

Science Paparazzi Track Birds to the Arctic

Written by Kandy Curran, Wednesday 30 September 2015



A satellite tagged Bar-tailed Godwits after release on Roebuck Bay

Image: *Jan Van de Kam*

For the past twenty years Chris Hassell has been unravelling the unique biology of migratory shorebirds in Roebuck Bay and Eighty Mile Beach.

Mr Hassell and his volunteer researchers fly across the world from the feeding grounds near Broome to the birds 'staging grounds' at the Yellow Sea and breeding grounds in the high Arctic.

His presentation in the 2015 Science on the Broome Coast series provided a unique insight into the evolving research to track the remarkable journeys of migratory shorebirds.

For decades scientists have been studying the movement biology of shorebirds and now a new and more efficient method of identification has been developed.

The processing of caught birds now includes engraved coloured plastic leg flags that can be read from a distance by an ornithologist, negating the need for recapture.

"Since 2005, when we started using engraved colour flags, resighting data from China and Asia has provided a wealth of data" Mr Hassell says.

"For my Asian counterparts it's great, they can send me a photo of a flagged bird, in return I send them the bird's life history data - great feedback for field workers."

Unfortunately the increased survival data is confirming fears about the population decline in some shorebird species, notably the Red Knot and Bar-tailed Godwit.



Pioneers in shorebird research Dr Clive Minton AO, Adrian Boyle and Chris Hassell. Credit: Kandy Curran

More sophisticated satellite tracking methods, such as Platform Terminal Transmitters, have recently been surgically implanted in Bar-tailed Godwits in Broome.

“The Bar-tailed Godwits from Roebuck Bay were tracked taking flights of ‘only’ 6,000 km to the Yellow Sea and then ‘only’ 4,000 km to their arctic tundra breeding grounds before turning round and doing the whole thing in reverse as they head back south.” Mr Hassell says.

The findings of this work made a Godwit famous, after this bird undertook a nine day non-stop trans-Pacific Ocean flight of about 11,600 km.

The use of satellite tracking devices continues to provide vitally important migration information on Bar-tailed Godwits and Great Knots.

Geolocators have also been adopted recently as they are about one-twentieth of the price of satellite tags, weigh less than a gram and plot flight every 1.5 minutes.

Mr Hassel’s team have been fixing these to Greater Sand Plover, Red Knot and the Great Knot around Broome.

The Science on the Broome Coast series is run by the Roebuck Bay Working Group and Yawuru Land and Sea Unit to showcase the exciting coastal research underway on Roebuck Bay, and the Kimberley coast.

The series is sponsored by Inspiring Australia, Rangelands NRM through funding from the Australian Government’s National Landcare Program, Broome Shire, Department of Parks and Wildlife and Western Australian Marine Science Institution.



ScienceNetwork WA has closed its doors to make way for Particle, Scitech's new science news and story source. Check out the latest stories at particle.scitech.org.au.