

Photo Essay: Redpolls from Nunavut and Greenland visit Ontario

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Figure 1. At Marathon, Thunder Bay, Ontario, all four New World taxa of redpolls were photographed among a feeder flock that showed up 8 January 2011: nominate Common (one at far left, three farthest right), Greater (the large, dark *rostrata* subspecies of Common) at the middle rear, *exilipes* Hoary at middle front (facing away), and the large, very pale Hornemann's (nominate Hoary) left of center. Word spread quickly that the rarer redpoll subspecies from far northeastern Canada and possibly Greenland—Greater and Hornemann's—were appearing well south of their usual range, and patient feeder watchers throughout the Northeast enjoyed poring through their redpolls flocks for these rare visitors from the High Arctic. The four taxa had not previously been documented together, though there are several prior reports of such a gathering in eastern Canada in decades past. Photograph by Michael T. Butler.

In the winter of 2010–2011, large numbers of both Common Redpoll (*Acanthis flammea*) and Hoary Redpoll (*A. hornemanni*) were detected in southern Canada, most of these from eastern Manitoba eastward, and in the United States, birders in the Midwest and Northeast also detected large numbers, usually at feeders. Most were of the expected subspecies, *A. f. flammea* and *A. h. exilipes*. (These subspecies are sometimes referred to as Southern Common Redpoll and Southern Hoary Redpoll, but we will use “nominate Common” and “*exilipes* Hoary” here.)

As observed during the redpoll influx of winter 2007–2008, some redpoll flocks contained relatively large numbers of Common Redpolls identified as subspecies *rostrata*, known as Greater Redpoll, which is larger,

darker, and more heavily streaked than nominate Common. In addition, a few fortunate birders found Hornemann's Redpoll, the large nominate subspecies of Hoary Redpoll, usually just a single bird. In Canada, most Hornemann's nest farther north than Greater: Hornemann's breeds on Ellesmere, Axel Heiberg, Devon, and Bylot Islands, where Greaters are unrecorded. The two breed sympatrically in northern Baffin Island (Godfrey 1986) and also breed sympatrically in Greenland, and although the extent of overlap there is not well understood, Hornemann's tends to breed farther north than Greater (Boertmann 1994).

On 18 December 2007, three days after Ron Tozer and Doug Tozer found a Hornemann's Redpoll on the Minden Christmas

Bird Count in Ontario, Ron Pittaway (2007) issued his online Redpoll Challenge—the goal being to document all four New World redpoll taxa in a single flock. As Pittaway noted in his widely read Challenge, this feat had been accomplished at least twice: south of Ungava Bay, northern Québec on 12 March 1944 (Todd 1963) and at Hamilton, Ontario on 23 March 1958 (Curry 2006). Since issuing the Challenge, Pittaway has received credible reports of all four taxa together from Québec City and Ottawa—and has even seen all four at his own feeders in Toronto. Although there are confirmed records of both Greater and Hornemann's Redpolls in the northeastern quadrant of the Lower 48 United States, no one in the United States has reported seeing these two High Arctic sub-

species simultaneously among gatherings of the more expected nominate Common Redpoll and *exilipes* Hoary Redpoll.

On 8 January 2011, Michael Butler, paying careful attention to redpoll flocks in his backyard at Marathon, Ontario, on the north shore of Lake Superior, photographed a Hornemann's Redpoll. In reviewing his images, Butler noted that one bird in the background appeared to be a Greater Redpoll, and another in the foreground was an *exilipes* Hoary (Figure 1). Experts in the identification of redpolls, Ron Pittaway and Michel Gosselin, agreed: all four taxa were visible—the first time the four North American taxa were known to have been photographed together! Following Butler's discovery, it became clear that redpolls of all sorts had made it to northeastern Ontario as well, and Brandon Holden made his way to Matheson on 18 February 2011, to discover at least five Hornemann's and many Greater Redpolls among redpolls flocks at feeders. Southern New England and upstate New York had scattered reports of Greater and Hornemann's Redpolls, and many birders there got to observe these big redpolls for the first time. Along with many other web-based conversations and shared images, Holden's and Butler's websites, full of fine images of these birds, became the impetus for the present Photo Essay.

In the history of *North American Birds* and its antecedent journals, the little-known Hornemann's Redpoll has been mentioned infrequently, and black-and-white photographs have been published only twice, from Québec (Aubry et al. 1988) and possibly Pennsylvania (Brinkley et al. 1994). Generally accepted records of Hornemann's Redpoll extend south to Maryland and west as far as Michigan and Manitoba, whereas records of *exilipes* Hoary Redpoll extend south to Virginia and much farther to the west, with records from South Dakota, Nebraska, Wyoming, Idaho, Washington, and Oregon. Greater Redpoll has been documented in New England and the northern Great Lakes region, with outlying records extending to southern New York and New Jersey; there are also single records from Colorado and Maryland. Pittaway (1992) reports that Greater Redpolls are more common than Hoaries during some winters in southern Ontario. The relative abundance of Greater Redpoll in the northeastern United States is not as well understood.

With the rise of Internet-based communication, numerous observers have posted images of redpolls, including Hornemann's and

Greater, from their areas, along with observations about redpoll identification. As often occurs, many of the formerly active hyperlinks have become inactive, and some of the discussion that remains archived in scattered places includes misleading material and errors. There are numerous published articles on redpolls and their identification, and some are readily available from their publishers or are even archived online. Some of these are based on scientific studies, but many were written by people who witnessed a redpoll irruption in their areas. During the winter of 1993-1994, for example, Dave Czaplak (1995) studied hundreds of redpolls at his Germantown, Maryland feeders—and documented not just 17 *exilipes* Hoary Redpolls but also at least one each of Greater and Hornemann's. In Ontario, Pittaway (1992) summarized what was known about the identification of North American taxa based on his extensive encounters with redpolls during irruptions in Canada. In the United Kingdom, a 1984 irruption of nominate Common and *exilipes* Hoary Redpolls was the occasion for a paper treating differences between those taxa (Lansdown et al. 1991), and other authors have followed suit after subsequent redpoll flights in the United Kingdom (Riddington et al. 2000, Pennington and Maher 2005).

Using Michael Butler's photographs from Ontario's Thunder Bay District and Brandon Holden's images from the Cochrane District (near the Québec border), this Photo Essay showcases the High Arctic redpolls among their smaller relatives and also illustrates some distinctions between Hoary and Common, whose identification continues to provide challenges. We look first at distinctions between *exilipes* Hoary and nominate Common Redpoll, then at differences between Hornemann's Redpoll and *exilipes* Hoary Redpoll, and lastly at differences between Greater Redpoll and nominate Common Redpoll. Thankfully, Hornemann's and Greater have very dissimilar plumages, but a few of the images that follow depict the two together.

Redpoll identification: history and cautionary considerations

Although most field guides to North American birds illustrate basic differences between typical adult Common and Hoary Redpolls fairly well, the field marks emphasized in these guides must often be used in conjunction with subtler characters to make a strong case for identifying many individuals. Redpoll plumages have been critically described in the

American scientific literature since Coues (1861) and Ridgway (1901). Various authors have recognized between one and six species of redpoll, though most recognize just two in North America, Hoary and Common, these being distinguished chiefly by plumage features rather than measurements. Troy (1985) collected redpoll specimens (nominate Common and *exilipes* Hoary only) from Alaska to northern Québec and focused on streaking in undertail coverts, rump, and flanks as a way to evaluate plumage variation in redpolls, which he treated as a single species. That treatment has not been followed by subsequent authors, who treat Common and Hoary as distinct species (Molau 1985, Knox 1988, Herremans 1990, Seutin et al. 1992, 1993, 1995). Most authors indicate that differences in streaking have some value when distinguishing the generally less-streaked Hoary from the more-streaked Common, but all authors who discuss field identification caution that some individuals may not be identifiable to species or subspecies.

Knox and Lowther (2000b), for instance, indicate that nominate Common Redpoll (Figure 2) usually shows "broad streaks on undertail coverts" and a "rump normally with extensive streaks; adult male [*exilipes*] Hoary Redpolls have at most 1-3 hairline streaks on longest undertail coverts." Also in *exilipes*, the flanks and breast tend to show less streaking (and generally finer streaks on average) than in nominate Common, and mantle feathers and scapulars tend to be paler, as do the edges of upperwing coverts and secondaries. Finally, the upperparts tend toward white and gray in Hoary, toward buffy and brown in Common, though some *exilipes* Hoaries have buffy tones in the head and back (Knox and Lowther 2000b) and Hornemann's frequently have such tones (van den Berg et al. 2007).

These general differences between the palest, least streaked Hoary Redpolls and the darkest, most heavily streaked Commons are helpful when an observer is just gaining confidence in identifying redpolls to species. As one begins to look carefully through large flocks of redpolls, however, it becomes clear that there are many birds that seem to be intermediate between the more stereotypical Common and Hoary and that differences in plumage appear to form a continuum, with some individuals falling into a gray area not adequately treated in field guides. As Pittaway (1992, 2007) has emphasized, part of the reason for the extensive variation we observe is that each taxon shows plumage variation by age and sex—thus each has mini-



Figure 2. Common Redpolls of the nominate subspecies normally make up over 99% of the redpolls observed in feeder flocks in southern Canada and the United States. Their plumage tones are generally browner above than in Hoary, their streaking below more extensive and broader, especially along the flanks, their cap and facial markings more extensive, and the white in their remiges and coverts less extensive. Adult males, such as these, usually show pink and rose colors in the underparts, especially pronounced from midwinter into spring, as the pale edges of these feathers wear. Adult females show limited or no rosy tones below, and first-year birds often have none. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 3. "Dilute-plumaged" leucistic redpolls pose real problems for field identification. Common or Hoary? The small bill and very small red "poll" might suggest the latter. Ottawa, Ontario, 19 February 2011. Photograph by Wilson Hum.



Figure 4. Obviously leucistic redpolls with patchy, "piebald" plumages can sometimes be identified to species by looking carefully at the parts of plumage that are normally pigmented or by comparing the bird's bill to adjacent redpolls. However, some individuals, such as this one at Cobourg, Ontario on 6 March 2011, may be best left unidentified. Photograph by Harvey Gold.



Figure 5. Especially when seen together, "classic" *exilipes* Hoary (left) and nominate Common (right) Redpolls are straightforward to identify. Hoary's much whiter plumage, more sparsely streaked (or unstreaked) flanks, smaller bill, as well as its (sometimes) less extensive red "poll" and reduced dark plumage around the bill, make it stand out next to a darker, streakier, more colorful Common. When comparing bills of redpolls, observers should assess relative size/shape when birds are in perfect profile (cf. Figure 7), rather than when bills are turned and thus foreshortened, as with the Common here. The photographer notes that these redpolls were both small birds, comparable in size, thus the Hoary was certainly an *exilipes* rather than a nominate bird. The extent of pink on the Common's breast suggests a male, while the grayish head and mantle of the Hoary and its lack of rosy tones below suggest that it is not an adult male but possibly an adult female. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 6. This adult *exilipes* Hoary Redpoll shows the extensive feathering covering the bill that is often, but not always, seen in Hoaries. The rich rosy cap and pink tones in the breast suggest an adult male, some of which show very little pink below, especially early in the winter, when the plumage is still relatively fresh. Marathon, Ontario, 28 January 2011. Photograph by Michael T. Butler.

mally four plumages that may be present in a flock. As with one's first encounters with mixed-species flocks of rosy-finches (*Leucosticte* spp.), sorting through the different plumages can be daunting. Articles on redpoll identification that use photographs of specimens and/or captured birds often show disheveled plumages or birds in odd poses, which can obscure some distinctions. Studying birds in life has its challenges but is a requisite for understanding redpoll plumages and structures.

Probably because Hoary Redpoll has been considered very rare in most areas, observers have often assumed that birds that appeared "intermediate" between the field guide illustrations were paler-than-average Common Redpolls. In some cases, that may be accurate. In field identification, birders frequently opt for the species presumed to be most likely; one could say that birders often apply Occam's razor, the law of parsimony, when faced with possible new hypotheses. Over the past several decades, however, assumptions about the status, distribution, and identification of Hoary Redpoll have given way to the realization that even some southerly redpolls flocks (e.g., Czaplak 1995) may contain multiple Hoary Redpolls—and that few if any of these will be adult males. Echoing the findings of Knox (1988), Kaufman (1994) summarized the problem facing birders: "It may be that our image of the 'typical' Hoary is really based on extreme individuals. This conservative approach to identifying this species is commendable but may skew our perception of its actual numbers, with only the palest individuals being detected most of the time." One might modify that sentiment: with only the palest individuals *being readily accepted by the birding community and records committees*. We may rightly suspect that at least some birds identified in the past as "pale Commons" were instead first-year *exilipes* Hoary Redpolls. Of course, Common Redpolls also show variation, no less important to study and consider than variation in *exilipes* Hoary and other taxa.

Birds of intermediate appearance have also sometimes been presumed to be hybrids. As yet, no documentation exists of either a mixed redpoll pair or a hybrid in North America, and field studies suggest that nominate Common and *exilipes* Hoary behave as separate species (see Molau 1985, Knox 1988, Seutin et al. 1992, 1993, 1995). Detailed studies over large parts of these birds' breeding ranges are lacking, however, and many questions remain unanswered; hybridization is certainly possible. Although studies have thus far detected low genetic distinctiveness between the redpoll taxa (Seutin et al. 1995, Marthinsen et al. 2008), authors of the latter study acknowledged that genetic differentiation could be too recent and/or rapid to be detected with the genetic markers they investigated. Indeed, a recent study of the diverse Darwin's finches detected surprisingly high genetic homogeneity (Freeland and Boag 1999). It is certainly possible that some birds considered "intermediates" or hybrids in the past (e.g., Wetherbee 1937) were so classed because redpolls' plumage variations by sex, age, and degree of wear were under-appreciated, as some authors have maintained (Molau 1985, Knox 1988; see Coues 1861). Birds with aberrant plumages may also pose problems. Leucistic Common Redpolls have been photographed, for instance, though such birds have shown blotchy patterns of white, rather than being uniformly paler in plumage; nevertheless, a "dilute-plumaged" Common Redpoll could surely be mistaken for a Hoary (Figures 3, 4). As is true of a great many congeners, some redpolls of intermediate appearance are best left unidentified: to record a "redpoll sp." is to acknowledge honestly a limit of field identification. Taking notes on such birds, photographing them, and discussing them with others is a superb way to move the conversation forward on redpoll identification.

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Figure 7. Distinguishing Common and Hoary Redpolls becomes most difficult when dealing with the least-differentiated plumages, namely those of females and young birds. The larger bill, heavy brownish flank streaking, and generally brownish tones of the bird on the left indicate a Common Redpoll, and the lack of color in the breast suggests that it is not an adult male—more likely an adult female or a first-year bird. On the right, the tiny bill, unstreaked undertail coverts, small red "poll," and overall frostier tones point toward an *exilipes* Hoary Redpoll, but again, not an adult male, more likely a first-year bird. In the wing, the Hoary shows more extensive white edges to remiges and coverts than the Common. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 8. This rather streaky *exilipes* Hoary Redpoll, a first-year bird, shows a very limited area of white in the rump, similar to many Commons. The buff tones in the cheek are more often seen in first-year Hoaries, but some adults also have buff in the face (Lansdown et al. 1991). This bird's very small bill and whitish ground color permit identification as *exilipes* Hoary. Once thought to be the "gold standard" for redpoll identification, rump color/pattern in young redpolls, and even adults, can be useful for identification, but extensive variation in both species limits its value. According to Pyle (1997), the tapered rather than truncate tips of the outer three rectrices indicate a first-year (HY/SV) individual here. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 9. Differences in the pattern and colors of the upperparts, especially the rump, can be useful for distinguishing between Common and Hoary Redpolls. The “rump” is the area between the “back” (mantle) and the uppertail coverts (which here show dark centers). In this bird, the rump is mostly whitish with a touch of pink, the tones of the upperparts are pale, and streaking in the underparts appears to be minimal—all suggestions that this is a Hoary, though a few adult male Common Redpolls could perhaps approach this appearance. The very broad white edges on tertials and greater coverts, however, point to Hoary. Lansdown et al. (1991) suggest that Hoary may drop the wings more regularly than Common, but no evidence supports this suggestion. Marathon, Ontario, 18 January 2011. *Photograph by Michael T. Butler.*



Figure 10. This *exilipes* Hoary Redpoll shows extensive white in the rump, thin streaking restricted mostly to the flanks, and unstreaked undertail coverts (not entirely in view here). The relatively large red forecrown patch, as well as the medium-sized bill, might suggest a pale Common Redpoll, but both features vary in both species. The brownish tones in the back and buff tones in the face suggest that this bird may not be an adult, but the well-developed white edges in the wings and tail and rather strong facial pattern and red crown could well indicate an adult female. When Hoary Redpolls sleek down their plumages, they appear a bit darker than when they fluff up the plumage; this individual looks paler in other photographs. Matheson, Ontario, 18 February 2011. *Photograph by Brandon R. Holden.*



Figure 11. This typical adult male *exilipes* Hoary Redpoll is very pale overall and very lightly streaked below, with faint pink tones in the breast. The rosy crown patch is larger than in some adult male *exilipes* but not unusually so. Marathon, Ontario, 15 January 2011. *Photograph by Michael T. Butler.*



Figure 12. This *exilipes* Hoary Redpoll (left), probably a first-year bird (note tapered tips of outer rectrices), shows some brownish tones in face and back, but overall its tones are quite gray and whitish; note also the very limited amount of red in the crown, very small bill, and the limited area of dark plumage around the bill, all more typical of Hoary. Having a nominate Common Redpoll in the same frame makes assessment of plumage tones and bill structure much easier with a non-adult Hoary. Matheson, Ontario, 18 February 2011. *Photograph by Brandon R. Holden.*



Figure 13. An adult, probably male Hornemann's Redpoll, here showing the almost complete lack of streaking below and the stunning whiteness of plumage, including the edges of greater coverts, secondaries, and tertials. Matheson, Ontario, 18 February 2011. *Photograph by Brandon R. Holden.*



Figure 14. This apparent adult Hornemann's Redpoll shows a blush of pink not just in the breast but also in the malar area, the rump, and the outer rectrices. The identification as Hornemann's was made when it was near nominate Common Redpolls. Matheson, Ontario, 18 February 2011. *Photograph by Brandon R. Holden.*



Figure 15. When a redpoll looks like a snowball, it's worth a photograph. Although this bird near Marathon, Ontario has fluffed its plumage and raised its wings, exaggerating the rotundity of its appearance, its overall whiteness and limited streaking certainly indicate an adult male Hoary. However, its size, when observed a few moments later among nominate Common Redpolls, was similar to its flockmates, which suggests an adult male *exilipes* Hoary rather than Hornemann's. Judging size of redpolls is extremely difficult without the context of other individuals, ideally of other taxa! Marathon, Ontario, 6 January 2011. Photograph by Michael T. Butler.



Figure 18. First-year Hornemann's Redpolls show more streaking below, lack pink tones in the breast, and are less strikingly white overall than adults, but they still almost always appear much larger than the smaller taxa (here with a nominate Common, most likely an adult male), especially when seen in close proximity. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 16. This *exilipes* Hoary Redpoll, probably an adult, possibly female, shows the feathering around the tibia, the "pantaloons," often seen in this species. Marathon, Ontario, 11 January 2011. Photograph by Michael T. Butler.



Figure 19. With the extensive buff in mantle, head, and upper breast, this Hornemann's Redpoll may be a first-year bird. Note the extensive white edges of tertials and greater coverts and very large snow-white rump. Marathon, Ontario, 27 January 2011. Photograph by Michael T. Butler.



Figure 17. A Hornemann's Redpoll, possibly an adult female, with a nominate Common Redpoll. On paper, differences in length of 10-14% may seem slight, but Hornemann's also average significantly heavier than both nominate Common and *exilipes* Hoary. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 20. Readily identifiable by plumage as a Hoary and by size as a Hornemann's (a Greater Redpoll behind it was judged to be of similar size), this bird appears less whitish in tone and has more streaking below than an adult male. It is probably a first-year bird or possibly an adult female. Marathon, Ontario, 6 January 2011. Photograph by Michael T. Butler.



Figure 21. Hornemann's Redpoll, perhaps a first-year male. The rich buff tones of the face (called a "chamois-leather" color by van den Berg et al. [2007]) are probably more typical of younger Hornemann's than of adults, as is true in the better-known *exilipes* Hoary. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 22. Two Hornemann's Redpolls share a tree with an *exilipes* Hoary Redpoll (lower right), a much smaller bird when seen in direct comparison with Hornemann's. Observers should study and photograph groups of redpolls over long periods of time when making comparisons, as the birds' apparent shape and paleness change regularly as they fluff up the plumage against the cold. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 23. In addition to its greater length and weight, Greater Redpoll is darker than nominate Common in all plumages, with broad, dark-brown streaking on the sides and flanks especially pronounced but also typically with more brown in the cheek and back overall. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.

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Redpolls, like young jaegers, show enough variation in plumage that no single feature or even small set of features has been considered reliable for producing an accurate identification in the field. Instead, it is necessary to evaluate all aspects of plumage, and structure, to build a case for identification, at least for the more challenging individuals. Many of the features associated with one species or the other require qualification, and indeed even some of the more reliable features that permit many individuals to be identified to species should not be applied in an absolute sense. Beginning students of redpoll identification will profit from prolonged field study and from extensive photographic documentation of the birds they observe. Plumage tones and contrasts can appear to vary because of lighting (and photographic exposure and manipulation), and in redpolls they also vary with sex and age, with adults being generally paler and more colorful than first-year birds and males likewise being paler overall and also more colorful (in crown, rump, and breast, where plumage shows red or pink) than females. Variation by age and sex has yet to be the subject of a large scientific study in North America, though for nominate Common Redpoll, for instance, we do know from field studies that adult males show the most rosy red or pink in the breast (Figure 2), that first-winter males tend to be darker than adult males and often show just a wash of pink, that adult females may show just a blush of pink but usually lack it, and that first-year females tend to be darker overall than other plumages, with more streaking and no pink in the breast. The red/pink breast color in nominate Common Redpoll intensifies toward spring, as the pale tips of breast feathers wear (Lansdown et al. 1991). Other redpoll taxa show similar age- and sex-related distinctions between plumages, but many of the age/sex labels applied to redpolls in the field must be considered educated guesswork, especially when birds are not examined in the hand.

Even structural differences used to identify redpolls, such as the supposedly smaller, "pushed-in" (more obtuse) appearance of *exilipes* Hoary's bill, should be applied with caution: studies have found minimal or no difference in the length of the bill between these species in North America (Knox and Lowther 2000b). A redpoll that turns its head even slightly out of perfect profile may appear to have a stubbier bill than it actually does (Figure 5); some Common Redpolls have bills that appear small, and some *exilipes* Hoaries' bills do not exhibit a "pushed-in" appearance (Lansdown et al. 1991)—and Hornemann's Redpoll has a comparatively larger bill (van den Berg et al. 2007). Redpoll observers have noted that the smaller-billed look of *exilipes* Hoary results in part from having more extensive plumage covering the base of the bill, but this aspect is also variable (Figure 6). Redpolls of all species often fluff up their plumage against cold conditions, and in the process, their plumage may appear suddenly paler or whiter, as dark-centered feathers become concealed beneath the lighter plumage. A redpoll's overall body shape, head shape, and relative size may also appear to change, depending on the bird's activity. To gauge relative proportions and size with accuracy, it may be necessary to study and photograph individuals over many minutes, which is not always easy with flighty, fidgety flocks. Generally, Hoary's very dense plumage gives it a bulkier appearance in body, head, and neck than Common, and this, along with *exilipes* Hoary's paler plumage, is normally how birders begin the process of separating these species in a mixed flock (Figure 5). In areas where most birders encounter them in winter, redpoll flocks are usually predominantly composed of nominate Commons, with a few *exilipes* Hoaries mixed in on occasion, though winter 2010–2011 saw more reports of Hoaries than usual in many areas.

Distinguishing *exilipes* Hoary from nominate Common

All of the distinctions illustrated in the field guides will help birders correctly identify a classic Common or Hoary Redpoll, and a careful birder would be unlikely to mistake a typical dark Common Redpoll for an adult Hoary. But there are many exceptions to the familiar field marks. A few Commons, almost certainly males, show minimally streaked undertail coverts and flanks, remarkably white rumps, and little pink in the breast (especially in fresh plumage in autumn and early winter), thus closer to a Hoary. Likewise, a first-winter female Hoary is generally the darkest of the post-juvinal plumages in that species, thus approaching female Common Redpoll in general appearance (Figures 7, 8). (Note: the feathers referred to as the “rump” here are those between the mantle and the uppertail coverts; Figure 9.)

With birds away from the obvious extremes of typical Common or Hoary, it is necessary to consider not just the well-known distinguishing features but also the “soft” distinctions. Some *exilipes* Hoary Redpolls, for instance, show a markedly smaller red forecrown patch than a typical Common (Lansdown et al. 1991; Figures 5, 7). Most also show less extensive black in the chin and lores than Commons of the same age/sex, and this area of darker plumage in Hoary often looks more gray or brownish gray than truly black (Knox and Lowther 2000b; Figure 5-8, 10-12). Also, compared to nominate Common Redpoll, corresponding plumages of *exilipes* Hoary show much less pink on the breast, with adult males often showing very little (Knox and Lowther 2000b; Figure 12). The quality of the pink is also typically much less intense than in Common Redpolls, though there is much variation in this feature in Common (Lansdown et al. 1991). (Lighting conditions can either diminish or exaggerate this tone.) Some redpoll observers indicate that Hoary also shows not just more feathering around the bill, on average, than Common but also more feathering around the legs (Figures 6, 16). These features can be difficult to study, evaluate, and document. Description of most of them is subjective by nature—and some have in fact been called “useless” for distinguishing these taxa. But they may be supportive of a case for identification that is built primarily on other aspects of plumage.

Distinguishing Hornemann's from *exilipes* Hoary

Its remote haunts and snow-white plumage made Hornemann's Redpoll (Figures 13-14, 17-22) a subject of fascination for early North American ornithologists. More recently, birders have attempted to familiarize themselves with this taxon through the “Life Histories of North American Birds” series edited by Arthur C. Bent, which contains extensive descriptions of both Hoary Redpoll subspecies (Austin 1968, Baldwin 1968), and through illustrations in a few field guides (National Geographic Society 1983; Sibley 2000). But this taxon receives rather thin treatment in most twentieth-century articles on Hoary Redpoll identification (Lansdown et al. 1991, Jännes 1995, Votier et al. 2000) and in the Hoary Redpoll accounts in more recent specialty guides (e.g., Beadle and Rising 2006). In fact, there have been very few convincing images of Hornemann's published in North America, and only a handful of birders know it well in life. Yves Aubry, Michel Gosselin, and Richard Yank (1987) wrote of Hornemann's: “a huge and distinctive white bird,” “a great rarity south of the tundra at any season.”

Averaging 14.0 cm in length, Hornemann's is the largest of all redpoll taxa, about 11% longer than most *exilipes* (averaging 12.5 cm) and slightly larger than Greater Redpoll (Knox and Lowther 2000b). Such size differences may seem slight, but they are sometimes apparent in the field when birds of different taxa are seen together (Figures



Figure 24. Seen face-on, Greater Redpoll's more extensive black plumage around the bill gives it a more masked appearance than nominate Common, in some birds appearing almost ghoulish. Marathon, Ontario, 14 January 2011. Photograph by Michael T. Butler.



Figure 25. A Greater Redpoll and a Hornemann's Redpoll take flight. Note the Greater's dark feathering around the tibia and very limited pale plumage in the rump. The breeding and wintering ranges of these taxa overlap extensively, but their breeding biology has been little studied in recent times. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 26. When comparing sizes of redpolls, it is best to have them in the same plane and posture. The bird at right is likely a Greater Redpoll because it is so much larger than the accompanying *exilipes* Hoary, but its plumage is very similar to nominate Common Redpoll. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.



Figure 27. An adult male Hornemann's Redpoll (left), showing almost no streaking in the underparts, above a Greater Redpoll. This juxtaposition of the palest and darkest American redpoll taxa is seldom observed away and eastern Nunavut and Greenland. This adult male Hornemann's Redpoll stayed well away from the flocking redpolls at the feeding station. Matheson, Ontario, 18 February 2011. Photograph by Brandon R. Holden.

15, 17, 18, 20)—and they are especially useful when one is studying a plumage other than adult male (Figures 18, 19, 21). Hornemann's exaggerates the features most associated with *exilipes* when compared to Common, appearing even whiter overall than most *exilipes* (in all parts of the plumage), with even bulkier body, longer wings and tail, thicker neck, and extensive feathering around the tibia that look like wispy “pantaloon”—a phrase coined by Adirondack bander John M. C. Peterson during what was likely the largest irruption of Hoaries ever recorded in the eastern United States (Buckley and Kane 1974). Adult males have less pink than *exilipes*, some showing only a trace of suffused pink on the breast, but some also show pink in the rump (Knox and Lowther 2000b; Figure 12). Adult females and first-year birds are not as blindingly white as adult males but are often recognizable by their size when compared directly to the smaller taxa *flammea* and *exilipes* (Figure 17, 18). These plumages appear to show more buffy tones in the head, breast, and mantle and no pink whatsoever (Herremans 1991; van den Berg et al. 2007).

The American Ornithologists' Union's Check-list Committee (A.O.U. 1998) suggests that the two taxa of pale redpolls “may represent separate species, *C. exilipes* (Coues 1861) [Hoary Redpoll] and *C. hornemanni* [Hornemann's Redpoll].” In North America, the attractive Hornemann's has been detected as far from typical range as Fairbanks, Alaska (A.O.U. 1998). The mainland of Europe has records of Hornemann's from near Abbeville,

France (Degland and Gerbe 1867), at Bauvin, Pas-de Calais, France 1 February 1966 (Dubois et al. 2009), and on Ushant Island, France 19–21 October 1986 (Dubois et al. 2008), as well as from Germany and Belgium (Hüppop 1996; Herremans 1991), and a recent vagrant Hornemann's in Holland was the occasion for a paper that advocated restoring Hornemann's to full-species status (van den Berg et al. 2007). It is certainly worth keeping Hornemann's in mind when watching redpolls anywhere.

Distinguishing Greater Redpoll from nominate Common Redpoll
Much as Hornemann's Redpoll can be considered a larger, whiter, and less-streaked version of *ex-*

ilipes Hoary, so Greater Redpoll resembles a darker, larger version of nominate Common, averaging about 10% longer and at least 25% heavier (Knox and Lowther 2000a). When observed in direct comparison with nominate Common—and even when observed alone—Greater has a distinctly different shape, with a heavier body (especially neck and breast), heavier bill, and longer tail (Beadle and Henshaw 1996) (Figure 23). Many Greaters also seem to have a more bulbous culmen than nominate Commons (Beadle and Rising 2006). Greater's plumage tones are also darker, with reduced pale feather edgings in comparison to nominate Common. The streaking of the underparts (breast, sides, and undertail coverts) is heavier and darker in Greater than Common, the black adjacent the bill (chin, lores) is more extensive (Figure 24), and the nape and auriculars are also darker overall. The dark streaking below is so extensive that it dominates the underparts, with many streaks both thick and long/continuous (Figure 25). The intensely rosy red tones of some adult male nominate Commons are almost never matched by adult male Greaters, and Beadle and Rising (2006) indicate that male Greaters show no red in the malar area, which male nominate Commons sometimes do show. The more lightly marked Greaters (Figure 26), probably first-year birds, may be best distinguished by their larger size—and often by their shape, both huskier in the chest and longer in the body/tail. Some observers assert that Greaters resting in trees appear to perch more upright than nominate Commons, and this tendency, combined with

their larger size, darker plumage, and heavier bill, has led some observers to liken their shape to that of House Finch (*Carpodacus mexicanus*).

Closing thoughts

When studying redpolls, observers should also be alert for subtle differences in behavior and should try to record vocalizations of individual birds that appear different. Some observers who have spent a lot of time watching mixed redpoll flocks have indicated that they can sometimes pick out an adult male Hoary Redpoll in flight, though identification should be verified by plumage features. Many observers have described subtle but distinctive differences in calls between Hoary and Common, which agrees with the limited literature on the subject (Knox 1988, Herremans 1989, Lansdown et al. 1991). So strikingly large and white were the Hornemann's in mixed redpoll flocks in February 2011 (Figure 27) that Brandon Holden called them the “abominable snow monsters.” Greaters may also be first detected by vocalizations; according to some, their calls generally sound harsher than those of nominate Commons.

Observers in eastern Canada might also want to be on the lookout for the rather small, streaky Lesser Redpoll (*A. cabaret*) of Europe, a specimen of which was taken in eastern Greenland at Kuummiit on 6 September 1933 (Boertmann 1994). And even closer to North America, Common Redpolls that nest in Iceland, subspecies *islandica*, can be quite variable, with many appearing intermediate between nominate Common and Greater, but some birds being quite pale, very similar to *exilipes* or to the palest nominate Commons (Knox 1988, Lansdown et al. 1991, Pennington and Maher 2005). So how would one rule out an Icelandic Redpoll in the case of an “intermediate”-looking bird in northeastern Canada, for instance? We do not know.

There is surely much more to discover in our own backyards.

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