

Albatross Natural History Slide Show

1. Pelagic seabirds spend most of their lives on the open ocean, returning to land only to breed. Most knowledge about the life cycles of these birds has been gained when they are on land to breed; very little is known about how their lives at sea are spent. Today we are going to talk some of the largest pelagic seabirds, the albatrosses.
2. There are 3 species of albatrosses that frequent the northeast Pacific ocean; short-tailed, Laysan, and black-footed. Today we will mainly focus on the black-footed and Laysan albatross. The black-footed albatross is one of several pelagic seabirds that are attracted to the west coast of California for the abundant food in the California current. They are the most frequently seen albatross species in Cordell Bank and Gulf of the Farallones National Marine Sanctuaries. Albatrosses are the largest of the tubenoses in the order Procellariiformes (pro-cell-air-I-form-ees). This taxonomic order receives its name from a Latin word, procella, meaning storm, and refers to the turbulent open ocean waters favored by these birds.
3. Black-footed albatross travel long distances over the open ocean. They have long wings that reach 7 feet in length from wing tip to wing tip and 12 inches in breadth. They travel long distances with low amount of effort by a process known as dynamic soaring.
4. Black-footed and Laysan albatrosses nest in the Northwest Hawaiian Islands where there is very little to no human habitation. They arrive on the island they were born on in October or November and to find a mate. Albatross form a pair-bond with one other bird, who becomes their mate for life.
5. They perform an elaborate courting ritual that includes fanning one wing or both wings, bill clapping, and sky calling. Sky calling is when they stretch their neck out to the sky and make a “moo” like call. This courtship may last up to 3-5 years before a pair bond is established. If one of the mates does not return due to death or getting lost, it may take the other mate 2-3 years to find another mate.
6. When ready to nest, the albatrosses make a little divot on the ground and prop it up with packed sand and vegetation. One very large egg is laid. Ornithologists theorize that because the egg is so large and the effort to support one albatross chick is so immense, that they only lay one to ensure its success. Some albatrosses may only nest every 2-3 years.
7. The brooding stage is the time spent incubating the egg. It takes 50-60 days to hatch. The parents alternate foraging trips that last 2-3 weeks while taking turns incubating. When one bird is foraging the other stays on the nest without eating or drinking. Albatrosses are predators that catch prey close to the surface of the water. Their powerful bills tear apart large prey such as fish, squid, flying fish eggs, and refuse from ships. Laysan and Black-footed albatrosses have different niches for feeding. Black-footed feed during the daylight hours whereas Laysan’s tend to feed at night. The prey items on the surface vary from day to night, so there is not much competition for food. This is how two closely related species can co-exist in pelagic waters.

8. Once the chick has hatched it looks like a big fuzzy ball. It has lots of down feathers and the parent keeps it tucked away to protect it from the heat and cold when it is young. They need to find enough food to sustain themselves as well as enough energy to care for the fast growing chick. From the time an albatross arrives on the island to reproduce, to the time its chick has fledged, it may lose 24% of its body weight in all this work. They quickly make that up though by foraging furiously in the late summer, after the chick has fledged.
9. Each parent albatross takes foraging trips to find food to bring back to the chick. The amount of time out at sea varies depending on the food availability. Black-foots and Laysans will typically head to the west coast of North America, the eastern side of the Pacific in search of food if there is not enough in local waters. This region is known for its rich upwelled waters that have lots of food in the water column. It's a guaranteed meal at little cost for these efficient flyers.
10. When they catch food, the stomach concentrates the energy into a very heavy caloric oil. The oil is very rich in Vitamin A and has a caloric content on the order of fuel oil. When they return to the nest they regurgitate the oil to the young chick. The parents will trade places or take off again for another trip.
11. When the chick is big enough, biologists will band some, so when it is seen elsewhere it can be determined which island it came from. The band is put on around its leg. Some Albatross are satellite tagged to find out where they go to forage while the chick is on the nest. When the bird returns to the nest to feed its chick, the tag and the data are recovered.
12. While the chick gets bigger its downy feathers will be replaced by its full feathers and can look pretty funny like this mohawk. This is a Laysan albatross losing its downy plumage and gaining its adult plumage.
13. Albatross are not afraid of humans that approach them on the island. They are not very efficient at getting away on land either, as they have webbed feet and long wings, best adapted for flying over the water.
14. As the chick gets bigger it starts to exercise its wings to prepare for flying. They will open their wings to feel the drafts of wind. Albatross often wait for the wind to pick up so their wings can lift on the wind. When the wind is light, they need a long "runway" to take off, like an airplane.
15. Even though albatrosses nest on islands where few if any humans live, there are still many hazards that they face. Tiger sharks are natural predators of young, inexperienced albatrosses. Sharks congregate offshore of the nesting areas to feed on birds that try to fly to sea, but don't make it because they are too weak.
16. Many get caught in non-native trees on the islands, like this iron-wood tree on Midway Island. Being a clumsy bird adapted for flight at sea, they are unable to maneuver well, and get caught in the trees and can die.

17. One of the most grave hazards they face is plastic. There is tons of plastic in the ocean ranging in size from microscopic styrofoam pieces to miles of castaway fishing nets. Albatross are visual surface feeders. They eat what looks like food. Lots of small plastic pieces end up being ingested by albatross. Over time, these plastic pieces fill up the stomach and the birds die of dehydration. During the breeding season the parents regurgitate all the plastic they ingested to their chick. Many chicks die on the nest because their stomach is filled with plastic and not food, like this one here, you can see all the plastic in its stomach.
18. Albatrosses follow fishing boats, knowing that food is present and fishy waste and bait is thrown overboard. Long-line fishing practices are extremely detrimental to hungry seabirds. As the long-lines are fed into the ocean with bait on hooks, the birds go after the bait and end up drowning on the hooks. There are successful fisherman that use new methods to keep the birds away. One simple and inexpensive method is putting a ribbony tape on the line that flaps and distracts the birds. However, not all long-line fishing boats use this method yet.
19. There are several ways you can help protect the future of these birds and other species affected by humans in the open ocean. 1. You can write our congressmen and women and urge them to enact measures to prevent seabird killing on longlines. 2. You can purchase fish that have been caught in a sustainable way where there is no bycatch. 3. You can buy and use less plastic and get involved with our local governments to reduce the use of plastic. Most debris enters the ocean via storm drain. We can actively pick up debris and save a whole lot more than the albatross when doing so. Albatross and all seabirds are fascinating animals in the marine environment covering wide expanses of our ocean. By understanding their movements and biology we can understand our connection to their lives.
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