



# Identification of *Hylocichla/Catharus* Thrushes

## Part I: Molt and Aging of Spotted Thrushes and Field ID of Wood Thrush and Hermit Thrush

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**T**HE SIX NORTH AMERICAN species of spotted thrushes are well known for their beautiful, ethereal songs. In appearance, they resemble one another so closely that, in many cases, a good view is needed for positive field identification. Identification is complicated further by geographic variation in most species. Space constraints do not permit most field guides to cover these thrushes adequately. This limited treatment results in a lack of appreciation among many observers of the geographic variation in plumage among these birds.

As a group, the spotted thrushes have proportionally large eyes, giving them the impression of looking somewhat wide-eyed, innocent, or startled. They spend much time hopping about on the

*Note the Swainson's-like face pattern in this worn summer adult Hermit Thrush of the Eastern group.*

*But also note that the pale supralores are separated from the eye-ring by a dark area. Also, the white throat lacks the buff wash that would be seen on a Swainson's Thrush, and the breast streaking is more extensive on Hermit Thrush than on Swainson's Thrush. This bird was photographed by Lang Elliott in the Adirondack Mountains, New York, in June 1995.*

ground in a manner similar to that of an American Robin (*Turdus migratorius*), turning over leaves and searching for invertebrates. Unlike the robin, however, they are seldom seen in the open. Instead, they normally confine their activities to the forest floor, but during migration they may be found on roadsides, along shrubby borders, and in suburban gardens. In the autumn (and winter for the Hermit Thrush), the spotted thrushes also feed extensively on berries, frequently in the canopy. When flushed, these birds typically fly silently up to a low branch (usually on the far side of a tree from an observer) and stare at the cause of the disturbance. In flight, all the thrush species discussed in this series display a pale bar on the wing from the bases of the secondaries to the bases of the inner primaries (illustrated on page 122). This bar is most visible from below, but can be seen from above, particularly during the downstroke of the wing-flap, when the wing is fully extended. This mark can be useful in identifying a "brown bird" flying away in forest under-story as a spotted thrush.

A number of works that have dealt with the identification of spotted thrushes in more depth,

including those of Phillips et al. (1964), Phillips (1991), and Dunn and Garrett (1983 a-d), are not easily accessible to many readers or have a limited geographic scope. In this three-part series we will discuss the field-identification characters of the six members of the spotted thrush group. In Part I, we present introductory material and discuss Wood Thrush (*Hylocichla mustelina*) and Hermit Thrush (*Catharus guttatus*). In Part II, Veery (*C. fuscescens*) and Swainson's Thrush (*C. ustulatus*) will be covered. And in Part III, Gray-cheeked Thrush (*C. minimus*) and Bicknell's Thrush (*C. bicknelli*) will be presented. In many respects we move progressively in these three articles from the relatively simple to the increasingly complex. Of course, throughout the three articles we

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AJ has recently had his guide to the New World blackbirds published (Princeton) and is currently working on a field guide to the birds of Chile.

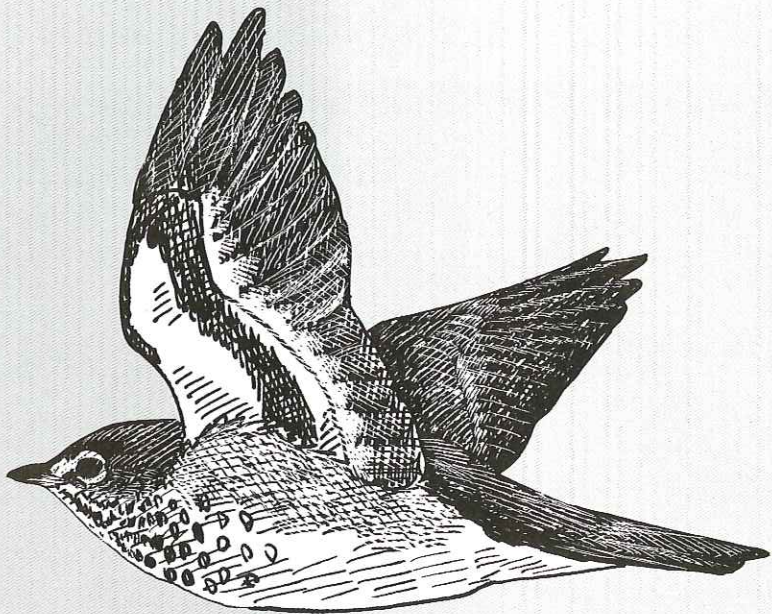


follow the specific and subspecific taxonomy established by the American Ornithologists' Union (1957, 1983, 1998), and subsequent taxonomic papers (Burleigh and Duvall 1959, Mayr and Paynter 1964, Aldrich 1968, Ouellet 1993).

Plumages, Molts, and Aging

In the following descriptions, definitive basic (= adult), juvenal, and first basic (= first winter/first summer) plumages are described. North American thrushes have no prealternate molt, with the possible exception of Wood Thrush (Pyle 1997). *Hylocichla* and *Catharus* thrushes have only three plumages: juvenal, first basic, and definitive basic, summarized in Table 1. They are in their freshest plumage in fall and most worn and faded by summer. Thus, body color becomes slightly paler during the year, but this change does not affect identification markedly (Phillips et al. 1964, Aldrich 1968, Phillips 1991). For their first few weeks of life (June to August), a spotted thrush wears a juvenal plumage that differs from subsequent plumages in having teardrop-shaped, buff spotting on the scapulars, and buff spotting on the crown and nape. The wing coverts are tipped buff or have pale shaft-streaks, especially evident on the median and lesser coverts. Usually a bird of this age exhibits a fleshy gape. Beware that adult *Catharus* tend to show a more distinct, paler gape than do other adult passerines, but this color is not usually as obvious as on a young bird.

Spotted thrushes, with few



DANIEL LANE

A spotted thrush, such as this Swainson's Thrush, in flight will show the pale secondary bar visible on the underwing of *Catharus* and *Hylocichla* thrushes. This bar is less visible from above.

exceptions, molt their juvenal plumage before migrating. Occasionally, a juvenile will delay this first prebasic (= postjuvenal) molt or exhibit arrested molt until reaching its wintering grounds (T. Lloyd-Evans, pers. comm.; specimens at Manomet Center for

Table 1 Plumages, Molts, and Aging of <i>Hylocichla</i> and <i>Catharus</i> Thrushes	
Juvenal Plumage	For the first few weeks of their lives, juvenile thrushes will have teardrop-shaped, buff spotting on the scapulars, and buff spotting on the crown and nape. The wing-coverts are tipped buff or have pale shaft-streaks, especially evident on the median and lesser coverts. Usually the juvenile will have a bill with noticeably bright-colored gape flanges.
First Basic Plumage	With the first prebasic molt, the young thrushes reach this plumage. With the exception of the wing pattern, they look like fully adult birds. These first winter/first summer birds usually have buffy tips or shaft-streaks to the greater coverts forming a thin wingbar.
Definitive Basic Plumage	Once the thrushes go through their second prebasic molt (late in their first full summer), they will look like the classic adults shown in most field guides.

Conservation Sciences). This delay appears to be more common with the members of *Catharus* that migrate long distances: Veery and Gray-cheeked and Swainson's Thrushes.

With the first prebasic molt—which replaces all feathers except greater wing-coverts (some inner ones may be replaced), primaries, secondaries, and rectrices—young thrushes acquire first basic plumage that is mostly indistinguishable, with the exception of greater wing-covert pattern, from the definitive basic plumage of adults. Young thrushes do not achieve full definitive basic plumage, however, until they are one year old, following the second prebasic molt late in their first full summer. In their first year, the greater, and occasionally the median, wing-coverts of thrushes usually have buffy tips or shaft-streaks (of variable pattern within each species) forming a thin wingbar, which often lasts until the second prebasic molt. This feature is usually easy to see in the field and, when present, makes aging

of *Catharus* thrushes possible, given a good view (see Table 2). Because of feather wear, these buffy tips are not generally as apparent in spring as in autumn, but buffy shaft-streaks on the wing-coverts of *Catharus* thrushes usually are still evident. Some first-fall and first-spring thrushes may not show any obvious pale markings to the wing-coverts, but instead show adult-type covert feathers (P. Burke, pers. comm.; A. Jaramillo, pers. obs.; Table 2). These birds can be aged only in the hand by incomplete skull ossification (in fall and to a lesser extent in spring) and by rectrix (tail feather) shape (Pyle 1997, but note that the latter aging character seems weak, based on specimens in the Louisiana State University Museum of Natural Sciences [LSUMZ]). Roberts (1955) mentioned that retention of spotted coverts is more prevalent in females. Clearly, more study is needed.

Surprisingly, the use of pale-tipped wing coverts as an aging character has been overlooked by many North American birders and field guides, but has been more widely recognized by banders and European birders (e.g., Pyle 1997, Lewington et al. 1991, Jonsson 1992, Bradshaw and Dowdall 1993). Wood Thrushes in definitive basic plumage can have pale-tipped wing-coverts, making this character inappropriate for aging in this species (Pyle 1997; T. Lloyd-Evans, pers. comm., specimens at LSUMZ). This character should be looked for in vagrant *Catharus* or birds out of season, as such irregular occurrences may be age-related. We should note

Table 2  
Frequency of "Expected" Plumages for Different Ages of *Catharus* Thrushes

Taxon	"Expected" Plumage for Age	Adult with "First Basic" Plumage	First Fall with "Definitive" Plumage	Percent Exhibiting "Expected" Plumage
Veery	5	0	0	100 (n=5)
Gray-cheeked Thrush	6	0	0	100 (n=6)
Russet-backed Swainson's Thrush	3	0	0	100 (n=3)
Olive-backed Swainson's Thrush	33	1	13	70.2 (n=47)
Western Hermit Thrush	7	0	1	87.5 (n=8)
faxonii Hermit Thrush	20	1	4	80 (n=25)

Using the collection at Louisiana State University Museum of Natural Science (LSUMZ), specimens collected between August and November were examined to see the correlations among wing-covert pattern, rectrix shape, and skull ossification. In all taxa, "expected" plumages predominated, with first fall birds exhibiting "adult" plumage occurring in those taxa represented by larger sample sizes. Only two cases of adults exhibiting "first basic" plumage were noted, and one of these (faxonii Hermit Thrush) was from late November, when a first-basic bird may have a completely ossified skull.



GEORGE NIXON

Juvenile thrushes are easily aged by the pale-centered crown and upperpart feathers. Note that the underpart pattern is due to black feather-tips rather than feather-centers as on older stages. The rufous tail and wing panel help to identify this as a Hermit Thrush. This photo was taken in the Chiricahua Mountains, Arizona, in July 1989.



that this aging character is *not* important to species identification, however.

In thrush identification, the color of brown on the back is important to note, but care must be taken in assessing the color of the upperparts (Dunn and Garrett 1983a, McLaren 1995). Reddish-brown can look like dark olive-brown under the poor lighting conditions in which these birds often are seen. Conversely, olive-brown can sometimes look brighter, almost reddish, in strong sunlight. Also, flank color is useful in separating several species and subspecies within *Catharus*. Again, care must be taken to con-

firm that the flanks truly are visible (e.g., not concealed by the wing), and lighting conditions must be optimal. Keep in mind that some individual variation may affect the color of brown or gray apparent on the flanks. Therefore, we urge that this character be used in conjunction with other field marks (e.g., Dunn and Garrett 1983a).

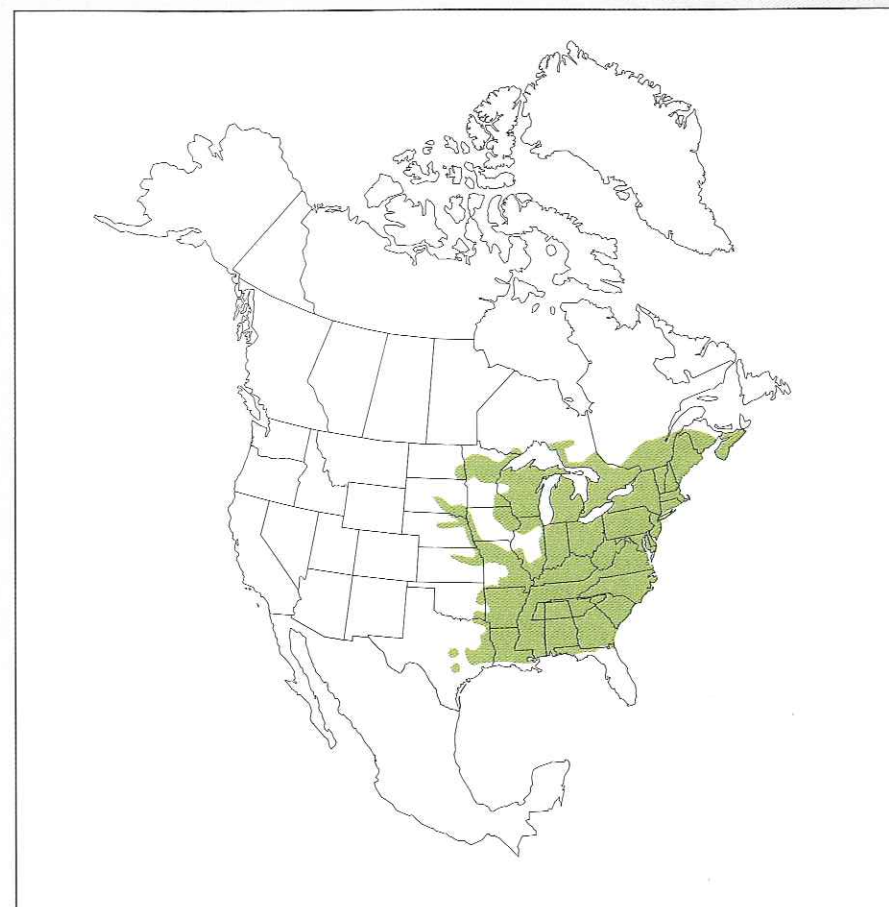
Despite much published work, *Hylocichla/Catharus* field identification remains complex. A significant problem with the study of museum specimens (from which much information for this article was gathered) is that they are prone to "foxing" (i.e., fading to a

reddish color) with age. Thus, analyses using only skin collections may obscure real differences in the birds or may give misleading results. Care has to be taken to compare skins of similar museum ages. Bird banding offers an alternative solution to the problem, allowing for the photography of live birds with the appropriate color standards for reference. Unfortunately, most banding occurs at migratory sites rather than in breeding areas where correct subspecific identification can be inferred from the locality.

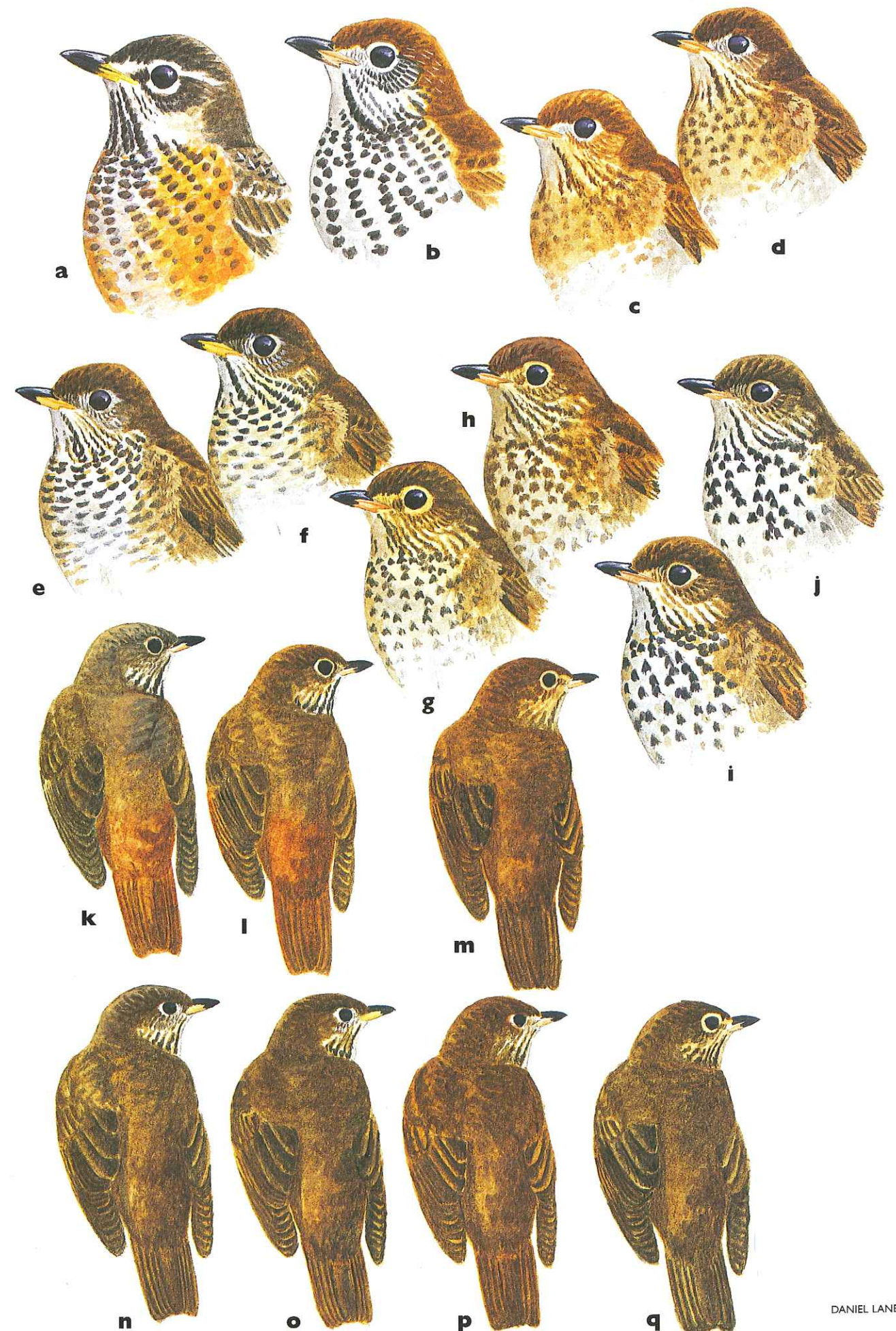
Before we delve into the identification of the spotted thrushes, it should be pointed out that American Robins in juvenal plumage—present during summer and early autumn—may be confused with spotted thrushes by an inexperienced birder because they are heavily spotted with dark gray underneath, and with buff or whitish above. However, a juvenile American Robin is easily distinguished from the true spotted thrushes by its larger size, reddish-washed breast and flanks, and grayish crown and back (Plate A).

## Plate A

- a. Juvenal American Robin
- b. Wood Thrush
- c. fuscescens Veery
- d. Dark salicicolus Veery
- e. aliciae Gray-cheeked Thrush
- f. Bicknell's Thrush
- g. swainsoni Swainson's Thrush
- h. ustulatus Swainson's Thrush
- i. faxoni Hermit Thrush
- j. guttatus Hermit Thrush
- k. auduboni Hermit Thrush
- l. faxoni Hermit Thrush
- m. ustulatus Swainson's Thrush
- n. minimus Gray-cheeked Thrush
- o. Bicknell's Thrush
- p. salicicolus Veery
- q. swainsoni Swainson's Thrush

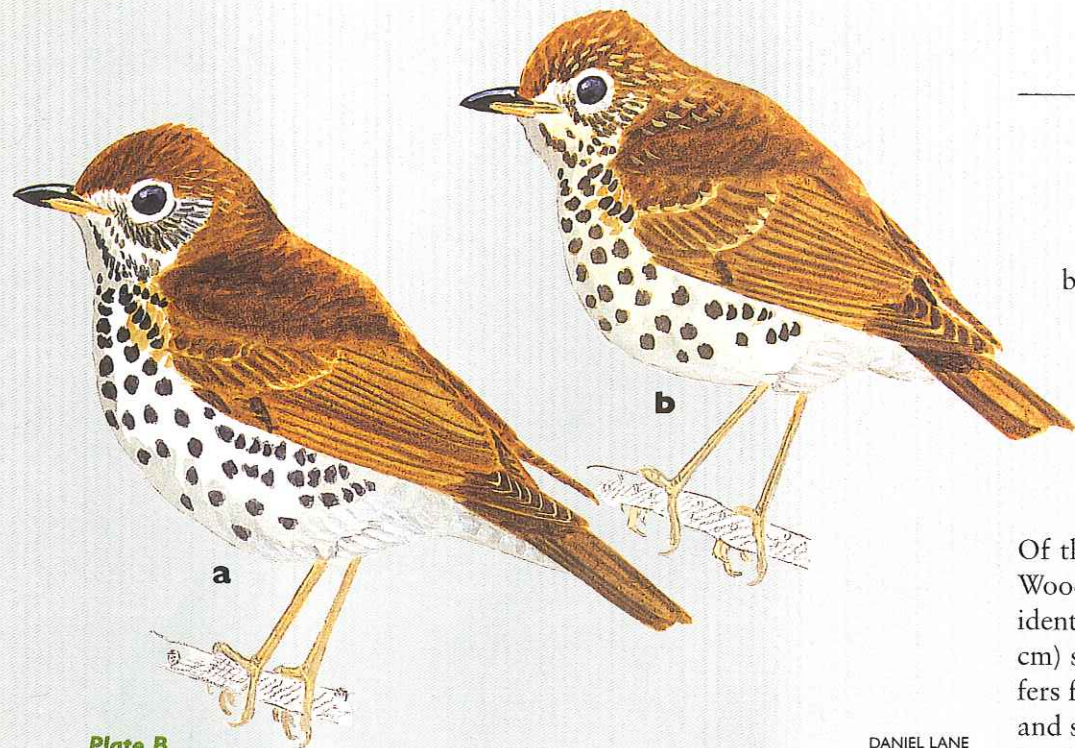


Map 1. Wood Thrushes breed primarily in dense deciduous forests from New Brunswick to North Dakota, southward to northern Florida, the Gulf states, and west to eastern Texas.



DANIEL LANE





**Plate B**  
a. Definitive basic Wood Thrush.  
b. Juvenal Wood Thrush.

DANIEL LANE

### Species Identification Wood Thrush (*Hylocichla mustelina*)

This widespread eastern species breeds primarily in dense deciduous forests from New Brunswick to North Dakota, south to northern Florida, the Gulf states, and west to eastern Texas (Map 1). It is a middle-distance migrant (April to May; August to October, November on the Gulf Coast), wintering from northeastern Mexico, rarely to the Rio Grande Valley of Texas, south to Panama (AOU 1983, 1998). Wood Thrushes winter casually north into the southeastern states. No subspecies are recognized.

The Wood Thrush prefers bottomlands and mature forests with a dense understory, but will nest in edge habitat and suburbs. Where it occurs together with other members of the group, the Wood Thrush breeds at a lower elevation than most of the *Catharus* thrushes, but it can occur side by side with the Veery.

#### Definitive Basic Plumage

In this plumage (Plate B), Wood

Thrush has a rich reddish-brown on the crown and back, and duller rufous on the rump, tail, and wings. The ear coverts are streaked black and white. The eye-ring and lores are a bold white. The underparts are white with bold circular or tear-drop-shaped black spots extending from the breast to the lower belly. On some individuals, the spotting extends only onto the upper belly and flanks. The borders of the flanks usually have no noticeable darker wash.

#### Juvenal Plumage

Wood Thrush in juvenal plumage (Plate B) resembles the bird in definitive basic plumage, but has buff spotting on the head, back, and lesser wing-coverts; the greater wing-coverts are strongly buff-tipped.

#### First Basic Plumage

First basic Wood Thrushes are not safely distinguished in the field from birds in definitive basic plumage, although overall wear on the flight feathers (including tail) of first-spring birds may appear to be greater than on Definitive Basic

birds at that season. Such wear is difficult to see, however.

In the hand, age is best determined by skull ossification and rectrix shape (Pyle 1997).

#### Similar Species

Of the six spotted thrushes, Wood Thrush is the easiest to identify. It is the largest (7¾ in; 20 cm) species of the group, and differs from the others in proportion and shape. Its short tail, large head, and stout, heavy bill make it seem top-heavy. The larger size is further accentuated by the species' habit of fluffing its belly feathers, giving it a pot-bellied appearance. When excited or alarmed, Wood Thrush also raises its crown feathers, creating a characteristic peaked look.

Wood Thrush's upperparts are a richer reddish-brown than those of any of the *Catharus* thrushes—brightest on the crown, nape, and upper back. Often, Wood Thrush appears to be uniformly reddish-brown from the crown to the tail, calling to mind a Veery, but the breast pattern quickly distinguishes the two. Wood Thrush's most reliable field marks include its distinctive face pattern, the presence of large circular or teardrop-shaped black spots evenly distributed on the breast, belly, and flanks, and the bold white eye-ring and lores. Breast spotting on *Catharus* species is mostly restricted to the breast and upper belly (Plate A). The ground color of Wood Thrush's underparts is a clean white. Hermit Thrushes may appear largely white below with extensive spotting, but their spots fade to pale gray on the flanks and

belly, whereas those of Wood Thrush are a deep black. Also, the distinctive ear-covert pattern of Wood Thrush is visible from quite a distance.

#### Vocalizations

The song of Wood Thrush is well known for its beauty; it is a familiar sound in eastern deciduous forests. Of the other spotted thrushes, it resembles most closely the song of Hermit Thrush but is not so soft or flute-like. Two basic song-types exist; the first is the familiar *EEE-oh LAY . . . kuk kuk ER-ee WOOL dee dee . . .* etc. Note that Wood Thrush usually prefaces a song phrase with a low, gruff *kuk kuk* and ends it with a high, springy *dee dee* (sometimes becoming a short trill), both unique among the spotted thrushes. The second song-type is similar to the first, but the phrases are interspersed with call-notes and various other notes, creating a choppy effect. This song-type may be given more frequently later in the day (or season), or possibly when the bird is agitated. Both song-types can be given by the same individual.

Wood Thrush has a variety of calls. When agitated, it gives a loud, sharp *wit wit!* similar to the *wit weet!* call of Curve-billed Thrasher (*Toxostoma curvirostre*) in tone, but it does not change pitch. Wood Thrush also gives a soft *kuk kuk kuk* identical to the song preface. Less commonly, it utters a somewhat hoarse, descending or even-pitched *heer*, sounding deceptively like a Veery, but more abbreviated and rougher. This last call-type is also the nocturnal flight call (Evans 1990).



ALAN MURPHY

This Wood Thrush is easily identified by the reddish-brown upperparts, particularly on the crown, crisp rounded underpart spotting, and the streaked auriculars. The spotting on the underparts of Wood Thrush is much more extensive than on *Catharus* thrushes. This individual shows a characteristic Wood Thrush posture of raised crest and fluffed belly feathers, creating a pot-bellied appearance. The bird was photographed on the Texas Gulf Coast in April 1998.



ALAN MURPHY

This photo shows the characteristic short-tailed, big-headed, and large-billed structure of the typical Wood Thrush. The reddish-brown upperparts, streaked auriculars, and extensive underpart spotting clinch the identification. The bird was photographed on the Texas Gulf Coast in April 1998.



## thrush ID

### Species Identification Hermit Thrush (*Catharus guttatus*)

Hermit Thrush has the largest breeding range of the spotted-thrush group (Map 2): from Alaska across Canada to Labrador and Newfoundland and south in the Rockies and Coastal Ranges to Baja California, Sonora, Texas, and in the Appalachians to North Carolina (AOU 1983, 1998).

On its breeding grounds, Hermit Thrush has varied habitat preferences, typically drier than those occupied by other *Catharus*. Over most of its range, it breeds in boreal and montane mixed forest as well as coniferous forest of pine, spruce, and fir. It also breeds in coastal pine barrens in southern New England (where rare and local; T. Lloyd-Evans, pers. comm.) and on Long Island and New Jersey (J. Walsh, pers. comm.). In the southern parts of its eastern range, it is often found in mixed woods, even in drier ridgetop deciduous forest (D. Lane, pers. obs.). In eastern mountains, it tends to breed at lower elevations than do Bicknell's and Swainson's Thrushes and above Veery and Wood Thrush, but there is broad overlap. In western mountains, Hermit Thrush tends to range higher than other *Catharus* thrushes.

Hermit Thrush is the shortest-distance migrant (March to early May, September to November) of the group, wintering along the coasts from British Columbia and Massachusetts south, and over much of the southern U.S. The southern end of its winter range is in Guatemala and El Salvador (AOU 1983, 1998). Any *Catharus*



ALAN MURPHY

Wood Thrushes, like this bird photographed on the Texas Gulf Coast in April 1998, can sleek their plumage down, making their shape look more like that of a *Catharus* thrush. However, on this individual the streaked auriculars and extensive, crisp underpart spotting are enough to secure an identification.

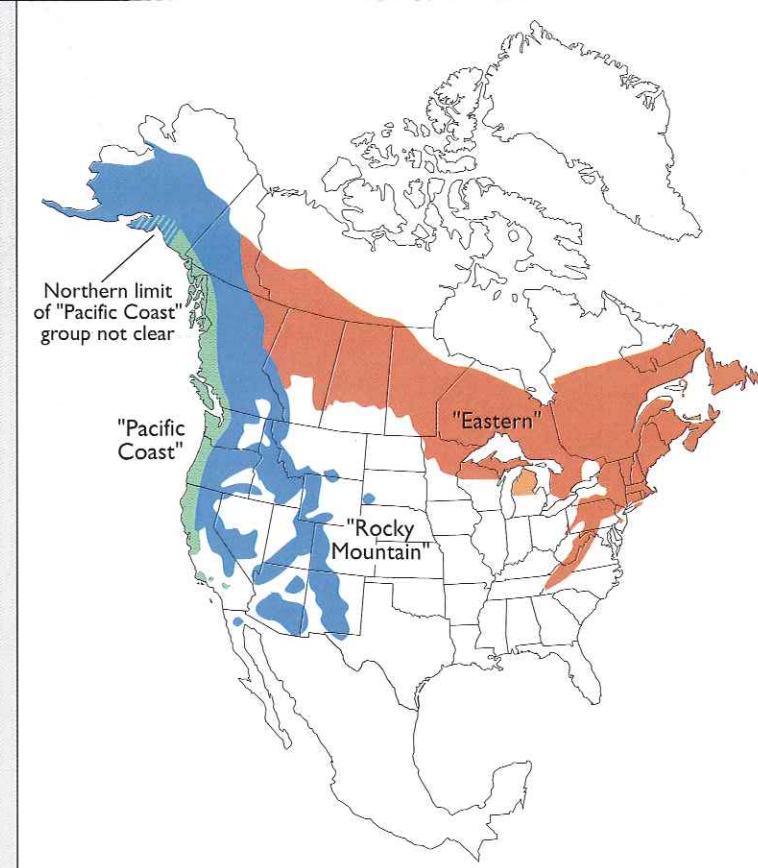
*thrush found during the winter in the U.S. or Canada is almost certainly a Hermit Thrush.*

Hermit Thrush is the most geographically variable member of the group, with 10 subspecies currently recognized by most authors (Aldrich 1968). For the purposes of this article, we cluster them into three groups: Eastern, Rocky Mountain, and Pacific Coast forms (Map 2). Table 3 presents the subspecies of Hermit Thrush in these three groups.

It is not possible to identify in

the field most birds to subspecies away from the breeding grounds, sometimes not even in the museum. Identification to the subspecies group, however, is possible. Noting to which subspecies group a given Hermit Thrush may belong may alert the observer to potential vagrancy patterns, particularly if the bird in question is unseasonable in its presence.

**Definitive Basic Plumage**  
**Eastern Group (Plate C).** Birds in this group have dull brown on the



Map 2. Hermit Thrushes have the largest breeding range of the spotted-thrush group: from Alaska across Canada to Labrador and Newfoundland and south in the Rockies and Coastal Ranges to Baja California, Sonora, Texas, and in the Appalachians to North Carolina.

Table 3  
Hermit Thrushes Divided into Three Groups and Ten Subspecies (from Aldrich 1968)

Group	Subspecies	Range
Eastern	<i>C. g. faxoni</i>	Yukon, south along the eastern edge of the Rockies to Alberta, east to the Canadian Maritimes, and south in the Appalachians to North Carolina
	<i>C. g. crymophilus</i>	Newfoundland
Rocky Mountain	<i>C. g. euborius</i>	eastern Alaska south through southwestern Yukon, interior British Columbia, and western Alberta
	<i>C. g. auduboni</i>	southeastern British Columbia south to Arizona and western Texas; restricted to higher mountains in the Great Basin
	<i>C. g. oromelus</i>	along the Cascade range from southern British Columbia to northern California, as well as south-central British Columbia and Idaho
	<i>C. g. sequoiensis</i>	Sierra Nevada and San Bernardino Mountains of California
Pacific	<i>C. g. guttatus</i>	coastal Alaska, including the panhandle
	<i>C. g. nanus</i>	islands of the Alaska panhandle and the Queen Charlotte Islands of British Columbia
	<i>C. g. vaccinius</i>	Vancouver Island and the Vancouver area of mainland British Columbia
	<i>C. g. slevini</i>	Washington south to coastal California

head, back, and wings (with the exception of the primaries). The reddish-brown rump, tail, and primaries contrast with the "colder" brown back. The lores range from buffy to brown, and most individuals have a thin whitish eye-ring. The throat and breast are weakly washed with buff and randomly spotted with large, round, black spots that fade to gray toward the belly and flanks. The amount of spotting varies individually; some individuals can be rather weakly spotted, whereas others can be

nearly as strongly spotted as a Wood Thrush. The flanks are washed fawn-brown, contrasting little with the wings. Individuals of this subspecies group may retain pale-tipped greater coverts into definitive basic plumage (D. Sibley and P. Stouffer, pers. comm., but see Table 2).

**Rocky Mountain Group.** This group includes the largest Hermit Thrushes. They are similar to the Eastern group but grayer overall, especially on the head and upper back. The underparts are whiter

and the spotting usually is larger than on eastern birds, extending farther down the underparts. The flanks are grayish, contrasting with the wing. In some subspecies, particularly *auduboni*, the primary bases are a washed-out grayish-brown, not reddish-brown. The subspecies *oromelus* is the grayest Hermit Thrush and is smaller than the other Rocky Mountain races, resembling the Pacific Coast forms in size. The tail is less rufous and less contrasting in these subspecies than in eastern birds, but the rump is usually fairly rufous. In general, Rocky Mountain birds look long-billed.

**Pacific Coast Group.** Intermediate in characters between Eastern and Rocky Mountain groups, Pacific Coast Hermit Thrushes include the smallest members of the spotted thrush group (5½ in; 14 cm). Pacific Coast forms tend to be dull in color and more slender-billed than eastern birds. The flanks are washed grayish, contrasting with the wings. In most subspecies the reddish coloration on the tail is muted or is restricted to the inner





**Plate C**

- a. First basic faxoni Hermit Thrush
- b. First basic nanus Hermit Thrush
- c. Juvenal auduboni Hermit Thrush
- d. First basic auduboni Hermit Thrush

e. Definitive basic auduboni Hermit Thrush: an individual showing the extensively whitish breast and extensive spotting of this subspecies.

f. Definitive basic guttatus Hermit Thrush: note that this individual exhibits the muted eye-ring, exhibited by some individuals over the entire range of the species, which is similar to the face pattern of Gray-cheeked Thrush.

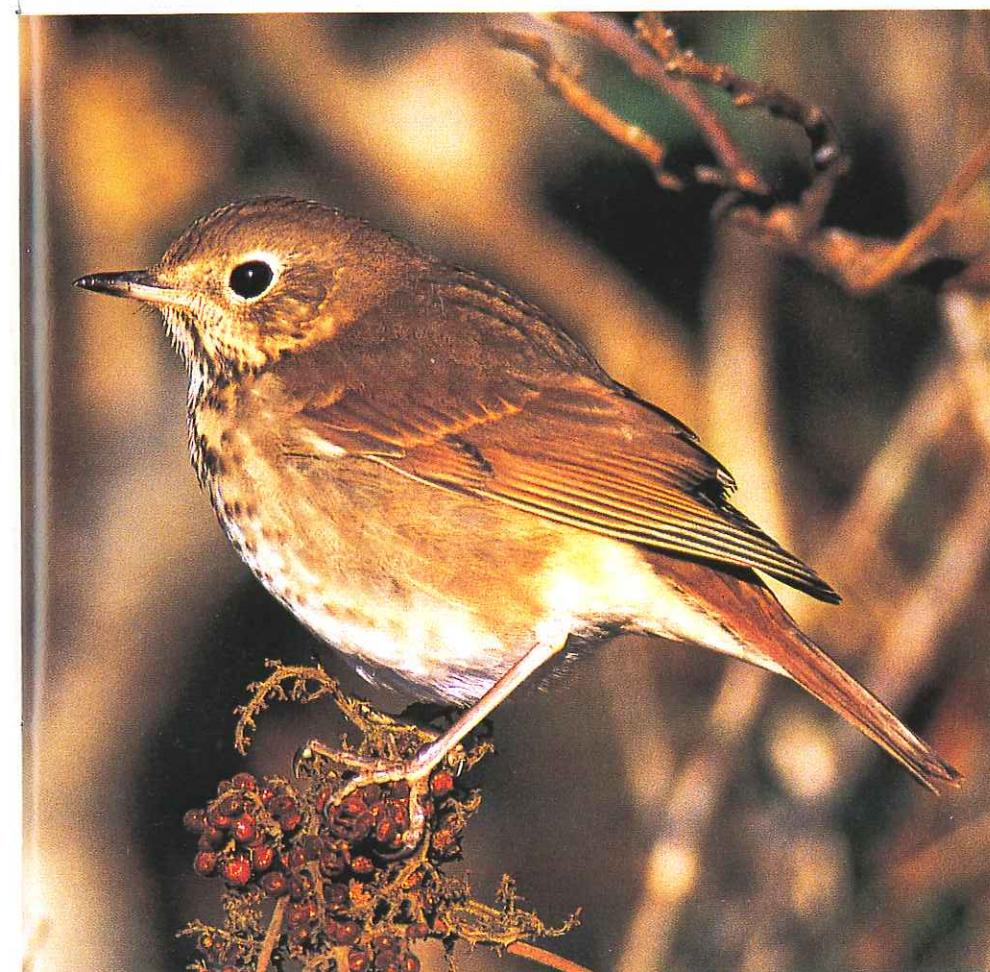
g. First basic guttatus Hermit Thrush

DANIEL LANE



TOM VEZO

Here, a typical Hermit Thrush assumes the characteristic cocked-tail posture of the species. The fawn-colored flanks are seen only on birds of the Eastern (faxoni) group. The pale-edged coverts are noticeable and characteristic of immature (first basic) birds, such as this one photographed on Long Island, New York, in October 1998.



TOM VEZO

A first basic Hermit Thrush will exhibit fawn flank-color and an obviously rufous tail. The face pattern can be similar to that of a Swainson's Thrush, but note that on Hermit Thrush the spectacled appearance is not as strong, partially because of the dark zone that separates the pale eye-ring from the pale supralores. This photograph was taken on Long Island, New York, in October 1998.



webs of the rectrices. This variation coupled with a duller rump results in less back/rump contrast; reddish-brown colors are usually also missing in the primaries. Pacific subspecies differ from one another in general color saturation and bill size. The subspecies *nanus* is the darkest brown of the Hermit Thrushes. In general, Pacific Coast birds look short-billed.

The best way to separate the subspecies groups is by flank color. Eastern subspecies have grayish-buff to rich buff flanks, whereas Rocky Mountain and Pacific Coast subspecies have grayish flanks (Roberson 1980, Dunn and Garrett 1983b). Individuals within each subspecies group may have intermediate flank color, but most birds seem to fall into one color category or the other. As noted above, the best way to judge flank color is to determine the flank/wing contrast. Pacific Coast birds can be separated from Rocky Mountain birds by their smaller size, small bills, and their darker, browner coloration. Eastern birds also appear thicker-billed (D. Sibley, pers. comm.). Rocky Mountain birds are consistently paler and grayer above than the other groups, particularly Eastern birds.

## Juvenal Plumage

The background color of the upperparts is as in definitive basic plumage, but heavily spotted with buff. The tail is noticeably more reddish than the back, as in subsequent plumages. The underparts are very heavily and extensively spotted and barred blackish (Plate C).



JAMES R. GALLAGHER/SEA AND SAGE AUDUBON SOCIETY

A first basic Pacific Coast Hermit Thrush, photographed in Orange County, California, in early February 1990, shows its cold, grayish flanks characteristic of the individuals from one of the western groups. As is common among western birds, the throat is white, lacking a buff wash that is often seen on Eastern-group birds. The wings of western individuals usually lack the bold, rufous panel common in Eastern-group birds. This individual has a petite structure and small bill, suggesting that it is of the Pacific Coast group rather than the Rocky Mountain group.

## First Basic Plumage

First basic Hermit Thrushes have pale buff tips and shaft streaks on the greater wing-coverts that contrast strongly with the remainder of the wing. Most individuals also have pale buff shaft-streaks on the median coverts as well as pale fringes to the tertials (Plate C).

## Similar Species

Characteristically, Hermit Thrushes have the habit of cocking or flipping their tail quickly upward

and then lowering it slowly, particularly when disturbed. This tail-flipping may also be accompanied by lateral flicking of the slightly drooped wings. Although these nervous motions are occasionally given by other *Catharus* thrushes when excited, they are rarely as emphatic.

Hermit Thrush's face pattern most closely resembles that of a Swainson's Thrush, but the eye-ring, sometimes broken (unlike

Swainson's), is thinner, whiter, and usually not continuous with the pale supralores—the area immediately above the lores—giving less of a spectacled effect. Hermit Thrushes also have larger, more rounded, blacker spots on a generally whiter breast than do Swainson's Thrushes (Plate A).

The eye-ring of Hermit Thrush is sometimes indistinct or missing, making the bird resemble a Gray-cheeked Thrush. In such cases, note the shape and size of the breast spotting, the wing and back/rump contrast, and behavior. The bases of the primaries on eastern and some Pacific Coast Hermit Thrushes are more reddish-brown than the rest of the wing, a feature normally not as noticeable in the other *Catharus* thrushes, and form a contrasting patch. Bicknell's Thrush and some Gray-cheeked and Swainson's Thrushes, particularly russet-backed forms, can show reddish-brown on the outer webs of the primaries as well, but there is less contrast with the rest of the wing than there is in Hermit. Veeries are more uniform in color from head to tail, have more-diffuse and less-extensive spotting on the breast, and have a different face pattern. In Rocky Mountain and some Pacific Coast Hermit Thrushes, however, the bases of the primaries are a washed-out grayish-brown, a color resembling more closely *aliciae* Gray-cheeked Thrush. These Hermit Thrush subspecies are typically the grayest, and the paleness of the head, coupled with the back/rump contrast, shape and size of the breast spots, and tail cocking, serve in combination to identify the bird.

## Vocalizations

The song of Hermit Thrush is considered by many people to be the most beautiful of the group. It has the richest and most flute-like character, although western birds often sound thinner-voiced than do eastern birds (D. Lane, recordings). Characteristically, the song consists of a basic phrase repeated at different pitches, with a drawn out introductory note followed by two or three wavering, fluty whistles: *HEUUU vadle vadle . . . HEEE veery veery . . . HERR varle varle . . .* This song is more similar to that of Wood Thrush than is any other member of the group.

Hermit Thrush has several call notes, distinctive within *Catharus*. Perhaps the best-known call type of Hermit Thrush is a low, dull, throaty *chuck* or *chup*, often doubled. A second call type is a hoarse, rising *rhee?*, reminiscent of the mewing call of Gray Catbird (*Dumetella carolinensis*) or that of Pacific Coast Spotted Towhees (*Pipilo maculatus*), but higher pitched and more piercing than either. Another call, also the nocturnal flight call (Evans 1990), is a high, descending, whistled *heeu*, similar to one of the calls of Red-winged Blackbird (*Agelaius phoeniceus*). When disturbed near the nest, Hermit Thrushes may give a thin, high, descending *seeeee* similar to that of other thrushes (W. Ellison, D. Sibley, pers. comm.; D. Lane pers. obs.).

## Conclusion

In this article, we have presented the molt cycle of the North American spotted thrushes, aging characters, and field identification

of Wood Thrush and Hermit Thrush. These two particular species are the most distinctive of the spotted thrush group, and usually are not difficult to identify. This is the first of a three-part series on the identification of the spotted thrushes. In Part II, we will cover the identification of Veery and Swainson's Thrush. Part III will complete this series by presenting field characters for Gray-cheeked and Bicknell's Thrushes.

## Acknowledgments

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## Literature Cited

- Aldrich, J. W. 1968. Population characteristics and nomenclature of the Hermit Thrush. *Proceedings of the United States National Museum* 124: 1–33.
- American Ornithologists' Union. 1957. *Check-list of North American Birds*. 5th ed. American Ornithologists' Union.
- . 1983. *Check-list of North American Birds*. 6th ed. American Ornithologists' Union.
- . 1998. *Check-list of North American Birds*. 7th ed. American Ornithologists' Union.
- Bradshaw, C., and J. Dowdall. 1993. Identification of *Catharus* thrushes. *Dutch Birding* 15: 55–60.
- Burleigh, T. B., and A. J. Duvall. 1959. A new subspecies of Veery from the northwestern United States. *Proceedings of the Biological Society of Washington* 72: 33–36.
- Dunn, J., and K. Garrett. 1983a. The Identification of the Thrushes of the Genus *Catharus*. pt. 1: Introduction. *Western Tanager* 49 (6): 1–2.
- . 1983b. The Identification of the Thrushes of the Genus *Catharus*. pt. 2: Hermit Thrush. *Western Tanager* 49 (7): 4, 9.
- . 1983c. The Identification of the



## thrush ID: wood and hermit

The gray flanks and lack of a good rufous wing-panel confirm that this is a western Hermit Thrush; the pale tipped coverts suggest that it is in first basic plumage. There is no way to know if this is a Pacific Coast group or Rocky Mountain group bird from this photo, but the location, largish bill, and the more limited extent of streaking on the underparts suggest that it is one of the larger subspecies in the Pacific Coast group. The bird was photographed in Riverside County, California, in April 1995.



HERBERT CLARKE

Thrushes of the Genus *Catharus*. pt. 3: Swainson's Thrush. *Western Tanager* 49 (8): 7-9.

———. 1983d. The Identification of the Thrushes of the Genus *Catharus*. pt. 4: Veery and Gray-cheeked Thrush. *Western Tanager* 49 (9): 1-3.

Evans, W. R. 1990. *Nocturnal Flight Calls of Migrating Thrushes*. Self-published. cassette tape.

Jonsson, L. 1992. *Birds of Europe with North Africa and the Middle East*. Princeton University Press.

Lewington, I., P. Alström, and P. Colston. 1991. *A Field Guide to the Rare Birds of Britain and Europe*. Domino Books, Jersey, England.

Mayr, E., and R. A. Paynter Jr. 1964. *Check-list of Birds of the World*. v. 10. Museum of Comparative Zoology, Cambridge, Massachusetts.

McLaren, I. A. 1995. Field identification and taxonomy of Bicknell's Thrush. *Birding* 27: 358-366.

Ouellet, H. 1993. Bicknell's Thrush: Taxonomic status and distribution. *Wilson Bulletin* 105: 545-754.

Phillips, A. R. 1991. *The Known Birds of North and Middle America*. pt. 2. A.R. Phillips, Denver.

Phillips, A. R., J. Marshall, and G. Monson. 1964. *The Birds of Arizona*. University of Arizona Press, Tucson.

Pyle, P. 1997. *Identification Guide to North American Birds*. pt. 1. Slate Creek Press, Bolinas, California.

Roberts, T. S. 1955. *A Manual for the Identification of the Birds of Minnesota and Neighboring States*. University of Minnesota Press, Minneapolis.

Roberson, D. 1980. *Rare Birds of the West Coast*. Woodcock Publications, Pacific Grove, California.



RICK AND NORA BOWERS

The gray flanks, thick bill, extensive breast streaking reaching down to the lower breast, and the pale upperparts are typical of a Rocky Mountain Hermit Thrush. Note that it is very difficult to identify photos of western birds to subspecies group, but in the field, size and structural differences may be noticed which facilitate this subspecies identification. Be aware that distinctions are subtle and not always possible even in the hand. This bird was photographed in southeastern Arizona in August 1993.



The immature Eastern Hermit Thrush at right was photographed on Long Island, New York, October 1996. To age it, look at the pale tips of the greater coverts, including a streaked inner greater covert. In addition, this bird still retains some juvenal scapulars. The tawny flanks and bright rufous tail and wing panel are typical of Eastern-group birds.



LARRY SANSONE

Pictured above is an immature Pacific Coast Hermit Thrush, photographed in Riverside County, California, in early May 1999. Notice that one of the inner greater coverts retains a juvenal pattern of a pale central streak. Most first basic birds show pale tips to the coverts which can wear off in time; some individuals show these pale central streaks particularly on the inner coverts. In cases where the inner greater coverts are molted and the outer ones retained during the first prebasic molt, these inner 'streaked' coverts are replaced by uniform ones. The retention of these 'streaked coverts' may be more common in immatures of the Hermit Thrush than of other *Catharus* thrushes.



LARRY SANSONE

On this Pacific Coast adult, photographed in Riverside County, California, in May 1999, you will note that the greater coverts are uniform in color and lack pale tips. Some Eastern-group Hermit Thrush adults may show indistinct pale tips to the coverts but only when very fresh. This variation can complicate aging in the field. The gray flanks of this bird confirm that it is of a western population; the locality indicates that it is a Pacific Coast bird, but one of the larger-billed subspecies.



HAROLD LINDSTROM



ALVARO JARAMILLO

Here is an adult Pacific Coast Hermit Thrush in the hand. Some Pacific Coast birds almost lack an eye-ring, and can show a face pattern suggestive of a Gray-cheeked Thrush, as this individual does. Furthermore, this individual lacks rufous on the primaries, also not unusual in some western birds. If seen in the right angle, the rufous tail (albeit not a bright one) of this individual would confirm the identification as a Hermit Thrush. The petite structure, small bill, and dark back suggest that this is the subspecies *nanus*. This bird was photographed in Richmond, British Columbia, in May 1995.