SEABIRDS OF NORTHERN AOTEAROA
NEW ZEALAND

HOW THREATENED ARE OUR SEABIRDS?

- ● DOING OKAY
- ▲ SOME CONCERN
- ◆ IN TROUBLE
- ★ IN SERIOUS TROUBLE

FLESH-FOOTED SHEARWATER · TOANUI ◆

BLACK-WINGED PETREL · TITI ●

LITTLE BLACK SHAG · KAWAU TŪĪ ▲

SPOTTED SHAG · KAWAU TIKITIKI ●

CASPIAN TERN · TARANUI ●

NORTHERN COMMON DIVING PETREL · KUAKA ●

GREY-FACED PETREL · ŌI ●

FAIRY PRION · TĪTĪ WAINUI ●

LITTLE SHAG · KAWAU PAKA ●

NORTHERN BULLER'S ALBATROSS · TOROA ◆

WHITE-FRONTED TERN · TARA ▲

LITTLE SHEARWATER ●

BULLER'S SHEARWATER · RAKO ◆

NORTHERN LITTLE BLUE PENGUIN · KORORĀ ▲

FAIRY TERN · TARA ITI ★

POOR KNIGHTS ISLANDS

MAROTERE/CHICKENS ISLANDS

MOKOHINAU ISLANDS

TARANGA/HEN ISLAND

HAUTURU/LITTLE BARRIER ISLAND

TĀWHARANUI

AOTEA/GREAT BARRIER ISLAND

HAURAKI GULF
TĪKAPA MOANA
TE MOANANUI-Ā-TOI

AUCKLAND
TĀMAKI MAKAURAU

NZ STORM PETREL ★

COOK'S PETREL · TITI ▲

PIED SHAG · KĀRUHIRUHI ●

SOUTHERN BLACK-BACKED GULL · KARORO ●

FLUTTERING SHEARWATER · PAKAHĀ ●

BLACK SHAG · KAWAU ●

SOOTY SHEARWATER · TĪTĪ ▲

PYCROFT'S PETREL · TITI ▲

RED-BILLED GULL · TARAPUNGA ●

BLACK-BILLED GULL · TARAPŪKA ★

WHITE-FACED STORM PETREL
TAKAHIKARE-MOANA ●

AUSTRALASIAN GANNET · TĀKAPU ●

BLACK PETREL · TAKOKETAI ★

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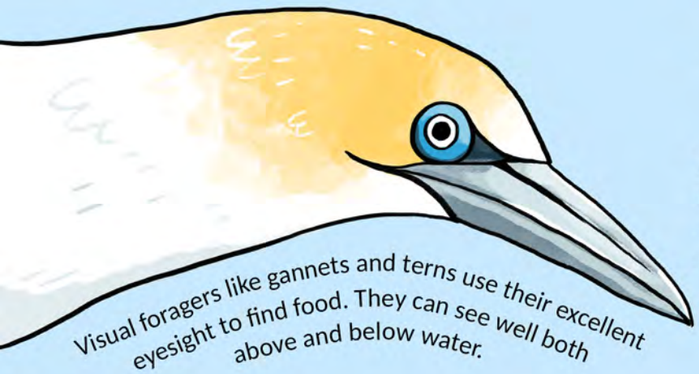
SEABIRD LIFESTYLES



Visual foragers like gannets and terns use their excellent eyesight to find food. They can see well both above and below water.

Some petrels have such good eyesight that they can forage in the dark!

They eat bioluminescent squid that swim near the surface at night.

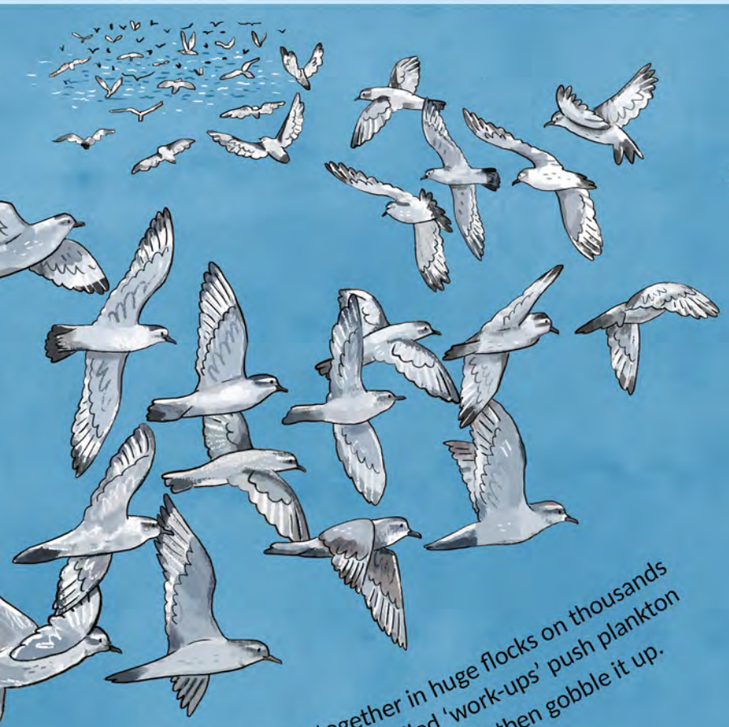
Albatrosses, petrels and shearwaters have extra big nostrils and are known as '**tubenoses**'. They use their sense of smell to find food.

Shags roost and nest in trees or on cliffs and rock stacks.

Pelagic seabirds find their food far away from land. They can stay out at sea for months at a time. Even when they are feeding chicks on land they will go on foraging trips over a week long!

Beaches are good roosting habitat for gulls, and terns nest of beaches and in sand dunes.

Penguins nest in caves and burrows.

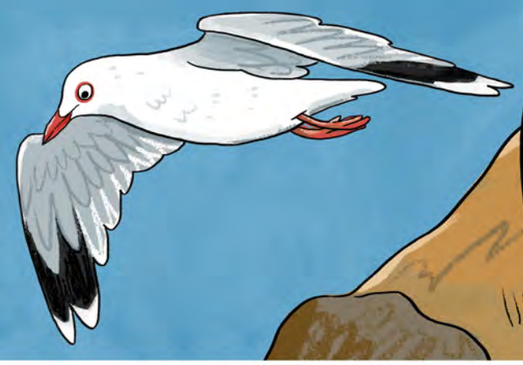


Some species forage together in huge flocks on thousands of birds. Big schools of fish called 'work-ups' push plankton to the water's surface where the birds then gobble it up.

Some species prefer to feed by themselves.

Dolphins and whales are messy eaters and drop a lot of scraps. This is how some petrels and shearwaters get a feed.

Terns, gulls and shags are inshore foragers, feeding close to the coast in shallow waters.



Petrels and shearwaters nest in underground burrows that keep their chicks sheltered and warm when they're left on their own.

There are lots of different ways to be a seabird. Albatrosses and petrels spend their whole lives at sea, except for when they need to lay eggs and raise chicks. Gulls are found hanging out on the coast, and sometimes even inland! I'm a fairy tern, I spend my days at sea and then come back to sleep with my colony on land at night. What we have in common is that we all get our food from the ocean.

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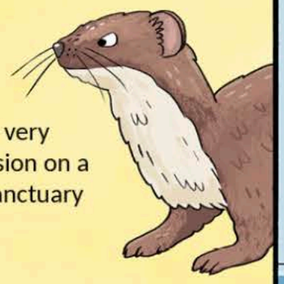
INVASIVE SPECIES

THE PREDATORS

STOATS



Stoats can kill large numbers of seabirds in a very short time. A stoat incursion on a pest-free island or in a sanctuary is a serious concern.

CATS

Cats are capable of killing birds as big as albatrosses!

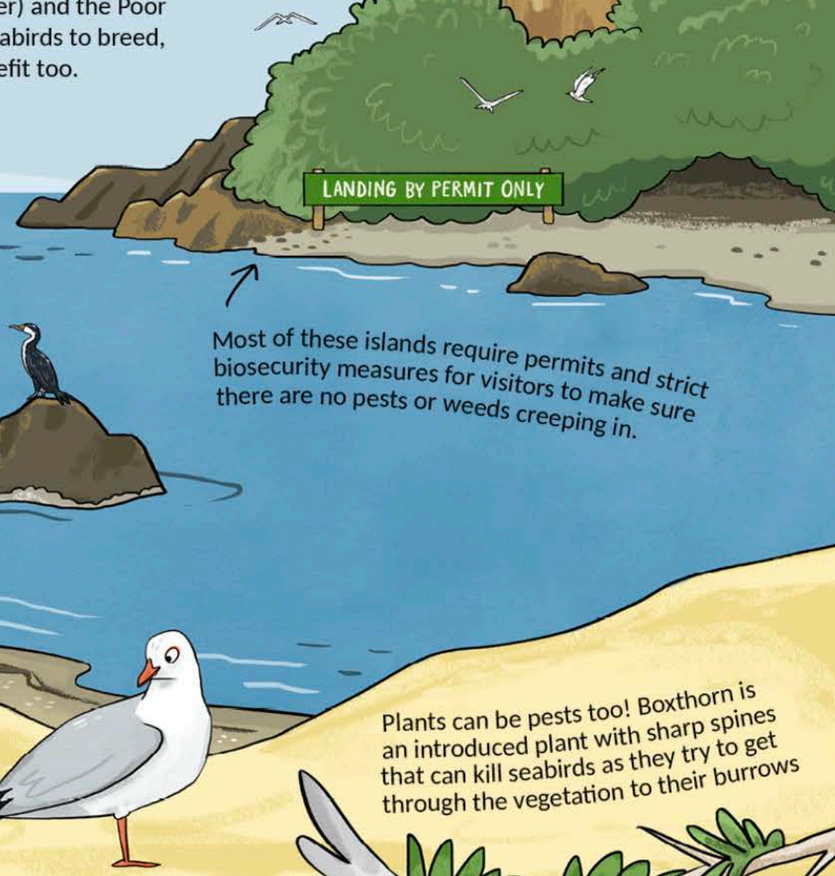
RATS

Rats can kills small adult seabirds, and will eat eggs and chicks. Rats and stoats are both good swimmers, making them an ongoing threat to our pest-free islands.

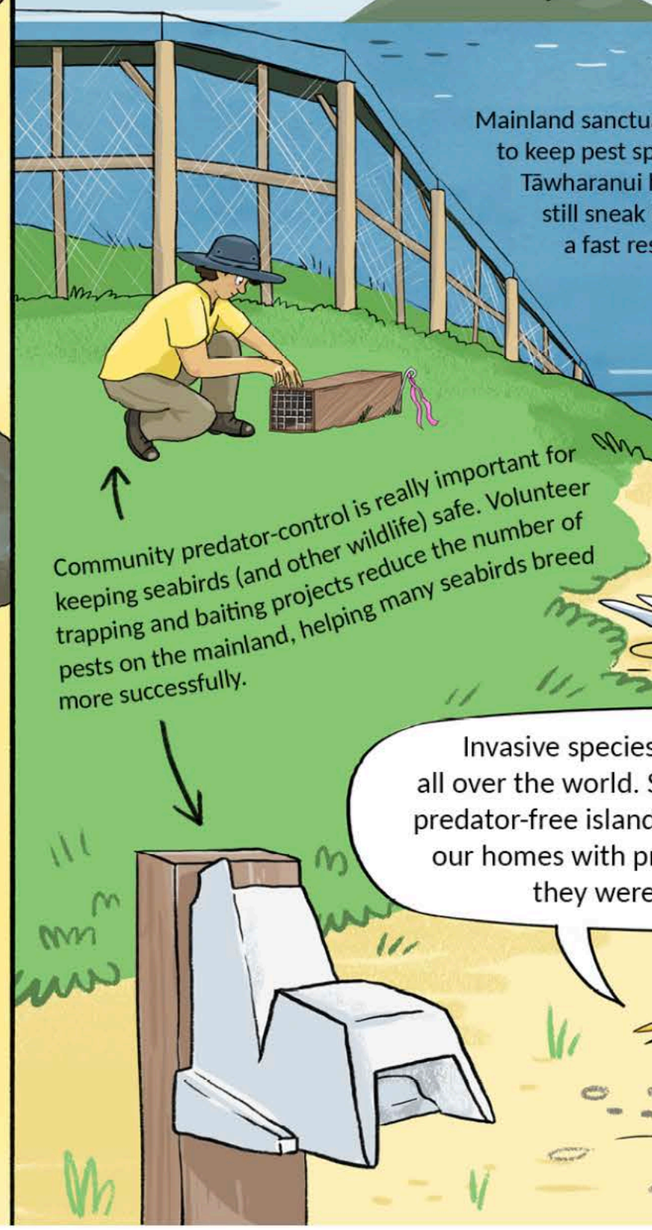
PIGS

Wild pigs destroy seabird burrows by digging them up. They will also eat the birds they find inside.

There are many islands in Northern New Zealand that are now predator-free, like Te Hauturu-o-Toi (Little Barrier) and the Poor Knights Islands. They provide a safe place for seabirds to breed, and lots of other native plants and animals benefit too.



Most of these islands require permits and strict biosecurity measures for visitors to make sure there are no pests or weeds creeping in.



Mainland sanctuaries use predator-proof fencing to keep pest species out. But peninsulas like Tāwharanui have coastline where pests can still sneak in, so constant monitoring and a fast response plan is needed.

Community predator-control is really important for keeping seabirds (and other wildlife) safe. Volunteer trapping and baiting projects reduce the number of pests on the mainland, helping many seabirds breed more successfully.

Invasive species are a huge threat to seabirds all over the world. Some seabirds are lucky to live on predator-free islands, but the rest of us have to share our homes with predators that we never met until they were introduced by humans.

Plants can be pests too! Boxthorn is an introduced plant with sharp spines that can kill seabirds as they try to get through the vegetation to their burrows

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FISHERIES

The commercial fishing industry kills many thousands of seabirds every year. For some species like black petrels and flesh-footed shearwaters it's the worst threat of all.

Some fishing boats use methods like tori (bird scaring) lines, or setting lines at night to avoid catching seabirds. Processing fish and throwing scraps overboard attracts seabirds, so boats shouldn't process fish and set hooks or nets at the same time.

Recreational fishing also attracts seabirds which will sometimes chase a piece of bait and get hooked on a line. If a seabird gets snagged and tangled in fishing line and isn't helped free, it will die.

Penguins, shags and shearwaters eat the same schools of fish that are targeted by trawler, purse seine and set-net fishing. They get caught in the nets with the fish and drown.

Every day vast numbers of fish are caught by commercial fishing vessels, often the same fish species that our seabirds need to eat. If too many fish are taken out of he ecosystem seabirds may starve or be unable to feed their chicks.

To a seabird, the bait on the end of a longline looks like an easy meal, but they can easily get caught on the hook and drown.

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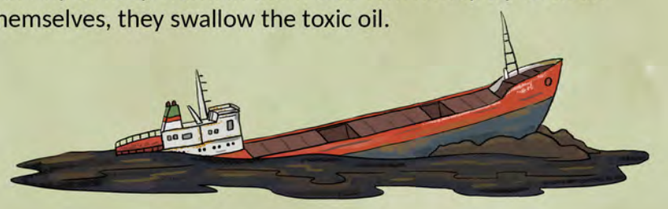
POLLUTION

When we think about pollution we usually think of rubbish, toxic smoke and oil spills. Did you know that light can also be pollution? Light pollution from big urban centres like Tamaki Makaurau (Auckland) is a serious threat to seabirds in our region.

OIL

An oil spill in the Hauraki Gulf would kill thousands of seabirds of every species and it would also destroy the sensitive marine and coastal habitats where they live.
Oil prevents a seabird's feathers from working properly - they can't fly or keep warm in the water. When they try to clean themselves, they swallow the toxic oil.



PLASTIC

Plastic pollution is a huge problem all over the world. Seabirds can get tangled in dumped fishing gear, or mistake rubbish for food. Eating plastic can kill seabirds by blocking their digestive system or leeching chemicals into their bodies, causing health problems and leading to less successful breeding.

Because the Hauraki Gulf is so close to a city, a lot of rubbish ends up in the sea. Being thoughtful about the plastic we use and then disposing of it carefully is a good way to help!

Bright lights at night confuse nocturnal seabirds like petrels and shearwaters. It causes them to land in places that are unsafe, or where they get stuck and can't take off again.

Titi (Cook's petrels) need to fly over Auckland on their way from their feeding grounds in the Tasman Sea to their breeding grounds in the Hauraki Gulf.

Fishing vessels and cruise ships often have very bright lights on their decks. Reducing the number of lights or their brightness is an important and helpful action, especially when these boats travel close to seabird islands.

Young seabirds leaving their burrows for the first time are at particularly high risk from light pollution because they have never seen bright lights before.

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CLIMATE CHANGE

Climate change threatens our whole ecosystem by altering the conditions we've evolved to thrive in. As well as causing temperatures to rise, climate change means extreme weather happens more often. It can have a direct impact by washing away our chicks in a big storm, or an indirect impact by making it harder for us to find food.

Changes in the intensity and timing of rainfall can cause slips and destroy seabird breeding habitat.

Landslides are particularly dangerous for seabirds that nest in burrows.

Big storms combined with big tides can wash away low-lying nests, flood burrows and cause coastal erosion. This is especially dangerous during the breeding season because chicks can't escape or fly away.

OUR OCEANS ARE WARMING

Rising sea temperatures may impact where a seabird's prey lives. A fish that only survives in cooler waters may move further south and be replaced by a different fish species from tropical waters in the north.

This could make it harder for seabirds to find the right food for them and their chicks, and they might need to travel greater distances to find it.

Changing sea temperatures might also affect the timing and location of events like phytoplankton blooms - a vital link in the ocean food chain that seabirds depend on.

More frequent storms mean that the seabed gets disturbed by big swells more often and the water gets murky. This causes problems for seabirds that use eyesight to find prey, like shags and penguins.

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HUMAN DISTURBANCE

The people of Aotearoa live and play on our beautiful coastlines. As cities expand and the human population grows, seabirds are coming into contact with people more often. With a little care, you can enjoy the outdoors *and* help keep our home safe for us.

Coastal housing developments have taken away a lot of seabird breeding habitat.

In dry weather fires can destroy large areas of seabird habitat, especially on islands with recovering vegetation or lots of grass. Most islands have a total fire ban to help protect them.

Seabirds sitting on the water (called 'rafting') can't always get out of the way of a boat travelling at speed, and can be killed or injured when they're hit.

YUCK! SHOO!

CRU5HR

Some seabirds like gulls are seen as a nuisance - always on the lookout for free fish and chips! But they're an important part of our native ecosystem, and many of them are declining in numbers.

Domestic cats and dogs can kill or injure seabirds. Keeping dogs on a leash in coastal areas and keeping cats inside will prevent them from coming into contact with vulnerable seabirds - especially penguins that cannot fly away from harm.

Vehicles on beaches disturb roosting seabirds and destroy the nests of species like the critically endangered fairy tern.

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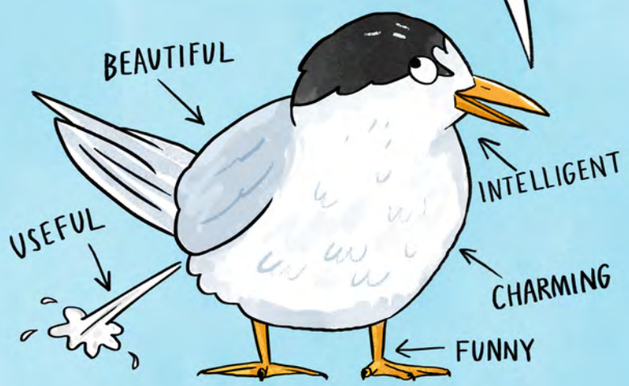
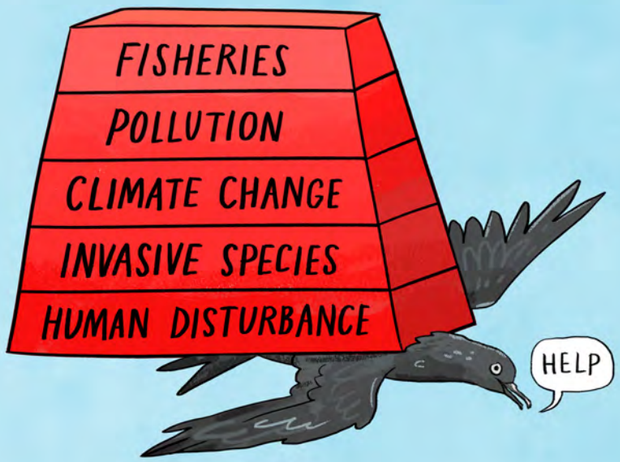
THE WORLD NEEDS SEABIRDS

Seabirds are amazing! Every species is unique, but they are all vital parts of our coastal and marine ecosystems. Just by existing, seabirds support forests and plant growth, invertebrates, reptiles, and even other birds!



But even species that are doing okay at the moment are facing big problems, like climate change. It's up to us to reduce the threats and take the pressure off our seabirds so they can survive and thrive!



It's important to remember that any one of these threats on its own is serious, but our seabirds are battling them *all at once*.

THE NUTRIENT CYCLE

Seabird poo (called **guano**) is deposited on land at breeding colonies and roosting sites.

Plants use the nutrients in the poo to grow, providing habitat for invertebrates and other wildlife.

Some seabirds dig burrows and mix their poo gets mixed into the soil, like fertilising a garden!

Nutrients from the sea are digested by seabirds when they eat fish, squid and plankton.

Rain washes nutrients from the land back into the sea, fertilising seaweeds and algae near the shore.

Fish and plankton live in these diverse ecosystems, eating the algae and phytoplankton that grows there.

Fish also eat particles in the ocean called **marine snow**, organic bits and pieces (and seabird poo!) that drift slowly downwards from the surface.

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