

Many animals have incredible adaptations to survive in their environments. Read the following hypothetical examples and answer questions on the next page.

Desert Bighorn Sheep

Desert bighorn sheep live in dry, sparsely vegetated areas of the southwestern United States. Temperatures on summer days are frequently over 100° F (37.8° C). During the hottest months of summer, ewes (females) and lambs come to waterholes almost daily. The male sheep (rams) sometimes do not come to water for nearly a week at a time. Rams travel approximately 5 miles (8 kilometers) each day, and may roam 20 miles (32 kilometers) away from the available water supply. Add 40 miles (64 kilometers) round trip to the water source to the approximately 5 miles (8 kilometers) traveled per day, and rams may travel almost 75 miles (120 kilometers) before they drink again. Rams are believed to drink approximately 4 gallons (15.2 liters) of water when they do come to water, while a ewe drinks approximately 1 gallon (3.8 liters) and a lamb drinks 2 pints (940 milliliters).



Gopher Tortoises

Gopher tortoises live in habitats ranging from pine forests to scrub areas to coastal dunes in the southeastern United States. These reptiles create large burrows that have been found to provide valuable habitat to over 300 other species, which is one of the reasons they are considered a keystone species in their ecosystems. These tortoises spend the majority of their time inside their burrows, but they do leave to forage for food and participate in reproductive activities (courting, mating, nesting). Rarely seen drinking water, these native tortoises obtain most of their water through their food. However, when there is an opportunity to drink water, an individual tortoise may consume up to 40 percent of its body mass in one drinking session, satisfying the tortoise for an extended amount of time.



Tortoises have estimated water needs of 10 milliliters/kilogram of body weight per day. The weight of adult gopher tortoises ranges from 3.6 kilograms to 6.8 kilograms. Depending on the habitat, a tortoise may move 80 meters (262 feet) every other day.