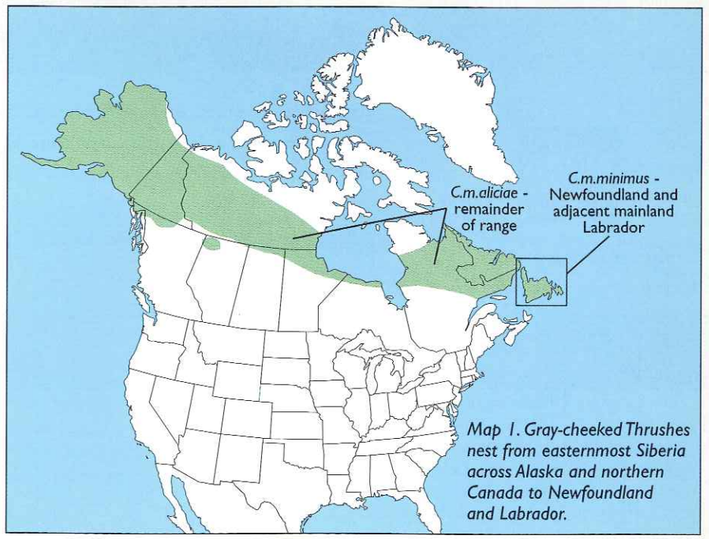
Identification of
Hylocichla/Catharus Thrushes
Part III: Gray-cheeked and Bicknell's Thrushes

IN PARTS I AND II of this three-part series, we summarized the molt patterns for the North American species of *Hylocichla* and *Catharus* thrushes and presented field identification characteristics for Wood Thrush *(Hylocichla mustelina)*, Hermit Thrush *(Catharus guttatus)*, Veery *(C. fuscescens)*, and Swainson's Thrush *(C. ustulatus)*. In this final part, we discuss the identification of the other two North American *Catharus* thrushes: Gray-cheeked Thrush *(C. minimus)* and Bicknell's Thrush *(C. bicknelli)*. These two species, along with Swainson's Thrush, present formidable field identification problems for many birders. All three are dull, olive-brown-backed thrushes (with the exception of the Pacific Coast races of Swainson's Thrush). Furthermore, the new species status of Bicknell's Thrush (Ouellet 1993a, AOU 1995, 1998) has increased interest regarding its separation from Gray-cheeked Thrush. We would like to note, however, that birders may be unaware of the similarity of these three species to dark-plumaged Veeries (see Part II). Additionally, we stress (as have other authors) that wintering *Catharus* thrushes in the U.S. and Canada identified as other than Hermit Thrush should be closely scrutinized and carefully documented. There are few acceptable winter records of the other *Catharus* species in North America; most reports turn out to be misidentified Hermit Thrushes.

DANIEL LANE* and ALVARO JARAMILLO†

Species Identification
Gray-cheeked Thrush
(Catharus minimus)

THE MOST NORTHERLY breeder of the group, and the only member of *Catharus* to breed outside of the Americas, Gray-cheeked Thrush nests from easternmost Siberia across Alaska and northern Canada to Newfoundland and Labrador (see Map 1) (Ouellet 1993a). It is a bird of the boreal forests of the far north, breeding in mixed and stunted or second-growth coniferous forests dominated by spruces *(Picea* sp.) and firs *(Abies* sp.). North of treeline, it occurs in alder *(Alnus* sp.) and willow *(Salix* sp.) thickets (Ouellet 1993a, W. Ellison, pers. comm.). Gray-cheeked Thrush is a long-distance migrant (April to early June, September to October, early November on Gulf Coast). Its wintering distribution, poorly known, is probably northern and western Amazonia in South America (Bent 1949, AOU 1983, 1998, Ridgely and Tudor 1989). This species and Swainson's (Olive-backed) Thrush are the among the latest of the spotted thrushes to arrive during spring migration; late individuals linger south of the breeding grounds into June (Mengel 1965, Stevenson and Anderson 1994, J. V. Remsen, unpubl. data).



Map 1. Gray-cheeked Thrushes nest from easternmost Siberia across Alaska and northern Canada to Newfoundland and Labrador.

The Gray-cheeked Thrush has two currently recognized subspecies. The nominate form, *C. m. minimus*, breeds in Newfoundland and nearby mainland Quebec and Labrador. The other subspecies, *C. m. aliciae*, is found over the remainder of the species' range (see Map 1) (Ouellet 1993a).

Definitive Basic Plumage (Plate A)

The upperparts are a monotone, cool olive-brown or grayish-brown. The lores and rear eye-crescent (the rear portion of the eye-ring) vary from dingy buff to gray. The cheek can have a light grayish wash, but this character is not as noticeable as the bird's name implies. The basal part of the lower mandible is pale-flesh or yellowish-flesh, and the gape flanges are yellow. The throat and underparts are more finely spotted than those of other *Catharus* (except Bicknell's Thrush), often extending onto the belly, with the lower spots fading to a light gray. The background color of the malar region (feathering between the throat and cheek) and breast vary from clean white to lightly washed buffy (broadly overlapping in similarity with Bicknell's Thrush).

The sides of the breast and the flanks are washed with brownish-gray. The bases of the

GARY MESZAROS

This is a good view of a Gray-cheeked Thrush, probably of subspecies aliciae. *It is generally cold brown overall, but there seems to be a hint of warmer brown in the bases of the primaries, but not enough to suggest a Bicknell's. In addition, the primaries appear to be about one-and-a-third times longer than the tertials, too long-winged for a Bicknell's. Because it has no pale markings on the greater coverts, we can conclude that this bird is in definitive basic plumage. Note the extensive spotting onto the lower breast, and the brownish wash on the flanks, reducing contrast with the wings. This bird was photographed in Ohio.*

KEVIN T. KARLSON

Without any hint of pale markings on the greater wing coverts, we can safely age this bird as definitively plumaged. The primary bases look fairly cold-brown, and the primary extension quite long (but the view precludes us from calculating a ratio), suggesting that this individual is an aliciae Gray-cheeked Thrush. This angle gives us a good view of the breast spotting (the individual spots looking like horizontal rectangles or very wide triangles), and the flanks are clearly washed with grayish-buff, reducing contrast with the wings. This bird was photographed on the Dry Tortugas of Florida in April 1997.

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AJ has recently had his guide to the New World blackbirds published (Princeton), and is currently leading tours for Field Guides, Inc.

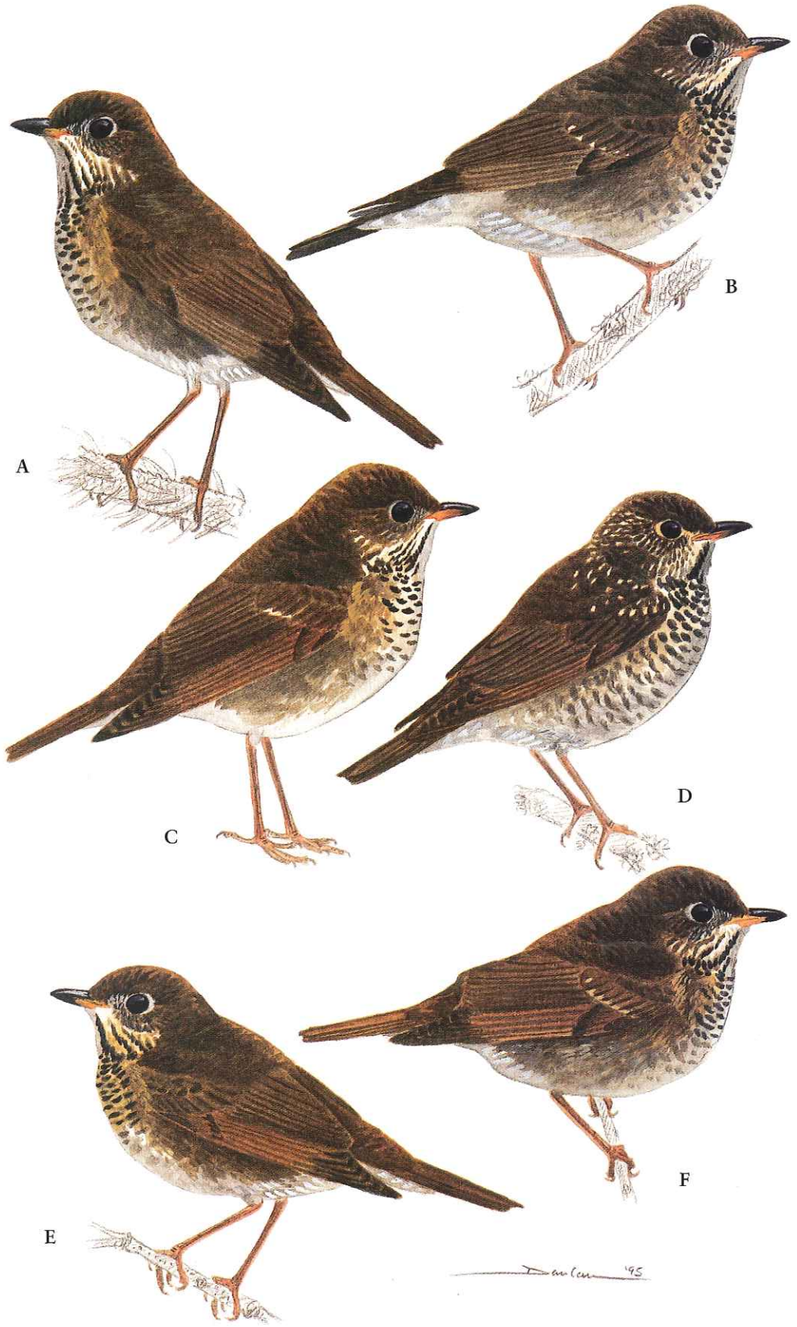


Plate A. Gray-cheeked Thrush and Bicknell's Thrush.
A. Definitive basic aliciae Gray-cheeked Thrush. B. First basic aliciae Gray-cheeked Thrush. This individual shows a greater amount of buff wash to the throat than bird "a". C. First basic minimus Gray cheeked Thrush. Note the warm brown wash to the primary bases and warm overall coloring. Such birds may not be separable from Bicknell's Thrush in the field, but note the primary extension on this individual. D. Juvenal aliciae Gray-cheeked Thrush. E. Definitive basic Bicknell's Thrush. This is a brighter individual displaying the maximum amount of buff on the throat. F. First basic Bicknell's Thrush. This is an example of a whiter-breasted bird.

primaries are a washed-out, grayish-brown in most individuals, but a warmer, reddish-brown in some (particularly *C. m. minimus*). The ratio of the folded primary extension to the length of the tertials is usually 1:1 or greater (Plate B, table). The coloring of the upperparts of *C. m. minimus* ranges from warm olive-brown to grayish-brown, intermediate between the color of *C. m. aliciae* and Bicknell's Thrush. As well, *minimus* appears to be more prone to showing extensive yellow coloration on the lower mandible. Burleigh and Peters (1948) made the observation that *C. m. minimus* can be either brownish or grayish (dimorphic), occurring in roughly equal numbers. This observation was also noted by Wallace (1939). The significance of this variation is not understood and has not been mentioned by recent authors. Either the *minimus* subspecies is highly variable or, at the time these workers were collecting on Newfoundland, they secured both *minimus* and migrant *aliciae* specimens.

KEVIN T. KARLSON

Here is a definitive basic Gray-cheeked Thrush, probably belonging to subspecies aliciae. *How can we tell? Again, look at the wings: there are no markings on the greater coverts, telling us that it is not a first basic bird, the tertial:primary extension is about 1:1, much longer than a Bicknell's Thrush, and the primary bases are fairly cold brown, suggesting the mainland subspecies* aliciae. *This photo was taken on the Dry Tortugas of Florida in April 1997.*

Juvenal plumage (Plate A)

The upperparts are cold gray-brown and heavily spotted with whitish-buff; these spots are generally larger than those of a juvenile Veery. The underparts are heavily spotted. There may be a buffy eye-ring, reminiscent of a Swainson's Thrush, but the lores are pale rather than dark, as in the latter species.

First Basic Plumage (Plate A)

As in other *Catharus*, Gray-cheeked Thrush has pale tips to the greater wing-coverts in first basic plumage, forming a faint wingbar. These tips tend to be a pale buff and, when not overly worn, contrast rather strongly with the bases of the covert feathers and primaries.

Similar Species

Typically the dullest-gray-brown member of the group, Gray-cheeked Thrush is most easily confused with "Olive-backed" Swainson's and Bicknell's Thrushes. The best mark to use to separate an "Olive-backed" Swainson's from a Gray-cheeked is the former's prominent spectacles (comprising the buffy eye-ring and supralores—the feathers immediately above the lores—contrasting with the dark lores), the latter having only a

ROB CURTIS

On this individual, the first thing to notice is the grayish-brown color of the primary bases and general lack of warm brown hues in the plumage. These, combined with the location, indicate that it is a Gray-cheeked Thrush of subspecies aliciae. *Furthermore, the pale buff tips to the outer two greater wing coverts make it a first basic plumaged bird. This photo was taken in Chicago, Illinois, in October 1993.*

DANIEL LANE

Here we have a first basic Gray-cheeked Thrush of subspecies aliciae. *This bird can be aged based on the small buff spots on the tips of the greater covert feathers. It is a fairly large-looking bird (compare to photos of Bicknell's Thrush), and exhibits cold brown bases to the primaries and tail, suggesting subspecies. The identification was clinched by recordings of its song (the best way to separate migrant "gray-cheeked thrushes"). The photo was taken in Passaic County, New Jersey, in May 1995.*

GEORGE NIXON

This individual has the plain face and cold brown upperparts of a "gray-cheeked thrush," so now the question is, which is it: Bicknell's or Gray-cheeked? The bases of the primaries look rather cold grayish-brown, there is almost no buff wash to the throat and breast, and the bill looks rather long, suggesting that it is an aliciae *Gray–cheeked Thrush. Compare the amount of pale color of the base of the lower mandible (greater than 1/2) to the photo at the bottom of page 328. The bird was photographed in Essex County, New Jersey, in October 1992.*

ROB AND ANN SIMPSON

Despite the generally bluish cast apparent in this photo, the primary bases of the bird appear to have a warm brown hue. The tertial:primary extension ratio appears to be about 1:1½, and there appears to be no hint of buff wash to the throat, suggesting that this bird may be a Gray–cheeked Thrush of subspecies minimus. *The bird can be aged as first basic based on the pale shaft streaks in its greater wing coverts and the inner-most median covert, as well as the retention of a single juvenal scapular feather with a pale shaft streak. This photo of a captive bird (about to be banded) was taken in October 1990 at the Thompson Wildlife Management Area in Virginia.*

DANIEL LANE

Looking up, we have a view of the underside of an aliciae *Gray-cheeked Thrush. While not visible in this photo, the base of the primaries of this bird were cold grayish-brown. Notice that the base of the lower mandible of this bird is more than yellowish (compare to the head shot at lower left on page 326). This bird also is exhibiting the dark grayish-brown wash typical of the two "gray-cheeked thrushes." To separate such a bird from Swainson's Thrush, note the face pattern and the shape of the breast spots (like horizontal rectangles or very wide triangles, suggesting a brickwork pattern). The bird was photographed in Passaic County, New Jersey, in May 1995.*

weak, broken whitish-gray eye-ring and grayish lores. Also, the face and breast are strongly washed with buff or ochraceous-buff in most Swainson's Thrushes. The shapes of the breast spots differ as well: on Gray-cheeked the spots seem horizontally rectangular, smaller, and more randomly scattered over the breast; the spots on Swainson's Thrush are more teardrop- or circular-shaped (Plate A in Part I). Veery tends to be more tawny above, and its spotting pattern underneath also differs from that of the Gray-cheeked Thrush (Plate A, in Part I; also see discussion under Veery in Part II). Hermit Thrush can be distinguished by the contrast of its reddish rump with the back and by its distinct, narrow, pale, sometimes broken eye-ring. Also, Hermit Thrush habitually cocks its tail, unlike the Gray-cheeked. See the description of Bicknell's Thrush for its separation from Gray-cheeked Thrush.

Vocalizations

The song of Gray-cheeked Thrush is similar to that of Veery, but it is more "wiry" and does not fall in pitch throughout, having one or more upwardly inflected notes. It is a variable cascade of notes, some falling, others rising, but always ending on a falling note: *dze dze, vree-vree, veer-VEER*. The introductory note is a thin buzz that is not loud and does not carry far. The body of the song consists almost entirely of the ethereal overtones that characterize all *Catharus*, but it has less of the rich flutiness given by the other members. The most common call, also the nocturnal flight call (Evans 1990, 1994), is a slightly hoarse *quei-ah!* or *creiah!*, initially rising, but ending on a downward inflection, and having an almost doubled quality; but it can be monosyllabic (M. O'Brien, pers. comm., D. Lane, unpubl. data). To some observers, it recalls the flight call of Evening Grosbeak *(Coccothraustes vespertinus)* (J. V. Remsen, pers. comm.). It is very similar to the call note of Bicknell's Thrush, but rises in the middle rather than reaching its highest pitch in the beginning (Evans 1994). Delivery of this call-note varies considerably, however, and the calls of the two species are probably best considered to be largely indistinguishable (D. Lane, unpubl. data). Gray-cheeked Thrush's call-note is usually higher and thinner than that of Veery, and has a more shrill or ringing quality. Another call given is a rough purring similar to the analogous call of Swainson's Thrush (D. Lane, pers. obs.).

Species Identification Bicknell's Thrush *(Catharus bicknelli)*

The breeding range of Bicknell's Thrush does not overlap that of Gray-cheeked (Ouellet 1993a). For an excellent summary of the taxonomic history of these two recently split taxa, see McLaren

ROB CURTIS

With no warm brown hues visible on this bird, particularly on the primary bases and tail, we can conclude that it represents a member of subspecies aliciae *of the Gray-cheeked Thrush. The pale tips to the wing coverts suggest that it is a first-spring bird. Notice the very long primaries of this individual (tertial:primary extension ratio of about 1:1), clearly placing it outside of the overlap zone between Gray-cheeked and Bicknell's thrushes. Also note the gray-brown flanks and breast side which do not contrast strongly with the wings, a way to separate gray-cheeked thrushes from Veeries. This bird was photographed at High Island, Texas, in May 1998.*

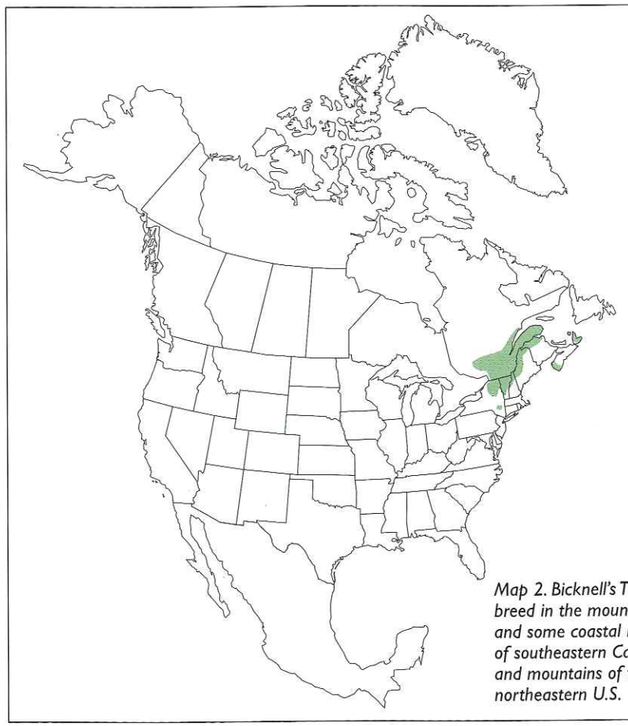
thrush ID: gray-cheeked and bicknell's

GEORGE NIXON

This is a juvenile thrush photographed while it was bathing at a puddle. This is a fairly rare photo (as indeed are any of juvenile Catharus*!), and represents a plumage probably not encountered often. The aging is fairly simple, as the bird's back, wing coverts, and nape are covered in buffy spots. Also note the fluffier overall appearance (juvenile feathers of most birds typically are more loosely constructed, thus create this "disheveled" appearance) and the blackish scalloping on the belly and flanks. While the back and wings look rather warm brown, juveniles of all* Catharus *seem to have the propensity to be warmer than their parents. The face has a broad buffy rear eye crescent, but no noticeable buff on the supraloral or before the eye. This photograph is of a Gray–cheeked Thrush of subspecies* minimus *in Denali National Park, Alaska, in September 1991.*

(1995). Bicknell's Thrush inhabits mountains and some coastal regions of southeastern Canada and mountains of the northeastern U.S. (see Map 2) in the spruce-fir or mixed, birch-spruce-fir forest that crowns the highest peaks (ranging from about 3,500 feet [1,200 meters] and higher in elevation in the southernmost part of its breeding range) (Ouellet 1993a, Atwood et al. 1996). In the mountains, Bicknell's Thrush breeds at higher elevations than other eastern *Catharus*, occurring even into the krummholz (stunted-tree) zone. At lower elevations, it overlaps with Hermit and Swainson's Thrushes. Bicknell's Thrush can be encountered on peaks capped with spruce-fir forest, some second-growth birch *(Vetula sp.)* stands, and in coastal salt-stunted spruce-fir forest (Ouellet 1993a, Atwood et al. 1996; W. Ellison, pers. comm.). Its entire breeding range is confined to the following states and provinces: New York, Vermont, New Hampshire, Maine, Nova Scotia, New Brunswick, and southeastern Quebec; historically, it bred in Massachusetts (AOU 1995, 1998; Ouellet 1993a, b; Atwood et al. 1996, Rimmer 1996).

Apparently, Bicknell's Thrush migrates primarily east of the Appalachian Mountains (May, September to October) (McLaren 1995; specimens at American Museum of Natural History and Archbold Biological Station) and winters in montane forests in the Greater Antilles,



Map 2. Bicknell's Thrushes breed in the mountains and some coastal regions of southeastern Canada and mountains of the northeastern U.S.

A					
taxon	n	wing-chord	primary extension	tertial length	pri:tert ratio
C. bicknelli	27	mean=92 mm (89-99 mm)	mean=26 mm (21-33 mm)	mean=29 mm (22-34 mm)	mean=0.90 (0.64-1.10)
C. m. minimus	27	mean=106 mm (101-112 mm)	mean=31 mm (27-35 mm)	mean=31 mm (27-37 mm)	mean=1.02 (0.88-1.22)
C. m. aliciae	27	mean=102 mm (100-113 mm)	mean=31 mm (28-37 mm)	mean=29 mm (24-37 mm)	mean=1.04 (0.84-1.33)

B					
Ouellet 1993a	sex	n	mean wing-chord	maximum	minimum
C. bicknelli	m	74	92.92	98.8	84.8
	f	19	87.78	95.2	81.7
C. m. minimus	m	59	101.88	107.1	94.6
	f	26	97.58	102.5	93.4
C. m. aliciae	m	31	103.4	107.9	94.4
	f	15	98.97	103.4	95

*Table A. Wing-chords, the length of the portion of the primaries projecting beyond the tertials, and the length of the visible portion of the tertials were measured from specimens of the three taxa in the "gray-cheeked" thrush complex (*Catharus bicknelli, C. minimus minimus, *and* C. m. aliciae*) housed in American Museum of Natural History and Louisiana State University Museum of Natural Science. Here, the mean lengths are given, followed by the range across the specimens (in parentheses). Also presented here is the ratio of primary extension to tertial length. Individuals with shorter primary extension length than tertial length will have a ratio of less than 1, whereas those with a longer primary extension will have a ratio greater than 1. Note that male and female measurements are combined, masking sexual dimorphism.*

Table B. Ouellet's (1993a) measurements of wing-chords are presented. Notice that sexual dimorphism is present in each taxon. Specimens of various localities in the eastern United States and Canada were measured.

particularly Hispaniola (AOU 1957, 1995, 1998, Ouellet 1993a). It has been found as a vagrant inland to the eastern Great Lakes region and along the western slope of the Appalachians (James 1991, Ouellet 1993b, D. McRae, pers. comm.). Specimens and banding records from Ontario are currently being reviewed by the Ontario Bird Records Committee (Dobos 1996), and there is a single specimen from Ohio (J. Dunn, pers. comm.).

Definitive Basic Plumage (Plate A)

The upperparts vary from dull brown to warm olive-brown, warmest (almost chestnut) on the tail and bases of the primaries (Ouellet 1993b). The lores and post-ocular crescent are dull gray. The throat and breast are washed with light buff and variably spotted with dark-brownish or blackish spots. The basal portion of the lower mandible is pale to bright yellowish, and the gape is yellow. The flanks are washed grayish-brown. The ratio of the folded primary extension to the length of the tertials is 1:1 or less (Plate B, table).

Juvenal Plumage

Probably indistinguishable from juvenal Gray-cheeked Thrush. First-basic plumage (Plate A) resembles that of Gray-cheeked Thrush. The pale tips to the greater coverts are usually paler whitish-buff than those of Veery.

Similar Species

Bicknell's versus Gray-cheeked Thrush. These two species are very similar to one another, with few field marks useful in separating the two (MacLaren 1995). Indeed, individual variation and sexual dimorphism produce much overlap in plumage characteristics between the two species (Ouellet 1993a). More study is needed to resolve the problem. Several field marks, however, have been suggested to separate the two taxa (Ouellet 1993a, Curson 1994).

Bicknell's averages smaller (6 to 6¾ in.; 15 to 17 cm) than Gray-cheeked Thrush (6¼ to 7½ in.; 16 to 19 cm), but small

STEVEN D. FACCIO

Given the fact that this bird is on a nest in Vermont, it is easy to identify it as a Bicknell's Thrush. However, plumage characters to note are the plain face, blackish malar streak and breast spots (the latter are barely visible), and cool brown upperparts contrasting with the warm brown tail. The last character seems abnormally warm and contrasting even for a Bicknell's and suggests a Hermit Thrush, but the lack of a complete eye-ring rules that species out immediately. Also note that the lower mandible is largely pale yellowish in color; this is typical of the species. Veery would show a pinker lower mandible. This bird was photographed on Mount Stratton, Vermont, in July 1997.

female Gray-cheeked Thrushes overlap in size with larger male Bicknell's Thrushes. In any case, subtle differences in size are difficult to judge in the field and are useful only in the hand. The relative wing length differs in these two species. Perhaps the best way to judge this in the field is to note the ratio of the length of the primary extension beyond the tertials to the length of the exposed tertials (Plate B and table), much as Whitney and Kaufman (1985) suggested for *Empidonax* flycatcher identification. Observers need to be aware that fluffed rump feathers may conceal the tertials, however. In a Bicknell's Thrush, the primary:tertial ratio should be 1:1 or less, whereas in Gray-cheeked Thrush it should be 1:1 or greater. Further observations of the utility of this feature are encouraged. In the hand, differences in wing-chord are the best way to distinguish the two species, Bicknell's having the shorter wing (85 to 99 mm; Gray-cheeked measures 97 to 113 mm [Pyle 1997], Ouellet 1993a). Note, however, that there is some overlap in the wing-chord, and also in primary extension. The wing-chord length of both species shows sexual dimorphism, with females measuring shorter than males (Pyle 1997, Ouellet 1993a). In addition, individuals in first-basic plumage average shorter-winged than older birds (Phillips 1991; W. Ellison, pers. comm.).

BARRETT AND MACKAY PHOTOGRAPHY

A typical view of Bicknell's Thrush on the breeding grounds shows the bird perched at the apex of a stunted spruce tree. While the wing and tail are largely obscured by branches, one can still see the markings that separate this species from Veery: the bold, blackish spotting on the breast, the grayer side of the face, the grayish-brown wash to the side of the breast and flanks (which, were the wings exposed, would not contrast with them strongly), and the colder brown color of the upperparts. This photograph was taken in Nova Scotia in June 1997.

Another character that may prove useful in field identification is the hue of brown at the bases of the primaries. In all *Catharus*, the primary bases are usually a richer reddish-brown or a paler grayish-brown than the rest of the wing. In Bicknell's, the primary bases are a slightly warmer, more reddish-brown than the rest of the wing (Curson 1994; pers. obs. based on specimens). In most Gray-cheekeds, the primary bases are a paler and more washed-out grayish-brown than the rest of the wing. Some (most?) individuals of *C. m. minimus* have "warmer" brown primary bases, however, and may be indistinguishable from Bicknell's. As a rule of thumb, any Bicknell's/Gray-cheeked Thrush (hereafter "gray-cheeked thrush") that has grayish primary bases is a Gray-cheeked Thrush. A gray-cheeked thrush with reddish-brown primary bases may be either a Bicknell's or a Gray-cheeked Thrush

BARRETT AND MACKAY PHOTOGRAPHY

Some recent articles have suggested the extent of pale color on the lower mandible as a field mark separating Bicknell's from Gray-cheeked Thrush (more pale in the former, less in the latter). Here the dark on the lower mandible on this Bicknell's Thrush seems to cover between ⅓ and ½ of the outer portion, which is about the same as on many Gray-cheeked Thrushes. Also, the color of the base of the lower mandible has been suggested to be a field mark: yellow in Bicknell's, yellowish-flesh in Gray-cheeked. We feel, however, that there is enough individual variation in bill color within each species, and this can be further affected by lighting, as to render this field mark unreliable. Photo was taken in New Brunswick, in June 1997.

BARRETT AND MACKAY PHOTOGRAPHY

Here we have a Bicknell's Thrush in the hand. The edges of the primaries look colder brown than is typical of the species, but this, and the washed-out appearance of the throat and breast are probably due to the strong flash used when taking the photo. Note, however, the rather short primary extension (tertial:primary extension ratio is about 1:4/5), the yellow base to the lower mandible, and the wash of grayish-brown to the sides of the breast and flanks. This photo was taken in Cape North, Cape Breton, Nova Scotia, in June 1997.

(pers. obs. based on museum specimens identified by wing-chord and on field observations of individuals identified by song).

Back/tail contrast, similar to but less noticeable than in Hermit Thrush, has been widely suggested as a distinction between Bicknell's Thrush and Gray-cheeked Thrush (Ouellet 1993a, Curson 1994, McLaren 1995). On Bicknell's Thrush, the tail and uppertail coverts are a richer chestnut-brown (of variable intensity), whereas the uppertail coverts and tail of *aliciae* Gray-cheeked Thrush is olive-brown and concolor with the back. Again, a bright *minimus* Gray-cheeked Thrush can look very like a Bicknell's Thrush. In our opinion, the contrasts of color within the wing are probably easier to see and thus a more objective field character than the back/tail contrast. Still, the observer must be careful in determining the color of brown at the primary bases because of variability introduced by lighting and viewing angle. A broadside view under uniform lighting is the best circumstance under which to make such a judgment.

Finally, the overall color of the upperparts should be noted. Bicknell's Thrushes are warmer brown above than *aliciae* Gray-cheeked Thrushes, which tend to be a more washed-out, "colder" grayish-brown above. The flanks of a Bicknell's appear to reflect this warmer brown tone as well, providing a stronger contrast with the whiter belly than the more washed-out, grayer flanks and belly of a Gray-cheeked. The subspecies *minimus* tends to be a warmer brown than does *C. m. aliciae* and may be as warm-brown above as Bicknell's Thrushes (note that this has been reversed under "geographic variation" on page 395 in Pyle 1997). Some Bicknell's Thrushes can be warmer brown above than any Gray-cheeked Thrush, approaching the color of dark Veeries (see Part II).

Ouellet (1993a) and Curson (1994) presented several additional characters to separate Bicknell's from Gray-cheeked that we believe to be not useful in field identification. Ouellet (1993a) suggested bill color as a mark to distinguish the two forms, describing the base of the lower mandible of Bicknell's Thrush as pale yellow, especially on the gape, whereas Gray-cheeked Thrush is more flesh or yellowish-flesh color. This character is inconsistent, however, because some Gray-cheeked Thrushes have yellowish mandibles, and all have yellow

DANIEL LANE

While not identified in the field, this bird is likely a Bicknell's Thrush. It has rather warm brown on the bases of the primaries and tail, a fairly strong buff wash to the throat and upper breast, and generally petite structure. Furthermore, tape recordings of its calls were made, and these match those of confirmed Bicknell's Thrushes from the breeding grounds. To separate such an individual from a dark Veery, note the blackish spotting on the throat and breast, and yellowish base to the lower mandible. Photographed in Essex County, New Jersey, in May 1997.

DANIEL LANE

Here one can see that the primary extension of this bird looks somewhat short (tertial: primary extension is about 1:¾), and the bases of the primaries look fairly warm brown in color. Furthermore, the bird looks relatively petite, probably due to a shorter bill and tail, than a typical Gray-cheeked Thrush. While eyeballing the overall size may hint at a given bird's identity, there is overlap in measurements between the two birds, and thus should not be used to make a certain identification of a non-singing migrant or vagrant. This photo was taken on Slide Mountain in the Catskills of New York in July 1997.

DANIEL LANE

This is the same individual illustrated in above. Photographed at the type locality (the place from where the species was originally described) of Bicknell's Thrush in July, this bird's identity is fairly straightforward. At this time of year, however, thrushes are at their most worn and faded, thus making the bird look whiter-breasted than it would appear on migration. Nevertheless, note the fine blackish spotting on the throat and breast, the yellowish base to the lower mandible, the relative lack of any distinctive face pattern, and the grayish-brown wash to the flanks (appearing somewhat weak here).

gapes. Apparently, this coloration is most prevalent on *minimus* Gray-cheeked Thrushes (Knox 1996; R. Dawson, pers. comm.; see photos in MacLaren 1995). Yellowish coloration on the lower mandible, however, may be a useful character for separating gray-cheeked thrushes from Swainson's Thrush and Veery, both of which have pinkish bases to their lower mandibles (D. Sibley and W. Ellison, pers. comm.), but we recommend using this character only under exceptional viewing conditions. Curson (1994) stated that the extent of the pale area at the base of the lower mandible is a key field character separating the two taxa, and this character was also mentioned by McLaren (1995) and Pyle (1997). On Bicknell's Thrush, the pale area extends at least half-way to the tip of the lower mandible, whereas it extends half-way or less on Gray-cheeked Thrush. We believe this character is not reliable because many migrating Gray-cheeked Thrushes observed by Lane in New Jersey and Louisiana (identified by their songs) had pale basal regions on their lower mandibles that extended at least half way to the tip. Specimens at Louisiana State University Museum of Natural Science (LSUMZ) were examined, and 6 percent showed at least half of the lower mandible pale (a sample of 85 specimens). These specimens apparently all represented subspecies *aliciae* and, therefore, may not represent the variation within the nominate subspecies. Reported differences in tarsus color (Ouellet 1993a)

are probably even more difficult to discern in the field.

In summary, separating a Bicknell's Thrush from a Gray-cheeked Thrush in the field is extremely difficult or impossible based on present knowledge, particularly given the variability of the two species. Perhaps the best way is by carefully studying (especially tape-recording) the voices of singing birds (useful away from breeding grounds only for males migrating in spring, when singing is infrequent). Identification of a non-singing, migrating bird is best attempted by legally netting, carefully measuring the individual, and taking careful notes on the plumage and soft-part colors (Smith 1996). Otherwise, most individuals are best left identified simply as "gray-cheeked thrush sp." This has been suggested for other identification complexes such as Alder and Willow ("Traill's") Flycatchers (Whitney and Kaufman 1986).

Bicknell's versus other Catharus Thrushes

Because of the similarity between this species and Gray-cheeked Thrush as discussed above, field marks separating the latter species from other *Catharus* thrushes are good for Bicknell's Thrush as well (see "similar species" under Gray-cheeked Thrush, as well as under Veery in Part II). A very bright Bicknell's Thrush may have a similar back/rump contrast to that of Hermit Thrush (see Figure 2 in MacLaren 1995). Such a Bicknell's Thrush can be identified from a Hermit Thrush by its lack of a complete eye-ring, the shape of its breast spots, and by its lack of the tail-cocking behavior.

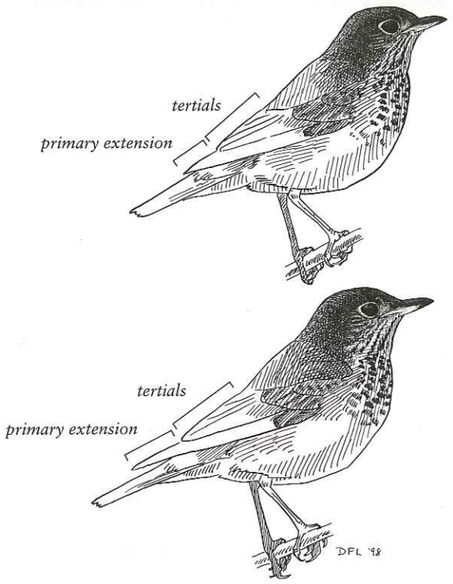


Plate B. Primary extension of Gray-cheeked and Bicknell's Thushes. Note the difference in the length of the exposed primaries beyond the tertials on the folded wing. In many Bicknell's Thrushes, the primary extension is slightly shorter than the length of the tertials, whereas on many Gray-cheeked Thrushes the ratio is the opposite. Unfortunately, there is extensive overlap, and this character is useful only on birds which are near the extremes of primary length for the two species (see Table on page 325). This mark should not be used alone, and its field value is tentative at best.

Vocalizations

The song of Bicknell's Thrush has the same quality as that of Gray-cheeked Thrush, but the pattern is different, ending on a rising phrase: *di di di veer-veer vre-vree?* The song is perhaps the best character for separating Gray-cheeked and Bicknell's Thrushes. The call is a sharp, ringing *queer!* or *queeah!* very like the call of Gray-cheeked Thrush, but it is highest pitched at the very beginning. By contrast, Gray-cheeked Thrush's call is highest pitched near the middle of the call, giving it an almost doubled sound (Evans 1994). The delivery of these call-notes may vary sufficiently within both taxa to render them indistinguishable (D. Lane, unpubl. data). The *queer!* call is also the nocturnal flight note of Bicknell's Thrush (Evans 1994). Bicknell's also gives the *seee* alarm note of other *Catharus* and can give a harsh chatter with aggressive singing, as does Veery (W. Ellison, tape recording).

Summary

The six North American members of the *Hylocichla/Catharus* thrush group are similar in plumage, but most can be properly identified with careful observation. Wood and Hermit Thrushes are the most distinctive; the other four—Veery,

Gray-cheeked, Bicknell's, and Swainson's—are more difficult. The members of *Catharus*, with the exception of Bicknell's Thrush, each have subspecies that differ in plumage, complicating the picture. The recent split of Bicknell's Thrush from Gray-cheeked Thrush provides an additional identification challenge. Several tentative field marks discussed may help separate the latter two, as well as to separate Bicknell's from darker Veeries. We emphasize that some field marks need further field-testing, but they are presented here to give direction to future research and observation. In some cases, a silent *Catharus* thrush may not be identifiable, and must be called simply "*Catharus* sp." or "gray-cheeked thrush sp."

Addendum

In 1996, another member of the genus *Catharus* made an appearance in the ABA Area: an Orange-billed Nightingale-Thrush (*Catharus aurantiirostris)* was caught and banded in south Texas. Generally the size of a Hermit Thrush, this gray-breasted, "spot-less" thrush is fairly distinctive, with a bright orange bill, thin orange orbital ring, and bright yellow-orange legs (Howell and Webb 1995). For further details see Papish et al. (1997).

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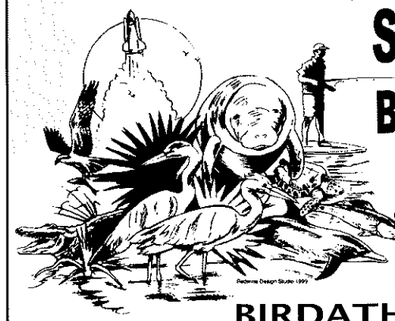
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