

**Basics:** In common with other finch species, postjuvenile moult in Redpolls is not extensive. It comprises the body-feathers and, as a rule, lesser and median coverts, and 0-10 greater coverts. Birds which have only moulted a few, or no, greater coverts can leave odd single median coverts unmoulted. On average, 2.8 greater coverts are moulted, with 28.8% renewing none, and only 0.7% renewing all. 1.4% moult the carpal covert, but we have no figures for the alula, as old and new feathers are indistinguishable. About 2% renew one or two tertials (T8 or T9).

Adults have a complete postnuptial moult. More commonly than in other passerines, and towards the end of the breeding season (July, August), Redpolls can suspend primary moult. We have found several birds with only the inner P10, or PP9 and 10, moulted, with no other primaries in growth.

**1Y birds:** 70% of 1Y birds show a moult limit in the greater coverts, which is not at all easy to see, and involves recognising differences in the ground-colour of the feather centres and feather tips. The colour of the feather tips is individually variable. In a typical case, juvenile greater coverts will have beige/buff tips, renewed adult ones orange-brown. But this difference can be quite inconspicuous, particularly if the moult limit is among the outer greater coverts. It is much better to check the ground colour of the feather centres. Juvenile greater coverts are a shade lighter/paler brown than postjuvenile ones. 1Y birds which have moulted all or none of their greater coverts (thus with no moult limit), may be sometimes recognised by a moult limit in the tertials. For most 1Y birds, tail shape is also useful. 1Y tails are more pointed (and particularly the middle pair); adult tails more rounded. This contrast is particularly easy to see when a 1Y bird has accidentally lost and replaced a single tail feather.

**Adults:** All greater coverts are evenly coloured; tail feathers rounded. Birds with lots of red on their cheeks, breast, flanks and rump are adult males.

**Ageing in winter and spring:** The above criteria work equally well in spring as in autumn. However, wear of the greater covert tips and tail feathers makes ageing progressively more difficult and largely impossible by June. By then only very brightly coloured adult males can be separated.

**Sexing:** Redpolls cannot be sexed on plumage before the postjuvenile moult. But even after that, sexing is not easy. At any time of year, adult males with lots of red on their cheeks, breast, flanks and rump can safely be distinguished. Further, definite adults showing no, or only the odd single, red breast feather will be female. Since definite 1Y birds with any red breast feathers will be males, birds showing no red at all can be male or female. The difficulty in sexing lies in the fact that 1Y male, 1Y female and adult female Redpolls can all show no red at all. The redness and extent of the red poll is not a useful ageing or sexing feature. In the breeding season birds can of course be sexed on CP and brood patch.