



Adult female yellow-footed tortoise, *Chelonoidis denticulata* measuring 17 inches (43 centimeters) in carapace length and 11 inches (28 centimeters) in carapace width. Photo © 2017 by Kirk Weber, reprinted with permission.

featured
species

Yellow-footed Tortoise, *Chelonoidis denticulata* (Linnaeus, 1766)

Formerly assigned to the genera *Testudo* and *Geochelone*, the yellow-footed tortoise currently belongs to the genus *Chelonoidis*, the species of South American tortoises that also include the Galápagos tortoise (*C. nigra*), the Chaco tortoise (*C. chilensis*), and the Red-footed tortoise (*C. carbonaria*).

Also known as Carolus Linnaeus and Carl von Linné, Swedish botanist and zoologist Carl Linnaeus (1707-1778)

The Brazilian Giant Tortoise by M. A. Cohen

officially described the yellow-footed tortoise in 1766, naming the species *Testudo denticulata*. Recognized for his development of the scientific system of binomial (two-name) nomenclature (naming technique), Linnaeus is known as the Father of Taxonomy, the method of scientifically classifying organisms.

The yellow-footed tortoise, a member of the Testudinidae family of tortoises, is the largest mainland tortoise on the continent of South America.

Closely related to the red-footed tortoise, *C. carbonaria*, the yellow-footed tortoise is the less studied of the two. The yellow-footed tortoise is the larger of the two species, has a less contrasting coloration on its carapace, and is sympatric with its close relative, meaning the two species occur in the same geographic areas. While the red-footed tortoise prefers open, savannah-grassland habitats, the yellow-footed tortoise prefers canopied rainforest habitats.



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Often called the yellow-footed tortoise, *C. denticulata* also has several other common names, including the Brazilian giant tortoise, the South American forest tortoise, and yellow-foot.

The “preferred Spanish vernacular name” of the yellow-footed tortoise is *morrocoy amarillo*, while the local indigenous peoples within its range have names for the species in their own languages (Pritchard and Trebbau, 1984).

The species name *denticulata* derives from the Latin root words *denti-*, meaning toothed, and *latus*, meaning the side. The root words combine to describe the serrated outer edges of the marginal scutes of yellow-footed tortoise hatchlings.

Identification

Not as extensively studied as the red-footed tortoise, the yellow-footed tortoise is likely more difficult to locate and observe, living as it does in overgrown rainforests that are often impenetrable.

The species' common name describes the distinctive yellow- or orange-colored scales present on the front surfaces of its forelegs. The yellow-footed tortoise is the fifth largest tortoise worldwide, the third largest mainland tortoise, and the largest tortoise species in mainland South America. Averaging 16 to 20 inches (40 to 50 centimeters) in carapace length (King, 2011), massive individuals greater than 32 inches (82 centimeters) in carapace length are not unusual, especially in the wild (Turtles of the World, n.d.).

Scutes that are brown to brownish-black with yellow- or orange-colored centers comprise the elongated carapace. The species' plastron, yellowish-brown in coloration, has darker markings at the seams of the scutes (ARKive, n.d.).

Comparatively small, the head of *C. denticulata* displays scales colored yellow to orange on a brown or brownish-black background, with a shape that is longer than it is wide, eyes that



Female yellow-footed tortoise enjoying a flower in her enclosure. Photo © 2017 by Kirk Weber, reprinted with permission.

are large, and a somewhat hooked upper jaw (Pritchard and Trebbau, 1984). The forelimbs of the species show prominent yellow to orange scales, while the elephantine hind limbs are typically brown to brownish-black.

Exhibiting some sexual dimorphism, the male yellow-footed tortoise yellow-foot tends to be larger than the female, with a more elongated carapace, a concave plastron, and a longer, thicker tail. As a rule, this generality is accepted by biologists, however, the largest recorded individuals in the species are ordinarily female.

While also having an elongated carapace, the female yellow-foot is usually smaller overall than the male, with a domed carapace and a flattened plastron that is adapted for egg development. Biologists surmise that the longer, narrower carapace of the male enables him to move more easily through the dense rainforest understory (ARKive, n.d.).

Considerable variation exists in the size of mature yellow-footed tortoises, with the smallest adults being about one-half the size and only a fraction of the weight of the largest adults (Pritchard and Trebbau, 1984). Subspecies of *C. denticulata* have yet to be identified.

Range and Habitat

With an extensive range that spans many northwestern states on the continent of South America, the yellow-footed tortoise inhabits southeastern Venezuela, Guyana, Suriname, French Guiana, the Amazon



River basin in Brazil, southern Colombia, eastern Ecuador, eastern Peru, and northern Bolivia. The species also occurs in the twin-island Republic of Trinidad and Tobago, located off the northern coast of South America.

Favoring both deciduous and evergreen tropical rainforest ecosystems, *C. denticulata* thrives in high-humidity environments, and typically inhabits locations adjacent to bodies of water. With low light levels found in the shade of the rainforest canopy, these ecosystems feature a temperature range is relatively narrow, varying from 66 to 95° F (19 to 35° C) (King, 2011).

Species Activity

Exhibiting different periods of activity, male and female yellow-footed tortoises are both diurnal, meaning they are both active during the day. Females and juveniles are active all year around, mainly occupied with the search for food. In contrast, males are generally more active during the wetter months, when they are occupied with searching for mates as well as for food (King, 2011). This increase in male activity coincides with the availability of fallen fruit, a high-energy food item utilized during mating activities (ARKive, n.d.). Juveniles are immediately self-reliant when they emerge from their eggs and begin to forage upon absorption of their yolk sacs.

Foods and Feeding

As an omnivore, the yellow-footed tortoise consumes an array of food items, including fruits, flowers, grasses, leaves, vines, roots, bark, mushrooms (both gilled and woody varieties), insects, snails, worms, and carrion (ARKive, n.d.). While flowers are the preferred food during the dry season, fallen fruits are preferred during the wet season, and other food items are consumed throughout the year (Turtles of the World, n.d.)

Biologists who study the yellow-footed tortoise have observed the species engaged in geophagy (jee-oh-fah-jee), the practice of consuming soil, sand, or pebbles. Scientists theorize that ingesting these abrasive items aids the tortoise in digesting its food items because the tortoise often swallows them whole (ARKive, n.d.).

Reproduction

No specific mating season for *C. denticulata* has been documented, and biologists speculate that mating occurs at any time of year, although there is some evidence that mating peaks during the rainy season.

Given the year-round mating of the species, nesting is also likely to occur throughout the year. *C. denticulata* lays one to several clutches of eggs, numbering one to 20 eggs per clutch, each season. The average number of eggs per clutch is four to eight, and the eggs usually incubate for 120 to 150 days (ARKive, n.d.).

Threats

By far the greatest threat to adult *C. denticulata* is capture by humans for food. In some portions of its range, both the meat and various organs of the species are considered to be delicacies and are sold in food markets. Forest-dwelling peoples will capture yellow-footed tortoises for food or for sale when hunting other game.

A secondary threat to the species is collection for the pet trade. Some captive breeding of *C. denticulata* occurs within its range, and biologists report that at least some of the animals in the pet trade are captive-bred, probably reducing pressure on wild populations (ARKive, n.d.).

Conservation

The Convention on International Trade in Endangered Species (CITES) lists the yellow-footed tortoise as Appendix II, meaning that all international trade in the species should be diligently monitored.

The Red List of the International Union for the Conservation of Nature lists the yellow-footed tortoise as “vulnerable to extinction” with the annotation that the assessment “needs updating” (The IUCN Red List of Threatened Species, 1996). Ω

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Female yellow-footed tortoise. Photo © 2017 by Kirk Weber, reprinted with permission.



the Turtle's Garden

planting for chelonians
by M. A. Cohen

With the winter holidays fast approaching, it is important to provide for the safety of pets and children in the household, as no one wants the season's festivities interrupted by a medical emergency.

While this column is not intended to dampen holiday spirits, it presents profiles of plant materials commonly utilized as part of celebratory holiday decorations that contain toxic phytochemicals¹ with the potential for harm to pets and children. The single most important precaution one can take against possible danger is this: **keep all toxic plants and plant parts completely out of the reach of pets, children, and—for that matter—uninformed adults.** For purposes of this article, "plant part" includes visible parts, such as leaves, flowers, berries, seeds, and branches, as well as bulbs (visible or underground), roots, and plant sap.

Derived from the Latin word *toxicum* meaning poison, "toxic" may indicate that a plant or plant part is poisonous, i.e., capable of causing death or serious illness. Additionally, "toxic" may indicate that a less severe yet unpleasant reaction, such as nausea, vomiting, or contact dermatitis, may result from ingestion of or contact with the plant or its component parts.

Under all circumstances, posting the phone number of the local Poison Control authority adjacent to your phone(s) is prudent. The phone number for the Poison Control Helpline is **1-800-222-1222**. "Pharmacists, physicians, nurses and poison information providers answer the calls to 1-800-222-1222 24 hours a day, 7 days a week, 365 days a year." Language interpreters are always available through the Poison Help line (California Poison Control System, n.d.)

Tortoises, because of their strong attraction to the color red, and to berries, fruits, and flowers, are at particular risk for harm from the many plants described

¹ **phytochemical:** any biologically active compound found in plants.

Six Traditional Holiday Plants with Toxic Properties

- ◆ Holly
- ◆ Jerusalem Cherry
- ◆ Mistletoe
- ◆ Amaryllis and Daffodil
- ◆ Cyclamen
- ◆ Poinsettia

in this article. **Never** assume your pets (or children) will recognize harmful substances and avoid them. **Always** err on the side of caution, and protect vulnerable family members from harm.

Holly



European holly, *Ilex aquifolium*, branches, leaves and berries. Photo © 2005 by Jürgen Howaldt. Source: Creative Commons; license: CC BY-SA 2.0.

Widely distributed throughout temperate and subtropical areas, the holly family, Aquifoliaceae, comprises ±500 species worldwide. Holly branches, leaves, and berries are used extensively in Christmas decorations such as wreaths and garlands. While the bark, berries, leaves, and seeds of holly are all toxic, the berries of holly are most commonly eaten, posing a significant risk.

The toxic phytochemical in holly, theobromine, is an alkaloid² that is present in many plants, including cacao, a major component of chocolate. So, under no circumstances should people who have dogs allow their pets to have access to chocolate, as chocolate is poisonous to dogs. The concentration of theobromine is much higher in holly berries than in chocolate, making the holly berries dangerous when ingested.

² **alkaloid:** a large group of nitrogen-containing organic compounds produced by plants that generally cause a strong physiological reaction; examples of alkaloids include morphine, quinine, nicotine, caffeine, atropine and strychnine.

Jerusalem Cherry

Also known as Christmas cherry, winter cherry, and numerous other common names, Jerusalem cherry belongs to the Solanaceae family, commonly known as the nightshade family. A large plant family of considerable economic importance, the nightshade family consists of some members containing harmful alkaloids, as well as many members comprising common food crops. Potatoes, tomatoes, eggplants, bell peppers, and chili peppers are all nightshade family members. Common garden ornamentals belonging to the Solanaceae family include Angel's Trumpet (*Brugmansia* and *Datura* species) [toxic], Periwinkle (*Vinca* species) [toxic], and Petunia (*Petunia* species) [nontoxic].

An evergreen shrub reaching a mature height of 3 to 4 feet, *S. pseudocapsicum* is a native of Spain and has naturalized throughout the tropics and subtropics worldwide (Brenzel, Ed., 2012)

While it is toxic but not generally life-threatening to humans, the nightshade family alkaloid solanocapsine is extremely poisonous to dogs, cats, and some bird species. Because there is ample scientific evidence that reptiles are closely related to birds, one can presume that solanocapsine is poisonous to reptiles.



Jerusalem cherry, *Solanum pseudocapsicum*, photographed at Merrifield Garden Center, Fairfax VA USA. Photo © 2006 by David J. Stang. Source: Creative Commons; license: CC BY-SA 4.0.

The fruit of the Jerusalem cherry bears a strong resemblance to the cherry tomato, both in its physical appearance and its

flavor, so there is a significant life-threatening risk to pets consuming the fruit of the Jerusalem cherry (Helmenstine, Ph.D., 2017).

Mistletoe

Botanically speaking mistletoe is a hemiparasite, an oddity in the plant kingdom because it is a partial parasite. By the term “partial parasite” botanists are referring to the fact that the mistletoe species—there are several species—can either grow as parasites on trees and shrubs or on their own roots in the earth (The Holiday Spot, n.d.).

Commonly used as a decoration at Christmas, *Phoradendron flavescens* (= *P. leucarpum*) is an evergreen parasite plant belonging to the Santalaceae family. Native to North America, the genus grows as a parasite in the Western United States and on the East Coast.



Ripe berries of the oak mistletoe, *Phoradendron leucarpum*, photographed near Agua Dulce, Los Angeles County, CA. Photo © 2008 by Joe Decruyenaere. Source: Wikimedia Commons; license CC BY-SA 2.0.

The *Phoradendron* species contain phoratoxin, a toxic plant protein that causes a variety of dangerous symptoms ranging from blurred vision to death. While all parts of the mistletoe plant are poisonous, children and pets are most likely to eat the berries. Ingesting any part of the mistletoe plant can cause illness in a child and can seriously endanger a small animal (Helmenstine, Ph.D., 2017). If children or pets ingest mistletoe plant parts, the best course of action is to seek immediate medical advice.

Amaryllis [Hippeastrum] and Daffodil [Narcissus]

“Forcing,” a method of artificially accelerating the flowering of bulbs out of season, is popular for holiday decorating. Both members of the Amaryllidaceae family, *Hippeastrum* (amaryllis) and *Narcissus* (daffodil) are commonly forced

indoors for decoration and winter color. Both contain the toxic alkaloid lycorine, posing an ingestion risk. Bulbs, leaves and flowers all carry varying concentrations of the toxin lycorine.



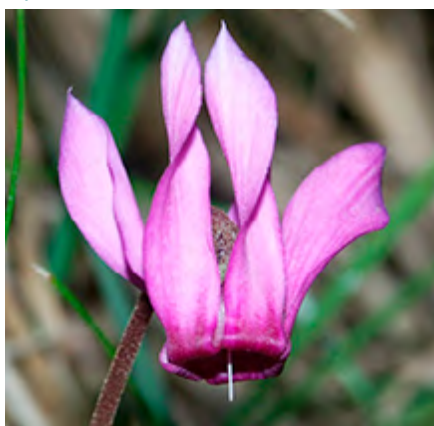
Amaryllis/Hippeastrum. Photo © 2016 by Amos Oliver Doyle. Source: Creative Commons; license CC-BY-SA-4.0.

Hippeastrum, one of many species and cultivars in the amaryllis family, is often sold as an “exotic” amaryllis. A popular bulb for forcing, many flower colors and color combinations exist through the efforts of plant breeders.

Known by the common names daffodil, narcissus, and jonquil, *Narcissus* species bear flowers in numerous colors and color combinations as well as various forms and heights.

Upon ingestion of bulbs, leaves, or flowers, both amaryllis and daffodil species can cause digestive distress, abnormal heartbeat, or convulsions (Helmenstine, Ph.D., 2017).

Cyclamen



Blossom of the species *Cyclamen purpurescens*. Photo © 2003 by BerndH. Source: Creative Commons; license CC-BY-SA 3.0

A member of the Primrose family, the species in the *Cyclamen* genus bear attractive flowers that resemble “shooting

stars or butterflies,” according to the Sunset Western Garden Book. Flower colors vary from white to pink, rose, red, lavender, and purple.

Leaves and flowers arise from a tuber, a thickened, underground root or stem. The *Cyclamen* tuber contains triterpinoid saponins, toxins that may cause nausea, vomiting, convulsions, or possibly paralysis (Helmenstine, Ph.D., 2017).

Pets are more likely than children to ingest *Cyclamen* tubers. However, if one plant part is known to contain toxins, all parts of that plant should be viewed as potentially dangerous.

Poinsettia

A member of the Euphorbiaceae, the Spurge family, the poinsettia, *Euphorbia pulcherrima*, is one of the most popular holiday plants worldwide. While the species has the potential for toxic effects, it is less dangerous than other plant species profiles in this article (Helmenstine, Ph.D., 2017).



Poinsettia, *Euphorbia pulcherrima*. Photo by the US Department of Agriculture. Public domain.

The poinsettia, like other euphorbias, produces a “milky” white sap containing toxic triterpenes that can cause contact dermatitis when touching the skin and especially the mucous membranes. If ingested, flowers or leaves of poinsettia may cause short-term digestive upset or feeling of illness. Ω

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New York State DEC Eliminating Commercial Harvest of Diamondback Terrapin—Closing Hunting Season Aids Conservation of Diamondback Terrapin Turtle Species

—New York State Department of Environmental Conservation press release

19 September 2017—The New York State Department of Environmental Conservation (DEC) and Commissioner Basil Seggos announced today that the agency is adopting regulations to eliminate commercial harvest of diamondback terrapins [*Malaclemys terrapin*] and add the species to the list of native turtles with no open season.

The closure on harvest will go into effect beginning May 1, 2018.

“Diamondback terrapins depend upon a steady diet of mollusks and crustaceans, making them an excellent indicator for the health of New York’s estuarine habitats,” Commissioner Seggos said. “If diamondback terrapins are doing well in a bay, you know you have a healthy population of blue mussels, clams, and blue crabs, too. Closing the hunting season is an important step in the conservation of diamondback terrapin populations in New York.”

Diamondback terrapins are a turtle species that live in brackish waters associated with the lower Hudson River, Long Island Sound, Peconic Bay, and the coastal embayments along the south shore of Long Island. The diamondback



Two Diamondback terrapins, *Malaclemys terrapin*, at the Louisville Zoo. Photo © 2009 by Ltshears. Source: Creative Commons; license: CC BY-SA 3.0

terrappin was identified as a Species of Greatest Conservation Need in the 2015 New York State Wildlife Action Plan due to documented threats from habitat loss, nest predation, and incidental capture. The turtles are sometimes accidentally trapped in crab pots and other commercial fishing gear.

Populations of diamondback terrapins plummeted in the early 20th Century due to unregulated harvest for turtle soup. After a rebound throughout most of the last century, new declines in diamondback terrapin populations along

the Atlantic Coast led to the closure of commercial harvest in all states in the terrapin’s range with the exception of New York.

The current action closes commercial harvest of terrapins throughout their range. In addition to closing New York’s open season, the diamondback terrapin has been added to the list of native turtles to protect all life stages of the species from being collected from the wild. DEC will continue to evaluate and pursue additional actions to improve the status of the diamondback terrapin populations in New York.

The final diamondback terrapin season will close April 30, 2018, with licenses expiring May 4, 2018.

Information on the life history of the diamondback terrapin may be found by visiting <http://www.dec.ny.gov/animals/59652.html>

The Regulatory Impact Statement for the revision to the regulation may be viewed at <http://www.dec.ny.gov/regulations/109828.html> and the Notice of Adoption for the revised regulation can be viewed in the New York State Register (<https://www.dos.ny.gov/info/register/2017.html>). Ω

Three Species Gain Endangered Species Act Protection

Tucson, Arizona—19 September 2017—The U.S. Fish and Wildlife Service today protected Arizona’s Sonoyta mud turtle, a Hawaiian bird known as the scarlet honeycreeper, and a Southeast fish called the pearl darter under the Endangered Species Act.

With webbed feet and an innate ability to swim, the Sonoyta mud turtle has evolved to be highly aquatic in one of the driest parts of the Sonoran Desert. The turtle is found only in a small area of Pima County, Arizona and Sonora, Mexico. Diversion of surface water and pumping of groundwater have led to

the loss of much of this habitat, which the turtle needs to survive.

In the United States, the turtle has been reduced to a single reservoir called Quitobaquito Springs within Organ Pipe Cactus National Monument. Four populations are currently known in Mexico, but the loss of the turtle has already been reported from an additional site. At all of these sites the number of turtles has declined as aquatic habitat has been reduced. It has been waiting for protection on the candidate list for 20 years. Ω

—Excerpt from a Center for Biological Diversity press release

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Every CTTC member on this mailing list has a MailChimp account that s/he can update as needed. When you receive your newsletter notification, there is a link at the bottom of the page titled “update your preferences.” Simply click on this link to jump to your account page and update your email address and other information. Thank you!



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.

Peter Pritchard

The fate of the Chelonian Research Institute as Peter Pritchard (sadly) ails.

Napa Fire Rescue

Watch fire crews rescue a "200 pound" sulcata from the Napa fires.

The Infamous Turtle Beer Koozie Harness

I hadn't heard the word koozie before but anything involving turtles and beer gets my attention!

Global Distribution of Reptiles Mapped

- **New, comprehensive survey maps the world's reptiles.**
- **...And the mapping has already been put to use to reveal target areas for reptile conservation.**

Ancient Sea Turtle Pigmentation

Original pigment, keratin and muscle proteins have been recovered from a fossilized 54 million-year-old hatchling sea turtle!

Track Olive Ridley Sea Turtles Online

Oearch lets you track transmitted olive ridleys and sharks on line.

Sea Turtle Conservation Hailed as a Success

- **After 50 years of conservation, long term growth now seen in many sea turtle populations.**
- **The scientific report is available with open access.**

Hurricane Irma

...But vagaries such as Hurricane Irma still have an acute impact.

Crash in Leatherback Births

...And declining leatherback hatchings in the US Virgin Islands is of concern.

Rehabbed Green Sea Turtles Released off Southern California

Yes, we do have sea turtles in SoCal.

- **Seaworld released a rehabbed green sea turtle that had been rescued from Dana Point harbor.**
- **And the Aquarium of the Pacific released one near the mouth of the San Gabriel River.**
- **And three olive ridleys were released off San Diego.**

Sonoyta Mud Turtle

The extremely rare and localized Sonoyta mud turtle from the Arizona/Mexico border was listed as endangered.

Pacific Pond Turtles

Pacific pond turtle conservation is paying off in Washington State.

Roosevelt the Tortoise is Missing

"There are some things in this universe bigger than all of us, and a tortoise is one of them!" Great clip from the movie *Lucky*.

New Research

- **Herpetological Conservation and Biology Volume 12, Issue 2**
- **Radiated tortoise physiology**
- **Mycoplasma and clinical signs in *Gopherus* tortoises**

CTTC on Facebook

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

CTTC Meetings and Programs

Cen-Val: 16 November; 14 December

Chino Valley: 17 November;
15 December: NO meeting this month

Foothill: 24 November; 22 December

High Desert: 13 November; 11 December

Inland Empire: 3 November; 1 December

Kern County: 13 November; 11 December

Low Desert: 4 December

Orange County: 10 November; 8 December

Ridgecrest: 13 November; 11 December

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

Santa Clarita: 18 November

Silicon Valley: 17 November; 15 December

TOOSLO (San Luis Obispo): 15 November;
13 December

TTCS (Long Beach): 17 November;
15 December— Annual Holiday Party and Cut-Throat Gift Exchange

Valley: 17 November; 15 December

Executive Board: ?? January. Meetings are held at the Los Angeles County Arboretum, Arcadia, CA.

Check your Chapter web site for the latest program information. Programs may be scheduled after the newsletter is published.

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"... the current position of the California Department of Fish and Wildlife is that it is illegal to breed captive [desert] tortoises."

[The Desert Tortoise Council's *Answering Questions* e-publication is currently offline in revision.]

"CTTC will not place desert tortoises (*Gopherus agassizii*) in situations where captive breeding may occur. CTTC works with California Department of Fish and Wildlife (CDFW) to place desert tortoises. Both CDFW and CTTC discourage the captive breeding of desert tortoises."

— tortoise.org/cttc/adoption.html



Tortoise Box: Plans and Instructions

by Mark Ratkovic

Mark Ratkovic
December 2011

These plans are for the construction of a secure house for a single adult tortoise, 10-12 inches long. Floor dimensions should be adjusted for larger tortoises or for more than one tortoise.

COMPONENTS AND DIMENSIONS:

Front	10 X 24 inches
Back	12 X 24
Sides (2)	12 X 14 (see cutting diagram)
Top	18 X 28
Floor*	14 X ~24
Ledgers (2)	19 3/4 L approx
(2)	11 L approx
Legs (4)	14 L before trimming

MATERIALS:

Box 1/2 or 5/8 plywood - 48 X 48 (half sheet)

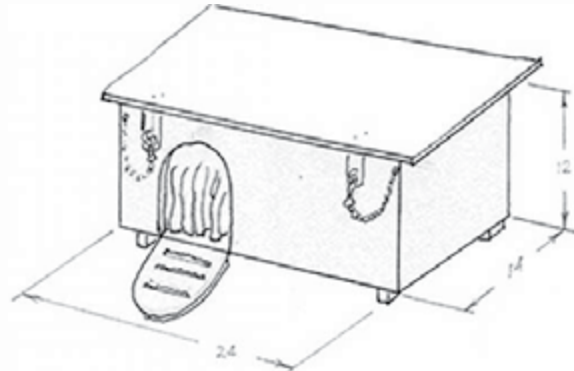
Legs 2 X 3 X 8' stud
Construction grade Douglas Fir 1

Ledgers: 1 X 2 X 8' Pine 1

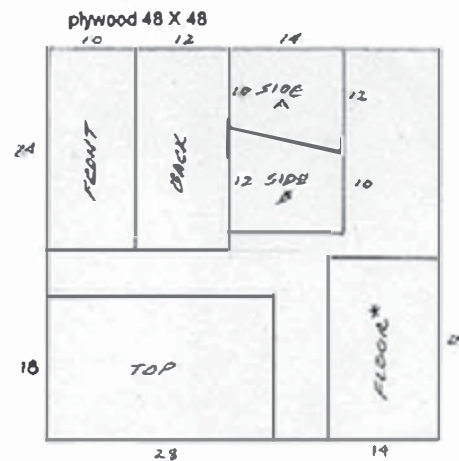
Hardware:

QTY	Item
approx 36	Drywall screws 1/8 X 1"
2	Hasps 3"
6 - 8	Machine screws 1/8 X 1" nuts, washers
2 feet	Chain (small) or cord
1	Piano hinge 1" X 2'
1	Piano hinge 1" X 1'
2	Spring clips ~3" long
2	Right angle brackets 1" X 1"
1	"Carabiner" key ring 1" - 1 1/2"

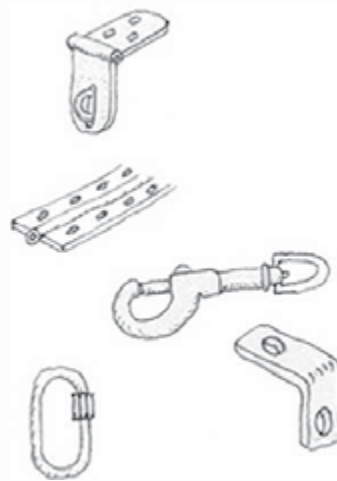
Wood glue, exterior water-resistant finish, small nails 1", popsicle sticks or small wood strips

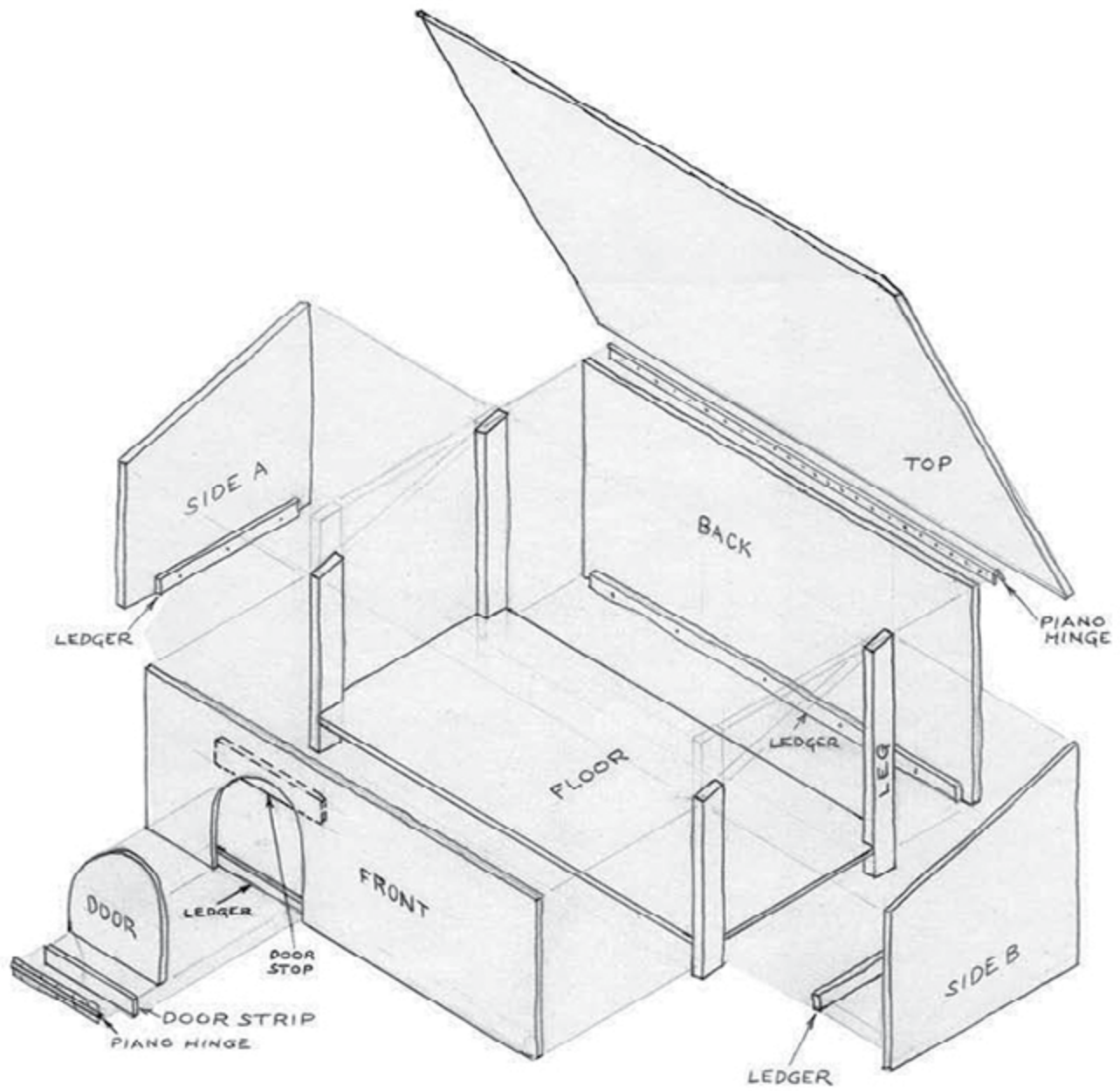


CUTTING DIAGRAM



* If 5/8 plywood is used for box, floor could be thinner material (1/4").





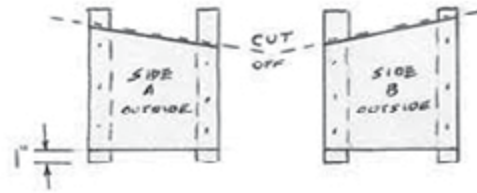
EXPLODED VIEW



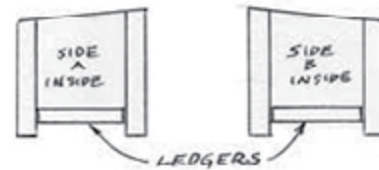
GENERAL PROCEDURE

1. Layout and cut to size: front, back, and sides.
Cut 4 legs 14" long.

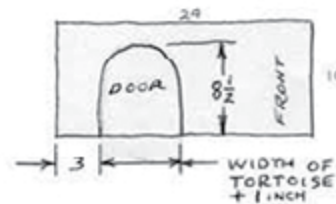
2. Clamp legs in position to inside of sides. Drill pilot holes and screw sides to legs (from outside side).
Trim tops of legs flush to match tops of sides.



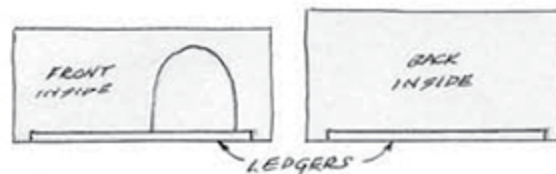
3. Cut side ledgers to size. Screw and glue to inside bottom edges of sides (Again, drive screws from outside).



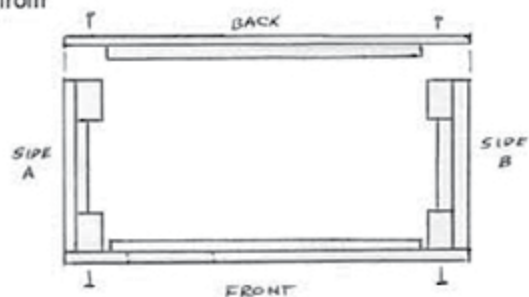
4. On front, lay out and jigsaw door opening. Set door aside.



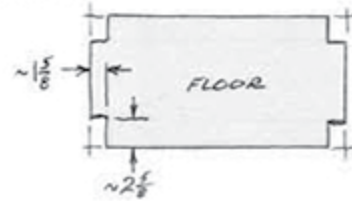
5. Attach ledgers to bottom insides of front and back allowing space at end to clear combined thickness of legs and sides.



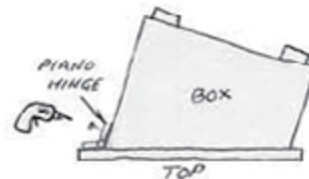
6. Screw front and back to side-leg assemblies. Drive screws from outside into legs.



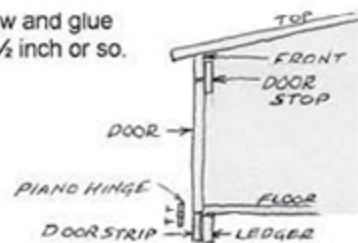
7. Using measurements from your box, cut floor accurately to size to fit inside box. Notch corners to clear legs. Put floor in from top. Nail to ledgers with small nails. (Drill pilot holes for nails).



8. Cut top to size. Allow 2" overhang on back and sides and 1" in front. Lay top upside-down on work surface. Set box upside-down on top and position for correct overhangs. Attach long piano hinge to rear of box and underside of top as shown.



9. Cut a doorstop from a piece of scrap plywood, 2" X 10", and screw and glue it to the inside of the box, overlapping the top of the doorway by 1/2 inch or so. (see Exploded View).



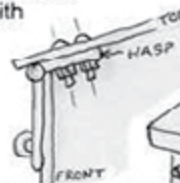
10. Cut 1 1/2" (or height of front ledger) off of bottom of door. Screw and glue this doorstrip to front ledger at bottom of doorway. Position screws so as not to interfere with the following:
Cut small piano hinge to length and attach to door and door strip.
Glue treads to inside of door. (popsicle sticks would work)



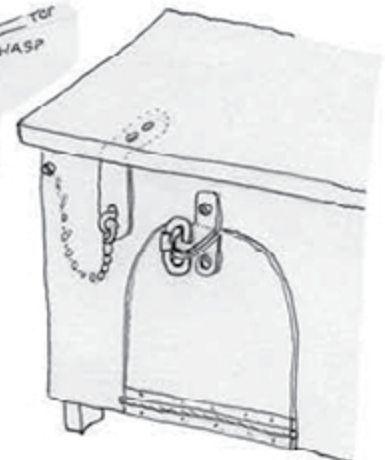
11. Attach an appropriately sized (3" wider than door, reaching to floor) piece of fringed leather, or fabric that will not unravel, to the inside of the doorstop to prevent light entry to keep the box dark inside.



12. Attach hasps, chain, spring clips, angle brackets, and carabiner as shown. When attaching hasps to underside of top, drill holes thru top and attach hasps with machine screws, washers, and nuts. Do not use wood screws.



13. Apply waterproof finish* to outside of box only, including underside of floor and bottoms of legs. Wait one week before allowing tortoise access.
Position box out of full sun and set legs on thin pavers or gravel to keep feet dry. Box may need to be re-positioned in your yard to suit the tortoise and/or seasons.
* Thompson's WaterSeal, outdoor polyurethane (flat), or primer and paint.



Special thanks to the Ratkovic family for granting permission to publish these tortoise-house building plans developed by mechanical engineer Mark Ratkovic.



Ban Sought on Wild Turtle Trapping in Arkansas

—14 Types of Turtles Can Be Caught, Sold in Unlimited Numbers—*Center for Biological Diversity press release*

Little Rock, Arkansas—25 September 2017—The Center for Biological Diversity and several Arkansas-based environmental organizations petitioned the Arkansas Game and Fish Commission today to end commercial collection of the state's wild turtles.

Currently turtle trappers can legally collect unlimited numbers of 14 types of turtle to sell domestically or export to Asian food, pet and medicinal markets.

If Arkansas bans collections, it would join a growing number of states preserving important wildlife and natural resources. In just the last week, New York banned commercial collection of diamondback turtles and Nevada halted commercial reptile collection. And last year Missouri agreed to consider turtle-trapping regulations. All of these actions were in response to work by the Center for Biological Diversity.

"Arkansas' precious turtles shouldn't be sacrificed so a few trappers can make a quick buck," said Elise Bennett, a Center attorney dedicated to protecting rare reptiles and amphibians. "It's time for the state to adopt common-sense measures to protect its turtles from unchecked exploitation."

Arkansas allows turtle harvesting from waters across roughly half the state, including the entirety of the Arkansas and Mississippi rivers. According to Arkansas Game and Fish Commission harvest report records, 126,381 freshwater turtles were harvested from 2014 to 2016. This harvest was geographically concentrated, with two-thirds of those turtles taken from only five counties.

Scientists have repeatedly documented that freshwater turtles cannot sustain any significant level of wild collection without population-level impacts and declines. For example, a study of common snapping turtles demonstrated that a modest harvest pressure of 10 percent per year for 15 years could result in a 50 percent reduction in population size. And an Arkansas study found that turtles from populations in heavily harvested areas were significantly smaller than those from

areas where harvesting is not permitted.

"Unlimited commercial turtle harvesting is bad for our rivers and bad for Arkansas," said Glen Hooks, director of the Arkansas Sierra Club. "The science clearly points to the need to protect our state's delicate resources. We call on our Arkansas wildlife regulators to join other states in our region and end this practice immediately."



Southern painted turtle, *Chrysemys picta dorsalis*, one of the species native to Arkansas that is currently subject to unlimited commercial trapping. Photo © 2011 by Suzanne Collins, Center for North American Herpetology, www.cnah.org

"The wholesale exploitation of aquatic turtle populations in Arkansas threatens the health of our water bodies," said Cindy Franklin, president of the Audubon Society of Central Arkansas. "Aquatic turtles, from formidable snapping turtles to diminutive map turtles, serve an important purpose as the principal scavengers of our aquatic ecosystems. Without turtles to consume dead fish and debris on the bottoms of our waterways, water quality can decline and become unpleasant for wildlife and people alike."

"Historically, Arkansas had one of the highest levels of aquatic biodiversity in the nation, but that abundance is rapidly declining because our native species are not protected," said Debbie Doss, director at Arkansas Watertrails Partnership. "Arkansas' second largest economic engine is tourism, and much of that tourism depends on opportunities for wildlife viewing here in 'The Natural State.' Turtles are popular on our water trails and can always be counted on to put in an appearance. But now we are seeing fewer and fewer turtle species on our rivers. The last thing we need is to have our diversity

raided from the outside. I hope we will do the right thing and ban the taking of these special creatures."

"All research on commercial turtle harvesting shows that profitable levels of capture success are unsustainable," said Bruce Kingsbury, director of the Environmental Resources Center at Indiana-Purdue University. "The reason for this is that turtles naturally have low levels of reproductive success, leading to a greater need for the persistence of adults over time so that they can keep trying to reproduce. Large-scale turtle trapping can also be disruptive to the natural habitat where the trapping occurs."

Today's petition was submitted by the Center for Biological Diversity, Arkansas Sierra Club, Arkansas Watertrails Partnership, Audubon Society of Central Arkansas, Environmental Resources Center, Kory Roberts and John Kelly, a biologist who recently studied Arkansas' turtle harvest.

Background

Life-history characteristics such as delayed sexual maturity, dependence on high adult survival and high natural levels of nest mortality make turtles vulnerable to rapid declines from exploitation.

As part of a campaign to protect turtles in the United States, the Center has been petitioning states that allow commercial turtle collection to improve their regulations. In 2009 Florida responded by banning almost all commercial turtle collection from public and private waters. In 2012 Georgia approved state rules restricting commercial turtle collection and Alabama completely banned it. Most recently, in March, Iowa adopted new regulations setting closed seasons and possession limits for commercial turtle trappers. Ω





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Readers' Favorites



Tsavi the desert tortoise checking out a turtle statue that decorates his habitat. Elaine Stover, CTTC Valley Chapter member, created a beautiful habitat for Tsavi and adopted "him" from the Valley Chapter. Ms. Stover captured this photo of the interplay between Tsavi and his ceramic counterpart.

Look closely at nature. Every species is a masterpiece, exquisitely adapted to the particular environment in which it has survived. Who are we to destroy or even diminish biodiversity?

—Edward O. Wilson (b. 1929), American biologist

Get your friendly tortoise today! text and photograph by Michelle Hoover

The California Turtle & Tortoise Club (CTTC)—for all of your turtle and tortoise needs!

We just adopted a Russian tortoise from the **CTTC Santa Clarita Valley Chapter**. These guys are on the front lines of the battle to save speedbumps everywhere.

They helped us:

- ▶ Choose the right tortoise for us.
- ▶ Advised us on how to have a tortoise castle built, created by Scott Smith, Master tortoise mansion carpenter. And you should see the work he can do on human dwellings!
- ▶ Advised us on where to get the right tortoise supplies—the ones no tortoise can resist!
- ▶ Provided door-to-door tortoise delivery service. Yes, this IS a thing.

After filling out a form and getting all the right gear, they were more

than happy to come running down the street—like Richard Pryor ablaze—with one awesome and very homeless tortoise just waiting to be adopted into its forever home. And, you could clearly see by the

smile on its face that another tortoise in the world was happy (see photo).

The services are free, but—just like your friendly neighborhood bartender—these guys live off of tips. Remember that

Santa Clarita Valley Chapter, and the other CTTC Chapters, sacrifice for these little shelled guys, so please give generously to help them save these cute creatures everywhere.

Note that the California Turtle & Tortoise Club has chapters all over the state—surely there is one near you!

—Posted on the Santa Clarita Chapter Facebook page and reprinted with permission.



Steve Sherwood, a Russian tortoise (*Agrionemys horsfieldii*) adopted from the Santa Clarita Valley Chapter of CTTC by Michelle Hoover and Jeff Donovan earlier this year. Photograph © 2017 by Michelle Hoover.

The *Tortuga Gazette* would like to run your Readers' Favorites in every issue of our full-color newsletter.

If you have a photograph of your turtle or tortoise to share with your fellow members, please send it to editor@tortoise.org

Guidelines

Please note the following guidelines for Readers' Favorite Photographs:

- 1~Submit a high-contrast, well-focused photographic image.
- 2~Include the species of turtle and the name of the photographer.
- 3~If possible, submit the image in a "lossless" file format such as PNG, PSD, or PDF.
- 4~No image that includes paint, glitter or other harmful materials *on the animals* will be considered for publication.
- 5~Email image files to the newsletter editor <editor@tortoise.org> Please type "Readers' Favorites" in the subject line of the message.
- 6~Images will become part of the *Tortuga Gazette* image pool and may be used in subsequent articles and other projects.



Featured Species

Yellow-footed Tortoise
Chelonoidis denticulata

CTTC Membership

The California Turtle & Tortoise Club is a non-profit 501(c)(3) corporation. Contributions are tax deductible to the full extent of the law. Please pay by USA funds only (US bank check, money order, or International Postal Order. Your Chapter and your renewal date (month/year) are printed on your newsletter notification. Mail your new or renewal membership/subscription to the Chapter of your choice.

Membership in the California Turtle & Tortoise Club and subscriptions to the *Tortuga Gazette* are handled through the CTTC Chapters. The Chapters also manage membership renewals.

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. Print membership forms from the CTTC website and mail to the Chapter of your choice.

Membership fees

- ◆ Student membership\$15⁰⁰
- ◆ Individual membership ..\$25⁰⁰
- ◆ Family membership\$35⁰⁰
- ◆ Life membership\$500⁰⁰

The Chapters' postal mailing addresses are listed in the following section. Click on the links to visit the Chapters' web sites.

Cen-Val Chapter

Postal mailing address: P.O. Box 16418, Fresno, CA 93755-6418.

Chino Valley Chapter

Postal mailing address: P. O. Box 1753, Chino, CA 91708-1753.

Foothill Chapter

Postal mailing address: P. O. Box 51002, Pasadena, CA 91115-1002.

High Desert Chapter

Postal mailing address: P. O. Box 163, Victorville, CA 92393.

Inland Empire Chapter

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TOOSLO (San Luis Obispo) Chapter

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Turtle & Tortoise Care Society Chapter

Postal mailing address: P.O. Box 15965, Long Beach, CA 90815-0965.

Valley Chapter

Postal mailing address: P.O. Box 7364, Van Nuys, CA 91409-7364.

Wishing Our
Membership
a Joyous
Holiday Season!
Peace on Earth
and Goodwill
to All Creatures.



Two yellow-footed tortoises, *Chelonoidis* (= *Geochelone*) *denticulata* on the Zanderij Apoera road in Suriname, South America. Photo © 2008 by Maarten Sepp. Source: Wikimedia Commons; license: GNU Free Documentation License, Version 1.2.