

Session 4: Posters

Date: Tuesday 31 October, 2017
Time: 17:10 – 19:00
Room: Seminar Room

Diet specialisation differs between dispersing and philopatric individuals in a wild pied flycatcher (*Ficedula hypoleuca*) population

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It is well established that animal populations harbour individual repeatable differences in suites of correlated behaviours (so-called 'animal personality') and there is now burgeoning interest to understand the ecological and evolutionary implications of this variation. E.g. personality differences could cause individuals to use resources differently and therefore be an important factor affecting intraspecific competition and spatial segregation of behavioural types. The covariation between individual personality and 'diet specialisation' may also be selected if the combination of traits confers a selective advantage. Particularly, the dispersal literature suggests that a high degree of aggressiveness as well as high foraging activity/flexibility and large diet breadth may be beneficial for dispersing individuals that need to settle in new environments while the reverse is true for philopatric individuals. Using repeated measures of provisioning data of wild pied flycatchers, we tested if immigrants and philopatric individuals differ in diet specialisation and provisioning rates and if these differences covary with levels of aggression and annual fitness. Our results show that it is partly the case. Our population has a large diet breadth, but is in fact composed of more specialist and more generalist parents that differ mainly in the proportion of beetles and caterpillars used in their diet. These differences are not explained by local habitat structure. Immigrants have a more generalist diet and higher provisioning rates than 'philopatric' birds. Furthermore, feeding frequency tended to be higher for more generalist and more aggressive individuals. More 'generalist' males (but not females) and/or with higher provisioning rates fledged more young, which were of lower mass. Our results confirm that immigrants and philopatric individuals differ predictably in a suite of behavioural and life-history traits. We discuss the ecological and evolutionary relevance of our findings and highlight the need for future experiments to test the adaptive nature of such behavioural syndrome.