

**WEEK 5** THREATS TO SEA BIRDS: INTERVIEW WITH AN ORNITHOLOGIST

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PR – Peter Ryan

ACT Well, it's a real pleasure for me to have Peter Ryan here with me today. Peter is actually Director of the Percy Fitzpatrick Institute for African Ornithology. And his key research interest is in seabird conservation. So welcome Peter, it's a real pleasure to have you here.

PR Thanks for having me.

ACT So, in the past week we've been talking about the Anthropocene, and about many animals that are under threat. And we're wondering what threats do birds face today?

PR I think birds face, sort of, the same kind of a threat as all other organisms on the planet. So, in a terrestrial sense, we're seeing habitat loss, habitat degradation, pollution, invasive species. All the usual things with an overlay of climate change on top of that. Making problems, particularly for terrestrial birds. Once you move into the marine environment, it's a little bit different because it's harder to degrade the habitat in the same way. But we are seeing significant impacts through fishing, and so marine species face their own special set of problems. Seabirds as a group are really important indicators. 70% of the planet is covered in ocean and it's quite hard for us, as terrestrial organisms, to really understand what's going on in the ocean. And we rely quite heavily on the sea for food, in the form of fisheries. But it's often very hard to actually understand what's going on, even with those fish stocks that we exploit. And this is where seabirds and seals are really useful. Because they live in that environment, they have to find all their food in that environment, but they're obliged

to come back to land to breed. So we can get a window into the oceanic environment by looking at these animals during their terrestrial phase. When they have to come back to breed. And so we know an awful lot about the biology of seabirds. We know a lot about their conservation status. We can accurately count them, which is something that you can't do for most marine organisms. And so, we can see which species are doing okay, and which ones, unfortunately, are not. And, certainly over the last 20 years or so, seabirds have suffered quite serious declines in many populations. And so, up until five years ago, seabirds were the group, of birds that their conservation status had decreased, you know, become worse, at a faster rate than any other type of organism. Or any other type of bird. So that's very worrying.

The reason why seabirds are at such risk, is because they face threats in multiple environments. They're a little bit like migrants. Generally speaking, migrants don't do very well because they rely on multiple habitats. Somewhere where they breed, somewhere where they winter, somewhere where they stop over on their migration.

ACT And seabirds are a bit like that. They have to have safe breeding areas, and they have to have safe feeding areas. And we have to conserve both of those. And they face unique threats in both of those environments.

PR So we work, quite a bit, with the islands where they breed. Where the biggest problems mainly these days are to do with invasive species. So, formerly, we had problem with cats. We managed to get rid of the cats on one of the islands we work on. And now we have problems with mice. You know, we get rid of one predator, another one raises its head.

ACT Surfaces. Yes.

PR So that's the terrestrial side of things. And then we have issues at sea, mainly related to fisheries. Historically seabirds were caught for food, directly by people. And that was obviously quite a significant problem. These days most seabird populations are protected, but they still get killed accidentally, on fishing gear. And so we work quite a lot with fisheries to try to make their activities more sustainable. And, sort of, limit the number of birds being killed.

ACT And is this across the board, seabirds in general? Or are there particular species that are being affected?

PR It varies from species to species, very much. So the ones that breed on oceanic islands tend to be the ones that are most susceptible to introduced predators. Just because, like any oceanic island organism, they've evolved in the absence of terrestrial predators. And when we introduce rats, and cats, and mice, and mongoose, and all sorts of strange things, they just have no answer to those sort of more advanced predators, if you like. And then in terms of the at sea risks. There sort of two types of fisheries interactions. One is the accidental mortality issue. And there it's quite easy to engage with fishers, because generally they have a vested interest in making their fishery more sustainable. And they're quite happy to engage. More problematic is where seabirds and the fishery compete for the same resource. Which is a problem that we have more locally, in South Africa, with the Benguela system. Where we've got things like African Penguins, and Cape Gannets, and Cape Cormorants, all wanting to eat sardines and anchovies. Which are also the target of a very large, and fairly lucrative fishery. And so there, you've got a head-to-head conflict between fisheries and sea birds and that's much more tricky to resolve.

ACT So, do you have some kind of ways in which you mitigate this. Do you have meetings with fisheries? Or...? What's the kind of way in which you engage with the public?

PR Mainly through government structures in terms of engaging with the fisheries. So there is a formal government process that sets quotas. And the conservationists interact with the fishing companies through this government process to try to come up with a system. So, South African law is actually quite good. We have this ecosystem approach to fisheries enshrined in our national legislation. Which says that we have to conserve not only for our sustained use of the resource, but also for a sustained sort of ecosystem out there in the environment. And birds and seals are part of that ecosystem, and so we have to leave enough fish in the sea for them as well. So that's enshrined in the legislation, but of course...

ACT Does it work on the ground?

PR Between the legislation... Yes. Trying to actually implement that is always a challenge. And so there has been some fairly rigorous debate, shall we say, over the last few years as to how best to manage this with, you know, people with very different view on how best we should manage our fish stocks. And, you know, people actually arguing that the reason why African Penguins have halved in numbers over the last ten years is not because there's not enough fish for them, that it's other problems. But of course, those other problems haven't been identified. So, it is quite a charged environment.

ACT Well, it's tricky. But at least, I think there's ways in which we know what to do. I mean, the idea is there. It's just a question of implementation.

PR Yes. The nice thing about working on birds as well, is that they are quite iconic. People get engaged. And so we have quite a lot of public support and that really helps us to get leverage with the industry to actually do something about conserving them.

ACT And before we finish here, I just want to ask you one more question. And, you know, I've seen some terrible pictures of birds affected by plastics in the water. And, I mean, surely there's something that ordinary people, you know people on the street, anyone can do. What do you suggest?

PR Yes. Absolutely. I mean, that's a subject very close to my heart. I started my research career as a masters' student looking at plastic ingestion by seabirds. And certainly the amount of plastic in the sea these days is quite frightening.

ACT It's terrible.

PR The sea becomes, sort of, the dumping ground for all of our persistent waste. And plastics do live for a long time in the environment, and because they're light they travel very well. So, you can't go anywhere on the planet and not find plastic. It's under the Arctic ice shelf, it's on the most remote island, you'll just find lots of plastic

litter. And South Africa has a real problem in this regard. Most of our solid waste, more than half of our solid waste doesn't go into a formal disposal stream. And so it goes out into the environment, and there it gets blown and washed down into the sea. So, really we need to work as a community to make sure that our, you know, plastic waste, plastics do go into some form of either landfill or recycling. Ideally, you know there's amazing technology. You can make fuel from waste plastics. You can produce energy in the form of electricity from waste plastics. There's lots of ways. It's just a matter of incentivising it so that people will actually benefit from not throwing their plastic out into the environment.

ACT Exactly. I think we need to get that message across. But, thank you very much for coming to join us. It's been such a pleasure having you here and I'm sure we've all learned a lot about seabird conservation. Thank you so much.

PR It's a pleasure. Thanks.



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