

GRAY-CHEEKED THRUSH

TAXONOMY

Scientific name: *Catharus minimus* (Lafresnaye 1848)

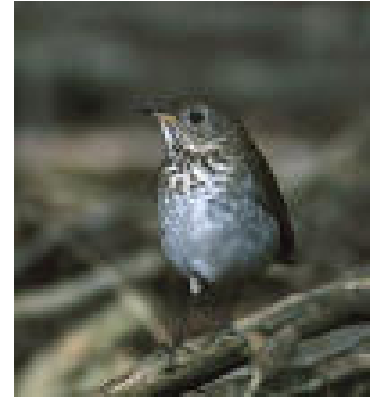
Common name: Gray-cheeked Thrush

Family: Turdidae

Taxonomic comments:

Formerly placed in genus *Hylocichla* (AOU 1983). Bicknell's Thrush (*C. bicknelli*) was formerly included as a subspecies of *C. minimus*; raised to full species status by Ouellet (1993) based on differences in morphology, bill and plumage color, vocalizations, and mtDNA. This change was accepted by AOU (1995).

Two subspecies sometimes recognized: *C. m. aliciae* (Baird 1858) breeds from Alaska east to Labrador, south to northern Alberta. *C. m. minimus* (Lafresnaye 1848) breeds on Newfoundland and possibly northern Quebec (Lowther et al. 2001).



DESCRIPTION

Basic description: A medium-sized thrush.

General description:

Medium-sized thrush, slightly larger than other *Catharus* thrushes (Lowther et al. 2001). Rather plain, cold-grayish face with indistinct whitish streaks or mottling on ear coverlets. Gray cheek patch is most distinctive trait; gray brown above with a faint and incomplete eye ring. Underparts stark white except where dark brown spots speckle the pale, slightly buffy breast and the flanks and tail are brownish gray (Lowther et al. 2001).

Length (cm): 18

Weight (g): 33

Reproduction:

Eggs normally laid in June and July. Clutch size is 3-6 (usually 4). Incubation, by female, lasts 12-14 days. Young are tended by both parents, leave nest at 11-13 days.

Ecology:

The only neotropical migrant whose breeding distribution includes northeastern Siberia. Least known of *Catharus* thrushes due to remote breeding range (Lowther et al. 2001). Shows considerable geographic overlap with four other thrushes, including two congeners, Swainson's Thrush (*C. ustulatus*) and Hermit Thrush (*C. guttatus*) (Lowther et al. 2001).

Migration:

Global migration:

Champion migrant among U.S. small thrushes, making the longest migration and, in some parts of its journey, the most rapid advance (Bent 1949). May follow an elliptical migration route; an easterly trans-Gulf route in fall and a westerly circum-Gulf route in spring (Rappole 1995). Migrates through Central America and the Bahamas, Cuba, Hispaniola, and Trinidad and Tobago (DeGraaf and Rappole 1995). Winters mostly in northern South America, rarely north to Panama, casually north to Costa Rica (Ouellet 1993; AOU 1995). Does not start its northward journey until many other species are well on their way (Bent 1949)

State migration:

Arrives Alaska late May and leaves in early September (Gabrielson and Lincoln 1959). At Fairbanks, earliest first arrival 12 May, latest 30 May, most (26 of 34 years) between 15 and 22 May; southcoastal Alaska arrivals a few days later than Fairbanks; Kodiak Island by early June. Usual arrival in west and southwest Alaska during last week in May; earliest record on Seward Peninsula 18 May, peaks at Wales (westernmost tip) about 6-10 June; latest 14 June. Usual passage across St. Matthew and St. Lawrence islands in Bering Sea early June. In fall, migration underway by mid-August, peaks late August, latest recorded on Seward Peninsula 8 September, latest at Fairbanks, 29 September (Lowther et al. 2001).

Winters in South America and migrates through North America to Alaska in spring via the Mississippi Flyway (Kessel 1989). Spreads out over all of the eastern U.S. from the Atlantic Coast to the Mississippi Valley and only sparingly farther west; follows the Yukon and Mackenzie Rivers in Alaska (Bent 1949). Birds summering in Alaska are thought to migrate far to the east before flying south to their wintering grounds (Bent 1949, Kaufman 1996).

Food:

Main foods taken include insects and arthropods (Lowther et al. 2001). Primarily a ground feeder, foraging on ground insects and larvae, and on berries (Bent 1949, Kessel 1989). Beetles of many kinds, ants, wasps, bees (not honey bees), caterpillars, and spiders are important animal foods although grasshoppers, sowbugs, and earthworms are occasionally taken. On the tundra, feed primarily on crowberries and blueberries, while further south, these are replaced by blackberries, elderberries, and other fruits available without having to venture too far from cover (Gabrielson and Lincoln 1959). Regularly followed swarms of army ants in Panama (Ridgely and Gwynne 1989).

Phenology:

Egg dates: Alaska, 6 June -8 July (n = 17; of which 9 between 15 June and 23 June) (Bent 1949); nest chronology of south-coastal and western Alaska several days later than for central Alaska (Lowther et al. 2001).

Habitat:

Global habitat:

Primarily coniferous forest (mainly spruce); also tall shrubby areas in taiga, willow and alder thickets near water, or above tree line, particularly in Alaska, Labrador, and northern Quebec (Ouellet 1993). During migration and in winter also deciduous forest, forest borders, open

woodland, second growth, and scrub. Nests from ground level to about 6 m up, in willow, alder, or spruce (Terres 1980).

State habitat:

Primarily coniferous forest (mainly spruce) and upland and riparian deciduous woodlands; also tall shrubby areas in taiga, willow and alder thickets near water, above tree line, upland and subalpine areas (Gabrielson and Lincoln 1959, McCaffery 1996). On Yukon Delta National Wildlife Refuge (NWR), total numbers and frequency of observation were much higher on tall shrub (lowland riparian and alpine riparian) point count routes than on forest (mixed spruce/birch and spruce woodland) routes (McCaffery 1996).

Breeding: Occurs primarily on shrubby habitats. In southern part of range nests in damp woodlands and valley bottoms where there are stands of shrubs, or spruce and fir forests at higher elevations. In treeless tundra regions, willow and alder thickets near water are characteristic breeding locations. Outside of tundra areas birds occur in shrubby locations such as mountain bogs and subalpine zones (Pogson et al. 1997). Most nests built in crotches of branches of willow or alder shrubs, but some placed instead on horizontal or slanting trunks of fallen trees, atop broken-off stubs or rotting stumps, and horizontal spruce branches (Lowther et al. 2001).

STATUS

Global rank: G5 (1996-12-03)

Global rank reasons:

State rank: S3B (1997-03-11)

State rank reasons:

Alaska comprises largest portion of species breeding range in US and Canada. Overall abundance unknown. No trend detected from 24 Breeding Bird Survey (BBS) routes, however, BBS surveys of limited value to detect trends based on species remoteness. Capture rates during migration for twelve year period (1991-2003) near Fairbanks have declined. Degree of threat in state relatively low. Spruce bark beetle may drastically alter breeding habitat, especially in Cook Inlet area. Oil and gas development could result in destruction of northern riparian habitats.

DISTRIBUTION AND ABUNDANCE

Range:

Global range:

Breeding: northeastern Siberia and northern Alaska across northern Canada to Labrador and Newfoundland, south to southern Alaska, northwestern British Columbia, southern Mackenzie, northern Alberta (probably), northeastern Saskatchewan, northern Manitoba, extreme northern Ontario, south-central Quebec, and St. Pierre et Miquelon (Ouellet 1993, AOU 1995).

Northern winter: mostly in northern South America: Guyana, Venezuela, Colombia, eastern Ecuador, eastern Peru, and western Amazonian Brazil; perhaps mainly in southern Venezuela and western Amazon basin; Trinidad; rarely north to Panama, casually north to Costa Rica (Ouellet 1993, AOU 1995).

State range:

Breeding: From the Chukchi and Bering Sea coast across northern foothills of Brooks Range as far as shrubby willows are found (records from Wales, Barrow and Wainwright may be migrants), south to the base of the Alaska Peninsula, Kodiak Island, throughout Interior and to northwestern Kenai Peninsula. Uncommon and local in southcentral and southeastern Alaska (Gabrielson and Lincoln 1959, Kessel and Gibson 1978).

Abundance:**Global abundance:**

About 12,000,000 (Rich et al. 2004)

State abundance:

Disparate information; overall breeding population approximately 5,600,000 (Blancher and Rosenberg, unpublished data). Most abundant on Breeding Bird Survey (BBS) routes in central Alaska, with routes near Cantwell, Sourdough, the MacLaren River, Chatanika River, and Paxson Lake all reporting 30.0-56.3 birds per route (bpr). Also abundant in western, southwestern, and southcoastal Alaska. May also be abundant in northern Alaska, but currently not sampled by BBS (Pogson et al. 1997). This species was absent from southeast BBS routes, agreeing with observations of Gibson and MacDonald (1975) who found it to be a rare breeder in the region (Pogson et al. 1997).

In southcentral Alaska, densities in cottonwood forest habitat are 3.0-3.8 territories/10 ha; in white spruce scattered woodland habitat, 3.9 territories/10 ha; and black spruce dwarf forest habitat, 2.5 territories/ 10 ha (Kessel 1998 in Lowther et al. 2001). Highest density recorded has been 9 pairs/ 10-ha plot in open white spruce forest (Spindler et al. in Lowther et al. 2001). High counts on BBS routes: 45-56 individuals/route in subalpine areas of southern foothills of Alaska Range (Lowther et al. 2001).

Widespread and commonly abundant on the Yukon Delta NWR (McCaffery 1996). Total abundance in Yukon-Charley Rivers National Preserve estimated at 140,020 pairs (95% CI: 70,354 to 278,671 pairs) (Swanson and Nigro, 2003). An inventory of Cape Krusenstern National Monument (n= 119 points), Kobuk Valley National Park (n= 197 points), and Noatak National Preserve (n= 529 points) in 2001 and 2002 detected 7, 23 and 34 individuals respectively (Tibbitts et al. 2003). Described as common to numerous in the early part of the past century throughout the Kotzebue Sound (Nelson 1883, Grinnell 1900; Bailey 1948, Wiggins 1953). An abundant breeder throughout the southern and northern uplands and the interior lowlands of the Seward Peninsula (Kessel 1989). A locally common breeder in tall brush in the Beaufort Sea area (Johnson and Herter 1989).

Trends:**Global trend:**

Little information. Breeding distribution north of limits of most Breeding Bird Survey (BBS) routes.

State trend:

No trend detected in data analysis of 24 Breeding Bird Survey (BBS) routes in Alaska (Pogson et al. 1997). However, BBS surveys may not be suitable for tracking population trends of this species, whose breeding distribution is north of the limits of most BBS routes (McCaffery 1996).

A pronounced decline was observed during the 12 year (1991-2003) spring netting period at Creamer's Field Migration Station in Fairbanks (Hannah 2003). Capture rates for this species at Creamer's Field during spring 2003 were substantially lower than average (Hannah 2003).

EXISTING PROTECTION

Global protection:

Protected by migratory bird treaty between U.S. and Canada (Lowther et al. 2001).

State protection:

Protected by migratory bird treaty between U.S. and Canada (Lowther et al. 2001). Currently afforded no other protections in the state, except where its habitat is protected in National Wildlife Refuges and National Parks.

CHALLENGES

Global challenges:

Risk of collision mortality during migration. Species more likely affected by habitat alteration during nonbreeding season.

State challenges:

Forest disturbance: Will likely be detrimentally affected by forest change associated with defoliation of spruce by the bark beetle, which has been particularly high in the Cook Inlet area. There is concern that once the canopy opens up, forests will be replaced by grasslands (*Calamagrostis* is an aggressive competitor relative to sapling spruce; Andres 1999b). Because these birds are mainly associated with shrub habitats, open woodlands, and dwarf forests in Alaska, fire suppression may reduce the extent of these habitats. In the Tongass National Forest, riparian alder thickets are apparently the only habitat used by this species. Disturbance of riparian habitat by logging practices might reduce numbers of this already rare species in Southeast Alaska (Pogson et al. 1997).

Habitat degradation/loss: Listed as an indicator species that may be affected by loss of wetlands (Andres 1999a). Development of wetland habitats due to increasing urbanization in Anchorage, on the Kenai Peninsula, and in the Matanuska/Susitna Valley is a growing concern. Loss of shrub and other riparian habitats to placer mining or transportation and utility corridor developments, which often follows drainages, also of concern. Potential oil and gas development on the Colville River and along the Dalton Highway could lead to destruction of riparian corridors. Although the effects of climate change are unknown, they could result in loss of habitat as a result of drying of wetlands.

Predation: Northern Shrike (*Lanius exubitor*) is an effective predator in taiga-tundra shrublands (Lowther et al. 2001). Peregrine Falcon (*Falco peregrinus*) in Alaska reported taking '*Catharus*'

sp. thrushes (likely Gray-cheeked Thrush because of habitat) to nestlings; reported as the eighth most frequently taken prey by Peregrine Falcons (Hunter 1987).

RESEARCH AND INVENTORY NEEDS

Global research needs:

Research needed on wintering ecology, habitat use, and behavior (Lowther et al. 2001). Research also needed to document carrying capacities of wintering grounds and stopover points in primary and disturbed habitats, evidence of breeding population declines, and basic non-breeding ecological data (Rappole 1995). Also, research on breeding distribution of Gray-cheeked and Bicknell's Thrush in a possible zone of contact along the northern shore of the Gulf of St. Lawrence is needed to better understand species limits, isolating mechanisms, and whether hybridization occurs (Lowther et al. 2001). Banding studies needed to clarify migration patterns and stopover ecology, especially along the East Coast (Lowther et al. 2001).

State research needs:

Research needed on breeding biology (including behavioral ecology and mating system), population status and potential evidence of breeding population declines, habitat use and habitat abundance, and identification of threats.

Global inventory needs:

Continue to monitor population trend through use of Breeding Bird Surveys (BBS). Develop techniques to more adequately monitor trends and abundance in northern breeding areas inaccessible through the BBS.

State inventory needs:

Range-wide population surveys are needed to assess current population levels and monitor trends. Develop techniques to more adequately monitor trends and abundance in northern breeding areas inaccessible through the BBS.

CONSERVATION AND MANAGEMENT NEEDS

Global conservation and management needs:

See State conservation and management needs below.

State conservation and management needs:

In Alaska, this species is mainly associated with shrub woodlands, open woodlands, and dwarf forests; fire suppression practices may potentially reduce the extent of these habitats (Pogson et al. 1997). Such knowledge should be integrated in fire suppression plans, and burns in these habitat types should be avoided or minimized.

Species is found on a number of Local Training Areas (LTA's) of the Alaska Army National Guard throughout Alaska. Because breeding birds are most active (have eggs or dependent young) between mid-May and mid-July, training activities should be minimized during this period, if possible. In addition, vehicle movements should be planned to minimize disturbance to riparian habitats: trails should be set well away from riparian corridors, river crossings should be

minimized, and crossings should be well designed because riparian-dependent species occur in high densities in these areas (Andres et al. 1999).

Increased development for oil and gas along the Dalton Highway is likely, as well as along the Colville River, which could result in destruction of riparian habitat. Protection of riparian corridors consisting of willow and alder shrubs is of particular importance to landbird conservation in northern Alaska. Establishment of the Colville River Bird Conservation Area would aid conservation of riparian songbirds and raptors on the North Slope (Andres 1999b).

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Reviewer(s): Steve Matsuoka, Alaska Landbird Coordinator, Migratory Bird Management, U.S. Fish and Wildlife Service, Anchorage, AK.

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