Seabird Behaviour – Online Programme

Student Worksheet Part One – Albatross Behaviour

Programme Objectives – Students will investigate the behaviour of albatross and shags in response to their external environment. Courtship, pair bonding and parental care are some of the behaviours which the programme focuses on. Discussion follows on the use of behavioural studies in management.

Curriculum Links – This programme provides students with key learning for Biology 3.3, AS91603.

Albatross Quiz – Test your knowledge of Albatross by doing this quiz. This could be done as a pre or post activity (or both).

Programme Delivery – Although the education programme is normally delivered at the Royal Albatross Centre, under Covid19 environment, you may want to engage in this programme through on-line delivery.

1. Worksheet and on-line resources (teacher directed)
2. Worksheet with on-line resources – followed by a question and answer session with Albatross Centre Guides (via zoom) – bookings required with small charge
3. Guided delivery (via zoom) with Albatross Centre Guides live from the Albatross Centre (Under Alert level 1&2) – bookings required with programme fee

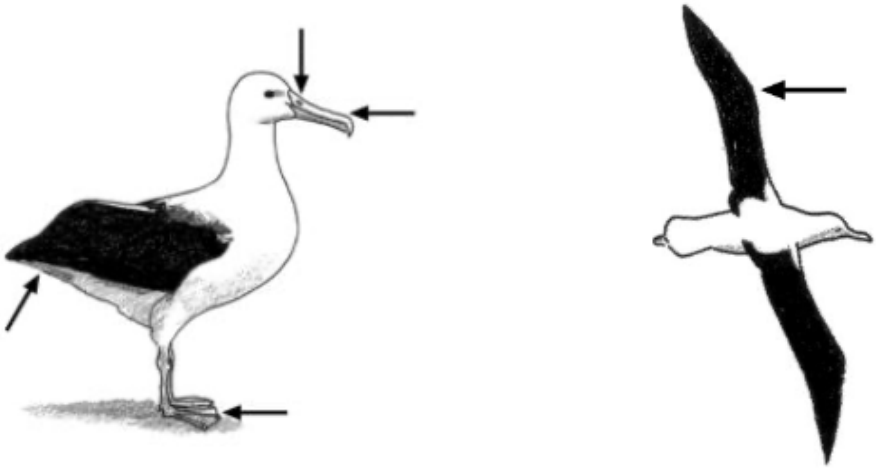
Programme Resources: The following videos and resources on the Royal Albatross Centre website will help you complete the following worksheet and learn about seabird behaviour and adaptations of Northern Royal Albatross (Toroa).

- Lifecycle information – The Life of a Northern Royal Albatross
- Seabird Behaviour Videos – Albatross, Otago Shag, Spotted Shag
- Seabird Behaviour Information Cards – Albatross, Shags
- Royal Cam – Livestream of Albatross Chick
- Royal Cam – Highlight Videos:
    - Pair bond - parent arrives to nest: https://www.youtube.com/watch?v=UWONPM46j1U&t=295s
    - Courtship display: https://www.youtube.com/watch?v=6m1HambghwM
    - Chick defence: https://www.youtube.com/watch?v=mH3lZFICnrg
    - Unexpected visitor: https://www.youtube.com/watch?v=7suk7eKw_gA
    - Predator spotted near nest: https://www.youtube.com/watch?v=ZgnTT1Mx3Lk
    - DOC predator control: https://www.youtube.com/watch?v=yNF_U0xd1Po
- Research on Royal Albatross – Life of the Royals

Adaptations of Northern Royal Albatross

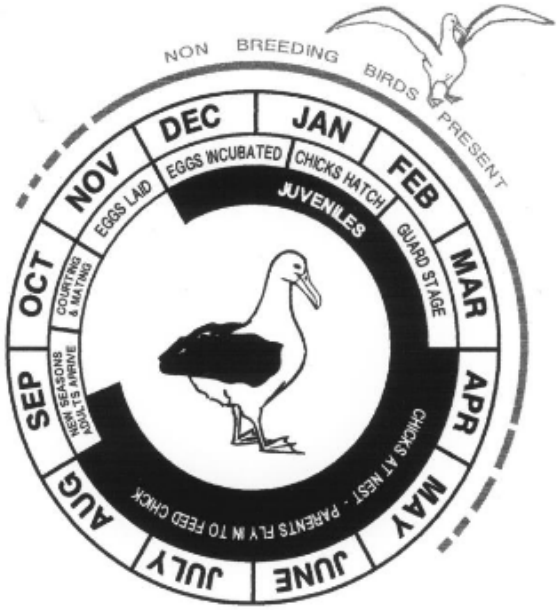
Albatross spend over 80% of their lives at sea, but how are they so well adapted to do this? The key features of an albatross are highlighted with the arrows on the diagram below. Complete the paragraph using the following list of words:

Feet hook black same white wind breed preen three salt camouflage



Their large wingspan (_____m) is used to effortlessly glide at speeds of 100km/h over the ocean using _____ currents. The sharp _____ on the end of their bill is used to grab slippery seafood such as squid. Their huge _____ are used to paddle and run on the water surface for take-off. Their nostrils are used for smelling, breathing and also to expel excess _____. The oil gland is used to _____ their feathers. The colour of their plumage (feathers) allow them to _____ out at sea; the _____ upper wings blends with the dark ocean surface for any predators from above, and the _____ belly blends with the bright sky for predators looking up from below the surface. There is no sexual dimorphism, meaning females and males look the _____. Albatross are highly philopatric, meaning they always return home to _____.

Albatross Breeding Cycle – The Life of a Northern Royal Albatross



1. What is happening in the colony at this time?

2. How long does it take to raise a chick?

3. What do parents do if the egg breaks/is infertile?

4. They are biannual breeders – what do parents do once the chick has fledged?

5. Chicks require both parents to be raised successfully, why is that?

Albatross Breeding Behaviour

Albatross have an average lifespan of 25 years, usually mate for life (monogamous), and can continue to breed throughout their life. They have elaborate courtship displays in order to find a mate.
Use this Albatross Video to observe different behaviours and answer the questions below.

1. Courtship: What behaviours do albatross carry out to attract a mate? Why is this courtship period so long?

2. Pair bond: What behaviours do albatross carry out to reinforce their pair bond? Why do they do this?

3. Parental care: Are albatross good parents? Why do parents share egg incubation and chick rearing?

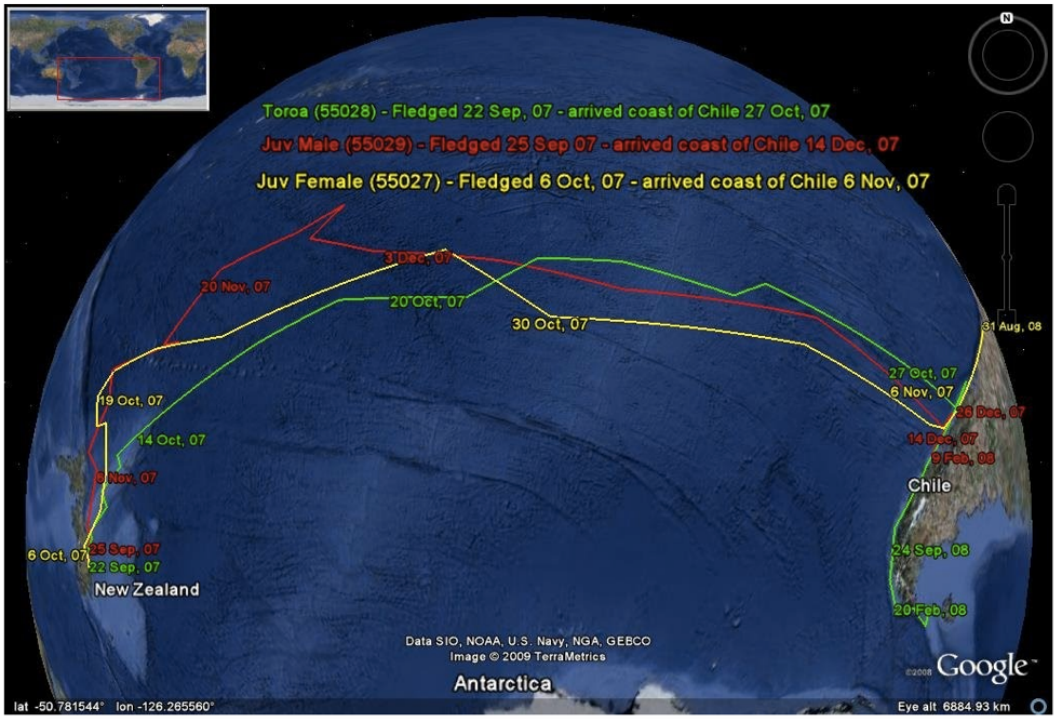
4. Why do albatross only return to breed every two years? Think about energy and time they invest in their offspring.

5. Are they considered fast or slow breeders?

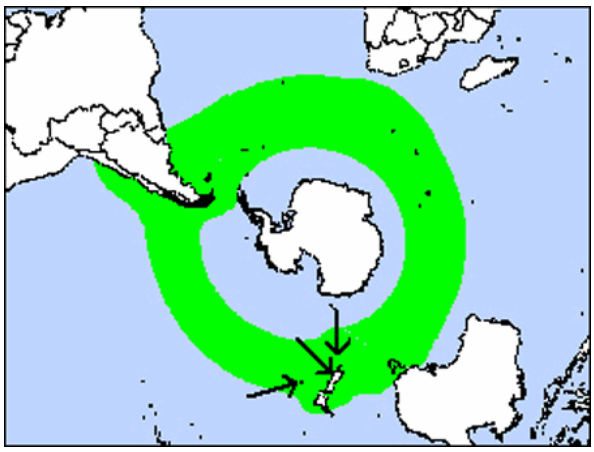
6. What is the benefit of mating for life?

Albatross Navigation

Northern Royal Albatross chicks fledge from Taiaroa Head at eight months of age and will spend the next 4-5 years at sea before returning to find a mate and begin to breed. Many of these birds only take a couple of weeks flying at speeds between 100-110km/h to reach the coast of Chile where they will spend the majority of their time. When looking for a mate, adolescent birds will come and go from the headland every few days over the summer months, then head back to feed near Chile for the winter months. This is repeated for 2-3 years or until they find a mate. Use the photo below and additional information from the Life of the Royals booklet to answer the following questions:



1. Migration: Where do Northern Royal Albatross migrate to?

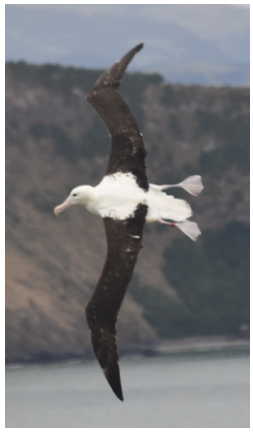


How often do they do their migration?
Juveniles:
Adults:

2. Homing: Where do Northern Royal Albatross call home?

Why do they return home?

3. Albatross rely on instinct when they fledge (leave the headland for the first time), but how do they navigate at sea?



4. Why is it beneficial to study foraging hotspots and migrations patterns of albatross?

5. What are some potential threats for albatross at sea?

6. How do albatross know when to return to Taiaroa Head after 4-5 years at sea?