Albatross youth stray into foreign waters

The reason why almost half the Shy Albatross juveniles do not survive long enough to breed is being revealed by tracking of the young birds’ teenage escapades.

Research at UTAS has revealed that Shy Albatross (Thalassarch cauta), which are listed as vulnerable and only breed on three islands off the coast of Tasmania, fly halfway around the world during the first four years of their lives before returning to their natal colony (birth-place) to breed.

The research released at the launch of the UTAS publication, Research to Reality, found the young birds, which are foraging much further than their elders, are at more risk of being caught in hooks and the lines of fishing vessels operating in international waters.

Rachael Alderman is analysing satellite tracking from 48 fledglings as part of her UTAS-CSIRO joint PhD program in Quantitative Marine Science (QMS). The joint QMS program was established to help fill the international shortage of marine scientists with highly developed quantitative skills.

“While adult breeding-age albatross have a 96% survival rate from year to year, less than half of the fledglings will survive the three to four years at sea to return to their colony to breed,” Ms Alderman said.

This study provided evidence that the majority of juvenile mortality occurs soon after fledging.

“Being able to successfully locate and catch food soon after leaving the nest is likely to be vital for the fledglings’ survival and this can be influenced by how quickly naive birds learn to forage, as well as the availability of prey such as small pelagic fish and squid,” Ms Alderman said.

It is estimated that there are up to 16,000 pairs of Shy Albatross that live on the three rocky islands off the coast of Tasmania – Albatross Island off the north-west coast of Tasmania and two remote islands off Southern Tasmania, The Mewstone and Pedra Branca.

One of the most surprising discoveries from Ms Alderman’s research is that fledglings from each of the three islands have unique foraging regions, which puts some colonies more at risk than those that do not venture as far from Australia’s coastline.

Of the three populations, Albatross Island shows the most restricted foraging range and the highest survival rate, with juveniles from this population foraging mainly in
Bass Strait and the nearby highly productive shelf waters off the coast of South Australia.

Birds from the two southern populations, Pedra Branca and The Mewstone, also forage in the waters off South Australia. However, they have further to travel to get to these productive waters, and as a result, they appear to have lower chances of surviving through the first few weeks post fledging than do Albatross Island birds.

The juveniles from these two islands are also more likely to venture into international waters.

“One individual from the Mewstone was tracked flying west across the Indian Ocean to forage in waters off south Africa – travelling 10,000km in less than one month. Band return information suggests this is relatively common behaviour.”

Ms Alderman said rates of seabird bycatch in South African waters are alarmingly high. Identifying new albatross foraging ranges will help educate international fishing vessels to introduce measures to reduce the risk of hook albatross.

Funding for satellite tracking of Shy Albatrosses came from the Federal Government’s Department of Environment Heritage, Water and the Arts and funds raised through the Big Bird Race organised by Ladbrokes. Operational and logistic support comes from the Tasmanian State Government.

This research on shy albatross was released at today’s launch of the UTAS publication, Research to Reality.

Additional research projects in marine and Antarctic studies are featured in the latest edition of Research to Reality, which is available online at www.research.utas.edu.au from Wednesday, 4 November, 2009.

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