

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Animal Abstract

Element Code: ABPBK01010

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Dumetella carolinensis* (Linnaeus, 1766)

COMMON NAME: Gray Catbird; Common Catbird; Northern Catbird; Black Mockingbird; Black-capped Thrush; Cat Flycatcher; Chicken Bird; Slate-colored Mockingbird.

SYNONYMS: *Muscicapa carolinensis*

FAMILY: Mimidae

AUTHOR, PLACE OF PUBLICATION: *Muscicapa carolinensis* Linnaeus, Syst. Nat., ed. 12, vol. 1, 1766, p. 328. Based mainly on The Cat-bird, *Muscicapa vertice nigro* Catesby, Carolina, vol. 1, p. 66. (in Carolina = Virginia.)

TYPE LOCALITY: in Carolina = Virginia.

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Although placed in the family Sturnidae by Sibley and Ahlquist (1984), the accepted family for this species is Mimidae (NatureServe 2001). Considered monotypic (AOU 1957), but some authors believe differences between eastern and western birds warrant recognition of pale-plumaged western race, *D. c. rudicrissa*, and darker eastern race, *D. c. carolinensis* (Aldrich 1946, Phillips et al. 1983 in Cimprich and Moore 1995). *D. c. ruficrissa* type breeds from Oregon and British Columbia east to northeast North Dakota and south to Arizona, Utah, and New Mexico (Aldrich 1946 in Cimprich and Moore 1995).

DESCRIPTION: A small mimid with lengths of 21-24 cm (8.3-9.45 in); mass 23-56 g (variation due to fat load). They have relatively short wings (wingspread 11-12 in.) and a long tail, both of which are rounded. They have 3-4 long bristles (6-8 mm) at base of straight bill. Sexes are indistinguishable. Upperparts of adult is dark to blackish neutral gray, underparts light to medium neutral gray. The crown, forehead, and tail are black. The eyes, short bill, feet and legs are also black. Undertail-coverts chestnut or neutral gray edged chestnut. Abdomen of western birds whitish showing greater contrast with gray breast than in eastern birds.

AIDS TO IDENTIFICATION: The Black Catbird (*Melanoptila glabrirostris*) of Mexico and north Central America is similar in size and shape, but overall color is blue-black (Cimprich and Moore 1995). Gray Catbird flips cocked tail about, especially when excited

and calling; Northern Mockingbird (*Mimus polyglottos*) has white flashes in wings and tail (Farrand, Jr. 1988).

ILLUSTRATIONS:

Color photo (Farrand, Jr., 1988: p. 426)

Color drawing (Peterson, 1990: p. 271)

Color drawing (National Geographic, 1999: p. 355)

Color photo (The Animal Diversity Web, accessed 2001)

TOTAL RANGE: Breeds from Canada throughout much of the United States. This includes the eastern U.S., south to northern Florida, west along Gulf Coast (excluding immediate coast) to east Texas and central Oklahoma. Also ranges in the western U.S., south through eastern Washington, northern and eastern Oregon and northwest and eastern Utah to northern New Mexico and north-central Arizona. Resident on Bermuda. Most abundant in northeastern U.S. west through Ohio, Michigan, and Wisconsin. (Cimprich and Moore 1995).

Winters along East Coast of U.S. south through southern Florida and west along Gulf Coast to Mexico. Winters casually throughout interior eastern North America and accidental in west with records in British Columbia, California, Nevada, Wyoming, Colorado, Arizona, New Mexico, Kansas, and Oklahoma. In middle America, winters on Atlantic slope of Mexico from Tamaulipas south through Yucatan Peninsula and south to central Panama, and along Pacific slope of Mexico from south and east Oaxaca and southern Chiapas through southern Guatemala. Also winters in western Caribbean.

RANGE WITHIN ARIZONA: North-central Arizona. Nests along upper Little Colorado River from Greer to just north of Springerville and very locally along upper San Francisco River near Alpine. Also has nested near Show Low and possibly Oak Creek Canyon north of Sedona, and on western slopes of Chuska Mountains. Records in the Heritage Data Management System (HDMS) occur in Apache County. They include The Little Colorado River and Luna in the White Mountains, Benny Creek near Greer, and Greer Lakes. (HDMS, AGFD 2001 unpublished data).

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: *Dumetella carolinensis* migrates between breeding grounds in North America and wintering areas in southeastern U.S., and neotropics. Major migratory movements are nocturnal. They depart the northern breeding grounds in late August and early September. Western populations apparently migrate east before turning south toward Gulf of Mexico, continuing on to more southern locations. They depart Central America and Mexico in March to late April, arriving on breeding grounds from late April to early June (northern localities such as British Columbia). Males appear on breeding grounds, but generally by only a few days. (Cimprich and Moore 1995).

Gray Catbirds are able to produce sounds using both sides of syrinx together, right or left side alone, or by switching from side to side (Suthers 1990 in Cimprich and Moore 1995). When used together, sides operate independently, each capable of producing different sound. Their song (female sings rarely) may last up to 10 minutes and consists of series of syllables, i.e., short, continuous sounds separated from others by short pauses. Syllables are not given in fixed sequence and are seldom repeated throughout the song. Gray Catbirds incorporates mimicry into its songs, mostly imitating songs and calls of other birds found in the same or adjacent habitats. (Cimprich and Moore 1995). There are 3 call types. The most common is a harsh, catlike Mew Call, often included in song. The Quirk Call is a soft, low-pitched *quirt*, *whurt*, or *quitt*. The Ratchet Call is a loud, harsh chatter, *chek-chek-chek*, usually delivered in a short burst. (Cimprich and Moore 1995).

Male defends a small area around the nest by singing and chasing rivals. Aggressive interactions observed between Gray Catbirds and 33 species of small and medium-size passerines. General flight patterns are short and low, and they usually do not fly over wide, open spaces (The Animal Diversity Web, accessed 2001). Based on several studies, territory size ranged from 0.20 to 0.41 ha. Nests of neighboring pairs may be as few as 15-18 m. Birds may change territory within breeding season between nesting attempts (Darley et al. 1971 in Cimprich and Moore 1995). Territorial behavior ceases late July and August (Raynor 1979 in Cimprich and Moore 1995). Gray Catbirds will very seldom return to the same breeding site year after year (The Animal Diversity Web, accessed 2001). Maximum longevity is 10 years; while average longevity is around 2.5 years (Sullivan 1994).

Gray Catbirds have been observed to destroy eggs and nestlings of several passerines. It is unclear if this is a competitive response or simply foraging behavior. Predators of Gray Catbirds may include snakes, raptors (Falconiformes), Long-eared Owl (*Asio otus*), Blue Jay (*Cyanocitta cristata*), American Crow (*Corvus brachyrhynchos*), Common Grackle (*Quiscalus quiscula*), domestic cat (*Felis domesticus*), shrews (Soricidae), squirrels/chipmunks (Sciuridae), and foxes (Canidae) (Gross 1948, Charles 1954, R. W. Campbell pers. comm. in Cimprich and Moore 1995).

REPRODUCTION: Gray Catbirds are monogamous. Pair formation occurs shortly after arrival on the breeding grounds. During the courtship, male performs the Head-up and Head-down Fluffed Display. Nests are constructed in living shrubs, saplings, small trees, and vines, averaging 1.1-2.0 m above the ground. Nests are a bulky, open cup constructed by the female. They consist of a coarse outer layer; finer, more tightly woven middle layer; and very finely woven lining. Lining usually of rootlets or tendrils but may include fine grass, skeletonized leaves, pine needles, or horsehair. Outer layers of various materials: twigs, straw, leaves, bark, paper/plastic/string, grass, stalks and fibers of herbaceous plants, plant down, tendrils, and mud (Nickell 1965, Peck and James 1987 in Cimprich and Moore 1995).

Clutch size 3-4 turquoise green eggs; eggs laid 1-3 days after nest is completed. First eggs of season are laid late April through mid-May in se U.S. Eggs are laid later in northern (Iowa to New York) areas from mid-May through early June. (Cimprich and Moore 1995). Breeding in New Mexico reported from June through July (BISON 2001). Pairs may produce two

broods per season. Incubation ranges from 12-14 days. Hatchlings are altricial; partially covered by brown or dark gray down. Both sexes feed nestlings directly. Fledging occurs from 8-12 days after hatching. Fledglings may remain within 18 m of nest for 5-8 days after leaving the nest (Zimmerman 1963). Nests may be parasitized by Brown-headed Cowbird (*Molothrus ater*), although they are rarely successful. This catbird is one of only about a dozen species known to recognize cowbird eggs and eject them from its nest - an ability that is learned, not innate. (Cimprich and Moore 1995).

FOOD HABITS: Their main diet consists of insects and small fruits. They forage in a variety of locations ranging from the ground to treetops. Common insects consumed includes ants, beetles, grasshoppers, Chironomids, caterpillars, moths, crane flies, cicadas, lacewings, dragonflies, and spiders. Small fruits frequently consumed in North America include *Cornus*, *Ilex*, *Lonicera*, *Myrica*, *Persea*, *Phytolacca*, *Prunus*, *Rubus*, *Sambucus*, *Sassafras*, *Smilax*, and *Toxicodendron*. (Cimprich and Moore 1995).

HABITAT: The Gray Catbird occurs in a wide variety of plant communities. Physiognomy rather than cover type appears to be the dominant factor in habitat preference; forest edge is preferred to hedgerows in the open. Riparian areas are heavily favored. (Sullivan 1994). Nests in dense riparian scrub willow and alder in Arizona (BISON 2001). They are associated with the ponderosa pine forest found in the deserts of the southwest; pinyon-juniper forests distributed throughout the semiarid Western U.S., usually on dry, shallow, rocky soils of mesas, benches, and canyon walls; and nonforest habitats found in river, riparian woodlands, and subalpine marshes. (BISON 2001).

Throughout the breeding range, gray catbirds are found in dense shrubs or vine tangles; most abundant in shrub-sapling-stage successional habitats. Density increases with shrub density. They are also found in forest edges and clearings, roadsides, fencerows, abandoned farmland and home sites, pine (*Pinus*) plantations, streamsides, and some residential areas. Habitat use during spring and fall migration is similar to the breeding season, but with a greater use of forests. The winter range in southeastern U.S. includes shrubby habitats, particularly near water and in areas with broadleaf evergreen cover. They apparently use forested habitats more in tropics than on breeding grounds. (Cimprich and Moore 1995).

ELEVATION: Elevations from records in the HDMS range from 6,700 - 8,230 ft (2044 - 2510 m). In New Mexico, Gray Catbirds inhabit riparian shrubland/woodland at lower (2800-5500 ft) and middle (5000-7500 ft) elevations (BISON 2001).

PLANT COMMUNITY: For the range: occurs at elevations where stream conditions provide sufficient permanent moisture for emergent plants, or for a narrow band of deciduous trees and shrubs; at low elevation characterized by cottonwood and sycamore, at mid-elevation by white alder (*Alnus rhombifolia*) and bigleaf maple (*Acer macrophyllum*), and at high elevation by willow (BISON 2001).

POPULATION TRENDS: Unknown for Arizona. For their entire range, Breeding Bird Survey (BBS) data from 1966 to 1991 show populations decreasing in se. U.S. and along

northeast periphery of range. Statistically significant annual declines of 2.4-4.5% during 1966-1991 were also noted in Nebraska, Ontario, Quebec, and Adirondack Mtns. of New York. Populations are relatively stable over remainder of breeding range and possibly increasing in band from s. New England west to Iowa (Wiedenfeld 1992). (Cimprich and Moore 1995).

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: WSC (WSCA, AGFD in prep)
[Threatened, TNW, AGFD 1988]
OTHER STATUS: Forest Service Sensitive (USDA, FS Region
3 2007)

MANAGEMENT FACTORS: **Threats:** overgrazing by livestock and elk in riparian habitat. **Management needs:** reduce riparian grazing to maintain scrub willow and alder regeneration.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Breeding biology data needed for western and southeastern portions of the species' range. Much remains unknown about the repertoire and development of song in Gray Catbirds.

LAND MANAGEMENT/OWNERSHIP: U.S. Forest Service, Apache-Sitgreaves NF; AGFD, Wenima Riparian Corridor; Private.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

- David A. Cimprich, Ph.D. student, Dept. of Biological Sciences, University of Southern Mississippi, Hattiesburg, MS 39406-5018.
- Frank R. Moore, Ph.D., Dept. Biological Sciences, University of Southern Mississippi, Hattiesburg, MS 39406-5018.

ADDITIONAL INFORMATION:

The genus name, *Dumetella*, from Latin, dim. of *dumetem*, meaning "small thicket," accurately reflects the Gray Catbird's habitat: dense, shrubby vegetation. The species name, *carolinensis*, from Latin, of Carolina. Common name from the nasal catlike mewing call.

Revised: 2001-10-02 (SMS)

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