is the same: enough sun and water plus good drainage and air circulation.

The Nasturtium is an annual, meaning that it completes its life cycle in one growing season. Once established, *T. majus* flowers most abundantly in full sun and grows best in well-drained soil with moderate amounts of water. It is somewhat drought-tolerant once established. It will freely reseed for the next season’s plants.



Although *T. majus* will grow in full sun or light shade, it will produce fewer flowers and more vegetative growth in more shaded areas. Good air circulation is very important to the health of the Nasturtium, especially in partial sun, as stagnant air promotes the fungus disease powdery mildew. Mealybug pests can infest Nasturtium. *T. majus* will not tolerate frost conditions.

## Companion Planting

Nasturtiums are useful companion plants in gardens of ornamentals and edibles alike. The concept of companion planting in horticulture means that plant species are planted in close physical proximity in order to help each other. Nasturtiums repel many cucurbit (members of the Squash family) pests, like squash bugs, cucumber beetles, and several caterpillars. Nasturtiums also benefit brassicaceous plants (members of the Cabbage family), especially broccoli and cauliflower. *T. majus* acts as a trap crop, attracting black fly aphids away from susceptible plants. It also serves as food source for the larvae of many species of *Lepidoptera*, commonly known as moths and butterflies.

## Edibility\*

The flowers, leaves, and unripe seed pods of Nasturtium are all edible and rich in vitamin C, lutein and beta-carotene. They may be offered raw to tortoises.

*T. majus* is widely used in human cuisine, offering a peppery counterpoint to a variety of dishes raw or cooked. Its leaves, flowers and unripe seed pods are versatile flavoring agents and can be used raw in salads. They can be used to flavor vinegars and oils, butters and salts. Nasturtium will add a unique flavor to a variety of dishes, including stir-fry, pasta, vegetable dishes, fish and meat dishes, sauces and even sorbets. □

## REFERENCES

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 Stearn, William T. *Botanical Latin*. Portland, OR: Timber Press. 1994

\* As with any plant material to be consumed, **never** use chemicals for pest control, as these chemicals may present toxic hazards. **Never** gather plants growing at the roadside, as these may be contaminated with road grime, animal waste or other noxious substances.



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## Mojave Max Dies

by Mary Manning · Clark County, Nevada  
July 1, 2008 · 6:09 PM

Mojave Max, the face of Southern Nevada's Mojave Desert tortoise population, has died of apparent natural causes on Monday, said Kirsten Cannon, spokeswoman for the Bureau of Land Management. The 65-year-old male tortoise lived in a special habitat at Red Rock Canyon National Conservation Area. That's within the normal life span of a Desert Tortoise, which ranges from 60 to 80 years. Cannon said a wildlife biologist examined Mojave Max before he was buried and found no signs of trauma.

For the past nine years Clark County school students were encouraged to estimate the time that he would first appear from his burrow after a winter's brumation, the reptilian form of hibernation, Cannon said. Mojave Max became a cultural icon who predicted the coming of spring – much like groundhog Punxsutawney Phil on the East Coast. Max normally emerged from his burrow in mid-March but this year he appeared April 14 because of cooler weather.

The successful event drew thousands of students in the Las Vegas Valley to research species, temperatures and cycles of the Mojave Desert. More than 100,000 school children were introduced to the Mojave Desert ecosystem through the Clark County Desert Conservation Program, which includes a cartoon version of Mojave Max.

A successor to Mojave Max will be announced at a later date, Cannon said. □

## CTTC to Publish Tortoise Book

by Jay B. Winderman

The CTTC Executive Board, at their July 12th meeting, voted unanimously to pursue the creation of a comprehensive book about the Desert Tortoise. At the meeting, club member Jay B. Winderman and Board Chair Michael J. Connor presented the proposal consisting of a purpose, a list of details, and an abbreviated outline.

The book, tentatively titled *The Desert Tortoise: Life in the Wild and in Captivity*, is intended to appeal to a broad audience. It will tell us what these tortoises are, where they live, how they live, the challenges they face, the laws that protect them, and, for tortoise guardians, how to care for them.

The manuscript is expected to take about a year to complete and edit. The contents of each chapter (eleven chapters are envisioned) will be researched and written by a CTTC member, with help as needed. □



## Offspring from Pinta Island's Lonesome George?!!

Since 1990, Lonesome George, the last known Galápagos Tortoise (*Geochelone nigra*) from Pinta Island, has lived with two female companions from the closely related Isabela Island genotype. Until recently, he has shown little interest in the females. For several months, George has been more attentive to his companions and has even been observed attempting to mate.

On July 20, the staff at Galápagos National Park was very excited to find a clutch of nine eggs in a nest excavated by one of the females. Several eggs were damaged, but the staff removed three intact eggs which are now being incubated at the Charles Darwin Research Station according to its well-defined protocol.

Linda Cayot of the Galápagos Conservancy commented that "tortoises can lay infertile eggs without ever having been with a male, much the way chickens do." Confirmation of the eggs' fertility will occur some time in November.

### Classified Advertisements

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### Online [www.tortoise.org](http://www.tortoise.org)

Webmaster Michael J. Connor <mconnor@tortoise.org>

The California Turtle & Tortoise Club invites you to visit its award-winning website to learn more about turtles.

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### Membership

Annual membership in the California Turtle & Tortoise Club and subscription to the *Tortuga Gazette* are handled through the CTTC Chapters.

Members are free to join any chapter. Many members in California choose to join a nearby chapter to participate in chapter meetings and other activities. Membership forms can be printed from the CTTC website <[www.tortoise.org](http://www.tortoise.org)> and mailed to the chapter of your choice. The Chapter Directory on the following page has contact information and mailing addresses for each chapter.

**Membership fees**

- ♦ Individual/family . . . \$20<sup>00</sup> ♦ Canada/Mexico...\$25<sup>00</sup>
- ♦ Foreign . . . \$40<sup>00</sup> ♦ Life membership . . . \$500<sup>00</sup>



# CTTC Directory

All CTTC chapters now have websites. Please visit your chapter website for the officers' current email addresses.

## **Cen-Val Chapter** <[www.tortoise.org/cen-val](http://www.tortoise.org/cen-val)>

✉ P.O. Box 16418, Fresno, CA 93755-6418  
 Pres Robert Scott (559) 439-6690  
 Sec/Treas Diana Gatti degatti@sbcglobal.com  
 Meeting: First Thursday, 7:00 PM @ Del Mar Elementary School, 4122 No. Del Mar, Fresno, CA 93704

## **Chino Valley Chapter** <[www.tortoise.org/chino](http://www.tortoise.org/chino)>

✉ P. O. Box 1753, Chino, CA 91708-1753  
 Pres Jim Misiak (909) 627-0424  
 Corr Sec/Treas Penny Hyde (951) 734-3119  
 Adopt Lynda Misiak (909) 627-0424  
 Meeting: Third Friday, 7:30 PM @ Chino Community Building, 5443 "B" Street, Chino, CA 91710

## **Foothill Chapter** <[www.tortoise.org/foothill](http://www.tortoise.org/foothill)>

✉ P. O. Box 51002, Pasadena, CA 91115-1002  
 Pres Dianne Huwaldt (626) 798-9227  
 Mem/Treas Pam Eliassen (626) 798-2744  
 Adopt Linda Crawford (626) 836-0399  
 Meeting: Fourth Friday, 7:30 PM @ Los Angeles County Arboretum, 301 No. Baldwin Ave, Arcadia, CA 91007

## **High Desert Chapter** <[www.tortoise.org/highdesert](http://www.tortoise.org/highdesert)>

✉ P. O. Box 163, Victorville, CA 92393  
 Pres Pam Stich (760) 949-6568  
 V-P/Adopt Dave Zantiny (760) 242-5198  
 Sec Mary Dutro (760) 247-2364  
 Meeting: Second Monday, 7:00 PM @ Sterling Inn Regency Room, 17738 Francesca Road, Victorville, CA 92395

## **Inland Empire Chapter** <[www.tortoise.org/inlandempire](http://www.tortoise.org/inlandempire)>

✉ P. O. Box 2371, San Bernardino, CA 92406  
 Pres Tim Anderson (909) 224-4898  
 V-P Mary Burrows (909) 793-0518  
 Corr Sec Vendy Martin (909) 864-0978  
 Meeting: First Friday, 7:30 PM @ San Bernardino County Museum, 2024 Orange Tree Lane, Redlands, CA 92374

## **Kern County Chapter** <[www.kerncttc.org](http://www.kerncttc.org)>

✉ P. O. Box 81772, Bakersfield, CA 93380-1772  
 Pres Leonard Plunkett (661) 809-5527  
 V-P/Adopt Don Williams (661) 391-8791  
 Treas/Memb Linda Moore (661) 391-0220  
 Meeting: Third Tuesday, 7:00 PM @ Rasmussen Senior Center, 115 E. Roberts Lane, Bakersfield, CA 93308

## **Low Desert Chapter** <[www.tortoise.org/lowdesert](http://www.tortoise.org/lowdesert)>

✉ P. O. Box 4156, Palm Desert, CA 92261  
 Pres Tony Vaninetti (760) 328-7650  
 Sec Carol Wilcox (760) 329-0036  
 Adopt Bill Powers (760) 346-5694 ext. 2201  
 Meeting: First Monday of every even month, 7:00 PM @ The Living Desert, 47-900 Portola, Palm Desert, CA 92260

## **CTTC Executive Board** <[mconnor@tortoise.org](mailto:mconnor@tortoise.org)>

✉ CTTC, P. O. Box 7300, Van Nuys, CA 91409-7300  
 Chair Michael J. Connor, Ph.D. (818) 345-0425  
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## **Orange County Chapter** <[www.tortoise.org/orangecounty](http://www.tortoise.org/orangecounty)>

✉ P. O. Box 11124, Santa Ana, CA 92711  
 Pres/V-P Tom/Sharon Paquette (714) 671-1467  
 Treas Lynda Bagley (714) 437-7042  
 Adopt contact chapter <occhaptercttc@hotmail.com>  
 Meeting: Second Friday, 7:30 PM @ Chapman University Science Center, rm 127, 346 No. Center St., Orange, CA 92866

## **San Jose Branch** <[www.tortoise.org/sanjose](http://www.tortoise.org/sanjose)>

✉ P. O. Box 14222, San Luis Obispo, CA 93406  
 Contact Jerry Gach (408) 227-5267  
 Adoptions John Best john.p.best@gmail.com  
 Meeting: First Monday, 7:00 PM @ Baldwin Elementary School Cafeteria, 280 Martinvale Lane, San Jose, CA 95119

## **Santa Barbara-Ventura Chapter** <[www.tortoise.org/santabarbara](http://www.tortoise.org/santabarbara)>

✉ P. O. Box 60745, Santa Barbara, CA 93160  
 Pres Dave Friend (805) 649-4713  
 V-P/Adopt Wes Shipway (805) 491-2580  
 Meeting: Now meets in members' homes; check the chapter website for meeting time and location.

## **TOOSLO (San Luis Obispo) Chapter** <[www.tooslo.org](http://www.tooslo.org)>

✉ P. O. Box 14222, San Luis Obispo, CA 93406  
 Pres Johnny Rodriguez (805) 489-1401  
 V-P Wesley Mello (805) 748-8927  
 Adopt Bob Thomas (805) 481-5222  
 Meeting: Second Wednesday, 7:00 PM @ PG&E Community Center, 6588 Ontario Rd, San Luis Obispo, CA 93405

## **Turtle & Tortoise Care Society** <[www.tortoise.org/ttcs](http://www.tortoise.org/ttcs)>

✉ P. O. Box 15965, Long Beach, CA 90815-0965  
 Pres Ralph Hoekstra (714) 962-0624  
 Treas Judy Leong Belcher (562) 425-6798  
 Adopt Peggy Nichols (562) 429-8002  
 Meeting: Third Friday, 7:30 PM @ University Baptist Church, 3434 Chatwin, Long Beach, CA 90808

## **Valley Chapter** <[valleycttc@yahoo.com](mailto:valleycttc@yahoo.com)>

✉ P. O. Box 2896, Canoga Park, CA 91396  
 Pres Larry Reiners (818) 787-8683  
 V-P Stephanie Pappas (805) 901-8746  
 Adopt Cory Lagusker (661) 312-6311  
 Meeting: Third Friday, 7:30 PM @ Woodland Hills Christian Church, 5920 Shoup, Woodland Hills, CA 91367

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**the Tortuga Gazette**

September/October 2008  
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Turtle of the Month:

Diamondback Terrapin  
(*Malaclemys terrapin*)

- ◆ Yangtze Giant Softshell Turtle Eggs!
- ◆ Gigantic George
- ◆ Growing Nasturtium
- ◆ Atlas of Caribbean Sea Turtle Nesting Grounds



Diamondback Terrapin (*Malaclemys terrapin*) Photo by M. A. Cohen