



CONSERVATION FACT SHEET

Gopher Tortoise Ecology

The Gopher Tortoise (*Gopherus polyphemus*) is one of only two species of tortoises to live in the United States, and the only tortoise native to Florida. Gopher Tortoises are unique because, as the name implies, the tortoises construct burrows in the soil where they reside. Burrow construction is an important part of the ecology of gopher tortoises, not only because the burrows provide a cool refuge from high daily temperatures, but because burrows are an important resource for dozens of other species – including insects, frogs, lizards, snakes, and mammals. Gopher Tortoises are considered “keystone species” of critical importance to ecosystems because the burrows they create support many other species.

Unfortunately, Gopher Tortoise populations have been declining throughout their range, are protected by law in Florida and are listed as a candidate species for Threatened status under the US Endangered Species Act. Habitat loss is the primary threat to Gopher Tortoises, whose burrows are often destroyed by construction projects for development. Tortoises are long-lived animals (Gopher Tortoises are known to live more than 60 years), and mortality on roads can have major impact on tortoise populations in the long-term. Gopher Tortoises only live in fire-dependent ecosystems, and tortoises require that their habitats burn regularly to keep the canopy open and to encourage a high diversity of understory plants that make up the bulk of their diets. A final threat to Gopher Tortoises is posed by Upper Respiratory Tract Disease, an infection caused by two species of *Mycoplasma* that can at times lead to tortoise death and reductions in population size.

Zoo Miami’s pine rocklands ecosystem hosts a large population of resident Gopher Tortoises, and this represents one of the southern-most populations of the tortoises throughout their geographic range. Zoo Miami staff are currently conducting research on these tortoises, estimating population size and conducting surveys for burrows to identify important habitats for the tortoises. Zoo Miami’s work will help to understand the population biology and reproductive cycles of these tortoises, and will help to clarify the threat that URTD and other diseases pose to gopher tortoises.