

NERC-funded PhD Position

Impact and Spread of Bacterial Infections in Wild Bird Populations

Supervisors: Dr Ken Wilson, Dr Ian Hartley, Prof Roger Pickup and Dr Glenn Rhodes



Despite the fact that avian population ecology has a long history, remarkably little is known about the endemic pathogens of wild birds, how they are spread, or their impact on host fitness.

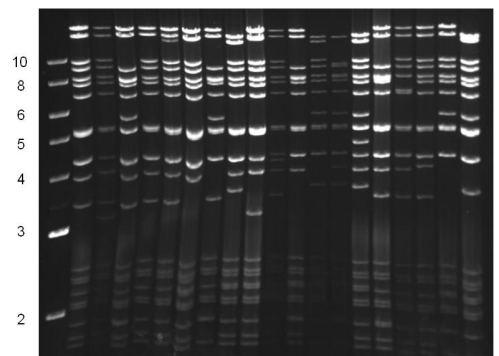
This PhD studentship, based at Lancaster University, will use a range of molecular and experimental techniques to address the following questions about the enterobacteria of British garden birds, focusing particular attention on a marked population of blue tits:

- (1) What are the main routes of transmission for avian gut bacteria?
- (2) How do different species of bacteria differ in their rates of transmission and persistence?
- (3) What are the impacts of gut bacteria on bird fitness (e.g. growth rate, survival and egg production)?

To address these questions, the student will experimentally manipulate the bacterial communities of blue tits using cross-fostering experiments (switching chicks between nest boxes) and by the application of antibiotics.

Training: This studentship will combine laboratory and field methods, and will integrate observational studies with experiments. The student will receive training in the following areas: bird ringing, handling and sampling; experimental design and statistical analysis; molecular techniques, such as DNA extraction, TGGE, PCR.

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Application procedure:

- Apply online at: <http://www.lec.lancs.ac.uk/postgraduate/applications/> (note eligibility criteria)
- Contact the LEC postgraduate office at: lec.pg@lancaster.ac.uk; Tel - 01524 593478
- Informal enquiries to: Dr Ken Wilson - ken.wilson@lancaster.ac.uk
Dr Ian Hartley - i.hartley@lancaster.ac.uk
- **Deadline - March 9th 2009** (interviews April 2nd/3rd)