

## **Arrested Moulting In Blue Tit, (*Parus caeruleus*).**

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Whilst ringing with Derek Robertson at a scrub site near Dunfermline on 30/11/1998, a female Blue Tit *Parus caeruleus* was mist netted which had an unusual pattern within the primary coverts (PC's) that indicated arrested moulting (Ginn and Melville). At this time of year, one would expect to place the age of this species into one of two categories, following Svensson, based on the following: -

The alula and all the primary coverts being blue, as in all the greater coverts (GC's), and the tips of the PC's with a compact and clearly defined appearance, with no trace of green edging, thus indicating an adult (Euring age code 4).

The alula, which is dull greenish/blue and the PC's blue with a hint of green edging, or the alula blue and the PC's edged greenish/blue, or, both alula and PC's greenish, not to mention the distal GC's with a contrast, would suggest a juvenile (Euring age code 3).

However, this bird clearly had two of the outer PC's on the right wing, and one on the left wing, which were greyish/brown and contrasted in colour and wear with the proximal PC's which were distinctly edged blue. The first and second primaries on each wing were, in contrast to the rest of the remiges, dullish brown and lacked the lustre of the rest of the primaries.

The extent of wear and bleaching to the unmoulted feathers allowed us to discount the possibility that this was a juvenile bird that had undertaken an almost complete moulting, but the same bleaching and wear made it impossible to determine whether they were juvenile or adult feathers so it was not possible to assign the bird a Euring age code of 5 or 6. It was therefore aged as an adult (Euring age code 4).

As a trainee ringer, one is taught that contrast within the GC's is one of the major criteria in ageing birds in the hand. The Blue Tit is the one bird which the trainee comes to grips with (and vice-versa) and one with which he/she begins learning the art of ageing. It is a species, which, thus far, presents few ambiguities when ageing. Arrested moulting in blue Tits is an uncommon occurrence although Jenni and Winkler state that arrested moulting "may happen 'accidentally' in almost every species, but seems to be more frequent in birds with short moulting periods (long distance migrants, northern populations, late breeders)." It would be of interest to hear of other ringers who have come across examples of arrested moulting in such unlikely species as the Blue tit.

In conclusion, it may be worth noting that this arrested moulting occurred following a very poor breeding season (CES News No.11 1998) when some local Blue Tits

(and other species) bred quite late in the season (D. Robertson *pers comm.*). It seems possible that this instance of arrested moult may have been the result of poor weather conditions, the effect of the weather on food supply, or, the stress of breeding/attempted breeding in such adverse conditions (it may be significant that the bird concerned was a female).

#### References

**Svensson, L.** (1992) *Identification Guide to European Passerines*. Naturhistoriska Riksmuseet. Stockholm.

**Ginn, H. B. and Melville, D.S.** (1983) *Moult in Birds*. BTO Guide 19. BTO Tring.

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**Jenni, L. and Winkler, R.** (1994) *Moult and Ageing of European Passerines*. Academic Press. London.