Hoary Redpolls in New Hampshire in December 2003 and January 2004

James P. Smith, Petro Pynnönen, and Susannah B. Lerman

Background

The late fall of 2003 produced a memorable invasion of Common Redpolls (*Carduelis flammea)* throughout the New England states. Common Redpolls first appeared in the area of Keene, New Hampshire, on December 7 (seven individuals) and quickly built up to fifty-five birds by December 10. Variable numbers were present daily throughout to late December and well into January 2004. Several Hoary Redpolls (*Carduelis hornemanni)* were detected among these birds during the Keene Christmas bird count on December 14. The following week produced further single Hoary Redpolls in scattered locations around Keene. Additionally, a site very close to Keene town center held as many as four birds on December 19 and 20, with at least six individuals present on December 23. Two to five were then reported regularly until at least January 19, 2004. These birds gave excellent and prolonged views and allowed many visiting birders the chance to catch up with this beautiful arctic finch for the first time. This site provided a perfect opportunity to study the identification of Hoary Redpolls at length in direct comparison with larger numbers of Common Redpolls.

Taxonomy

Redpolls are small, delightful northern finches with nomadic tendencies. During periodic winter invasions, they can be found at more southerly latitudes. The presence of Hoary Redpolls is of major interest to many birders during these invasions, but shouldn't be totally unexpected (Kaufman 1996). The two species are very closely related and have been the subject of much taxonomic research and discussion, past and present. Some authors have disputed the claim that the two taxa represent distinct species, preferring to recognize them as distinct forms within one species (Troy 1985).

However, the current and widely held taxonomic view recognizes two distinct species: Common Redpoll (*Carduelis flammea),* which occurs in four forms, and Hoary or Arctic Redpoll (*Carduelis hornemanni),* which occurs in two forms.

The four forms of Common Redpoll and geographical occurrences are as follows:
1. *Carduelis flammea flammea*, North America, Northern Europe, and Northern Asia.
2. *Carduelis flammea rostrata*, Eastern Baffin Island, Greenland.
3. *Carduelis flammea islandica*, Iceland.
4. *Carduelis flammea cabaret*, Northwest Europe, and the Swiss Alps.

The two forms of Hoary or Arctic Redpoll and geographical occurrences are as follows:
1. *Carduelis hornemanni hornemanni*. Canadian High Arctic and Northern Greenland.
2. *Carduelis hornemanni exilipes*. Distributed broadly across the tundra of North America, Asia, and Northern Europe.

The Keene Redpolls

The redpolls in the Keene area in December 2003 appeared to be entirely composed of *C.f. flammea* and *C.h. exilipes*, as might have been expected in southwest New Hampshire. Two other potential forms do occur in North America, though *C.h. hornemanni* and *C.f. rostrata* are usually shorter distance migrants and considered to be very rare in the eastern United States.

The variability within Common Redpoll plumages (all forms, including *flammea*) is well known, while a better understanding of the plumages of the southern form of Hoary Redpoll (*C.h. exilipes*) has led to a significant increase in records from a number of European countries, especially the United Kingdom, with almost 800 records to date (Rogers 2000). These included major influxes in the winters of 1984/85 and 1995/96, which renewed interest in (and advanced) the standard field identification criteria of *exilipes* and *flammea* (Millington 1996).

Identification tips

It must be stressed that field identification between *flammea* and *exilipes* is far from easy. Moreover, many published texts refer to classic examples of both forms and allude to the variability within *exilipes*, which can actually be quite heavily streaked and very close to *flammea*. Some examples are much more obvious than others in both species, and therefore prolonged views with a telescope are usually required to establish identification in the field. However, in many cases identification is quite possible using a combination of criteria rather than relying on one specific field character. Indeed, during an examination of skins from northern Fenno-Scandia, Lars Svensson (1992) found that only two percent were especially difficult to assign to either form.

1) Ageing

Determining the age of redpolls in the field can be extremely difficult. Only the males of both taxa, upon completing the first molt, become somewhat obvious. Both acquire variable amounts of pink (Hoary) or red (Common) wash on the breast, upper flanks, and lower rump. These features can be partly concealed by pale feather tips when fresh but become brighter with wear. The overall appearance of both species becomes darker and more streaked in spring and summer. Therefore, the two taxa are most easily separated in fall and winter.

Adult males of both taxa usually have lighter flank streaking and less streaking on the rump and undertail coverts than females or first-year birds. Variability within the age and sex classes would render accurate ageing of adult females and first-years problematic in the field and should only be attempted with extreme caution. Accurate ageing also requires extra care even when the bird is in the hand.

2) Structure

Exilipes is usually slightly larger than *flammea*, and often looks "bullnecked," especially when feeding on the ground with *flammea*. The nape is broad with little definition between head and mantle, giving a neckless appearance, whereas *flammea* often looks more elegant with a narrower nape. This, combined with the overall

fluffier impression, can contribute to the often squat and chunky impression of *exilipes*.

The bill of *exilipes* is usually shorter and actually a different shape from that of *flammea,* being more conical with a straight culmen. *Flammea* often looks longer-billed with a more obviously curved culmen. While there may be overlap in actual bill length, the differences in shape are consistent, and more often than not, *exilipes* appears to have a tiny bill. This is often emphasized in fresh plumage when longer, denser feathers cloak the bill base and nostrils.

3) Plumage

Exilipes is certainly paler overall than *flammea,* though pale, frosty-looking *flammea* can also occur. These pale *flammea* are probably from the northern extreme of their range, where overlap occurs with *exilipes* and separation can be extremely difficult. However, in *exilipes,* the ground color of the mantle and head is grayish-white or white, rather than brownish-white in *flammea*. Both taxa show a white-grounded stripe or two in the center of the mantle, usually more obvious in *exilipes*.

In addition, the underparts are cleaner white in *exilipes,* especially on the undertail coverts and flanks, while the rump is often crisp white with little or no streaking. Some *flammea* can be white-rumped, though the pure white area is always narrow and not as strikingly white as *exilipes*. Indeed, a freshly plumaged *exilipes* usually shows about two centimeters of broad, white, unstreaked rump, though some first-years may show less.

Only adult male *flammea* will show a largely unstreaked rump similar to *exilipes*, but it is typically reddish, not white. On average, *exilipes* shows broader, whiter tips and fringes to the remiges and retrices than the brownish-white of *flammea*. Furthermore, the bases of the retrices show more white in *exilipes* and, in some adults, the white inner edge can be as extensive as half of the feather's inner edge.

The auricular of *exilipes* is often poorly defined or sometimes absent. Many *exilipes* show a distinctive yellow-ochre wash about the face, sometimes extending onto the upper breast but always contrasting with the clean white ground color of the rest of the underparts. All of these features combined give *exilipes* a distinctive, "hoar-frosted" appearance that will often lift them straight out of a flock of *flammea*, even with the naked eye.

4) Finer points

The undertail covert pattern of both species can be extremely useful in identification, especially when a feeding flock is high above the observer. *Exilipes* usually shows very clean undertail coverts often limited to a fine, hair-like streak on the longest undertail coverts. Sometimes several smaller, finer streaks can be seen with a telescope, though generally speaking, *exilipes* will only show 0-3 fine streaks on the undertail coverts (Pyle 1997). This is also age and sex related, since adults, especially males, usually have one or no streaks on the undertail coverts. Close examination of the Keene birds, both in the field and from images, revealed that all

the *exilipes* present showed at least one fine streak on the undertail coverts, though they sometimes gave the impression of being completely unstreaked.

Flammea, on the other hand, is often boldly streaked on the undertail coverts, the longest covert being the most broadly and heavily marked. While a few adult male *flammea* might show lightly marked undertail coverts, it is highly unlikely that the pattern of *exilipes* would approach the density of streaking shown by most *flammea*. This feature is well illustrated in Pyle (1997) and Svensson et al. (1999).

Experienced observers often talk about the difference in facial "jizz" between the two taxa. This is true to an extent, and *exilipes* does have a distinctive facial pattern created by a number of factors. First of all, the bill is small and conical, and often looks as though it has been "pushed-in" to the face, emphasized by the fluffy nasal feathering at the base of the bill. There is often less black around the bill of *exilipes*, especially above the upper mandible and above the eye, giving way to more white on the forehead and supercilium. The red spot on the forehead often looks smaller, highlighted by the whitish ground color of the crown, which has finer streaking. The auriculars are usually less well-defined than *flammea*. These features will often allow an experienced observer to identify *exilipes* at a glance in the field, or from photos.

Summary

As many as ten individual Hoary Redpolls of the form *C.h.exilipes* were identified and photographed at four different sites in the Keene area of southwest New Hampshire from December 14 to 31, 2003.

Reports of Hoary Redpolls from the Keene area continued well into late January 2004, by which time numerous reports were also received from several locations in Vermont, Maine, New Hampshire, and Massachusetts. The images on pages 90 and 91 show just a few of the individuals in comparison with Common Redpolls, which represented the majority of the redpoll influx into the Keene area. An estimated 230 redpolls were present at ten sites during December 2003.

References

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James P. Smith *is a professional bird tour leader and has long been associated with the birding scene in Israel. He serves as a member of the Israel Rarities and Distribution Committee and has coauthored the two volume site guide* The Birding Hot Spots of Israel. *He has worked on numerous illustration projects, including a set of National Israeli stamps in 1992, and in that same year, finished as runner-up in the coveted "British Birds, Bird Illustrator of the Year" award.* ***Petro Pynnönen*** *lives in Helsinki, Finland, with his wife and young son. He has worked at numerous bird observatories in Finland and has banded more than 30,000 birds since 1990, mainly passerines. His special interests include the ageing and sexing of shorebirds, and bird identification in general. His banding experience extends to several hundreds of Common Redpolls (*C.f. flammea*) and at least 10 Hoary Redpolls (*C.f. exilipes*).* ***Susannah B. Lerman*** *is a graduate student in the Conservation Biology program at Antioch New England Graduate School, Keene, New Hampshire. Her thesis work focuses on the winter ecology of Striated Scops Owl (*Otus brucei*) in southern Israel. Though a native of Massachusetts, her interest in birds began in earnest after her first visit to Israel in 1996. She has worked on a number of ornithological research projects in Israel, Arizona, New Hampshire, and Vermont.*

Editor's Note*: The interested reader can find additional information on this tricky identification issue in the following article: Czaplak, D. 1995. Identifying Common and Hoary Redpolls in Winter.* Birding *27 (6): 447.*

Photographs of the Keene Redpolls

Above left. Hoary Redpoll (*Carduelis hornemenni exilipes*). A broad band of white is visible across the rump, even on darker individuals. Also note the broad whitish fringes on the uppertail coverts and the thin streaking on the lower flanks. James P. Smith, December 2003.

Above right. Male Hoary Redpoll (*Carduelis hornemenni exilipes*). Note the clarity of the white underparts, minimal flank streaking, and virtually unmarked undertail coverts. Why male? The color image shows a light pink wash on the upper breast, ruling out female and first-winter *exilipes*. Compare the flank streaking with the much darker Common Redpoll at the rear. James P. Smith, December 2003.

Above left. Hoary Redpoll (*Carduelis hornemenni exilipes*). A classic bird showing off its very best features. Almost spherical at times, such birds give rise to the oft-quoted "flying snowball" appearance. Especially noteworthy are the uppertail coverts (broadly fringed white) and the way that the white of the upper rump extends well into the lower back and deep into the center of the mantle. James P. Smith, December 2003.

Above right. Male Common Redpoll (*Carduelis flammea flammea*). An exceptionally pale bird for *flammea*, especially on the undertail coverts and about the face, and therefore a pitfall for the unwary. However, only male Common Redpoll can show such an obvious red upper breast in midwinter. The breast of a male Hoary would at best, be very faintly washed pink (not red) in late December, making the identification of this fine male straightforward. James P. Smith, December 2003.

Above left. Common Redpoll (*Carduelis flammea flammea*). A typical individual with overall brownish cast, heavily streaked flanks, and extensively streaked undertail coverts. Note the dull brownish-white fringes on the remiges. It is also worth noting how narrow and dull the fringes of the uppertail coverts appear when compared with those of Hoary Redpoll. James P. Smith, December 2003.

Above right. Common Redpoll (*Carduelis flammea flammea*). Notable by its longer-billed appearance, well-defined auriculars, dull brownish-white fringes to remiges and retrices, and rather heavy flank streaking. Interestingly, the pure white undertail coverts of a Hoary Redpoll can just be seen to the rear and right of the Common Redpoll's head. James P. Smith, December 2003.