Costa's Hummingbird

Scientific Name: *Calypte costae.* From the Greek *kalyptos,* meaning "hidden" or "to cover," and *kalypira,* meaning "veil," likely in reference to the glittering throat gorget of the male hummingbird. The species name is in honor of Louis Marie Pantaléon Costa, Marquis de Beauregard, the 19th-century French owner of a large collection of hummingbirds.

Description: Averaging less than 3.5 inches in length, the Costa's hummingbird is the smallest nesting bird in Arizona. At approximately 3 grams (about one-tenth of an ounce), males weigh slightly less than females. Both sexes have green backs and very slightly curved dark bills. Adult males have greenish sides, whitish breasts, and deep, iridescent purple crowns and throats. Some of these bright throat feathers (known as the gorget) are elongated and lay to the side of the neck or are flared and displayed during courtship or rivalry. Females have mostly whitish unmarked throats and underparts, with slightly grayer or buff-colored sides. Juveniles are much like females.

Distribution: Costa's hummingbirds breed primarily from southern California and Nevada south-southeast through the Mexican states of Sonora and Baja California. They reach their highest abundance in the arid Sonoran and adjacent Mojave Desert regions of western and southern Arizona at elevations from 100 to 4,200 feet. However, they are less abundant and widespread east of Tucson than in the southwest part of the state.

Habitat: For nesting in Arizona, they favor dry washes, arid foothill mountain slopes and desert canyons, particularly where chuparosa, ocotillo and other tubular-flowered plants abound. Immediately adjacent to these habitats, these hummingbirds also are attracted to yards and parks that contain native desert vegetation, flowers and hummingbird feeders. However, they generally avoid the lush, exotic plantings and irrigated urban life so favored by several other hummingbird species.

Biology: Although some Costa's hummingbirds are resident in Arizona, most of the breeding population begins to arrive in the second half of October, with numbers building into early winter just prior to the desert bloom. Males begin establishing territories during this period and perform elaborate aerial courtship displays to all females that venture near. During some years, nest construction begins by mid-January. However, the normal peak in nesting activity is from mid-March to mid-April, with nesting activity decreasing considerably after mid-May. Few nesting endeavors continue into late June.

As with most hummingbirds, only the female constructs the nest, incubates the eggs and feeds the young. In the Sonoran Desert, many nests are built in paloverdes, although other desert trees and shrubs are used. Nests are typically placed 2–15 feet above the ground. Incubation for the two white eggs lasts for approximately 16 days and the young remain in the nest for another 20–23 days. Females will then continue to feed the fledglings for at least an additional week. Most evidence suggests that only one brood is produced per year, but replacement clutches following nesting failure may be common.

Since males have no part in rearing the young, they often depart the deserts by late April or May, as nectar resources begin to shrivel from the relentless desert heat. Even most of the females and fledged young have left for unknown destinations by mid-May and June. During the summer, some nonbreeding Costa's hummingbirds are found at higher elevations in Arizona. However, most birds may migrate west to the cooler chaparral and coastal scrub in California and northern Baja California during this period.

Status: Fairly common and widespread in appropriate habitat and season. However, extensive desert habitats they require are lost each year to urbanization and devastating wildfires fueled by the introduction of exotic grasses and weeds.

Management Needs: The primary threat to this species is habitat loss. Preservation and protection of native desert landscapes assist this species. The use of native desert trees and shrubs (particularly paloverde and chuparosa) in urban landscaping provides Costa's hummingbirds with food sources and nesting sites, encouraging their presence in cities. Since a significant proportion of this hummingbird's breeding range occurs in Arizona, ongoing monitoring of population trends is key.

■ As an avian biologist, Troy Corman is eternally fascinated by hummingbirds and feels fortunate to live in a region of the country where these energetic sprites frequent his yard throughout the year.

ILLUSTRATION BY ZACKERY ZDINAK