



Citizen Science: The New Zealand Bird Atlas

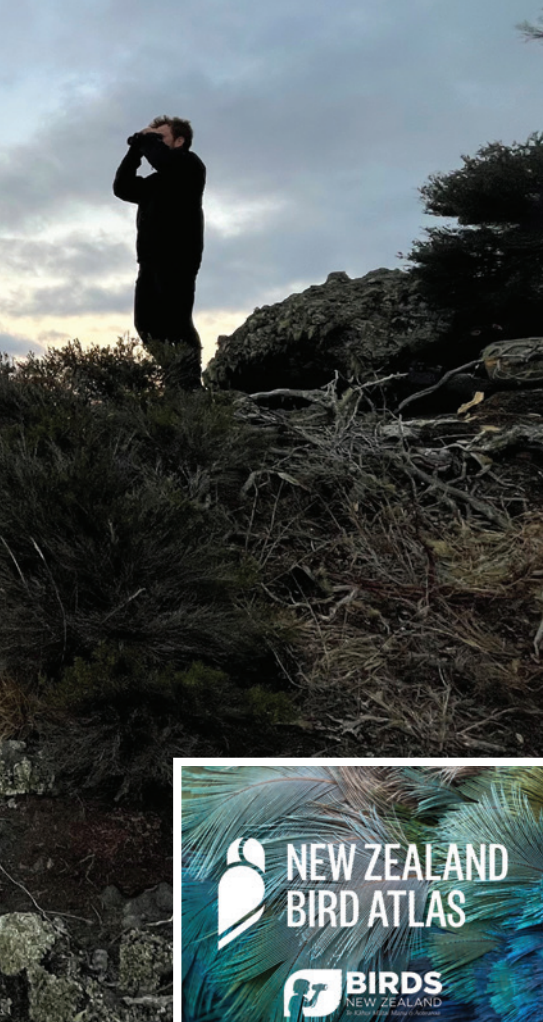
Dan Burgin Atlasing on Taranga (Hen Island) Photo: Pat Crowe

‘What you do makes a difference, and you have to decide what kind of difference you want to make.’ Jane Goodall.

DAN BURGIN, NZ BIRD ATLAS TEAM

My legs have that familiar burning sensation as they struggle to absorb the steep ascent of the final stretches of the Cascade track towards Angelus Hut. Stopping for a breather, I am aware of the aching silence hanging over the valley as we become enveloped by mist. It seems to absorb the entire landscape and the only sound I can hear is

my desperate breathing as I try to suck more oxygen into my lungs. The silence is broken by a single, yet distinct call of a New Zealand pipit somewhere among the scree and alpine flora. Its familiar tail bobbing alerts me to its location. Seemingly aware it has been spotted, it flies effortlessly off down into the valley we’ve just come from. I wait until



Atlas Portal, within the eBird app, to join the hundreds of thousands of other bird records already collected by the Atlas community of citizen scientists.

Run by Birds New Zealand, the New Zealand Bird Atlas is the largest community citizen science project currently under way in Aotearoa New Zealand. It was launched on 1 June 2019 and runs for five years until 1 June 2024. The simple aim of the project is to monitor all of New Zealand's birds over the five-year period in order to provide up to date information for bird conservation and research. You don't have to be a bird expert to contribute. Anyone with an interest in birds can get involved, and you can submit lists of the species you detect from across the country. Every observation is of use; from the alpine tussock, forested lowlands, farmland, urban centres and even your back yard, it all counts.

Why is it important, you may be asking? New Zealand's bird species face myriad threats on a daily basis. Whether it is introduced mammalian predators, land use change, human disturbance, or climate change, it's a tough world out there at the moment. As a consequence, many are sadly teetering towards extinction. We desperately need up-to-date information on where bird species are and in what numbers, to inform effective conservation management. Without this data we are working blind. Birds are incredible sentinels of the environment they live in, whether it be the alpine zone, wetland, forest or oceans, they can reveal the health of their ecosystem. So by taking observations of the birds we see and hear in our daily lives, and logging them into a centralised place, we can help better monitor the state of our ecosystems, to then effectively regenerate and protect them now and into the future. The more people who help gather this data, the better placed we are to provide information that will potentially have lasting and positive impacts on local, regional and national Government

it has disappeared from sight before taking note of this species within the eBird app on my smartphone. I've been logging my bird observations continuously this trip to assist with the New Zealand Bird Atlas project, counting everything I can identify by sight and sound into complete checklists in the app. I've been splitting the lists into roughly one kilometre sections, to not only increase the resolution of the data and increase its scientific value, but also to help me keep track of our progress as we meander along the valley. Once I'm back in service I'll upload all of these to the New Zealand Bird



conservation policy. Importantly, there is a growing awareness that we are intimately tied to the ecosystems around us. They sustain us both physically and mentally, and are vital to our survival as a species. So it is in our best interest to understand, protect and restore them, not just for the species we all love.

This is where citizen science comes in. Science increasingly needs more eyes, ears and perspectives than any single scientist, or organisation, possesses. Citizen science can empower people to provide those extra sets of eyes and ears and help create stronger collaborations between scientists and those of us who are curious, concerned and driven to make a difference. People like you are collecting data on the birds they see and hear across Aotearoa New Zealand, helping advance ornithological research and conservation, and you can too.

All you need to do is submit lists of the birds that you can identify by sight and sound across the country, to eBird. eBird is one of the world's largest biodiversity-related science projects from the Cornell Lab of Ornithology in the USA. It allows bird enthusiasts from around the globe to submit lists of the birds they've seen and heard to a central database, and puts that information in the hands of scientists and conservationists. They can then analyse and use that data to help understand and protect the birds we all love. The app is free to use, and once downloaded, you can upload your first checklist of birds from your backyard, on your next tramp, or even better on your overnight missions into the bush. You can then begin to submit as many checklists as you can across the country. In order to help support national-scale data coverage, the country has been split up into over 3,200 ten-kilometre grid squares, and each of these needs Atlas effort across the year. As you can imagine, many of the harder-to-reach places, which often require multiple days of tramping, are still in need

of bird observations. That's where we hope members of Federated Mountain Clubs can help us.

Data quality is of critical importance. When entering sightings, observers are presented with a list of likely birds for that date and region. These checklist filters are developed by some of the most knowledgeable bird experts in the world. When unusual birds are seen, or high counts are reported, voluntary regional experts review these records. Furthermore, eBird users can also question records, particularly photos and audio, adding to the peer review process. We are encouraging participants to submit 'complete' checklists. This just means listing all the species that you are able to identify by sight and sound, and how many of each of those species you identify, without intentionally leaving anything off, such as introduced house sparrows or pigeons. This rapidly raises the scientific value of your observations to aid scientific research and conservation. However, more casual 'incidental' records can be submitted, for instance a kea or a kārearea/NZ Falcon flying overhead. What we are recommending though, is that in those instances it is incredibly valuable to sit for five minutes and add in anything else that you can see or hear to create a 'complete' checklist. This raises the scientific value of your observations by creating a more complete picture of what you are seeing and hearing at that particular location. This data can then inform experts on how conservation efforts such as predator eradication are faring, and which locations and/or species need more attention.

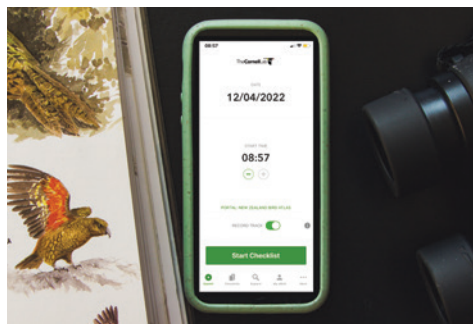
We realise some of you may feel your bird ID skills aren't up to scratch enough to help. Don't worry, we all have to start somewhere, and observations of the birds you can identify are still of worth! From personal experience, getting out with groups of fellow bird lovers can help increase your ID skills, but there is also the highly useful Merlin ID app too. This is intimately linked to the eBird

app and provides a free pocket guide to New Zealand's birds with photos, calls and key identification features for you to increase your understanding.

What we hope to reveal is that contributing to the Atlas (or 'Atlasing') will add another fantastic element to your tramping experience, as it has for many of us within the Atlas community. The drive to submit data across the country, and to fill in 'gaps' that remain, particularly in New Zealand's backcountry, will likely take you to new and interesting places that may well become new personal favourites. This new passion can really take hold, and all the while you can be assured that your observations are helping create positive and lasting impacts on conservation across Aotearoa New Zealand.

So, if you are keen, head over to the NZ Bird Atlas eBird portal (www.ebird.org/atlasnz/home) and click the 'How To Atlas' link. There is a suite of resources there to help you get started, particularly how

to gather the most scientifically valuable observations. There are even links to recorded webinars we ran that go through the eBird app and online portal to help you learn the basics. If you have any questions at all, or wish for the Atlas team to run a local workshop, feel free to send us a message via email (nzbirdatlas@wmail.co.nz) or via our Facebook and Instagram pages. We're here to help you every step of the way to become part of this huge collaborative effort across New Zealand.



A rockwren at Homer Tunnel Photo: Dan Burgin

