

The Fitztitute gets its ducks in a row

The Fitztitute has recently undertaken a new project on ducks and their diseases. We have two main objectives: firstly, to understand where and why ducks are moving around southern Africa, and secondly, to start monitoring and quantifying the incidence of avian parasites and pathogens in our study species. Southern African ducks are different from those in most other parts of the world because very few of the species are truly migratory. Many move long distances in response to pressures to breed, moult or avoid predation, but the relatively unpredictable nature of southern African rainfall and the relative warmth of the climate mean that the region's ducks tend to be either opportunistic nomads or residents on large water bodies. The details of how ducks respond to regional fluctuations in climatic conditions are not particularly well understood, despite a number of intensive smaller-scale studies.



PETER RYAN

Hannah Thomas recently analysed the movement patterns of Red-billed Teals in South Africa: they turned out to be considerably more complex than anyone had predicted.

In addition to their academic interest, understanding these details is important from perspectives both of conservation and human health.

Human health is an important consideration in this research because ducks are thought to be the primary wild vectors for avian influenzas, and hence are likely to

form a key link in any bird 'flu transmission chain that involves wild birds. There are many different kinds of avian influenza, ranging from high to low pathogenicity. Most of these viruses do not infect humans, but they can be debilitating or fatal to chickens and ostriches. Although the lethal H5N1 virus itself has not been recorded in South Africa for several decades, there have been H5N2 outbreaks in ostriches in the Eastern Cape and evidence of H5N2 infection has been found in Egyptian Geese.

By counting, catching, ringing and sampling birds every two months at five different locations (two in South Africa and one each in Botswana, Zimbabwe and Mozambique), as well as using satellite telemetry to obtain movement data, we will gradually assemble the information

that is needed for us to make predictions about when and where ducks of different species will move, and how these movements might contribute to the spread of diseases such as avian influenza. The results will be useful to governmental decision-makers, who often have little understanding of the potential role of wild birds in disease epidemics. They will also improve our general understanding of the role of ducks in the ecosystem, the ways in which habitat change affects the incidence of diseases in ducks, and possible options for the conservation of decreasing populations of waterbirds.

The work is being supported by USAID and GAINS (the Global Avian Influenza Network for Surveillance; see www.gains.org for further information). □



GRAEME CUMMING

Mduduzi Ndlovu and Leo Bruinzeel remove Egyptian Geese from a walk-in trap at Strandfontein in the Western Cape.

Visit the FitzPatrick website: <http://www.fitzpatrick.uct.ac.za>

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