

Arizona Gray Squirrel

BY MARK ZORNES • ILLUSTRATION BY ZACKERY ZDINAK

Scientific Name: *Sciurus arizonensis*.

From the Latin *sciurus* meaning squirrel and *arizonensis*, referring to the species' primary distribution. Some consider *S. arizonensis* and *S. nayaritensis* (the Mexican fox squirrel) the same species. Others suggest both should be included as subspecies of the eastern fox squirrel (*S. niger*).

Description: A large, white-bellied squirrel with a full, bushy tail. Fur is a "salt and pepper" gray with some rusty brown, particularly along the spine and on top of the head. In other than coloration, Arizona grays more closely resemble fox squirrels than they do eastern gray squirrels in both morphology and habits, making Arizona fox squirrel a more appropriate name for this species.

Distribution: Resides primarily in Arizona in riparian habitats associated with the Mogollon Rim and larger mountain ranges of southern Arizona. For unknown reasons, the species is absent from the Galiuros, Pinals, and Pinalenos, all of which have apparently suitable habitat. Outside Arizona, it is found in two adjacent counties in New Mexico (Catron and Pinos Altos) and in north central Sonora. Although limited information exists regarding abundance, the species has never been reported as common throughout its range.

Habitat: Primarily restricted to 5,000–6,500 feet elevation in mixed broadleaf riparian habitats surrounded by montane forest or evergreen woodland extending into semidesert grasslands and chaparral where suitable interlocking riparian habitats occur. Favors Arizona sycamore, Arizona walnut, ash, box elder, Arizona alder, cottonwood, willow, and big-tooth maple. Large evergreen oaks, Arizona walnut, and Arizona alder, considered indicator species for

the squirrel's distribution, provide an essential source of seasonal food and nesting sites. In the southern range where deciduous trees are absent, squirrels may inhabit stands of evergreen oaks; a greater diversity of food items appears to compensate for the lack of alders. In their northern range, they have also been detected in relatively pure stands of Gambel oak.

Biology: Reproductive activity occurs from January to June, correlating with the flowering of deciduous trees. Flower parts from a variety of trees are crucial food sources during the breeding season and likely provide vitamins necessary for reproduction. Young are born late spring to early summer. Unlike their eastern counterparts, which may produce two litters, Arizona gray squirrels appear to produce only one averaging three young each year.

Rather than caching or burying food, like other squirrels, Arizona grays appear to spend most of their time foraging for it. They feed on a variety of plant material, dependent on season. Diet mainstays are walnuts and acorns supplemented with subterranean and emergent fungi, pine nuts, hackberries, and juniper berries. Animal material makes up a small percentage of the diet, although insects and other invertebrates are fed on during summer months.

Arizona grays use both cavities and leaf nests for shelter and for rearing young. In fox squirrel fashion, they freeze in place if threatened, rather than leaping from tree to tree like the more agile eastern gray squirrel. Also like fox squirrels, they spend a great



deal of time foraging on the ground.

Predators include red-tailed hawks, goshawks, bobcats, and humans, but habitat quality, food availability, and weather conditions have the greatest impact on gray squirrel abundance.

Status: They are managed as a small-game animal in Arizona, but few hunters pursue them and little harvest occurs annually. The species appears to occupy much of its former range, although some withdrawal from west of the Pajaritos may have occurred.

Management Needs: Compared to other squirrel species in Arizona, large knowledge gaps exist regarding basic biology and habits of the Arizona gray squirrel, suggesting the need for additional research. Given the species' association with riparian woodlands and evergreen oak habitats, protection and restoration of these areas and maintenance of multitiered, interlocking tree canopies are essential for its continued existence. 🌿

.....
Mark Zornes is the department's Small Game biologist and a loyal subject of one wife, two daughters, and five bird dogs.