The Status of

Gray-cheeked Thrush

(Catharus minimus)

in Newfoundland and Labrador

Gray-cheeked Thrush, Gull Island, Witless Bay
Photo by Dave Fifield

prepared for

THE SPECIES STATUS ADVISORY COMMITTEE

by

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STATUS REPORT

***Catharus minimus* (Lafresnaye 1848)** [previously *Hylocichla minima*]

Common Name:
Gray-cheeked Thrush

Other Common Names:
French – Grive à joues grises
Newfoundland –Wild Eyes, Wide Eyes
Inuit– Ittipornipippiok, Viu

Name of population(s) or subspecies:
C. minimus minimus – Newfoundland Gray-cheeked Thrush
C. minimus aliciae – Northern Gray-cheeked Thrush

Family: Turdidae (Thrushes)

Life Form: Bird (Aves)

Note: Gray-cheeked Thrush and Bicknell's Thrush were once considered to be conspecific (AOU 1957). Recently, they have been split into two distinct species (AOU 1998) – Bicknell's Thrush (*C. bicknelli*), breeding in the Maritime provinces and New England, and Gray-cheeked Thrush, breeding in Newfoundland, the Labrador Peninsula, and west to Alaska (Ouellet 1993). Gray-cheeked Thrush is distinguishable from Bicknell's Thrush by both morphometrics and song (Marshall 2001) and recent genetic analyses support the distinct species status of Bicknell's Thrush (Outlaw et al. 2003, McEachen et al. 2004).

Many authors (Godfrey 1986, Phillips 1991, Ouellet 1996, Pyle 1997, Lowther et al. 2001) consider Gray-cheeked Thrush breeding on insular Newfoundland and the lower north shore of the Gulf of St. Lawrence as a distinct subspecies, Newfoundland Gray-cheeked Thrush (*C. m. minimus* (Lafresnaye)). Those occupying the remainder of the species' range are then classified as Northern Gray-cheeked Thrush (*C. m. aliciae* (Baird)). However, other authors have considered these two populations as representing a single subspecies, *C. m. minimus*, and classified Bicknell's Thrush as a second subspecies of Gray-cheeked Thrush (Wallace 1939, Marshall 2001). Herein we treat Gray-cheeked Thrush and Bicknell's Thrush as distinct species, and recognize Northern and Newfoundland Gray-cheeked Thrush as subspecies of *C. minimus*.

Distribution

Global:

Gray-cheeked Thrush breed in boreal forests across North America, as well as in northeastern Siberia. The species' range extends north to the tree line in Alaska, and across Canada to Labrador and south to the islands of Newfoundland, St. Pierre, and Miquelon (Lowther et al. 2001). Gray-cheeked Thrush winter in South America east of the Andes including Columbia, Venezuela, Guyana, Trinidad, and northwest Brazil, and are rare winter residents of Panama and Costa Rica (Lowther et al. 2001).

National:

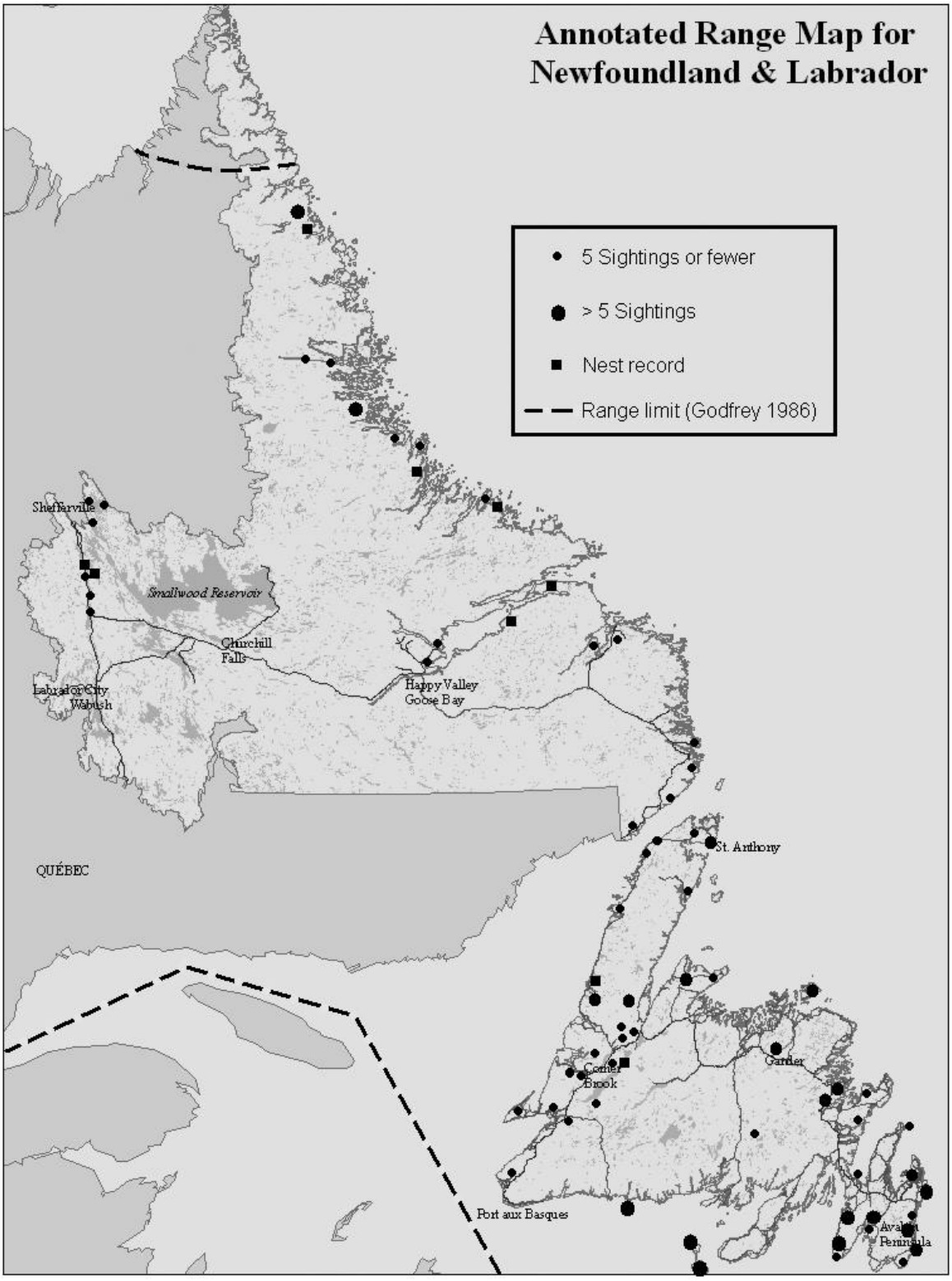
The breeding range of Gray-cheeked Thrush extends north to the tree line in the Yukon and Northwest Territories, Nunavut, and across the Labrador Peninsula north to Ungava Bay and possibly Cape Chidley. The southern limit of the species' breeding range includes northwestern British Columbia, southern Yukon, northern Alberta, northeastern Saskatchewan, northern Manitoba, northwestern Ontario, and central Quebec to the north shore of the Gulf of St. Lawrence, as well as the islands of Newfoundland, St. Pierre, and Miquelon (Ouellet 1996, Lowther et al. 2001).

Provincial:

Gray-cheeked Thrush are found in suitable habitat throughout most of the province of Newfoundland and Labrador (Todd 1963, Godfrey 1986, Lowther et al. 2001). On insular Newfoundland it has been reported as being most common on the Northern Peninsula and northeast coast, and less common on the west coast and in the interior (Peters and Burleigh 1951). However, other sources report observations from Glovertown, Glenwood, several sites in western and southwestern Newfoundland, Placentia Bay, and islands along the northeast and south coasts including St. Pierre, Miquelon, and Ramea (Thompson et al. 1999; Marshall 2001; W. A. Montevecchi, Memorial University, unpublished data).

Gray-cheeked Thrush have been observed throughout most of Labrador (Todd 1963; W.A. Montevecchi, Memorial University, unpublished data). In contrast to Godfrey (1986), Lowther et al. (2001) indicate that the species is found to the tip of Cape Chidley, and is absent from coastal Labrador. We found no documented sightings of Gray-cheeked thrush north of Hebron Fjord, but several from coastal Labrador, supporting the range as indicated by Godfrey (1986). However, from 2000-2003, Chaulk et al. (2004) conducted breeding bird surveys on 172 small islands (<30 ha) along the Labrador coast from Rigolet north to Nain, and did not observe Gray-cheeked Thrush (K. Chaulk, Labrador Inuit Association, personal communication).

Annotated range map



Description and habitat

Gray-cheeked Thrush are slightly larger than other *Catharus* thrushes and have grayish upperparts and face, indistinct mottling on ear coverts, grayish lores, and a grayish-white supercilium (Lowther et al. 2001). The Northern race (*C. m. alicae*) has grayish olive upperparts and flanks, a lightly washed cream breast, and a lower mandible having a reduced pale base and a dull yellow tinge. The Newfoundland race (*C. m. minimus*) has brownish olive upperparts, grayish brown to brownish olive flanks, a cream washed breast, and a lower mandible having an extensive pale base and a bright yellow tinge (Pyle 1997). The Newfoundland race may show some chestnut edging on wings and tail (Lowther et al. 2001). For additional details on differences between these two races see Marshall (2001).

Figure 1*. Typical old-growth coniferous forest (left, photo by K. Powell) and scrub (right, photo by K. Dalley) habitat used by Gray-cheeked Thrush along the Northern Peninsula*.

On the breeding grounds Gray-cheeked Thrush prefer dense low coniferous woods, including young regenerating forest, open-canopy old-growth forests having a dense growth of shrubs and small conifers in the understory, and dense, stunted spruce and fir on windblown sites and near the treeline (tuckamore or Krummholz) (Godfrey 1986, Lowther et al. 2001). The species is found primarily in coniferous stands of boreal forest, tall shrubby enclaves in taiga (north of the treeline), and in Labrador in mature coniferous stands as well as sparsely forested valleys north of Hamilton Inlet (Todd 1963, Lowther et al. 2001). Dominant tree species in Gray-cheeked Thrush habitat include black spruce (*Picea mariana*), white spruce (*Picea glauca*), balsam fir (*Abies balsamea*) and tamarack (*Larix laricina*).

Throughout western Newfoundland from Main River south to Little Grand Lake, Gray-cheeked Thrush regularly occur in low abundance in old-growth uncut balsam fir forests having numerous canopy gaps, but they have not been found in second growth closed-canopy forests (Thompson *et. al*. 1999; D. Whitaker, personal observation). In some areas, particularly western North America, Gray-cheeked Thrush are found in alder and willow thickets (Lowther et al. 2001), but in Newfoundland, Gray-cheeked Thrush were not found in birch and willow stands above the timberline, nor in riparian thickets (Whitaker and Montevecchi 1997, Marshall 2001).

During migration, Gray-cheeked Thrush use a variety of woodland and shrub habitats (Godfrey 1986) often favoring well-wooded areas having a thick understory (Lowther et al. 2001).

Overview of Biology

For a recent thorough account of the biology of Gray-cheeked Thrush, see the Birds of North America species account no. 591 (Lowther et al. 2001).

Gray-cheeked Thrush are long distance migrants and are present on their northern breeding grounds from May to August. Most migratory movement occurs at night, and during migration the species is rarely seen in large numbers. It is thought to migrate through the eastern part of the continent between the Mississippi Valley and the Atlantic Coast (Ouellet 1996). Southward migration occurs from mid-August to October.

Gray-cheeked Thrush are secretive during the breeding season and nesting pairs are rarely found in high densities. Territories are well spaced and distant from one another (Ouellet 1996) and nests are built on the ground or in low shrubs, typically < 2 m high. Only one brood is raised per breeding season (Lowther et al. 2001) and clutches most often contain 4 eggs (range 3 to 5) which are incubated by the female (Bent 1964, Ouellet 1996, Lowther et al. 2001). Eggs are incubated for 13-14 days and nestlings fledge 11-13 days after hatching. Young are altricial and are cared for by both the male and female. Individuals breed at age 1 year and are monogamous. Six nests containing eggs have been reported for Newfoundland and Labrador, all of which were found between June 18 and July 9 (Todd 1963; W.A. Montevecchi, Memorial University, unpublished data).

Due to their northerly breeding range and secretive habits, little is known about Gray-cheeked Thrush demographic parameters such as survival and productivity. The current longevity record for the species is 7 years, 4 months (Ouellet 1996, Lowther et al. 2001). Gray-cheeked Thrush diet consists mainly of insects, arachnids, and grubs (75%), as well as fruits and berries (25%) (Bent 1964).

Population size

The global Gray-cheeked Thrush population is estimated to be approximately 12,000,000 individuals (Rich et al. 2004). The provincial population size is not known, though Peters and Burleigh (1951) reported Gray-cheeked Thrush as common summer residents locally on the island of Newfoundland. In the upper Main River watershed (49° 46' N, 57° 16' W) 0.20 singing males were detected per point count station, leading to an estimated density of 0.13 to 0.18 singing males per hectare (K. Powell, unpublished data). Thompson et al. (1999) report a detection rate of 0.13 birds per 10 minute point count (n = 65) in mature forests (77-87 years-old) of western Newfoundland, with no individuals observed in 40-47 year-old (n = 60) and 52-73 year-old stands (n = 50). These estimates are less than those reported for Alaska which range from 0.25 thrush territories per hectare in black spruce dwarf forest habitat to 0.39 territories per hectare in white spruce woodland (Lowther et al. 2001).

Traditional and local ecological knowledge

Inuit elders along the central Labrador coast reported no traditional knowledge relating to this species (K. Chaulk, Labrador Inuit Association, personal communication).

Trends

There is insufficient data available to allow a rigorous description of population trends for this species (Lowther et al. 2001). The Canadian Breeding Bird Survey (BBS) suggests a strong negative trend from 1969 to 2000 for Gray-cheeked Thrush both Canada-wide (-8.8 % per year, n = 31, $P < 0.05$), and in the Boreal Softwood Shield (-10.6 % per year, n = 16, $P < 0.05$), though this result was considered inconclusive because few BBS routes occur within the species' range (Downes and Collins 2003). Data collected on the wintering grounds also indicate that Gray-cheeked Thrush may have suffered a decline, although the extent of this decline is not known (Ouellet 1996).

Anecdotal reports from breeding grounds in Newfoundland and Labrador suggest local declines (P. Linegar, personal communication), though localized trends may occur simply as a result of forest succession. However, analysis of data from 21 BBS routes on insular Newfoundland does indicate a significant decline between 1980 and 2003 (n = 22, $R^2_{adj} = 0.76$, $F = 68.8$, $P < 0.001$; see Figure 2 and Table 4). These data suggest a precipitous drop in detection rate around 1990, with mean (± SE) counts during the first and last 10 years of surveys being 4.8 ± 3.3 and 0.4 ± 0.3 individuals per route, respectively (Figure 2). However, note that on average only 26% of these routes were surveyed in any one year, and no routes were surveyed in 1990 or 1996. Three BBS routes have been established in Labrador since 1994, and no statistical trend in detection rate of Gray-cheeked Thrush was present in these data. Mean detection rate for Labrador was 1.8 ± 1.1 individuals per route (1994 to 2003).

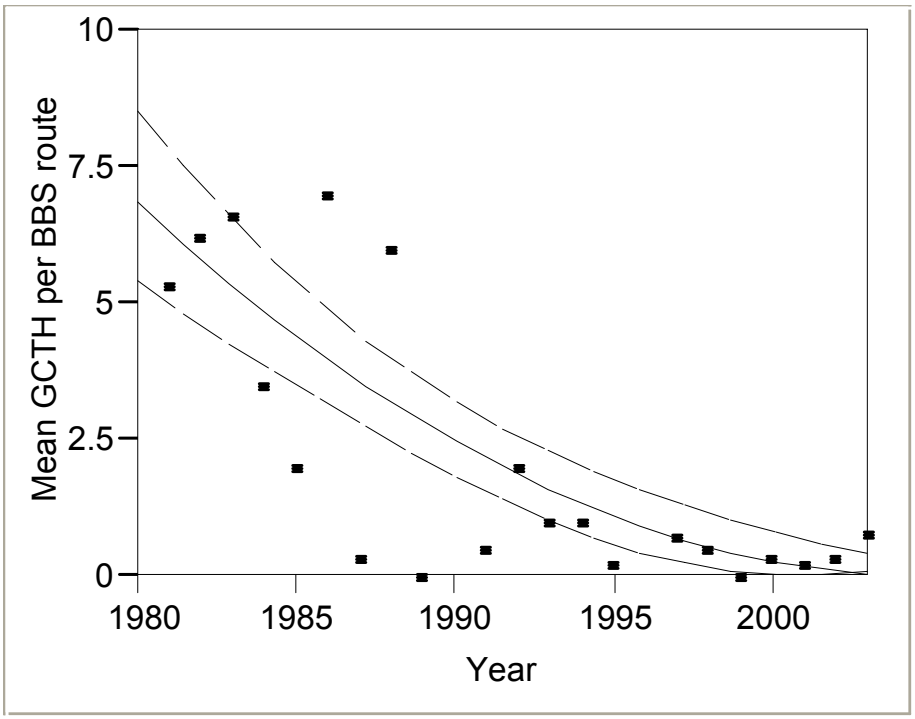


Figure 2. Mean counts of Gray-cheeked Thrush from 21 BBS routes on insular Newfoundland (1980-2003). Mean counts for each year were square-root transformed and then weighted based on the number of routes sampled. Data provided by P. Thomas, Canadian Wildlife Service.

Threats and limiting factors

As mentioned above, there is insufficient information available for a rigorous assessment of factors that threaten or limit populations of Gray-cheeked Thrush (Lowther et al. 2001). In northern Labrador, where large-scale timber harvesting does not occur, there is no information suggesting that the species is affected by human activity. However, in the boreal forest, Gray-cheeked Thrush occupy old growth habitat which, due in large part to industrial forestry, has been reduced in extent on the island of Newfoundland. If harvesting continues at current levels there will be little old-growth forest within 10-20 years (Thompson et al. 1999, Setterington et al. 2000), leading to an ongoing decline in availability of a key habitat of Gray-cheeked Thrush. Although their impact on Gray-cheeked Thrush is unknown, red squirrels (*Tamiasciurus hudsonicus*) were a major nest predator in western Newfoundland (Lewis and Montevecchi 1999) and have become widespread throughout much of the island since their introductions in 1963 and 1964 (Dodd 1983). On the wintering grounds, habitat alteration may limit Gray-cheeked Thrush occurrence, while during migration collisions with man-made structures such as radio towers cause many mortalities (Lowther et al. 2001).

Existing protection

This species has been protected since 1916 under the Migratory Birds Convention (Department of Justice of Canada 1994).

Special significance

Verifying the existence of a distinct subspecies of Gray-cheeked Thrush endemic to insular Newfoundland would impart an important stewardship responsibility on the province.

In Newfoundland, Gray-cheeked Thrush are an important component of the distinct avian communities inhabiting old-growth balsam fir forests. These forests represent a unique and important wildlife habitat in the province (Thompson and Curran 1995, Thompson et al. 1999).

Ranks or Status

	Rank or Status
G-rank/IUCN	G5
N-rank/National General Status/COSEWIC	N5B
General Status – provincial	S4B / Secure
Newfoundland – S-rank/General Status	S4B / Secure
Labrador – S-rank/General Status	S4B / Secure

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Collections examined

None

TECHNICAL SUMMARY

Distribution and Population Information	**Criteria Assessment**
• *extent of occurrence (EO)(km²)*	Province-wide[1]
• *area of occupancy (AO) (km²)*	Province-wide[1]
• *number of extant locations*	Widespread
• *specify trend in # locations, EO, AO (decline, stable, increasing, unknown)*	Unknown
• *habitat trend: specify declining, stable, increasing or unknown trend in area, extent or quality of habitat*	Unknown, possibly declining
• *generation time (average age of parents in the population) (indicate years, months, days, etc.)*	Unknown
• *number of mature individuals (capable of reproduction) in the Provincial population (or, specify a range of plausible values)*	Unknown
• *total population trend: specify declining, stable, increasing or unknown trend in number of mature individuals or number of populations*	Unknown, possibly declining[2]
• *are there extreme fluctuations (>1 order of magnitude) in number of mature individuals, number of locations, AO and/or EO?*	No
• *is the total population severely fragmented (most individuals found within small and isolated populations between which there is little exchange, i.e., ≤ 1 successful migrant / year)?*	No
Rescue Effect (immigration from an outside source)	
• *does species exist elsewhere?*	Yes
• *status of the outside population(s)?*	Unknown
• *is immigration known or possible?*	Yes
• *would immigrants be adapted to survive here?*	Yes
• *is there sufficient habitat for immigrants here?*	Yes

[1] In suitable habitat
[2] See Downes and Collins (2003) and Figure 1

Appendix A. Population Information

A verified occurrence is a known sighting of a Gray-cheeked Thrush by an individual able to distinguish this species from similar *Catharus* species. Data are considered accurate and any density or abundance estimates are shown with standard errors.

Table 1. Verified occurrences/range use of Gray-cheeked Thrush in Newfoundland and Labrador during the past 25 years (W. A. Montevecchi, Memorial University of Newfoundland and Labrador, unpublished data).

Date	Observer	Location	Count	Comments
May 27, 1980	B. S. Jackson	Long Pond	1	
May 27, 1980	W. A. Montevecchi, A. Burger	Portugal Cove	1	
May 29, 1980	J. Wells	Cape St. Mary's	1	
May 30, 1980	J. Wells	Cape St. Mary's (Golden Bay)	1	
Jun 4, 1980	R. Burrows	Louil Hills, Terra Nova NP	4	
Jun 10, 1980	R. Burrows	Glovertown	1	
Jun 1, 1980	R. Burrows	Terra Nova NP		
Jun 12, 1980	W. A. Montevecchi	Portugal Cove	1	singing
Jun 12, 1980	J. Wells	Cape St. Mary's (Golden Bay)	2	
Jul 8, 1980	P. Barkhouse, D. Morten	Goose River, Labrador		nest with 3 eggs
Jul, 1980	R. Burrows	Terra Nova NP	1	
Sep 5, 1980	R. Burrows	Newman Sound	1	
Sep 5, 1980	R. Burrows	Terra Nova NP	1	
Jul 9-10, 1982	B. Maybank	Shallow Bay, Gros Morne NP		nest with 3 young
Sep 14, 1982	R. Burrows	Glovertown	1	calling
May 27, 1983	W. A. Montevecchi, A. Burger	Portugal Cove	11	
Jun 10, 1983	R. Burrows	Glovertown	1	
May 29, 1984	B. Mactavish	Waterford Valley, St. John's	2	singing
May 31, 1984	W. A. Montevecchi	Portugal Cove	1	
Sep 8, 1984	B. Mactavish	Bowring Park, St. John's	1	
May 23, 1985	B. Mactavish	Cape Race	1	
Jun 4, 1985	R. Etcheberry	Langlade	1	singing
Jul 19, 1985	R. Etcheberry	Langlade	2	adult feeding fledgling
Sep 2-14, 1985	R. Etcheberry	Miquelon	unknown	several reports

Date	Observer	Location	Count	Comments
May 23, 1986	R. Etcheberry	St. Pierre & Miquelon	1	
May 3, 1987	R. Northcott	Ramea	1	
May 23, 1987	R. Etcheberry	Langlade	1	calling
May 28, 1987	R. Etcheberry	St. Pierre & Miquelon	1	singing
May 31, 1987	D. Phelan	Terra Nova NP	1	
Jun 1, 1987	W. A. Montevecchi	Portugal Cove	1	singing
Jun, 1987	R. Etcheberry	Langlade	1	calling and singing
Jun 3, 1987	W. A. Montevecchi	Witless Bay	1	singing
Jun 4, 1987	R. Etcheberry	St. Pierre & Miquelon	1	singing
Jul 6, 1987	R. Etcheberry	Langlade		adults feeding fledgling young
Jul 19, 1987	R. Etcheberry	Langlade		adult feeding fledgling
Aug 5, 1987	W.A. Montevecchi	Jubilee Lake, eastern NL	1	
May, 1988	R. Etcheberry	St. Pierre & Miquelon		several calling
May 21, 1988	R. Etcheberry	Langlade	1	calling
May 28, 1988	R. Burrows	Long Pond	1	calling
May 28, 1988	R. Burrows	Oxen Pond, St. John’s	1	
May 29, 1988	R. Etcheberry	Miquelon		several calling
May 29, 1988	B. Mactavish, J. Pratt, D. Lemon	St. John’s		
May 30, 1988	R. Etcheberry	Langlade		several calling
May 30, 1988	W. A. Montevecchi	Portugal Cove	1	singing
Jun 1, 1988	W. A. Montevecchi	Portugal Cove		many singing
Jun 2, 1988	R. Etcheberry	St. Pierre & Miquelon	1	singing
Jun 20, 1988	J. Pitocchelli	Red Bay, Labrador	1	
Jun 22, 1988	J. Pitocchelli	St. Anthony	1	
Jun 22-Jul 29, 1988	B. Mactavish	Hawkes Bay	2	singing
Jun 25, 1988	J. Pitocchelli	Baccalieu Island	1	
Jun 26, 1988	R. Burrows	Barachois Pond, Stephenville Crossing	1	
Jul 17, 1988	R. Burrows	Oxen Pond, St. John’s	1	singing

Date	Observer	Location	Count	Comments
Jul 23, 1988	R. Etcheberry	Langlade	1	adult carrying food
Sep 10, 1988	R. Etcheberry	St. Pierre & Miquelon	1	
Sep 15, 1988	B. Mactavish	Cape Spear	2	
May 25, 1989	B Mactavish	White Hills, St. John's	2	
May 28, 1989	R. Burrows	Oxen Pond, St. John's	1	
May 30, 1990	B. Mactavish	Harpoon Brook, Millertown area	1	
Jun 2, 1990	R. Burrows	Kents Pond, St. John's	1	
Jun 2, 1990	R. Northcott	Ramea	1	
Jun 24, 1990	W. A. Montevecchi	Bellevue		many singing
Jul 10, 1990	J. Brazil	Hebron Fjord, Labrador	1	
Sep 23, 1990	K. Knowles	Renews	1	
May 26, 1991	R. Burrows	Pinchgut Lake, Corner Brook	1	
Jun 5, 1991	R. Northcott	Ramea	1	
Jun 7, 1991	R. Northcott	Ramea	1	
Jun 14, 1991	W. A. Montevecchi	Portugal Cove	1	
Jun 19, 1991	W. A. Montevecchi	Portugal Cove	1	singing
Jul 7, 1991	R. Burrows	Dunville	1	
Jul 22, 1991	R. Burrows	Western Brook Pond, Gros Morne NP	1	
Jul 24, 1991	W. A. Montevecchi	Pistolet Bay	1	singing
Jul 25, 1991	W. A. Montevecchi	Berry Hill Pond, Gros Morne NP	1	singing
Jul 26, 1991	W. A. Montevecchi	Cormack	1	singing
Apr 28,1993	R. Northcott	Ramea	1	
Jun 7, 1993	R. Northcott	Ramea	1	
Jun 14, 1993	W. A. Montevecchi	Windsor Lake, St. John's	1	singing
Jun 20, 1993	W. A. Montevecchi	North Harbour		many singing
Jul 12, 1993	W. A. Montevecchi	Cook's Brook, Western NL Model Forest	1	singing
Jul 13, 1993	W. A. Montevecchi	Cow Head	1	
Jul 14, 1993	W. A. Montevecchi	Gros Morne Mountain	1	singing
Sep 3, 1993	R. Etcheberry	Miquelon		several calling

Date	Observer	Location	Count	Comments
May 29, 1994	J. Pratt	Cape Spear	1	
Jun 1, 1994	B. & N. Montevecchi	Portugal Cove	1	
Jun 5, 1994	R. Northcott	Ramea	1	
Spring, 1995	D. Whitaker	Portugal Cove	1	
Jun 3-4, 1995	B. & G. Montevecchi	Portugal Cove		many singing
May 27, 1996	R. Northcott	Ramea	1	
Jun, 1996	I. Stenhouse, W. A. Montevecchi, C. Walsh	Tors Cove	1	
Summer, 1996	J. Gosse	Hebron Fjord, Labrador	10	
Jun 2, 1997	T. Boland	Forrest Pond, Goulds	1	
Aug 22, 1997	B. Mactavish, K. Knowles	Bear Cove Point, Renews	4	
Sep 9, 1997	P. Jones	Upper Ferry, Codroy Valley	1	
May 16, 1998	R. Northcott	Ramea		
May 26, 1998	R. Etcheberry	Miquelon		
Jun 1, 1998	D. Fifield	Gull Island, Witless Bay	1	
Jul 9, 1998	W. A. Montevecchi	Eddies Cove East	1	
Summer 1998, 1999, 2000	M. Krawchuk	Gros Morne Ecosystem		see Table 2
June 6, 2002	R. Northcott	Ramea	1	
Summer 2003, 2004	K. Dalley, P. Goulet, K. Powell, D. Whitaker	Main River Watershed		see Table 2

Table 2. Density or frequency of Gray-cheeked Thrush observed during breeding songbird surveys conducted in Newfoundland during the last 25 years with estimated search effort. Surveys were not directed specifically towards Gray-cheeked Thrush.

Date	**Location**	**Area**	**Source**	**Survey Type**	**Mean Abundance**
1991 and 1992	Humber River valley south to Little Grand Lake	140 km north to south	Thompson, Hogan & Montevecchi (1999)	point counts (n=175)	0 birds in 40-80 year old forest, 0.13 +/- 0.06 per point in uncut 80+ forest
1998, 1999, 2000	Greater Gros Morne Ecosystem	30 × 40 km	Taylor & Krawchuk (*in prep*)	point counts (n=1263)	Avg. 24.3 birds detected/year at 9.1% points
1994 and 1995	Corner Brook region (Grindstone Pond south to Corner Brook Lake)	60 × 75 km	Whitaker & Montevecchi (1997), Whitaker & Montevecchi (1999)	200 m transects (n=52)	Present in area but not detected on surveys of riparian habitat
2003 and 2004	Main River Watershed	17 × 11 km	Powell (2005), P. Taylor (Acadia University, unpublished data)	point counts (n=120), mist netting (2940 100 m net hours)	0.13-0.18 singing males/ha (total 31 individuals); 8 captured individuals

Table 3. Summary of morphometrics of 8 Gray-cheeked Thrush individuals captured in mist nets and banded in the Main River watershed in 2003 and 2004. AHY=after hatch year; SY=second year; ASY=after second year. Habitat is the dominant cover type surrounding the mist net (5 m radius).

Month	Day	Year	Age	Sex	Wing Chord (mm)	Weight (g)	Habitat
June	8	2003	SY	female	99	30	forest
June	22	2003	AHY	female	98	31	clearcut
July	16	2003	AHY	male	95	27.5	clearcut
July	17	2003	AHY	unknown	104	23.5	clearcut
June	2	2004	ASY	female	103	31	bog
June	7	2004	ASY	female	98	33	clearcut
June	7	2004	SY	female	95	29.5	clearcut
July	15	2004	ASY	female	96	NA	clearcut

According to the Bird Banding Office (Canadian Wildlife Service, unpublished data), only one Gray-cheeked Thrush banded in Newfoundland has been recovered. This bird was banded June 30, 1994 near Cormack in Newfoundland (49^{o} 18' N, 57^{o} 30' W), and recovered nearby the following year (July 2, 1995; 49^{o} 30' N, 57^{o} 67' W).

Table 4. Counts of Gray-cheeked Thrush detected during Breeding Bird Surveys conducted in Newfoundland and Labrador (Data provided by P. Thomas, Canadian Wildlife Service; see also Downes and Collins (2003)).

Route Name	Route	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Newfoundland																									
Trepassey	57001	0	0	0	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
St. John's	57003	11	10	2	5	7	-	12	1	6	-	-	-	-	-	-	-	-	-	1	0	1	0	0	0
Heart's Delight	57004	38	17	8	33	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Harbour Mill	57005	-	-	0	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burgeo South	57008	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Bonavista	57011	-	3	2	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0
Terra Nova	57012	0	0	1	1	0	-	2	-	-	-	-	0	-	-	-	-	-	0	0	0	0	0	0	-
Gander River	57013	17	3	3	0	1	2	-	0	-	0	-	1	-	-	-	-	-	-	-	-	-	-	0	0
Buchans	57014	-	0	2	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
Burgeo Road	57015	-	14	19	6	9	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	3
St. David's	57016	0	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wareham	57017	7	-	13	16	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gander Bay	57018	-	1	0	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0
Northern Arm	57019	-	-	-	5	3	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Burlington	57020	-	-	4	6	1	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
St. Paul's	57021	-	1	20	6	4	-	-	-	-	-	-	-	2	0	1	0	-	2	-	-	-	-	-	-
Roddickton	57022	6	-	5	8	4	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
Port Saunders	57023	10	11	9	8	2	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
St. Anthony	57024	9	8	14	14	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Woody point	57121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	0	-	-	-	-
Flowers Cove	57125	21	-	10	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Labrador																									
Happy Valley	57036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	3	7	0	0	-	0
Ossok	57037	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	0	3	-	1	-	1
Orma Road	57039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	-	7	-	3

Appendix B. Sources and References.
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