



San Diego Turtle and Tortoise Society

DESERT TORTOISE HOUSING

In the wild, the Desert Tortoise will burrow to create a shelter from the desert heat. And a protected place to hibernate during the winter cold.

The tortoise burrow provides protection from all the extremes of heat, cold, lack of moisture, and too much moisture. The burrow is especially important because it provides a cool place for the tortoise during the dry hot days in late spring and summer when water and food are unavailable and a relatively "warm" site for winter hibernation. The tortoise spends most of its life in the burrow.

Burrows also serve as protection from predators, such as common ravens, bobcats, coyotes, kit foxes, golden eagles, and more.

While the various species of Desert Tortoises have differing burrowing habits, they all burrow for housing. For example, in the eastern Mojave Desert of Utah, winter burrows are deep dens in natural caves, some 30 feet in length; while in the western Mojave Desert, tortoise burrows are shallow diggings about 3 to 10 feet in length for both summer and winter.



Creating an outdoor burrow for your Desert tortoise will help keep it healthy and content.

Desert Tortoises may hibernate outdoors if the correct environment can be provided. Outdoor housing can be constructed using concrete blocks and 3/4" plywood, or half of a metal trash can. The concrete blocks can be buried or partially buried, and the plywood creates the roof of the shelter. Both of these structures can then be buried with 8-12 inches of soil for insulation.

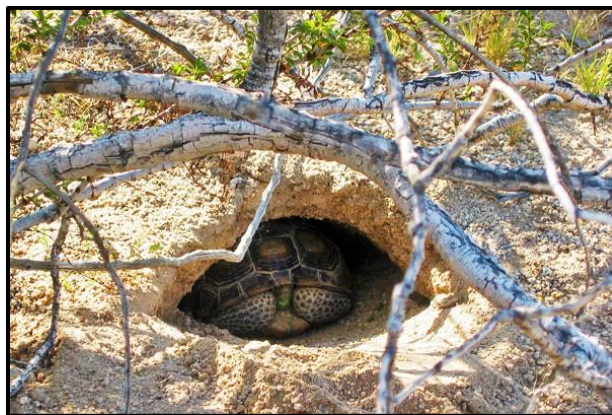
The entrance to the man-made burrow should generally have a southern exposure, and it is important to verify the elevation of the entrance is higher than the surrounding flood plain. Always ensure the grading leads water away from the housing, not towards it. When it rains, the burrow must remain dry or the tortoise may become ill.

Your man-made burrow can be filled with loose soil and/or hay, and during cold months the entrance could be covered with a tarp or opaque plastic that is loose at the base for access.

Previous reports of hibernation environments have shown common burrow temperatures in the 35-59°F range for wild Desert Tortoises, and general recommendations are to maintain burrow temperatures between 40-55°F.

Providing housing that mimics the Desert Tortoise burrow will allow the tortoise to intuitively self-monitor for the optimal environmental temperatures and low humidity needed for peak health.

On the following pages are suggestions for Concrete Block and Metal Trash Can burrow construction. More information can be found at http://www.azgfd.gov/w_c/tortoise/burrow.shtml



IMPORTANT:

Construct the entrance of the burrow on high ground, water draining away from opening. Burrows must stay dry inside.

1. CONCRETE BLOCK BURROW CONSTRUCTION

Supplies

- ¾ ton topsoil or topsoil/sand mixture for shelter insulation
- 6 8" x 8" x 16" concrete cinder blocks (whole blocks)
- 6 4" x 8" x 16" concrete cinder blocks (half blocks)
- 1 slab 1½" x 32" x 48" sandstone or plywood for the shelter roof

Directions

1. Choose a spot that is high, dry, and shaded, and free of rocks and gravel (the bottom of the shelter should be soil substrate). The shelter location must be at least 8" high to avoid being flood during heavy rains, or at least 2' if your yard experiences flood irrigation. Create a flattened mound of soil for the shelter spot to achieve the desired height if necessary.
2. Build a level pile of dirt about 40" wide x 55" long, and elevated 8" above ground level.
3. Place the 6 whole cinder blocks on top of the level soil pile to create the rectangular footprint of the shelter that is 32" wide x 48" long.



After completion of step 3

4. Place the remaining 6 half cinder blocks on top of the first course of blocks (making sure you overlap the joints) to form the shelter walls.



Starting step 4

5. Fill the holes in the cinder blocks with soil to provide insulation and rigidity to the shelter walls.

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(CONCRETE BLOCK BURROW CONSTRUCTION - continued)

6. Lay the slab of sandstone or piece of plywood on top of the blocks to provide the roof.



After completion of step 6

7. Cover the shelter with remaining soil to provide insulation (on the top, sides, and back). After each layer of soil, sprinkle lightly with water to help it solidify. While you are covering the shelter top, dirt will spill down the sides and back of the shelter, which will form a large, insulating mound. When finished, you should have ≥ 8 inches of soil on top of the shelter. Do not make the sides too steep, because the top will be a good site for your tortoise to bask in the sun.



After completion of step 7

8. Press rocks into the dirt to keep the dirt stable, and prevent your tortoise from digging more shelters in the mound.



Finished cinder block shelter

2. METAL TRASH CAN BURROW CONSTRUCTION

Supplies

- 1 15-20 gallon METAL trash can (plastic trash cans are not strong enough to support weight of the dirt)
- ¾ ton topsoil or topsoil/sand mixture for shelter insulation
- 15-20 rocks, about 12-15" in length
- Sawsall or grinder to cut the trash can in half

Directions

1. Cut the trash can in half using the Sawsall or grinder. The back (also cut in half) can be left in tact to form the back of the den, or removed completely.



After completion of step 1, with back of trash can removed completely

2. Set the half trash can on the ground, convex side up, dug slightly into the surface of the ground. Choose a spot that is high, dry, and shaded, and free of rocks and gravel. The shelter location must be at least 8" high to avoid being flood during heavy rains, or at least 2' if your yard experiences flood irrigation. Create a flattened mound of soil for the shelter spot to achieve the desired height if necessary.



3. Place a few rocks around the outside of the can to reduce erosion and create insulation. Then pile 8" of dirt over the top, sides, and back of the can. This will provide insulation against extreme hot and cold temperatures throughout the year.



Half trash can shelter after completion of step 3

4. Place the remaining rocks on the outside of the shelter.

Get more information online at San Diego Turtle & Tortoise Society: www.sdturtle.org