THE SPECTRUM OF REDPOLLS

by Leif J. Robinson, Wellesley

Open a field guide that illustrates both species of redpolls--there doesn't seem to be much of a problem separating the Hoary (<u>Acanthis hornemanni</u>) from the Common (<u>Acanthis</u> <u>flammea</u>). But gremlins lurk in the underbrush--many more than I suspected when this article was begun!

In North America, only two species and three subspecies of genus <u>Acanthis</u> are currently recognized by the American Ornithologists' Union. But wide variations in size and plumage lead to enigmas. In short, the field guides do not tell the whole story; a couple of little-known field marks described below may help to distinguish the two species.

I will stress contrasts between <u>A</u>. <u>h</u>. <u>exilipes</u> and <u>A</u>. <u>f</u>. <u>flammea</u>-the races of Hoary and Common Redpoll, respectively, that are most likely to be encountered in Massachusetts-for it is problematical whether any of the subspecies can be consistently identified in the field. In fact, John Bull remarked, "The identification in life of the two redpolls is a difficult matter at best ... Size is deceptive in the field even when direct comparison is possible. Coloration and amount of streaking in these birds are so variable that individual specimens in large museum series have been determined as different forms from time to time by competent taxonomists."

To my knowledge, the single subspecies of Hoary Redpoll (<u>A</u>. <u>h</u>. <u>hornemanni</u> = Hornemann's Redpoll) has never been collected in Massachusetts, but both subspecies of Common Redpoll have. <u>A. f. holboellii</u> - Holboell's Redpoll is generally regarded as unidentifiable by sight. Indeed, a footnote in the current AOU <u>Check-list</u> states that "The validity of this race is uncertain from present information; possibly it is not separable from <u>A</u>. <u>f</u>. <u>f</u>.

The Greater Redpoll (<u>A. f. rostrata</u>) may also be unidentifiable with certainty in the field. Yet, in Massachusetts, it may occasionally be quite abundant, particularly along the coast. Brewster recalled February, 1883, when 34 of 40 redpolls collected on Nantucket Beach were Greaters!

These subspecies will be mentioned only inasmuch as they affect the identification of <u>A</u>. <u>h. exilipes</u>. To avoid ambiguities, it will be necessary to make frequent reference to the scientific names of the redpolls. For convenience, they are collected in the table.

HOARY REDPOLL

- <u>A. h.</u> <u>exilipes</u> = Hoary Redpoll in general usage; also Coues' Hoary Redpoll or Coues' Redpoll, referring to the western Canadian Arctic race.
- <u>A. h. hornemanni</u> = Hornemann's Redpoll, the extreme northeastern Canadian Arctic and Arctic Greenland race.

COMMON REDPOLL

- <u>A. f. flammea</u> = Common Redpoll, breeds across mainland Arctic Canada and southward into the Subarctic.
- <u>A. f. rostrata</u> = Greater Redpoll, breeds in extreme northeastern Canada and southern Greenland.
- <u>A. f. holboellii</u> = Holboell's Redpoll, the North American range of this questionable race is said to be Alaska and the Yukon Territory.

Following is a synthesis of field marks culled from a score of references. It is intended merely to isolate probable useful field characteristics and to indicate the degree of consensus among the sources. Except for size, refer to the sketch for anatomical identification.

Size: Relative to <u>A</u>. <u>f</u>. <u>flammea</u>, <u>A</u>. <u>h</u>. <u>exilipes</u> averages larger but shows no consistent difference that would be diagnostic in the field. There is marked overlap, even among the largest subspecies, <u>A</u>. <u>f</u>. <u>rostrata</u> and <u>A</u>. <u>h</u>. <u>hornemanni</u>.

Bill (1 in sketch): Among the half dozen sources that comment specifically, the consensus is that relative to <u>A</u>. <u>f</u>. <u>flammea</u>, the bill of <u>A</u>. <u>h</u>. <u>exilipes</u> is shorter and more

conical. (See especially the illustrations in Godfrey or Forbush.) Among the subspecies, note that the bill of <u>A</u>. <u>h</u>. <u>hornemanni</u> is proportionally larger and thicker than <u>A</u>. <u>h</u>. <u>exilipes</u>, while that of <u>A</u>. <u>f</u>. <u>rostrata</u> is markedly heavy and grosbeaklike. The bill is not diagnostic, but it may be useful in isolating ambiguous individuals.

General Coloration (2): Everyone seems to agree that the Hoary Redpoll has a basically paler appearance than the Common, due to the color of the feather edging--predominantly whitish in the former, buff in the latter. Indeed, <u>A</u>. <u>h</u>. <u>hornemanni</u> must be a very conspicuous bird, "the largest and whitest of the redpolls," according to Bent. I cite some cautions, however. "No spring sight records [of Hoary Redpoll] can be accepted because of [feather] wear; pale-colored Redpolls collected in late March proved to be worn Common" (Griscom and Snyder). "Apparently the darker individuals of [<u>A</u>. <u>h</u>. <u>exilipes</u>] are difficult to distinguish in the field from the common redpoll" (Baldwin in Bent). Note that the dark Hoary Redpolls overlap the light Commons and vice versa. General light coloration may be useful for picking out a suspect Hoary from a flock, but it does not prove the bird to be of that species.

Rump (3): Again there is general agreement--the rump should be white and unstreaked on the Hoary. However, many authors stop short in their remarks; they fail to mention that flecks of pink or even an all-pink glow may be present. I prefer Godfrey's description: "(except in worn breeding plumage) [the rump is] white or pinkish with little or no streaking, thus contrasting with the back." This is a primary field mark. Several sources also mention that Hoary Redpolls seem to be less inclined to cover their rumps with their wings.

Undertail Coverts (4): The first specific description of this criterion (though it is implied by Forbush) seems to be by Thomas S. Roberts: "under tail-coverts pure white without central dark streaks." In 1960 C. Stuart Houston classified 147 redpolls trapped in Saskachewan in the following manner:

Unquestionable Hoary (3% of the total) -- "very white wash overall, a pure white rump and pure white undertail coverts."

Probable Hoary (19%)--"whitish wash, but had a varying number of fine dark streaks on the rump and the sides of the breasts; the undertail coverts remained pure white."

The remaining 78% of Mr. Houston's birds had definite characteristics of Common Redpoll and <u>also</u> streaks on the undertail coverts. "The undertail coverts and not the rump should be used as the differentiating feature," he concluded, "and in borderline cases the decision will be difficult to make." This field mark has gained recognition, being referred to by Baldwin, Buckley and Kane, and Godfrey. The latter, however, cautions that both <u>A. h. exilipes</u> and <u>A. h. hornemanni</u> may have some streaking on the undertail coverts.

Pantaloons (5): Buckley and Kane relate an observation by J. Peterson, who described a "'pantaloon' effect of fluffy thigh feathering on several [Hoary Redpolls] seen in the Adirondacks." This field mark may prove to be useful, but it has not yet stood critical evaluation.

Streaking (6): Most sources indicate either by description or illustration that Hoarys generally have a white belly and less pronounced streaking on the sides than do Commons-no streaking at all. However, the variation in both species is so great (contrast the portraits in Audubon or Robbins with those in Pough or Heinzel) that this feature must be regarded as of secondary importance.

Various authors have proposed other distinguishing characteristics, such as the whiteness of wing-bars (Heinzel), sharper voice (Pough), or breast pattern (Pough). However, none of these seems to have gained general acceptance.

In summary, only a tiny fraction of the Hoary Redpolls that visit Massachusetts will be unambiguously marked. For the rest, careful observation of <u>several</u> field marks may yield convincing evidence. Needless to say, a report of any Hoary Redpoll should be accompanied by complete details. Perhaps someone will soon resolve the dilemma--by lumping the whole lot!

Discussions with J. T. Leverich and especially C. E. Smith have been of great aid in bringing this blurred story into better focus.

Postscript: Several months after this article had been written, I chanced upon a reference to Greater Redpoll in the <u>Bulletin of New England Bird Life</u> (Vol. 8, No. 3, March 1944). That was a remarkable year for redpolls: Common was described as having a "tremendous flight"; Hoary, "unusual numbers"; Greater, "extraordinary flight."

Most interesting, however, were the remarks concerning Ludlow Griscom, "who had never seen this particular bird before, made up for lost time; on the 9th with Mr. Tousey he saw $\underline{3}$ in the Sudbury Valley with 40 Commons and later that same day $\underline{3}$ more in Newbury-port; on the 19th with Messrs. Mason & Henderson he found $\underline{2}$ in a flock of 750 Commons (including one Hoary) at Boxford, then later that day 1 in Newburyport in a flock of 250; on Mar. 26th at Rowley he saw $\underline{2}$ in a flock of 80."

But then how is one to take this statement made ll years later in <u>The Birds of Massachusetts</u> (Griscom and Snyder, 1955): "Because of the numerous Redpoll intermediates, sight records are not acceptable ... " I see the imprint of a critical observer, one who could reassess a sighting in the light of new knowledge. Before Griscom's image is lost by the attrition of those who knew him well, someone should write this story.

REFERENCES

AOU Checklist, 1957

- Audubon, J. J., Birds of America, 1827-30 (1942 ed.)
- Bent, A. C., Life Histories ... Cardinals etc., 1968
- Brewster, W., Birds of the Cambridge Region, 1906
- Bruun, B. and Singer, A., Hamlyn Guide to Birds of Britain and Europe, 1970
- Buckley, P. A. and Kane, R. P., American Birds, June, 1974
- Bull, J., Birds of the New York Area, 1964
- Chapman, F. M., Birds of Eastern North America, 1932
- Forbush, E. H., Birds of Massachusetts, Part III, 1929
- Griscom, L., Birds of Concord, 1949
- Griscom, L. and Snyder, D. E., Birds of Massachusetts, 1955
- Godfrey, W. E., Birds of Canada, 1966
- Heinzel, H., et al., Birds of Britain and Europe, 1972
- Houston, C. S., Bird-Banding, April, 1963
- Minot, H. D., Land-birds and Game-birds of New England, 1895.
- Peterson, R. T., Field Guide to the Birds, 1947
 - Field Guide to Western Birds 1961

Pough, R. H., Audubon Land Bird Guide, 1949

Robbins, C. S., et al., Birds of North America, 1966

- Roberts, T. S., <u>Manual for the Identification of the Birds of Minnesota and Neighboring</u> <u>States</u>, 1955
- Snyder, L. L., Arctic Birds of Canada, 1957