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Australasian Seabird Group

A Special Interest Group of BirdLife Australia



White-faced Storm-Petrel by Lachlan Hall

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Editor's note

Dear readers.

We hope this little mid-winter morsel will warm your seabirdy cockles by snuggling up with a cuppa tea (yes, have some rum with it, why not!) and following the great work done by our friends and colleagues.

Have fun,

Lorna & Nicholas.

P.S.: We would like to invite you to get in touch should you have a seabird feature story to contribute or anything else you'd like us to share among members.

Email to lorna.deppe@gmail.com or Nicholas.Carlile@environment.nsw.gov.au

Latest News & Announcements

ASG's Peter Dann retires from Phillip Island Little Penguin research after 40 years

Peter Dann has been a member of the ASG committee for decades. His workplace has been Phillip Island Nature Park, in Victoria, where he has led research into Little Penguins for all of this working career. Melbourne's 'The Age' newspaper recently published a look back by Peter at some of the challenges of working with penguins and the public here.

"I've met people who don't like Christmas and cats and babies," says Peter Dann. "But I've never met someone who doesn't like penguins."

He estimates he has watched the penguins come ashore at Phillip Island more than 1000 times and has been fascinated every single time.

He was the only research biologist working with the penguins at Phillip Island when he began in 1980 and it's been his only full-time job. The conservation effort has since expanded, and now, 42 years later Peter leads a team of eight researchers.

"It's been a consuming passion of mine" he said. "My interest in it and the pleasure I get hasn't diminished."

By the 1980s a housing estate at Summerland Beach, adjacent to the main colony and where the penguins nest in burrows, had grown to almost 180 houses. The colony itself had falling numbers with regularly attacks by foxes and dogs as well as road-kill by cars. It was the most difficult period of Peter's career, and he was frustrated that action to protect the penguins was happening so slowly. "I lost a lot of sleep over the population when it was clearly declining," he recalled.

In the mid-1980s, the government decided to buy back the properties on the estate to protect the penguins. Peter Dann lobbied the government to enact the policy, even though he was living at the Summerland Estate himself.

"It was a very emotional time for a lot of people," he said. "We had many difficult conversations, but it was a remarkably civilised process."

In 1983 there were between 8000 and 12,000 breeding penguins on Phillip Island. Fast forward to the 2020s and the colony has grown to the largest in the world with 40,000 spread across the peninsula. Earlier this year the seabirds set a record when 5219 waddled up to their burrows from the water at the penguin parade.

Peter has grown intimately acquainted with the "charismatic" creatures and marvels at how the flightless birds have adapted to life at sea. He has edited a book on penguin ecology and management and written many academic papers. Yet, he insists his affection for wildlife is not limited to Phillip Island's beloved seabirds. There would be at least 100 animals jostling for space in his top 10 list and all native species have a right to exist in their natural habitat.

But he hopes the penguins will act as a "flagship species" and their endearing nature will encourage people to protect the entire ecosystem. Peter feels confident the future of penguin conservation is in safe hands at Phillip Island, and he will continue co-supervising four PhD students, post-retirement.

Despite his retirement from full-time work, ASG hopes they can 'lean on him' for continued input into issues of seabird conservation into the future. The skills and knowledge he has developed during working life doesn't come 'from a book'. The Australasian seabird community wish him well with a step-back from full time work and taking the time and space to enjoy the many other things we all want to chase.

(Nic Carlile)

Photo: Peter Dann at his retirement do on Phillip Island. ©Eric J Woehler



2022 ASG Student Project Awards

Two Australian seabird students were the recipients of the ASG's Student Projects Awards for 2022. Congratulations!

Yonina Eizenberg study is on Determinants of habitat use in small Procellariiforms within the Southern Hemisphere based at Deakin University in Victoria and working with researchers at University of La Rochelle (France). Looking at Fairy Prion *Pachyptila turtur* and Common Diving Petrel *Pelecanoides urinatrix*, two small procellariids that are ubiquitous throughout their circumpolar range, Yonina plans to model their foraging habitat suitability throughout their south-eastern Australian range as well as identify important foraging habitat around the Kerguelen Islands. The study aims to determine the environmental factors influencing foraging habitat use in these species within the Southern Hemisphere. South-eastern Australia is a region experiencing extreme and fast environmental changes due to climate variability. By monitoring the inter-annual changes of foraging zones exploited by these species, she hopes to anticipate, for the first time, their movements during periods of extreme climate variation.

Julia Morais will be working with ASG's own Andre Chiaradia (Phillip Island Nature Park) along with other researchers at Monash University to Understand the Little Penguin responses to environmental changes in an enclosed bay. Studying the birds at St Kilda in Melbourne's Port Phillip Bay, Julia plans to monitor their foraging behaviour and distribution via biologging, accelerometry and video footage as well as undertake isotopic dietary analyses in relation to daily environmental condition variations and yearly reproductive outcome. This data will be used to identify the ecological features that contribute to this populations outstanding success. Understanding how little penguins use the marine environment and identifying the ecological features that contribute to population success is critical for resource management and conservation in light of the increasing effects of global climate change on marine life.

(Nic Carlile)

Photo: ASG grant recipients Yonina (left) and Julia (right) doing what they love best. Images provided by the recipients.



HPAIV outbreak - "Bird Flu Nus"

Below are two messages for you to take note of and share with your contacts if applicable:

1) "Since emerging in 1996, few outbreaks of HPAIV have been documented among colonial seabirds (e.g., African Penguin, Swift Tern, Cape Gannet, Great Skua). In December 2021, the H5N1 strain arrived in North America and was first detected in waterfowl. Since then, it has spread rapidly across the continent, is now found in all four North American flyways, and is causing an unusual mass mortality event among seabirds breeding throughout the North Atlantic (e.g., [Canada](#), [Scotland](#), [Iceland](#)).

It is more important than ever that the global seabird community to share information about the CURRENT HPAIV outbreak (e.g., what species, location, and magnitude) and/or PAST large-scale mortality events in colonial breeding seabirds associated with HPAIV. We have put together a short survey which we encourage you to fill out and share with anyone who may have relevant information. <http://tinyurl.com/seabirdHPAIV>

Responses via email are also welcome to Stephanie.Avery-Gomm@ec.gc.ca

The information we gather will help inform decisions about which species to monitor, the scale of the outbreak, potential population-level impacts, and what actions to take to manage this event. The current event is an evolving situation, and we understand that any information provided will quickly become outdated. We welcome information on outbreaks that are confirmed to be caused by HPAIV, and cases where HPAIV is suspected to be the cause.

Thank you,
Stephanie Avery-Gomm, Greg Roberson, Jennifer Provencher."

2) Please see below some further information in relation to avian influenza for those based in Australia shared with us by Tiggy Grillo from WHA (tgrillo@wildlifehealthaustralia.com.au).

"The following news item was from Australia's National Avian Influenza Wild Bird Steering Group: [Update on How the recent increase of outbreaks of High Pathogenicity Avian Influenza virus in the Northern Hemisphere impacts Australia](#).

Plus this article: [High burden of avian influenza in the Northern Hemisphere, and what it means for us here in Australia](#) by Michelle Wille.

Specifically, increased awareness and vigilance by wildlife health professionals is advised. There is a need to remain vigilant by:

- maintaining best biosecurity practices by wildlife professionals [see [National Wildlife Biosecurity Guidelines](#) for guidance]
- reporting any unusual signs of disease or deaths in wildlife to: Your [State/Territory Wildlife Health Australia \(WHA\) Coordinator](#), or the [24-hour Emergency Animal](#)

[Disease Watch Hotline](#) on freecall 1800 675 888.

Further technical information:

- [Technical Issue Update February 2022](#) from the NAIWB Steering Group on Global High Pathogenicity Avian Influenza Events.
- WHA Fact sheet on [avian influenza in wild birds in Australia](#).
- Find out more, including surveillance news, about Australia's [Wild Bird Surveillance program](#)."

For our readers in NZ, the Department Of Conservation has not raised any alert levels at this stage with the following message on <https://www.doc.govt.nz/our-work/wildlife-health/nz-wildlife-diseases/> re Avian influenza stating:

"DOC monitors the international effects of H5N1 (bird flu). Currently the risk of the virus reaching New Zealand is very low. We are lucky to be isolated from other land masses and we have good border biosecurity.

Monitoring of bird populations is part of DOC's core work. Dead or sick birds are tested for disease. This will help us to detect any arrival of H5N1 in New Zealand.

If the virus arrives in New Zealand, we have a contingency plan to protect native species. This plan uses good biosecurity to reduce or prevent the spread of the virus.

Measures such as disinfection will reduce viral contamination of equipment and people's clothes. Where possible, translocations of animals will be cancelled or delayed. Staff will be discouraged from handling animals except where absolutely necessary. Threatened species and conservation land will be monitored to detect any outbreaks. If the virus causes illness in native species, vaccination programmes will provide protection for key populations of threatened species.

Biosecurity in New Zealand, part of the Ministry for Primary Industries, will lead any response to the virus. DOC will work closely with them to make sure we protect our native and exotic animals, and our people."

(Photo credit: Isabelle Larose/Radio-Canada)



Seabird Feature Story

This issue's feature story has been provided by Nicholas Carlile, co-author as well as external supervisor of lead author Luke Halpin.

A great study brought together by great collaboration. We hope you'll enjoy :)

At-sea provisioning of gadfly petrels is not all 'Black and White'

Monash researcher Luke Halpin recently published his third paper from his PhD studies, '[Predicting the Foraging Habitats of Sympatrically Breeding Gadfly Petrels in the South Pacific Ocean](#)' in *Frontiers in Marine Science* alongside his co-authors Rowan Mott, Thomas A. Clay, Grant R. W. Humphries, Trudy A. Chatwin, Nicholas Carlile and Rohan H. Clarke.

Like his two previous papers, the research opens up a new area of discovery for seabirds and island ecology. This paper uses three GPS tracked petrel species to compare and contrast their ocean provisioning from Phillip Island, off Norfolk, with surprising results, on several levels. The choice of three very different species, based on their spread or world population, makes for interesting reading.

Black-winged petrels are probably one of the more successful species in the sub-tropics, with some island populations in their millions. White-necked petrels are known from only two islands, with Phillip Island housing only 20-30 pairs. Finally, Kermadec petrels are little known, despite their pan-Pacific (and one Indian Ocean population) spread.

All three species used the waters of the East Australian Current and the Subtropical Frontal Zone (passes below New Zealand). While they did use some broad oceanographic features, they also used a maximal-area foraging strategy, travelling over large areas to maximize chances of encountering unpredictable resources in relatively unproductive marine ecosystems. They did this but still managed the bimodal provisioning (long and short trips) to ensure regular feeds for their chicks as well as reprovisioning of themselves from distant, richer waters. Some of the Black-winged petrels managed trip distances of 9,500 km (2,500 km direct line from colony)!

The model 'fit' showed poor to fair performance that was more likely due to the behavioural characteristics (i.e., more generalist habitat requirements) of these gadflies, rather than factors such as the choice of environmental variables being tested. White-neck's preferred foraging in waters with deeper thermoclines, indicating a more piscivorous diet than Black-winged and Kermadec petrels, who spent almost equal proportions of their time foraging during darkness compared to daylight (perhaps targeting vertically migrating squid) - an important feature of their behaviour.

Another highlight of the study was that Kermadec petrels foraged closer to the colony and spent, on average, proportionally more time in area-restricted search behaviour, indicative of a kleptoparasitic (pirating) foraging strategy. This would see them not requiring to travel so far, compared to the other two species, to find prey.

Left: 'Double tracking petrels with GPS and GLS units'. Luke fitted both GPS and GLS tags to White-necked and Black-winged petrels as part of his research. Here, a White-neck is fitted and ready for release back to their nest. (Image N. Carlile).

Right: 'Working with Luke Halpin'. Black-winged petrels were tracked from Phillip Island, where their population has grown from first breeder discovery in the late 1960s to 15,000-19,000 pairs in 2017. (Image R. Clarke).



More Seabird Science...

We hope you enjoy our compilation of recent studies and discoveries below.

Seabird stress and breeding: Endocrine and hematological stress biomarkers differ between gray-faced petrel (*Pterodroma gouldi*) colonies

New Zealand's rising superstar of seabird conservation, Erin Whitehead has published together with a host of fantastic co-authors on increased impact of stress during breeding at colonies of inferior location. You can read more [here](#).

(Photo credit: NZ Birds Online)



Cryptic population decrease due to invasive species predation in a long-lived seabird supports need for eradication

Steffen Oppel and team alert us in their latest paper to the fact that low reproductive output for long-lived species may lead to a cryptic population decrease, which can be obscured from readily available counts of breeding pairs by changes in the population structure. Hence, in the case of the Tristan albatross, mouse eradication is necessary to halt the ongoing population decrease, even if this decrease is not yet apparent in the breeding population size. Read it [here](#).

(Photo credit: Tui De Roy)

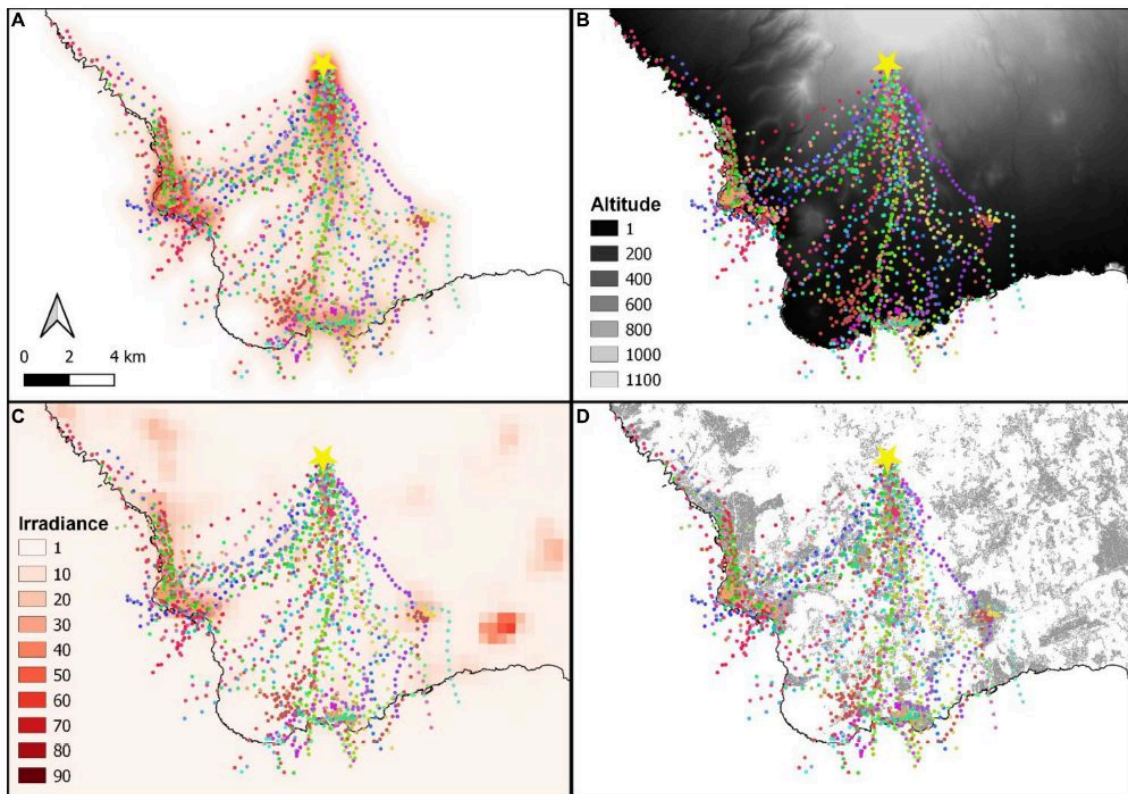


Tracking Flights to Investigate Seabird Mortality Induced by Artificial Lights

Airam Rodríguez and colleagues have published their latest findings from tracking Cory's shearwater at night from their nests to the grounding light-polluted locations in order to test whether the probability of being grounded by artificial lights was related to intrinsic factors. You can read the full article [here](#).

Figures: GPS locations of Cory's shearwater *Calonectris borealis* fledglings tracked in the south of Tenerife, Canary Islands, during the fledging seasons of 2017–2019.

(A) Heat map of all GPS locations. (B) Digital elevation model. (C) Irradiance levels taken as a proxy of light pollution from a monthly composite of November 2019 VIIRS. (D) Urban areas are depicted in grey. Yellow star indicates the release site.



At-sea surveys reveal new insights of fine-scale distribution and foraging behaviour of Chatham albatrosses (*Thalassarche eremita*) in central southern Peru

Javier Quinones and colleagues published a short note in *Notornis* this year on the importance of offshore waters in central and southern Peru for adult and juvenile Chatham albatrosses as identified from fine-scale observational data from at-sea surveys during 2018-2020. In combination with data from behavioural studies these data are adding new information for managing the risks to this vulnerable species.

Read the full article [here](#).

(Photo credits: Top Left, Cristian Moreno; others, Javier Quiñones)



Quantity over quality? Prey-field characteristics influence the foraging decisions of little penguins (*Eudyptula minor*)

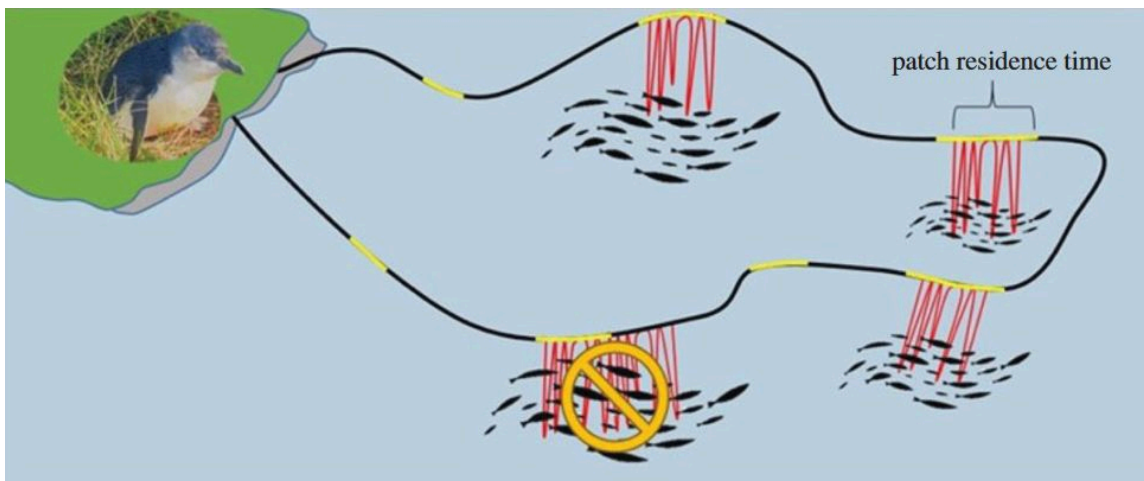
Alright... yes, we can't leave you without a paper on... you guessed it: Penguins! :)

Hot off the press, the authors present in this study how animal-borne video data loggers were used to determine the influence of prey type and patch density on the foraging behaviour of the little penguins (*Eudyptula minor*).

The results of the study suggest that when under spatio-temporal constraints, little penguins maximize foraging performance by concentrating efforts at larger quantities of prey, irrespective of their calorific quality.

You can read the full article [here](#).

Figure: Schematic for determining prey abundance and patch residence time from animal-borne video camera data obtained from free-ranging little penguins. Little penguins were tracked with GPS (black line) and depth recorder (red lines indicating dives). Videodata (yellow lines) were collected over a foraging trip at increments of 15 min every hour. Patch residence time, a proxy for foraging effort, was calculated from the beginning to the end of the first and last dive at a patch.



Variation and correlation in the timing of breeding of North Atlantic seabirds across multiple scales

And last but not least, a wee glimpse of the fantastic research going on in the Northern Hemisphere where Kat Keogan and a respectable host of co-authors how correlated the phenological responses of seabird populations are across the North Atlantic.

Kat provided a neat laymen term summary of the paper on Twitter which we'd like to share with you here:

1) To understand how climate change will impact timing of breeding in seabirds we'd like to know what drives phenology. But, it's hard to figure out the spatial and temporal scale environmental drivers operate at because seabirds are so wide ranging throughout the year.

2) Previously we looked at whether seabirds were showing a consistent phenological response to local sea surface temperature (<https://nature.com/articles/s41558-018-0115-z>) and found little sensitivity on average.

3) In this new study, instead of searching for specific drivers, we ask whether certain populations have correlated phenological responses, consistent with them sharing an environmental driver.

4) This is an alternative way of asking at what spatial scale do drivers of phenology operate. E.g. on populations breeding at the same colony or region, on populations that share wintering grounds, or a combination of these.

5) We used annual data on average lay/hatch date from 51 seabird pops of 9 species across the N Atlantic to ask if phenology is synchronised between seabird populations at 5 spatial scales - breeding colony, local region, broad region, whole N Atlantic, or at wintering grounds.

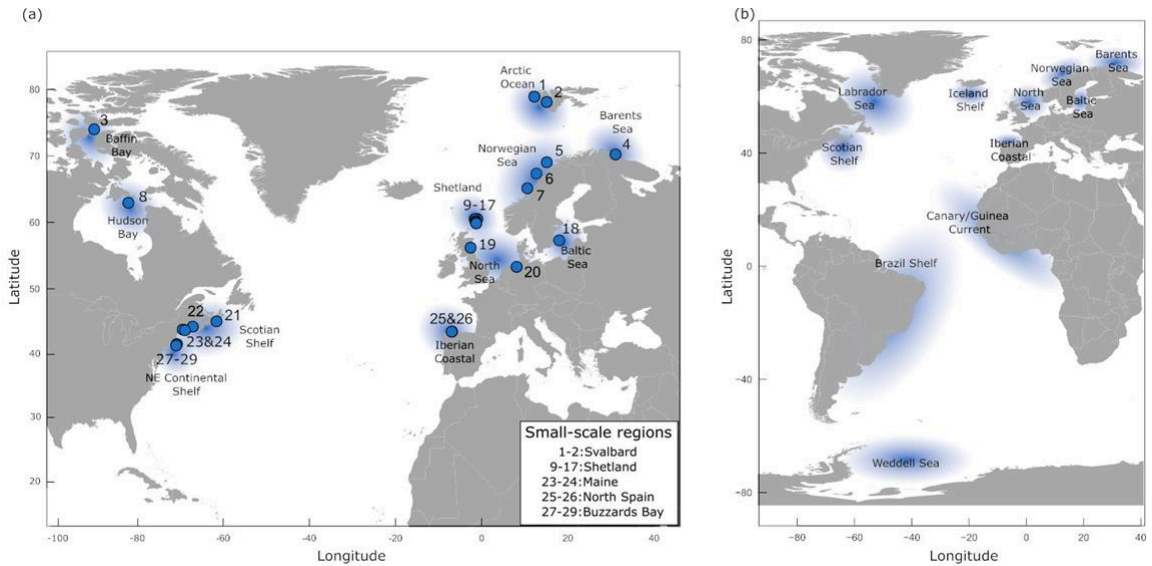
6) Key results: We found no evidence that populations aggregated at large spatial scales share trends in breeding phenology, but about 1/3 of cases where populations of different species breed in the same colony or local region we found a positive correlation in timing of laying.

7) We also found that for kittiwake, breeding phenology covaried across populations breeding on both sides of the N Atlantic. We suggest this may be due to conditions experienced in their wintering area.

8) Finally, within a population, annual variation in phenology was highest in European shag. Shags migrate short distances, and may be especially sensitive to conditions at the colony.

9) Taken together these results indicate that many of the environmental drivers of breeding phenology of seabirds are likely to be species and even population specific. Successfully identifying these drivers will be most achievable where there are long-term phenology data.

For the full article follow this [link](#).



In other news ...

Hundreds of dead penguins wash up on Far North beaches in New Zealand

Hundreds of dead little blue penguins, also known as kororā, are washing up on beaches around the Far North as the numbers of the cold-water birds plummet. Read more about it [here](#). Among others, featuring our own Graeme Taylor.

(Photo credit: Shutterstock/Andrea Geiss)



Trouble in paradise for Lord Howe Island's shearwaters

"Failing fledglings in a seabird colony on a subtropical island in the South Pacific could be a sign of a growing global disaster...and it has nothing to do with climate change."

Read the full story written by Karen McGhee for the Australian Geographic [here](#).

(Photo credit: Justin Gilligan)



First Black-capped petrel nest found on Haiti

To lighten up the spirit, we also have some great news! After 60 years, a first Black-capped petrel nest was found on Haiti's highest peak Pic La Selle. Read the full story [here](#).

An interesting side note on this species from co-editor Nic:

"They have found the species in adjacent Dominican Republic but even Wingate's efforts in the 1960s in Haiti saw just birds flying -I talked to him about that when we worked together in Bermuda in 2000. What actually happened is the locals he was with lit big fires at night to stay warm (tropical country and they were from the lowlands but having to stay overnight at 2000m). The birds were actually caught flying down to the fire. Wingate knew this would work as that is how the English caught Cahow in the 1600s."

(Phot credit: Environmental Protection in the Caribbean, EPIC)



Petrels are EVERYWHERE!

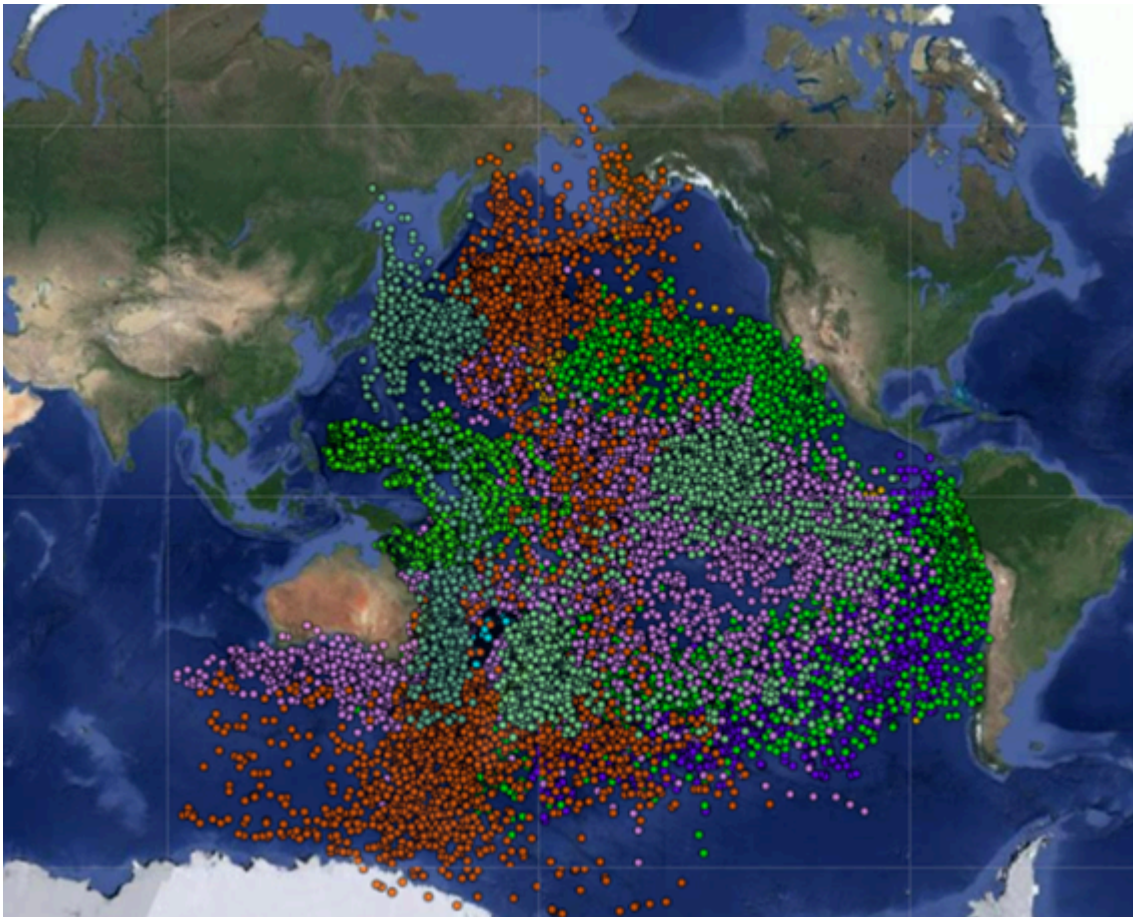
Chris Gaskin had a wee play the other day, plotting distributional data from 10 petrel species held in BirdLife International's Seabird Tracking Database (<http://seabirdtracking.org>).

The map below shows Cook's, Pycroft's, Black-winged, Chatham, Mottled, White-winged (Goulds), Juan Fernandez, Kermadec, Herald and Providence petrel.

We are living in an ocean of petrels! You can't even see NZ! ;D

It is fantastic to see how far they range and how they make use of this vast space. This wonderful picture is the result of the hard work of many, shared in the treasure chest which is the BLI Seabird Tracking Database linked in above. Data owners can be approached from there.

In the future, Chris and colleagues hope to also to add in species like Grey-faced, White-headed, Soft-plumaged, Murphys, Henderson, Bonin, Phoenix, White-naped, Vanuatu, Hawaiian, Galapagos, Collared, Stejneger's, Defilipi's petrel and Chatham Island taiko. We then would have 25 extant species carving up 40% of the Earth's surface area. It's gonna be crowded!!! ;D



Friends of the Albatross

A global initiative for the protection of albatrosses hosted by the RSPB is calling for friends. Read more [here](#).

If you are on twitter, make sure you watch the neat little [video](#) posted by The Albatross Task Force on that matter.

Seabird Art



Notes From the Seabird Capital of the World

The very talented Abby McBride who spent time in New Zealand on a Fulbright-National Geographic Digital Storytelling Fellow in New Zealand in 2018 has made it her mission to "Trying to Save Seabirds—By Sketching Them". She's been sharing her journey via various outlets of which we have chosen a [Williams Magazine post](#) and an [article in the National Geographic](#) for your pleasure.



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