

Penguin numbers down this year

GENTOO and Southern Rockhopper penguin breeding pair numbers during November were down from last year according to the Falkland Islands Seabird Monitoring Programme carried out by Falklands Conservation. Counts taken at a number of sites on East and West Falklands and several offshore islands indicated, that on average breeding Gentoo penguin numbers were down by 40 per cent (the largest decreases of 70 per cent at several locations), and Southern Rockhopper penguin breeding pairs, on average, were down by 30 per cent (the largest decrease of 77 per cent at one site).

Black-browed albatross nesting pair numbers remained relatively stable at the monitored sites with only a small 8 per cent decrease from last year.

The number of King penguin pre-fledged chicks surviving the winter period was 400, the figure having been between 600-750 chicks for the previous few years.

The monitoring programme is designed to pick up seabird trends and to give an indication



Southern Rockhopper Penguin Colony on East Falklands - left November 2015 and right November 2016

of the general state of seabirds as a whole across the Falklands. The reason behind the decreased numbers of breeding adult Gentoo and Rockhopper penguins in November was very closely linked to the ocean environment. During the end of the breeding season in March 2016, it was reported that mortalities due to starvation in Rockhopper penguins at the Falklands (also along Patagonian shores), with lesser numbers of Gentoo penguins, had occurred. The oceanographic regime for this period showed low productivity leading to shortages of food during the moult period. Whilst food shortages occurred over the moult, it is probable that to some

degree it also followed into the winter period.

When seabirds are not in an optimal condition to breed or detect reduced food availability they may choose to skip breeding until feeding conditions improve. This scenario would certainly mirror observations at some Gentoo penguin colonies, where reports from members of the public and landowners indicated that many adult birds were "standing around" the colony not on nests. Also notable is the amount of discarded shells and abandoned eggs at some Gentoo penguin colonies suggesting an increase in pairs abandoning attempts to raise chicks. The observations of seabirds and their

associated land predators has attracted attention this year, and amongst other factors, coincides with an El Niño year, although further monitoring is warranted in this area.

This year re-assessment of the Red List for the global penguin species by the International Union for Conservation of Nature (IUCN) was undertaken. Southern Rockhopper and Macaroni penguins remain listed as Vulnerable, Gentoo penguin has been down-listed from Near Threatened to Least Concern, Magellanic penguin remains listed as Near Threatened whilst King penguin remains Least Concern.

The Falkland Islands Seabird Monitoring Programme or FISMP, now in its 27th year, is coordinated by Falklands Conservation, funded by the Falkland Islands Government and works with numerous landowners. FISMP provides annual estimates of breeding numbers and chick success for a number of seabird species and more information can be provided on request. Please email Sarah.cso@conservation.org.fk or telephone 22247.

Falklands dolphin study underway

A STUDY of Falklands dolphins is to be undertaken by two marine biologists from the South Atlantic Environmental Research Institute (SAERI). Dr Maria Isabel Garcia takes up the story.

THE Kelp forest of the inshore waters around the Falklands hosts a unique community of Commerson's and Peale's dolphins.

Despite being commonly sighted by both residents and tourists, these two species have not yet been systematically surveyed throughout the Islands.

While offshore surveys have been conducted by the Joint Nature Conservation Committee (1998-2004), inshore studies have been limited to voluntary cetacean reporting (for example Falkland Conservation's Cetaceans watch project), cataloguing of historical strandings, and a small-scale pilot study conducted in 2014.

As such, there is very little we know about these iconic marine mammals. For instance, we do not have an estimate of how many dolphins live around the Islands, where they go during the night, how they use the kelp forest, and how or if they are related to South American dolphin populations.

Because of that we cannot understand or reliably predict how human activities may impact these species, and so cannot establish effective management strategies for their conservation.

This study is important because these dolphin species are currently listed by International Union for Conservation of Nature



Project Manager SAERI Dr Marina Costa, Shallow Marine Surveys Group project partner Steve Cartwright, Project Officer SAERI Dr Maria Isabel Garcia. L-R: Steve preparing the Baltic Warrior on the group's arrival at Darwin Harbour while a group of three Commerson's dolphins circle the boat

as data deficient, thus understanding the ecology and estimating the abundance of these animals is key in protecting them. These two species have not yet been included in the on-going national marine spatial planning process. The best way to manage current and potential future threats to protect these species and their habitats will need to be explored.

Funded by The Darwin Initiative, which is a UK government environmental grants scheme, SAERI will be working in collaboration with the Falkland Islands Government, Premier Oil, Falklands Conservation, Austral Biodiversity Ltd, Shallow Marine Surveys Group, Oregon State University in the USA and University of St. Andrews in Scotland, to deliver a comprehensive baseline study on Commerson's and Peale's dolphins using the coastal waters of the Falkland Islands.

Information on the abundance,



distribution, habitat use and genetic diversity of the Falklands inshore dolphin populations will be gathered by four different means: an Islands-wide survey, seasonal focal studies, continuous passive acoustic monitoring, and genetic sampling.

This study will be led by Dr Marina Costa and Dr Maria Isabel Garcia (Project Manager and Project Officer, respectively), who are both passionate marine biologists with extensive research background on cetacean populations. Marina, who is originally from Italy, holds a PhD in Marine Biology from St Andrews University, Scotland, UK, and has worked with marine benthic communities in the Mediterranean Sea and cetacean communities in several regions, including the Mediterranean Sea, Black Sea, North Sea and Red Sea.

Her research has been focused on studying the presence, abun-

dance and habitat use of cetaceans in Greece and Italy (Adriatic Sea and Strait of Messina). Maria, who is originally from Colombia, holds a PhD in Marine Spatial Ecology from Deakin University, Australia, and has been conducting ecological modelling, passive acoustic monitoring and habitat assessment for cetaceans throughout the Southern Ocean (Antarctica), South Atlantic, and Australia. Her previous research aimed to enhance our understanding of environmental changes that impact ocean productivity and affect cetaceans (minke, humpback and blue whales) and other predators such as seals and penguins.

Marina and Maria will be supported this summer by two research interns, Lorna Hamilton and Connor Bamford. Lorna Hamilton completed her bachelors degree in Zoology at the University of St Andrews and has worked with right whales in the North Atlantic and bottlenose dolphins off Western Australia. Connor Bamford completed his Masters degree at the University of Cambridge and has worked with baleen whales in Eastern Antarctica and common dolphins off Scotland.

The team is very excited to be part of this initiative and contribute to the growing knowledge on marine ecosystems around these beautiful Islands. The cetacean team at SAERI will keep the community updated on the progress of the project. Stay tuned.

Dr Maria Isabel Garcia