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HERMIT THRUSH SINGS SONGS CONTAINING ELEMENTS RESEMBLING THOSE OF SWAINSON'S THRUSH

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In the period 4-10 June 1995, Bruce J. Hayward and I conducted a biotic inventory of the Big Burro Mountains in Grant County, New Mexico. On the early morning of 8 June, I was surveying birds on Burro Peak (elevation 8035 ft.), one of the three higher massifs that comprise the main body of that range. Among the birds noted was a singing Hermit Thrush *(Catharus guttatus),* a species of which we would find at least 14 birds (including a fledgling) at three different sites during our overall survey. Suddenly, I heard what I was certain was the song of a Swainson's Thrush *(Catharus ustulatus),* a species that summers only locally in the Southwest--including regularly in northern sections of Arizona and New Mexico and sparsely and perhaps irregularly southward to the Mogollon Plateau (e.g., Phillips 1991:87). However, the species is also a regular but uncommon migrant in southwestern New Mexico, where spring passage sometimes persists into early summer - e.g., four netted in Luna County on 9-10 June 1971 (Hubbard et al. 1971:38). In addition, Swainson's Thrush is known to sing during spring migration (e.g., Bent 1949), although obvious instances of this are rarely reported from New Mexico. Instead, singing birds there are nearly always found in habitats where they could be breeding, notably forests dominated by Douglasfir *(Pseudotsuga menziesii),* spruces *(Picea* spp.), firs *(Abies* spp.), and associated mesophytic trees and shrubs. The habitat on Burro Peak is more xeric, however, namely an open forest dominated by ponderosa pines *(Pinus ponderosa)* and Gambel oaks *(Quercus gambelii).* Given these considerations, I regarded the bird heard singing as out of the ordinary and so decided to pursue it - including to confirm its identity and perhaps determine which Swainson's Thrush complex (i.e., olive- or russet-backed) it might represent.

The thrush proved to be quite shy and elusive, flushing when I attempted to approach closely (at least while in plain sight) or if I made excessive noise. Furthermore, it did not respond to my "pishing" or imitations of the calls of the Northern Pygmy-Owl *(Glaucidium gnoma),* although these attracted many other birds. I followed it for about 10-15 minutes, during which time it ceased singing only the few times that it changed perches. In that interval, I never had a good view of the bird, at most obtaining brief glimpses as it flushed through the trees. As I proceeded, several aspects of the situation began to strike me as peculiar, one being that the pursued bird always sang in very close proximity to the singing Hermit Thrush - if not from the same spot. Secondly, the presumed Swainson' s Thrush displayed marked gaps between its songs, whereas those of the Hermit were at a more "normal" rate. In fact, the ratio was about one Swainson's song to every four-six for the Hermit. And finally, when the Swainson's Thrush ceased or resumed singing, so very shortly did the Hermit Thrush. Given these observations, the unlikely scenario began to dawn that the songs of both thrushes might be coming from the same bird! If so, one possible explanation was that it might be a hybrid between the two species- although I could not recall any instance of this in the literature. Whatever the case, what I was experiencing was obviously unusual, leading me to redouble my efforts to track down the source(s) of these songs - with special emphasis on the presumptive Swainson's Thrush.

With increased urgency, I decided to employ "commando tactics" in pursuing the singer(s) - crawling belly to the ground and using trees and shrubs to cover my approach. Through all this, the Swainson's/Hermit Thrush continued to sing persistently, all the while remaining in an area of perhaps three-five acres. During this time, it changed locations mainly when disturbed - otherwise remaining in one spot for minutes on end. After perhaps 30-35 minutes, I was able to approach it more closely as it sang in a rather closed-canopied, open-understoried stand of pines. Nonetheless, it proved difficult to locate, in spite my intent scanning of possible perches through 8 X 36 binoculars. Finally, I detected it perched and facing me, virtually immobile on a bare limb perhaps 15 feet from the ground and some 100 feet away. Through my binoculars, I could see that it was watching me, but seemingly with more concern than alarm. It continued to sing, still giving an approximate sequence of four-six Hermit Thrush songs to one of the Swainson's Thrush. However, despite what I heard, everything that I could see told me the bird was a Hermit Thrush - including most notably its whitish venter, profuse pattern of large, dark breast spots, pale head, and muted face markings. After observing it for about five more minutes, I decided the best course of action was to collect the bird for detailed study in the laboratory.

The specimen was soon confirmed as a Hermit Thrush, prepared as a museum skin by Richard S. Crossin, and deposited as number 19676 in the Museum of Southwestern Biology at the University of New Mexico. On dissection, it proved to be a male in breeding condition (testes 10 X 6 mm, cloacal sacs prominent), with a weight of 27.1 g (no fat). The external measurements (in mm) included wing chord 104, tail 78.0 (approximate, due to feather loss), tarsus 30.0, and

culmen 16.0 (from nostril). Based on its large size and pale coloration, the specimen represents the Hermit Thrush population breeding in the Rocky Mountains and southwestern U.S., to which the name C. g. *auduboni* is usually applied (e.g., A.O.U. 1957:437). (Note that Phillips, 1991:85-86, considers breeding birds of southwestern New Mexico and east-central Arizona to be intergrades between that race and the more-western C. g. *polionotus*, but I agree with Aldrich, 1968 that the latter taxon is a synonym of *auduboni*.) The Hermit Thrush reaches its southern breeding limits along a line stretching from the Huachuca Mountains of southeastern Arizona eastward to the Guadalupe and recently Davis (Peterson et al. 1991) mountains of Trans-Pecos Texas. Included in this southernmost range are the Animas Mountains of Hidalgo County, New Mexico, where this species was first verified as summering in 1964 by Niles (1966). As for the Big Burro Mountains, Bruce Hayward and my records (above) appear to be the first in summer for that range, although we suspect the species has nonetheless long bred there and in the Animas as well.

Regrettably, I was not able to tape-record the songs described above, so I cannot prove that these indeed contained elements (i.e., phrases) conclusively assignable to Swainson's or even the Hermit Thrush. Furthermore, circumstances during pursuit did not allow me to write an extended, detailed description of the songs as I heard them, whatever value such might provide. However, I did subsequently write down my impressions, concluding that the songs were comprised of phrases essentially identical to those I had heard many times before in these two species (see descriptions below). In fact, it was this previous experience that instigated my pursuit in the first place - initially, as I endeavored to track down a singing "Swainson's" Thrush and subsequently the bird that sang the latter's and Hermit Thrush songs. My experience with Swainson's Thrush is reasonably extensive, based on my having listened to hundreds of songs in scores of birds in British Columbia, Washington, Alberta, Michigan, and New Mexico. The first was on 30 June 1964, when after another difficult stalk I procured New Mexico's first summer specimen in the Mogollon Mountains of Catron County. In addition, I have also heard Swainson's Thrushes singing in the state's northern mountains (e.g., Taos County, 1976-1993), including in conjunction with surveys (mainly with song tapes) for it and the Veery *(Catharus fuscescens)* - the songs of latter having been heard there as well as Michigan and Virginia. I have even more experience with the Hermit Thrush, beginning in 1957 and certainly consisting of thousands of songs sung by hundreds of birds in British Columbia, Alberta, Michigan, Arizona, and especially New Mexico.

While the songs of Swainson's and Hermit thrushes do bear certain similarities, they also differ in several notable and consistent ways. In addition to their ethereal, flutelike quality, songs in both are long-continued and made up of 5- to 15-noted phrases separated by short pauses (Saunders in Bent 1949). However, the notes in Swainson's Thrush phrases are typically of equal length and more connected, and they gradually rise in pitch over the duration of a phrase (Saunders op. cit.: 183). In effect, the notes differ little between phrases, so a sustained song can seem repetitious over time. By contrast, the notes in Hermit Thrush phrases differ notably inter se, including in length as well other features. For example, the first note is usually longest and lowest, serving as an introduction to the remaining ones--which typically progress as descending groups of twos or threes (Saunders op. cit.: 156). In addition, the phrases themselves often differ markedly in pitch, plus the pauses between them tend to be longer. Thus, the songs of the Hermit Thrush are more varied and usually less connected than in Swainson's Thrush. In extreme instances, these features can make a given Hermit Thrush sound like more than one bird. In fact, the one I collected sang in this manner, with the obvious difference being its apparent borrowing of one (or more) phrases from Swainson's Thrush! Incidentally, the "borrowed" phrases sounded to me like the same one repeated again and again; however, it could have changed somewhat as I listened to it over time.

Despite my extended experience with the Hermit Thrush, I have never encountered another that sang in any manner remotely suggestive of Swainson's Thrush - or any other bird for that matter. Nor can I find any published report of such behavior, or even of a Hermit Thrush incorporating extraneous sounds from any source (animate or otherwise) into its songs - inc1uding in the recent compendium on the species by Jones and Donovan (1996). Furthermore, I find no hint of anything suggesting vocal mimicry in this or any other member of the genus *Catharus*, such as in Dilger's (1956a, 1956b) intensive studies of several species (plus the Wood Thrush, *Hylocichla mustelina)* in the northeastern U.S. - which included Hermit and Swainson's thrushes. Under the circumstances, my observation of apparent mimicry in the Hermit Thrush is both unprecedented and extraordinary. In fact, in the absence of harder data (e.g., a tape recording), I am hesitant to inject this report into the literature. Indeed, the prudent course might be to me it away until and unless another, better-substantiated case might come to light. However, given its obvious rarity, a long time could transpire before a similar situation might be again detected, if ever! Consequently, and with the added intent of alerting observers to future possibilities, I offer this report to anyone that might be interested and for whatever it might be worth.

Given its obvious rarity, vocal mimicry as described here must develop in the Hermit Thrush only under the most

extraordinary of circumstances. Absent evident hybridization (which itself would be unprecedented), what could lead an individual of this species to appropriate elements from Swainson's Thrush into its own songs? In my view, a likely triggering mechanism in this would have been the initial, intense exposure of nestling Hermit Thrushes to the songs of Swainson's Thrush. With sufficient exposure, elements of the latter's songs might then have become implanted in the nestlings' brains. In time, some of these elements might have resurfaced as discrete phrases as otherwise normal songs developed in the maturing Hermit Thrushes. For this scenario to occur, the nestlings' exposure to Swainson's Thrush songs must have been considerably greater than the usual between these two widely sympatric and syntopic species (e.g., A.O.U. 1957). One such possibility is that Swainson's Thrush might have usurped the role of the male (or even the adult pair) at an active Hermit Thrush nest. This would certainly have made Swainson's Thrush songs dominant in the nest proximity, thus conceivably helping program mimetic behavior in the nestlings and beyond.

I thank Bruce Hayward for his contributions to our biological survey of the Big Burro Mountains, including as a field companion, biologist, and friend. Others to whom we are grateful for their contributions to the survey are Ellen N. Cavanaugh, Richard S. Crossin, Robert W. Dickerman, and Richard Nelson. Finally, Craig W. Benkman, Bruce Neville, and an anonymous reviewer commented on an earlier draft of this manuscript, which helped improve the version published here.

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RECENT CHANGES TO THE AOU CHECK-LIST AFFECTING NEW MEXICO BIRDS

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INTRODUCTION

The just-published "42nd Supplement" to the American Ornithologists' Union (AOU) *Check-list of North American Birds (Auk* 117:847-858, 2000) is the first Supplement to appear since publication of the 7th Edition of the AOU Check-list in 1998. The Supplement contains eight changes that affect the New Mexico list. These primarily involve English and/or scientific name changes resulting from taxonomic splits or other considerations. The number of bird species attributed to New Mexico is not altered.

SUMMARY OF CHANGES

The English name of the Oldsquaw, *Clangula hyemalis,* is changed to Long-tailed Duck, this to conform with English usage in other parts of the world as well as for reasons of "political correctness."

The three groups in *Caracara plancus* are now recognized as three distinct species, and the scientific name of the Crested Caracara, the only one of the three species occurring in the United States, becomes *Caracara cheriway.*

On the basis of genetic, morphologic, and behavioral differences, the Sage Grouse is split into two species, the Gunnison Sage-Grouse, *Centrocercus minimus,* and the Greater Sage-Grouse, *C. urophasianus.* The Gunnison Sage-Grouse, the more southern of the two and currently restricted to southwestern Colorado and southeastern Utah, is presumed to be the species that historically occupied northern New Mexico. [Note: The only reported New Mexico specimen was taken near Tierra Amarilla in 1874. **It** is likely that any native New Mexico Sage Grouse were extirpated by the very early 1900s, probably by about 1912, according to J. Stokley Ligon. Unfortunately, the earlier status of the Sage Grouse in the state was forever obscured by releases of non-native birds. From 1933 until into the late 1960s, the New Mexico Department of Game and Fish released some 326 Sage Grouse into San Juan, Rio Arriba, and Taos counties; those birds came from Washington, Wyoming, South Dakota, and Nevada, all localities beyond the range of Gunnison Sage-Grouse. All of the releases failed, thanks in part to centuries of habitat degradation from livestock grazing. The Sage Grouse was included on the New Mexico List of Endangered Wildlife until 1988, when it was judged to be extirpated in the wild in the state.)

Based on differences in morphology, behavior, and habitat, the Arizona Woodpecker, *Picoides arizonae,* of New Mexico, Arizona, and northwestern Mexico is split from the disjunct Strickland's Woodpecker, *P. stricklandi,* of central Mexico.

The scientific name of the Black-billed Magpie of North America becomes *Pica hudsonia,* as it is now treated as a species distinct from the Eurasian Magpie, *P. pica,* of the Old World, this based on morphologic, behavioral, and genetic characters.

The scientific name of the Black-capped Chickadee is changed from *Poecile atricapillus* to *P. atricapilla.* This is because the generic name *Poecile* is feminine and adjectival species names must agree in gender.

The scientific name of the Juniper Titmouse is changed (once again) from *Baeolophus grise us* to *B. ridgwayi.* Due to rules of the International Code of Zoological Nomenclature, the name *griseus* is permanently invalidated.

Bullock's Oriole, *Icterus bullockii,* is moved from its position following Baltimore Oriole, *I. galbula,* to a position following Streak-backed Oriole, *I. pustulatus,* and so now precedes Baltimore Oriole on the New Mexico list. This sequence change is made to better reflect relationships as determined by molecular genetics, distancing Bullock's Oriole from both Baltimore Oriole and Black-backed Oriole, *I. abeillei,* two species with which it was formerly combined as "Northern Oriole."