

## **Watson Raptor Science Prize 2015: papers published in 2014**

### **Winner**

After careful consideration we are recommending the 2015 Prize for raptor research published in 2014 be awarded to Fabrizio Sergio and colleagues for their paper: 'Individual improvements and selective mortality shape lifelong migratory performance', published in *Nature*.

<http://www.nature.com/nature/journal/v515/n7527/abs/nature13696.html#close>

Fabrizio is based in the Department of Conservation Biology, Estación Biológica de Doñana—CSIC, Avenida Americo Vespucio, 41092 Seville, Spain  
([fsergio@ebd.csic.es](mailto:fsergio@ebd.csic.es))

This remarkable study used long-term monitoring of individuals through Global Positioning System (GPS) satellite tracking to combine within-individual and cross-sectional data on 364 migration episodes from 92 individual black kites, aged 1–27 years old.

The study showed the development of migratory behaviour follows a consistent trajectory, more gradual and prolonged than previously appreciated, and that this is promoted by both individual improvements and selective mortality, mainly operating in early life and during the pre-breeding migration. Individuals of different age used different travelling tactics and varied in their ability to exploit tailwinds or to cope with wind drift. All individuals seemed aligned along a 'race' with their contemporary peers, whose outcome was largely determined by the ability to depart early, affecting their subsequent recruitment, reproduction and survival.

The researchers comment that 'Understanding how climate change and human action can affect the migration of younger animals may be the key to managing and forecasting the declines of many threatened migrants'.

The paper is embellished with some video footage. Fabrizio won the 2012 Prize.

### **Commended papers**

There was strong range of papers to choose from. We have commended two papers.

Miguel Ferrer and colleagues published 'Using manipulation of density-dependent fecundity to recover an endangered species: the bearded vulture *Gypaetus barbatus* as an example' in *Journal of Applied Ecology*.

<http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12308/abstract>

This important study of bearded vultures in Spain showed that reintroduction programmes based on translocation of wild-reared individuals, after a supplementary feeding programme oriented to poor-quality territories, provides a source of young at least seven times cheaper than those from captive breeding programmes.

Miguel is based at the Department of Ethology and Biodiversity Conservation, Estación Biológica de Doñana (EBD-CSIC), Seville, Spain ([mferrer@ebd.csic.es](mailto:mferrer@ebd.csic.es)) Miguel won the 2013 Prize.

The other paper is by Julien Terraube and colleagues, entitled 'Diet composition and foraging success in generalist predators: Are specialist individuals better foragers?', published in *Basic and Applied Ecology*.  
<http://www.sciencedirect.com/science/article/pii/S143917911400108X>

They studied whether individual variations in the diet of radio-tracked male Montagu's harrier were associated with patterns of foraging habitat selection and foraging success during the breeding period. Diet diversity was negatively related to hunting success: the most efficient individuals in terms of hunting success had the most specialized diet. They also suggested an important role of individual foraging habitat selection in explaining individual diet. They concluded that individual diet specialization has a knock-on effect on foraging efficiency in this wide-ranging raptor, highlighting 'the role of individual behaviour as a driving force of intra-population niche variation.'

Julien is based at the Section of Ecology, Department of Biology, University of Turku, FI-20014 Turku, Finland ([julien.terraube-monich@utu.fi](mailto:julien.terraube-monich@utu.fi)).

We offer our congratulations to the authors of all three papers.

Professor Des Thompson (Chair)  
Professor Ian Newton FRS FRSE  
Professor Steve Redpath