

MOUNTAIN CHICKADEE - POECILE GAMBELI

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Passeriformes Family: Paridae Genus: Poecile
Species: P. gambeli

Habitat:

Biomes: Common across most of the evergreen forests of Western mountains, particularly pine, mixed conifer, spruce-fir, and pinyon-juniper forests. Mountain Chickadees use conifers heavily, typically leaving deciduous stands to the Black-capped Chickadee. The exception is in nesting, when Mountain Chickadees will seek out any available aspen trees for their soft, easily excavated wood.

Distribution:

In US: Common inhabitants of the mountainous regions of the western United States, their range extends from the southern Yukon to California and Rocky Mountain States in the United States. A few mountain chickadees may migrate locally up the mountains in the summer and down into the mountain foothills in the winter; but this phenomenon is not well documented.

In Other Countries: NONE

Holistic Description: The tiny Mountain Chickadee is a busy presence overhead in the dry evergreen forests of the mountainous West. Often the nucleus in mixed flocks of small birds, Mountain Chickadees flit through high branches, hang upside down to pluck insects or seeds from cones, and give their scolding chick-a-dee call seemingly to anyone who will listen.

Species Richness: 4-7 SUBSPECIES

Population Dynamic: CHECK THREATS

Evolution and Systematics:

Evolution: NONE

Systematics: North-south cline in back coloration from Cascades to Baja California; darker grays in more southerly populations. West-east cline of back colors from Great Basin to Rocky Mtns.: tan in west to brown in east. Side and flank color generally matches back color along Cascade-Sierra Nevada axis, where prevailing coloration is gray; side and flank color differ from back color in Rocky Mtns. and e. Washington and n. Idaho populations, where flanks are buff and back is brown (east and south) or gray-green (north and west). Three bill types: (1) short, blunt bill in Rocky Mtns. and vicinity; (2) long, slender, pointed bill in interior Great Basin; (3) more massive bill in western mountains.

Number of Species: 4-7 SUBSPECIES

Number of Genera: 4-7 SUBSPECIES

Physical Characteristics:

Size and Length: Length: 4.3-5.5 in (11-14 cm) Weight: 0.4 oz (11 g)

Wingspan: 7.5 in (19 cm)

Coloration: Like all chickadees, strikingly black-and-white on the head, gray elsewhere. The white stripe over the eye identifies Mountain Chickadees from all other chickadees.

General Body Features: Tiny, large-headed but small-billed, with a long, narrow tail and full, rounded wings.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: NONE

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Songbird feet have three toes pointed forward and one toe pointed backward. This toe arrangement is known as anisodactyl. Songbirds have very little feeling in their feet because their feet have few nerves and blood vessels. This adaptation allows songbirds to land on cold perches such as wires when the weather is frosty.

Any Special Internal Anatomy: Chickadees will go into a state of torpor, the ability to lower their metabolic rate to conserve energy, which reduces their body temperature by 10-12 °C. But even at rest this little speedster's heart beats approximately 500 times a minute.

Sexual Dimorphisms: Sexes are identical in appearance, but during breeding season males can be identified by presence of large cloacal protuberance and females by brood patch. Males also exceed females in mass and wing length.

Differences Between Juvenile Stage and Adult: Juvenile plumage similar to Definitive Basic plumage (see below), except black cap duller and body feathers more loosely textured, especially undertail-coverts. Juvenile rectrices and wing coverts also are narrower and more pointed than adult feathers.

Behavior:

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Like other chickadees, Mountain Chickadees are quick, agile, curious birds that hop and flit through the outer twigs as they look for insects and seeds, often accompanied by several other species. As summer draws to a close, Mountain Chickadees band together into groups of up to three pairs of adults plus a variety of young birds. These juveniles have spent some time after fledging traveling in their own groups, but by September they typically join a group of adults and remain in that flock for the winter. In late winter, pairs begin to break away from foraging flocks to inspect possible nest sites. At feeders, chickadees have a distinct pecking order, with males typically forcing females aside except early in the breeding season. On cold, sunny mornings, Mountain Chickadees catch a little extra warmth by "sunbathing" on an exposed perch out of the wind. Unlike some other species, Mountain Chickadees typically brave the cold winter nights alone, huddled in foliage clumps or under big flakes of bark.

Locomotion: Hops and perches on limbs, hops and stands on ground, clings to needles (right side up), or hangs (sideways or upside down) from twigs or needles while foraging. Rather weak and somewhat bounding, but very maneuverable: Chickadees may hawk insects in midair and perform U-turns in small spaces, such as inside nest box.

Communication and Perception: A sweet whistled song, fee-bee with the second note lower than the first, similar to the whistles of many other chickadees. Mountain Chickadees sometimes sing more than one fee and/or more than one bee notes as well. Though they sound quite similar to Black-capped Chickadees, research has shown that the two species pay little attention to each other's calls. You'll mainly hear this song in summer.

Home Range: Males, accompanied by mates, begin establishing pair breeding territories within winter group territory on warm afternoons in late winter. Colder weather leads to reassembly of groups and abandonment of pair-pair hostility. In other words, breakup of group is result of onset of territoriality, not vice versa. Territorial behavior peaks and boundaries are established well before nests are built. Strength of response to playback of song is unrelated to stage of nesting season.

Degree of Sociality: Basic social unit is multipair group. Alternate social unit, for breeding only, is pair. Settling juveniles typically travel together and by Sep have joined with local pairs into group. Groups may contain up to 3 pairs of adults, plus settled juveniles.

Level of Aggression: **Begging** or demand behavior is most noticeable when females beg food from males or when offspring beg food from parents. Solicitation of copulation by either sex also falls into this category. Message is communicated with both vocalizations and visual displays. Intensity of female begging increases from prelaying through incubation, but wanes thereafter without apparent conflict. Juvenile begging ends with weaning about 3 wk after fledging.

Migration: Resident, but may move to lower elevations in winter.

Predators:

Predators: Northern Pygmy-owl, Northern Saw-whet Owl, Sharp-shinned Hawk, Deer Mice, Rubber Boas, Black Bears, Raccoons, Weasels.

Anti-Predator Defenses: Foraging individuals typically freeze in foliage when they become aware of rapidly approaching avian predator. Awareness of predator is thought to be facilitated by hearing of "predator alarm call": series of High Zees. Tend to mob stationary predator with close, but cautious, approach, flicking wings and fanning tails, and rapidly repeating Chick-a-Dee Call Complexes having ≥ 3 D -notes. Displays same behavior to perched avian predator, or to human disturbing nest. Mobbing birds may harass avian predator until it flies off, then follow it; response wanes if predator remains stationary.

Diet and Nutrition:

Adult Diet: Mountain Chickadees eat protein-rich insects and spiders during warm months, supplementing them with seeds and nuts as available. They come to bird feeders year-round. Many kinds of insects are eaten, including beetles, caterpillars, wasp larvae, aphids, and leafhoppers, as well as hard-to-reach scale insects and fly larvae hidden in plant galls. In fall and winter, seeds of montane pine species are very important.

Juvenile Diet: ^^^^^^

Special Adaptations for Getting Prey: GLEANER. Mountain Chickadee was found to have little diversity in its breeding-season foraging technique, which consisted largely of gleaning prey from foliage. Carries food in bill, not feet. Mountain Chickadees in New Mexico carry very large seeds of Colorado piñon efficiently. May kill or immobilize larger living prey by striking it against perch. Does most processing and eating while holding food against perch with toes. Opens needle galls with single peck along suture, and opens piñon nuts efficiently also by pecking suture, although inexperienced birds may peck a hole through shell.

Reproduction:

Mode of Reproduction: Monogamous

Mating System: Monogamy; no published reports of polygamy or polyandry. Typical sex ratio in New Mexico breeding population is about 1:1.

Mating Season: April through July

Courtship: Nutritional, rather than courtship, interpretation is preferable for all cases of allofeeding of female by male. In Mountain Chickadee, male begins presenting food to mate 30–45 d before egg-laying, with occasional silent and unsolicited feedings. He darts up to female on ground or branch and passes food bill to bill. During laying, pair forage together, female giving sporadic begging calls.

Territoriality: HOME RANGE

Mating: Copulation highly stereotyped, but not conspicuous. Both sexes usually give Variable Sees and Wing Quiver. Dixon et al. described male as giving short bouts (<15 s) of Variable See in hour before copulation, then long series before actual copulation. He began Wing Quiver after 90 s and flew toward female.

Nest Placement: Mountain Chickadees nest in cavities but they can't excavate them unless the wood is very soft. Instead, they rely on holes made by other birds such as small woodpeckers and nuthatches. They also nest in natural crevices, in nest boxes, and occasionally on the ground amid roots.

Nest Description: Inside the cavity the female makes a neat cup from fur she gathers. She also makes a fur plug or cap that she uses to cover her eggs when she leaves the cavity. In some cases chickadees compensate for large cavities by filling them several inches deep with insulating material.

Egg-Laying: Clutch Size: 5-9 eggs Number of Broods: 1-2 broods Egg Length: 0.6 in (1.6 cm) Egg Width: 0.5 in (1.2 cm) Incubation Period: 12-15 days Nestling Period: 17-23 days Egg Description: Flat white, sometimes speckled with red.

Hatching and Incubation/Gestation: Naked, eyes closed, with tufts of down on head and along spine.

Development: Tufts of natal down on capital and spinal feather tracts; length about 36 mm, eyes closed. ALTRICIAL.

Parental Care: Both parents deliver whole (not regurgitated) food to nestlings. Male passes food to brooding female early in nestling stage, but males refuse to feed female outside nest. Both parents give Faint Fee-Bee or Chick-a-Dee Call Complex upon approach to nest with food.

Lifespan: Up to 10 years and 1 month.

Conservation:

Official Federal Status: Least Concern

Special Statuses in Individual States: NONE

Threats: Mountain Chickadee populations declined by over 1.5% per year between 1966 and 2014, resulting in a cumulative loss of 53%, according to the North American Breeding Bird Survey. Partners in Flight estimates a global breeding population of 7.5 million with 80% living in the U.S., 19% in Canada, and 1% in Mexico. The species rates a 10 out of 20 on the Continental Concern Score. Mountain Chickadee is not on the 2014 State of the Birds Watch List. These birds are visitors to bird feeders and use birdhouses.

Conservation Efforts: ^^^^

Extra Facts:

1. Energetic models suggest that a half-ounce chickadee needs to eat about 10 calories per day to survive. That's equivalent to about one-twentieth of an ounce of peanut butter.
2. Chickadees will busily store food for later when they find a ready supply, such as your bird feeder. If you offer them sunflower seeds they'll usually shell the seed first by holding it between their feet and hammering it apart with their beak. Then they'll fly off to stash it.
3. The evergreen forests of the Western mountains periodically suffer massive outbreaks of tree-killing insects such as bark beetles and needle miners. When this happens, it's all-you-can-eat for Mountain Chickadees. During a lodgepole needle miner outbreak in Arizona, one chickadee was found with 275 of the tiny caterpillars in its stomach at one time.
4. Mountain Chickadees incubate their eggs almost a full week longer than their near-twins, the Black-capped Chickadees do. Some scientists think this is an evolutionary change that's been made possible by Mountain Chickadees' tendency to nest inside harder-walled trees, which are safer from predators.
5. The oldest recorded Mountain Chickadee was a male, and at least 10 years, 1 month old when he was identified by his band, alive in the wild in Utah in 1974. He had been banded in the same state in 1965.

Notable Species:

1. P. g. Gambeli - S. Rocky Mtns. from se. Idaho and central Montana south to se. Arizona and sw. Texas
2. P. g. Inyoensis - Great Basin from s. Idaho and se. Oregon south through e.-central California, Nevada, and Utah.
3. P. g. Abbreviatus - S. Yukon Territory south through British Columbia, interior mountains of Washington and Oregon, east to eastern slopes of Rocky Mtns., central Idaho, nw. Nevada south in California through higher Coast Ranges.

4. P. g. Baileyae - Discontinuously distributed in mountains of s. California and disjunctly in Santa Lucia Mtns., Monterey Co.; has been found to south in lowlands of n. Baja California.
5. P. g. Atratus - Mountains of n. Baja California.