

CURVE-BILLED THRASHER - TOXOSTOMA CURVIROSTRE

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Mimidae Genus: Toxostoma
Species: T. curvirostre

Habitat:

Biomes: Curve-billed Thrashers in the eastern part of the range (curvirostre group) dwell in open country of many kinds, including brushlands, thorn scrub with mesquite, thickets bordering woodlands, pinyon-oak woods, and desert flats with prickly pear, yucca, and cholla cactus. To the west, the Sonoran Desert population (palmeri group) favors similar habitats that usually hold creosote bush, saguaro, palo verde, and cholla. Farther north, in the plains of Colorado, grasslands with cholla provide habitat.

Distribution:

In US: The curve-billed thrasher is commonly found throughout the southwestern United States from Arizona's Sonoran Desert across New Mexico to west Texas, southeastern Colorado and southwestern Kansas as well as most of Mexico from the Sonoran-Chihuahuan Deserts and south through the Mexican Plateau into Central Tamaulipas, inland to Oaxaca, and on the coast of Sonora to Nayarit.

In Other Countries: NONE

Holistic Description: Strong legs and a long, decurved bill give Curve-billed Thrashers the perfect tools for hunting insects in the punishing deserts, canyons, and brushlands that are its home. That long bill also keeps long-legged insect prey at a safe distance and comes in handy for foraging and nesting among spiny plants, especially cacti. This species is so typical of the deserts of the American Southwest and northern Mexico that its whistled whit-wheet call is often the first vocalization that visiting bird watchers learn.

Species Richness: 6 SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: Bones of this genus found in a cave in s. New Mexico from the Quaternary period.

Systematics: Two groups of subspecies are visually distinct: eastern T. c. curvirostre group has a lighter breast resulting in more contrast with spots, pale to white wing-bars, and white tail corners ≥ 7.5 mm long, contrasting with dark outer rectrices. Western T. c. palmeri group has a grayer breast so spots show less contrast, pale buffy or grayish inconspicuous wing-bars, if any, and tail spots ≤ 6.5 mm long. Elevational range of eastern group extends to 3,000 m; of western group from sea level to about 1,400 m.

Number of Species: 6 SUBSPECIES

Number of Genera: 6 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 10.6-11.0 in (27-28 cm) Weight: 2.1-3.3 oz (60.8-93.6 g)

Wingspan: 13.4-13.6 in (34-34.5 cm)

Coloration: Grayish brown above, paler off-white below mottled with indistinct gray-brown speckling. The eye is orange-yellow.

General Body Features: A lanky songbird with a long, curved bill, long tail, and thick legs, recalling a mockingbird but bulkier and with a different bill.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: Strong legs and a long, decurved bill give Curve-billed Thrashers the perfect tools for hunting insects in the punishing deserts.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Strong legs and a long, decurved bill give Curve-billed Thrashers the perfect tools for hunting insects in the punishing deserts.

Any Special Internal Anatomy: Those adaptations result in desert endemism, and our North American deserts are full of species of plants and animals whose geographic distributions are often entirely restricted to the deserts in which they thrive.

Sexual Dimorphisms: Sexes alike in all plumages. Identified by cloacal protuberance.

Differences Between Juvenile Stage and Adult: Upperparts rusty-brown with chestnut tinge which deepens on rump and outer webs of secondaries to decided chestnut brown. Underparts pale fulvous with strong tinge of rusty chestnut across the breast, along sides, and over anal region and crissum. Breast vaguely spotted. Considerable variation in spotting and extent of rusty tinge.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Curve-billed Thrashers are animated birds, their gait often hurried and jerky as they run or hop through their thorny habitat. Pairs mate for life and maintain their territory year-round, usually about 5–11 acres. Perhaps because of this strong pair bond, courtship displays are rare—apparently involving chases, chase-flights, and quiet countersinging as the birds face each other. More apparent are territorial clashes between males that often involve aerial battles in which combatants lock bills and fall to the ground, flapping and kicking. Curve-billed Thrashers are especially irascible if others of its species approach their nest too closely, but they nest in harmony next to Bendire's, Long-billed, and Crissal Thrashers. Other species, such as Cactus Wrens or Bronzed Cowbirds, are frequent targets of attacks by male Curve-billed Thrashers, who also destroy the roost-nests of Cactus Wrens in their territory. Curve-billed Thrashers forage on the ground, poking and probing in plant litter, and digging holes in the soil with their long, down-curved bill.

Locomotion: Walks rapidly while foraging. Runs rapidly or hops lightly, in a jerky fashion. Hops on toes from day 19. Occasionally climbs trees. Quick, jerky, often accompanied by a downward movement of the spread tail; usually flies from bush to bush, or near the ground.

Communication and Perception: Curve-billed Thrashers sing a pleasant, highly variable ditty composed of repeated notes in short, often staccato phrases, some soft but many sounding more grating or harsh. In the eastern population, singing Curve-billeds regularly include imitations of other songbirds' calls.

Home Range: Pairs maintain same territory all year as long as they live. In mostly cleared areas of s. Texas brushland, territory sizes based on nest-finding averaged about 2 ha. Pair maintains permanent territory. When a second pair encroached on a territory edge, size of first territory shrank, but other Curve-billed Thrashers approaching nest too closely were vigorously chased and attacked.

Degree of Sociality: Year-round territory defense by mated pairs precludes most intraspecific behavior. Outside its territory, Curve-billed Thrasher exhibits interspecific sociality. Curve-billed and Bendire's thrashers came to watermelon at a feeder. Curve-billed Thrasher foraged in garden, ate wheat at a feeder, came on porches to drink at water drips.

Level of Aggression: Two Curve-billed Thrashers rose vertically in air as much as 1.8 m, pecking and fluttering excitedly, then fell to ground and grappled with beaks and feet; after a short time, loser retreated, bill open. Fights and chases usually occur near nests; chases last ≤ 15 min and go ≤ 120 m. Young birds face breast-to-breast, wings slightly open, pecking each other and occasionally hopping about 10 cm into air. After returning from a violent chase of a territorial intruder, a male attacked its fledgling, pecking its head.

Migration: Resident (non-migratory). May withdraw short distances from some areas in winter.

Predators:

Predators: Coachwhips, Whipsnakes, Hawks, King Snake, Sceloporus, Greater Roadrunner, Squirrel, Boa Constrictor.

Anti-Predator Defenses: Curve-billed Thrasher drove Greater Roadrunner from its nest area by flying at it and scolding. Curve-billed Thrashers older than about 24 d react to snakes by facing them from about 0.5 m away with wings spread horizontally while giving a "throaty, wooden kuk". Adult Curve-billed thrashers return soon when displaced from nest.

Diet and Nutrition:

Adult Diet: Curve-billed Thrashers eat a variety of insects, spiders, and snails, along with fruit and seeds. They forage on the ground, using the bill to sweep back and forth through leaf litter and soil. They toss large pieces of vegetation—even "flipping cow chips"—to one side to uncover insect prey. Curve-billed Thrashers do not use their strong legs for scratching in leaves, as some thrashers do; rather, the legs provide leverage, and the tail is also used as a support. They pluck ripe berries from perches in trees or bushes and sometimes eat flowers, such as of the agave plant. They also eat seeds of saguaro and other cactus, and it is likely that cactus fruit supplies much-needed water during the warm spring and early summer, before the late-summer rains arrive.

Juvenile Diet: In s. Texas, of 433 food items 60.4% were Orthoptera, 16.4% Coleoptera, 12.4% Lepidoptera, 7.0% Arachnida, and 2.9% berries.

Special Adaptations for Getting Prey: Does not scratch with feet. To uncover food items on ground, picks up larger debris such as cholla-cactus joints in its bill and tosses them aside; sweeps litter from side to side, also digs holes up to 5 cm deep and 5 cm in diameter.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Resident, probably permanently mated. Sex ratio probably approximates unity, but no quantitative data reported.

Mating Season: The curve-billed breeding season begins in February and reaches an apex between March and May.

Courtship: On 14 Feb, 1 member of an apparent pair "sidled along the fence and the other followed at a respectful distance, singing a little sotto voce . They were constantly in contact after this, having little pursuits and 'tiffs,' and the male after two weeks of silence sang more often and with greater force than before." A nest built but no eggs laid by 9 Mar.

Territoriality: HOME RANGE

Mating: NONE

Nest Placement: Most nests are constructed 3–5 feet above ground in shrubs, small oaks, acacia, mesquite, cholla, prickly pear, nopalo, mistletoe, and yucca, though some as low as 1 foot and as high as 9 feet have been reported. A few nests have even been discovered inside cavities in large saguaro and sycamore trees.

Nest Description: Both male and female build the bulky nest. Twigs form the foundation of the nest, which is then lined with grass by the female, who shapes the cup with her body. Once she lays her eggs, the female adds flowers or other fresh plants. Sometimes, pairs build multiple nests before selecting one for egg-laying, and they frequently build less elaborate nests for roosting during the nonbreeding season. Nests measure about 9 inches in diameter and 7 inches tall, with the interior cup 4.2 inches in diameter and 3.9 inches deep.

Egg-Laying: Clutch Size: 3-5 eggs Number of Broods: 1-2 broods Egg Length: 1.0-1.3 in (2.6-3.3 cm) Egg Width: 0.7-0.9 in (1.8-2.2 cm) Incubation Period: 12-15 days Nestling Period: 11-16 days Egg Description: Light bluish-green to pale yellow with reddish-brown speckling

Hatching and Incubation/Gestation: Nearly naked and helpless with sparse long gray down.

Development: Mass 5.59 g; 5.5 g. Nearly naked; long gray down on upperparts and pale gray below, 11–12 mm long. Skin pinkish-red dorsally and whitish-red ventrally; gape yellow. Nearly helpless, assume embryonic position on belly with head under breast. Lie on huge abdomen, beg by raising head.

Parental Care: When ample food available, all nestlings fed until fledging. When less food available, parents may be unable to meet needs of all nestlings; older (larger and more vocal) nestlings fed; feeding of younger birds ceases as early as day 2. Only birds that are fed survive

Lifespan: Around 10 years.

Conservation:

Official Federal Status: Least Concern

Special Statutes in Individual States: NONE

Threats: Curve-billed Thrasher are fairly common, but their populations declined by just under 1% between 1966 and 2015 (representing a cumulative decline of about 14% over the whole period), according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 3.4 million. The species rates a 9 out of 20 on the Continental Concern Score, indicating it is a species of low conservation concern. Long-term declines may be due to the loss of habitat to urban development and agriculture in south Texas brushlands and Arizona's Sonoran Desert.

Conservation Efforts: ^^^^^^

Extra Facts:

1. The Curve-billed Thrasher that lives in the Sonoran Desert of Arizona and northwestern Mexico looks different than the form that lives in the Chihuahuan Desert of Texas and central Mexico, and they may be separate species. The Texas and eastern bird has a lighter breast, more contrasting spots, pale wingbars, and white tail corners. The more western form has a grayer breast with less obvious spots, inconspicuous wingbars, and smaller, more grayish tail corners.
2. Thrashers have impressive bills, but the Curve-billed's is actually straighter and shorter than relatives such as LeConte's, Crissal, and California Thrashers. That's because when famed English naturalist William John Swainson first described Curve-billed Thrasher, from a Mexican specimen in 1827, he had not yet seen these other three species.
3. The oldest recorded Curve-billed Thrasher was at least 10 years, 9 months old when it was found in Arizona in 1946. It had been banded in the same state in 1936.

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