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Local Adaptation or Dispersal?

How Pied Flycatchers Cope with Climate Change

Claudia Burger

1. In pied flycatchers, breeding too late for the caterpillar peak does not *per se* result in food-limitation. We need to learn much more about the use of alternative prey types, other than caterpillars, and about the role of competition for resources.
This thesis, Chapter 2
2. It is important to take habitat differences between breeding areas into account, when trying to understand why some populations are well-adapted to their local environment, while others are not.
This thesis, Chapter 3
3. The finding of little fitness penalties for late breeders, despite climate change, challenges the generality of the mismatch hypothesis. Currently, the major threat for pied flycatchers might not be mistiming due to climate warming, but the rapid habitat loss which is happening at their African wintering grounds.
This thesis & Sanderson et al. (2006)
4. Long-distance dispersal of pied flycatchers could be crucial for adaptation to future climate warming, and birds seem capable of breeding successfully at a distant site. Studying the consequences of such movements requires the use of novel methods, like the translocation of birds to new breeding areas.
This thesis, Chapter 5 & 6; Kokko & Lopez-Sepulcre 2006
5. Quite confusing, that such a belief in the 'truth of a mismatch at the heart of all problems' can thwart reality for such a long time. I think we have to quit the idea of the importance of a mismatch as quickly as possible, in order to be able to focus on the real problems.
Rob Bijlsma 2013, in an email reply
6. There is no substitute for careful and intensive field work if one wants to find out what is happening in natural populations.
John A. Endler 1986, adapted from Siepielski et al. 2009
7. Good statistical inference never strays very far from the data.
Brian S. Yandell 2007
8. Our economic system, run for profit and waste and based primarily on the extractive industries, is the cause of climate change. We have wasted the earth's treasure and we can no longer exploit it cheaply.
Vivienne Westwood