

Participant Information Sheet This is yours to keep

Biodiversity values of Darwin: past, present and future. Online Survey



When we talk about biodiversity, we mean all that is living in an area, whether the plants, animals, insects, spiders, or other life; both native and introduced. We also include habitats that represent all the associated life in a particular part of the landscape, such as mangroves, woodlands, beaches, and creeks.

This project aims to consider Darwin's biodiversity to identify important natural and green places around the city, so that we can develop a set of recommendations for approaches aimed at maintaining and enhancing urban biodiversity and helping keep the city cool and liveable.

"What will Darwin be like in the future?" is a question that many are currently asking. It's hard to predict, so, we're asking for some of your ideas. To predict the future, we are interested to learn from people about how their use of Darwin's natural environment has changed over time. This may be because of changes to your lifestyle over time, or it may be because there have been changes to natural areas in Darwin which have prevented you from using or enjoying them in the same way.

Who is doing this survey?

This study is part of the Darwin Urban Living Lab, a project led by CSIRO with the Australian Government, Northern Territory Government and City of Darwin. For more information see the Darwin Living Lab website (https://research.csiro.au/darwinlivinglab/).

Who is invited to participate?

We acknowledge the considerable natural history knowledge held by the Darwin community. We intend for this survey to provide an opportunity for all residents of, and visitors to, Darwin to share the various roles biodiversity plays in people lives. In doing so we plan on defining a list of animals, plants, habitats, and places that are important to Darwin residents and identify where there are current gaps in protection of these values, and/or ability to realise enjoyment or benefit from these values. By reporting community biodiversity values for future planning, we will also recognise where there are similarities and differences between the values of Larrakia respondents and the broader community. This survey is in

addition to the more focused one-on-one interviews being conducted with Larrakia people that will be audio and video recorded as part of this project.

Through this Larrakia-led biodiversity values project we are interested in hearing from you about what you think are the natural aspects of Darwin that contribute to the unique character of the city and surrounds and make it a place where you want to live.

Survey style

This is an online survey that can also be taken over the phone, video chat or as a paper version if requested. Based on the aims of this survey, there are some places where you can enter a description or short story, rather than simply selecting options from a list as we don't want to limit your options or assume what is important and of value to you. We also respect that different people enjoy green spaces and biodiversity in different ways and will include all these uses.

Survey scope

This study relates to the Darwin City boundary and while you are free to share relevant stories of adjacent landscapes the focus of this survey is the Darwin City area (that is, the suburb of Berrimah, north to Lee Point and west to Darwin City). Anyone with knowledge of Darwin's biodiversity and natural places is invited to participate in this survey whether you identify as Larrakia, a Darwin resident, or a visitor.

The survey is divided into five sections, and you will be given the option to skip any section after reading the introduction if you don't have anything to say.

About me

Some information about yourself and how you relate to Darwin.

Liveable Darwin

We offer you the opportunity to share why you live in Darwin, what makes the city liveable now, and what natural aspects need to be considered to ensure you can keep cool into the future. We ask how important natural places, green spaces and trees are in keeping a city cool.

The impacts of climate change on the city's liveability (how enjoyable it is to live there) is uncertain, although research has demonstrated that Indigenous peoples across northern Australia are likely to be more affected by the impacts of climate change (including heat stress) than non-Indigenous people. Here, we ask what you think the future holds for living in Darwin?

Your favourite places

This section allows you to share five of your favourite natural/green places around Darwin. This section will allow us to identify valued parts of the city and report where biodiversity is important to the Darwin community. You can share more favourite places by completing a second survey, providing your details followed by selecting **YES** to the question **Are you returning to this survey to share more favourite places?**

Darwin's biodiversity

This section asks questions about your understanding of Darwin's biodiversity (plants and animals) and reflect on changes you may have witnessed.

Plants and animals around Darwin will continue to exist with access to the healthy habitats that support them. Many habitats are threatened through tree clearing, altered flows of water, light, sound and chemical pollution, and the introduction of pests and pets. Often a measure of health is assigned to natural places to identify their "condition" and how intact, stable, and resilient to change and disturbance they are. This health includes all aspects of the ecology including the suite of animals and plants present, the amount and quantity of water and soil, as well as human disturbance and management. We ask how well biodiversity is being managed and what we might do to protect biodiversity in future.

Future Darwin

In each section we also reflect on what the future holds with respect to Darwin's liveability and its biodiversity as it grows influenced by a changing climate in the tropics. You can reflect on what approaches should be considered to ensure Darwin is liveable and supports a rich flora and fauna.

Privacy and credit

This survey is anonymous, but we also respect the holders of all knowledge and offer you the ability to have the information you share credited to you by a name supplied at the end of the survey. Except for a few critical questions all responses are optional, and you can answer and share as much as you like.

Contact us

Please contact us if you have any questions or wish to share more private information that may help our story but is not to be used in publications or reports.

For further information about the survey and/or use of the survey results please contact:

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Ethical approval for this research has been received from the CSIRO Social Responsibility and Ethics Committee (175/20). If you have any concerns or complaints regarding the ethical conduct of the study, you are invited to contact the Manager, Social Responsibility and Ethics, on (07) 3833 5693 or email csshrec@csiro.au.

Definitions

Liveability: Determining how 'liveable' a city is asks what makes people happy, comfortable, and proud to call the place they live their home. By considering the past and present the aim is to ensure future planning improves all people's wellbeing. Finding how liveable a city is will depend on who you ask as we all have different values and viewpoints.

Biodiversity: Simply put 'biodiversity' is the full collection or range of (diversity) all the living things (bio, short for biological) in a place. Therefore, we use the term biodiversity in this survey to refer to all the plants, animals, and insects etc that live around Darwin, also including the unique collections of life that form specific habitats. This is like the term 'nature' that we'd suggest also includes the land, water, climate, and people into the mix.

Some additional survey instructions

Providing the location of your favourite places.

We aim to produce a map showing identified favourite places to highlight important areas of Darwin. If you wish to share a very general location or specific location of this place you can describe the location and we'll place it on the map for you. You can also obtain the location of your favourite places by locating them on your favourite map app, usually by clicking the location which will drop a location pin. You can decide where you want your location reported, such as a general beach location or the middle of Darwin Harbour, or an exact location. Clicking the pin icon will provide you with the details of the location which you can provide to us.

Google Plus code

There is a <u>Plus code (https://maps.google.com/pluscodes/</u>) for every location on earth that works like an address when people or places don't have one. To find the Plus code for your place, find it on Google Maps and drop a pin. The information about the pin will include the Plus code. An example is **GRHX+JC** which shows you're at the middle table at Stokes Hill Wharf.

Earth Coordinates

Earth coordinates called latitude (north-south measure) and longitude (east-west measure) define any position on earth. You can get these by looking at the current information for a location from your favourite map app. The earth coordinates have two numbers (latitude -12.3456789, longitude 130.876543 for Darwin) and are reported in degrees often with a N,S,E, or W or positive or negative values to determine which hemisphere you are in. Please supply all the digits provided as this will give the most accurate location.

Sharing more than 5 favourite places.

You can fill in as many surveys, each with five favourite places, as you like. For each additional survey we will still ask for the *About me* information to be filled in as this helps our analysis id identifying multiple surveys. At the end of the *About me* section you will be asked if you are returning to share more favourite places. If you answer *Yes*, you will be taken directly to the favourite places section. You can skip the last biodiversity section of the additional surveys before submitting the survey.