

BIOBLITZ TAKING A SNAPSHOT OF LOCAL BIODIVERSITY

Run over a limited time frame, BioBlitz events are a dynamic blend of science and education. Members of the public can learn more about the sheer number and variety of species living in one place while helping scientists collect useful baseline data.

Biodiversity and why it's important

The word biodiversity often conjures up thoughts of remote, wild places full of extraordinary animals and plants. While wilderness areas are often rich in biodiversity, people can easily overlook the array of species that surround them every day – even on the school playing field. Biodiversity literally means a variety of living things, whether animal, plant, fungi or micro-organism. Biodiversity forms the foundation of complex natural systems (ecosystems), which humans in turn rely on to survive.

A brief history of BioBlitz

The BioBlitz concept was introduced to New Zealand from America in 2004 and championed by mycologist Peter Buchanan (Manaaki Whenua Landcare Research). Peter's aim was to break down the barriers between science and the public. A BioBlitz makes this happen by taking scientists out of the laboratory or office to work in a more public space while creating opportunities to engage with the public. To date, more than 30 BioBlitz events have been held throughout the country. The original concept was to get scientists, volunteers, students and members of the wider community to work together to count as many species

Snapshot

- A successful BioBlitz can enhance environmental awareness while baseline species data are being collected
- More than 30 BioBlitz events have already taken place around NZ
- A BioBlitz can be long or short, large or small, terrestrial and/or aquatic – it depends on your objectives and what type of expertise is available

as possible over a 24-hour period. This time frame allows people to take advantage of darkness for finding nocturnal insects and animals. However, events now range from a few hours (a mini-BioBlitz) to several days (and don't necessarily need to run through the whole night).

BioBlitz MiddleRun 2012. Photo: Derek Stoner



How does a BioBlitz work?

The 'Basecamp' is the BioBlitz hub where species identification and data recording take place. Basecamps take many forms ranging from marquees in a reserve, to schools, public halls, club rooms or museums. The BioBlitz typically covers a specific area such as a public reserve or may be spread over several sites within a catchment or defined area. Depending on the scale of the event, scientists may put out traps or collect samples one or more days beforehand. This is to ensure they have specimens to display at the Basecamp, where microscopes and other tools of the trade are housed. A key feature of a BioBlitz is the availability of scientists and expert volunteers to give advice and help people distinguish between the different species found. They may also run trips to show interesting features of the site, collect specimens or just look for species to identify in situ - while teaching participants the intricacies of species identification.

A BioBlitz relies on a wide range of expertise which can shape the nature of the event and the data collected. While the public may be surprised to learn just how many different birds, plants or insects may be found in the local reserve, experts in micro-organisms or lesser known groups of species can add a whole other dimension.

The overall aim of a BioBlitz is to count the number of species, but not necessarily to name them all as new species may be discovered. Online tools such as NatureWatch NZ help with species identification. When a photograph is taken, image analysis software comes up with suggested species that most closely match the image. A virtual community of biologists and other experts are also on hand to help identify species. NatureWatch users post online.

The species tally is usually found at the Basecamp and is a board or screen frequently updated with the total number of introduced and native plants, animals and fungi found onsite. This helps keep up momentum (and can generate a friendly competition!)

Ecologist Bev Clarkson (MWLR) tallying up species at the Rotopiko BioBlitz, Feb 2018. Photo: Monica Peters



Mycologist Peter Buchanan (MWLR) explaining fungi to the public. Photo: Monica Peters

Benefits

By creating a snapshot of species found in the BioBlitz area, longer-term benefits to site management can occur. Pest species may be identified that require specific monitoring or control, or native species may be discovered that need active management. While producing valuable biodiversity baseline data, a major BioBlitz benefit lies with the public: being engaged and informed, they are far more likely to actively support future biodiversity initiatives that benefit the local environment.

NZ BioBlitz Spotlight

Manaaki Whenua Landcare Research with Auckland Museum: Landcare Research and Auckland Museum ran a BioBlitz in 2015 at Pourewa/Kepa Bush. This provided baseline data for local Iwi to inform their restoration plan for Pourewa. It also piloted an integrated education programme that allowed local schools to be involved before, during and after the BioBlitz.

Whau River Catchment Trust: The Whau River Catchment Trust BioBlitz site was divided into separate habitats such as mangroves and mud, the butterfly haven and remnant forest. Several schools attended as did two separate Chinese conservation groups. A combination that reflects a new age of cultural diversity in Auckland's people and their interest in the environment around them.

Brook Waimarama Sanctuary: Brook Waimarama Sanctuary Trust hosted a series of BioBlitz events prior to the construction of a 14km predator-proof fence. The events helped engage the community and assisted the sanctuary to develop a baseline study before a pest eradication programme.

Further information

www.landcareresearch.co.nz/science/plants-animals-fungi/bioblitz

<http://naturewatch.org.nz/pages/bioblitz+guide>



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