

**P01-5 Factors influencing resting metabolic rate of pied flycatcher fledglings  
(*Ficedula hypoleuca* Pallas)**

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The plumage of pied flycatcher (*Ficedula hypoleuca*) males varies from conspicuous to cryptic. Recently, the father's colour type was shown to be related with resting metabolic rate (RMR) of offspring (KERIMOV, IVANKINA, 1999). The RMR could be performed as  $BMR + PE$ , where BMR is basal metabolic rate and PE is productive energy. The question is: does colour type dependence of offspring's RMR relate to growth pattern or to BMR? To clarify the problem, we studied the growth rates of body mass, tarsus and wing in offspring of differently coloured males. The rates of oxygen consumption by 13-15-days old fledglings and their parents at nighttime were used as estimates of RMR and BMR, respectively. Such factors as parent's age, brood size, mortality rate in brood, habitat, date of reproduction were taken into account.

The results confirmed the existence of relation between fledgling's RMR and father's coloration ( $n = 267$ ). This relation was very similar to the effect of coloration on BMR in adult males. Offspring of conspicuous and pale males differed in growth rate patterns, but this difference didn't explain colour type dependence of RMR. The male coloration and fledgling's growth rate influenced on RMR independently. Besides colour type mediated relation between energetics of parents and fledglings, we found positive straight correlation between BMR of males and RMR of their offspring ( $R_s = 0,49$ ;  $p < 0,001$ ;  $n = 80$ ). The results suggest that colour type dependence of fledgling's RMR reflects the variation in their BMR.