We so frequently think of birds belonging in trees we can forget there are a range of birds that live on and around the sea.

'Seabirds' is a general term used to describe bird species that spends a substantial chunk of their lives foraging and breeding in the marine environment. Seabirds include birds such as gulls, terns, albatrosses, petrels, shearwaters (muttonbirds), cormorants, gannets and boobies.

Seabirds spend most of their lives exploring the ocean looking for things to eat. They especially like squid, fish and krill. Some will even follow fishing vessels looking for discarded fish or bait. Many species of seabird are famous



for undertaking long annual migrations, with some even circumnavigating the Earth.

Seabirds can be found in every ocean around the world. Australia has over 200 species of seabirds in its waters. There are 24 species of albatross in the world, and 21 of these can be found in the Southern Hemisphere. 19 of these species occur in Australian waters, and five of these also breed in Australia.

LIFE CYCLE OF SEABIRDS

IN GENERAL, SEABIRDS LIVE LONGER, BREED LATER AND HAVE FEWER YOUNG THAN OTHER SPECIES OF BIRDS; HOWEVER THEY INVEST A GREAT DEAL OF TIME IN THEIR YOUNG.

SOME SEABIRDS CAN LIVE FOR MANY YEARS: SOME ALBATROSSES AND PETRELS HAVE BEEN KNOWN TO LIVE FOR AS LONG AS 60 YEARS OR MORE! UNDER NATURAL CONDITIONS THEY HAVE LOW MORTALITY RATES AMONG BOTH ADULTS AND OFFSPRING. MOST SPECIES OF SEABIRD WILL REACH SEXUAL MATURITY BETWEEN 5—12 YEARS OF AGE. PAIRS WILL PARTICIPATE IN ELABORATE COURTSHIP DISPLAYS BEFORE BREEDING IN COLONIES ON REMOTE ISLAND. SOME SPECIES WILL BREED ANNUALLY, WHILE OTHERS WILL BREED EVERY TWO OR THREE YEARS.

BOTH PARENTS HELP TO RAISE THEIR CHICKS. SOME SPECIES — SUCH AS PETRELS AND SHEARWATERS — WILL DIG A BURROW AS A NEST, WHILE OTHER — SUCH AS ALBATROSS — WILL BUILD LARGE BOWL—SHAPED NESTS OUT IN THE OPEN. EACH PAIR WILL LAY A SINGLE EGG WHICH BOTH PARENTS TAKE TURNS TO INCUBATE FOR 35—85 DAYS. AFTER HATCHING, CHICKS WILL BE CARED FOR BY THEIR PARENTS FOR A SHORT TIME UNTIL THEY ARE ABLE TO REGULATE THEIR OWN BODY TEMPERATURE. CHICKS ARE THEN GENERALLY LEFT ALONG, WITH BOTH PARENTS ONLY VISITING TO BRING FOOD UNTIL THE CHICK BEGINS TO FLY BETWEEN 110—304 DAYS (DEPENDING ON THE SPECIES).





THREATS TO SEABIRDS

It is now estimated that seabirds are one of the world's most threatened group of birds. The albatross family alone is particularly at risk, with 15 of 22 species facing extinction.

In the past seabirds were hunted for meat, feathers and eggs. However, these practices have mostly stopped. Instead, seabirds are now threatened indirectly by a range of human activities. These include:

- Habitat loss Coastal development has reduced the number of suitable breeding sites for many seabirds.
- **Invasive animals** The introduction of feral animals such as foxes and cats affects breeding birds and their eggs.
- **Fishing** The expansion of longline fishing is considered to be one of the greatest threats to seabirds who get caught by catch on longline hooks. Other types of fishing, such as gillnet or trawling, also pose a threat to seabirds.
- **Marine debris** Marine debris can affect seabirds either through ingestion or entanglement. Many seabirds consume large quantities of plastic, mistaking it for food. Adult seabirds will also feed their chicks plastic waste instead of normal nutritious food. Seabirds can also become entangled in marine debris, causing them to starve or drown.
- **Climate change** Climate change is expected to affect seabirds by altering and damaging breeding sites, increasing the frequency and intensity of storms, and by impacting marine food webs which seabirds are an integral part of.

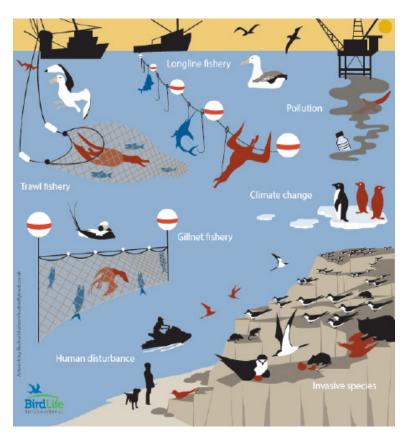


Image source: http://www.birdlife.org/worldwide/programmes/marine





WHAT CAN YOU DO?

Cut back on waste. Think about what you're buying and ask yourself "Do I really need this?" and "Is there a waste-free alternative to this thing I want or need?" This means considering what the product is both made from and packaged in. Cut back on plastics where you can – especially single-use plastic products and those that can't be recycled. With any waste that you do create, make sure it gets into the correct bin (e.g. recycling or landfill) and stays there.



Keep waste out of the sea. This means keeping waste

off the land and out of waterways, as waste will blow from the land into waterways and then into the sea. If you see some waste at the beach or the park or when just walking down the street, pick it up and put it in the bin.

Buy sustainable seafood. The most important thing you can do to help fish is to buy sustainable seafood. Look for the blue MSC logo when purchasing wild-caught seafood and the green ASC logo when purchasing farmed seafood. Make a commitment to only buy and eat seafood that has been harvested and produced to the highest sustainability standards. You could also download the Australian Sustainable Seafood Guide to use when you go shopping: http://www.sustainableseafood.org.au/

http://www.sustainableseafood.org.au/pages/download-the-free-app.html



Take only what you need. If you go fishing don't be a fool with fish. Only catch what you can eat andrelease the rest. The idea of 'filling up the freezer' went out with Stubbies shorts and terry towelling sun hats with the tiny brim. Take your rubbish (including old fishing line and hooks) with you.

Support the creation of more marine sanctuaries. Write to your local member of parliament calling for greater protection of marine areas in your area or of those that you love.

Adopt a beach (or creek). If you live close to the coast, then volunteer your time to help keep your local beach clean or to help protect coastal habitats (including turtle nesting sites). If you don't live near the coast, then volunteer to clean up your local waterway. Improving the health of local waterways improves the health of the sea.

Help change climate change. The only way to address climate change is to dramatically cut our greenhouse gas emissions. While it is true that this requires governments and big businesses to take the biggest steps, there are steps we can all take. You can try increasing your energy efficiency with things switching off your lights when you don't need them, choosing energy efficient appliances, and taking the bus instead of the car). You could also try shifting to renewable energy sources (like solar, wind and hydropower).

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Get involved with the following programs:

- Take 3 for the sea http://www.take3.org/
- When balloons fly, seabirds die https://www.zoo.org.au/get-involved/act-for-wildlife/balloons
- Australian Marine Conservation Society https://www.marineconservation.org.au/
- Save Our Seabird https://www.jenniferlavers.org/
- Two Hands Project http://www.twohandsproject.org/

REFERENCES

- Australian Government Australian Antarctic Division Seabirds at risk http://www.antarctica.gov.au/about-antarctica/wildlife/animals/flying-birds/seabirds-at-risk
- Australian Government Ten seabird species issues paper http://www.environment.gov.au/node/15954
- Birdlife International Saving seabirds from extinction http://www.birdlife.org/worldwide/programmes/marine





