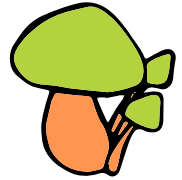
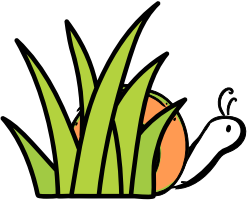
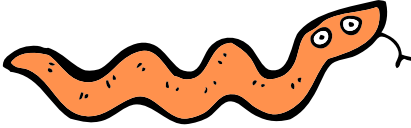


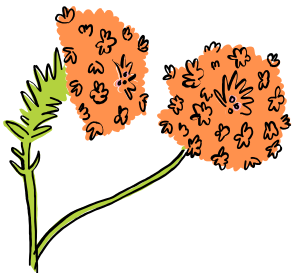
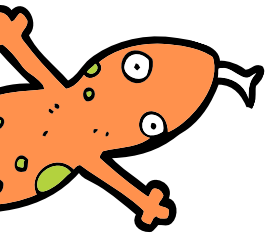
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URBAN NATURE AROUND US

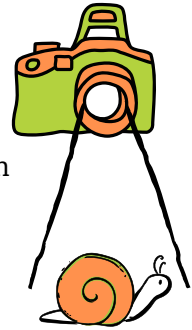
*Explore and Learn About
Wildlife in the City*

First Edition / May 2021

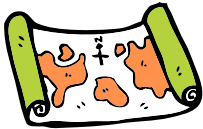


BioBlitz

BioBlitz is a nature documentation event that aims to create a snapshot of living things in an area. You participate by recording plants and animals that you can find around you. You can also work with others; it's more fun to reach out and get together with your local community. You can even work with scientists or naturalists who can share their expertise.



Set a place



To start BioBlitzing, all you need to do is pick a location (anywhere where there is wildlife). You can choose a smaller area like a house compound or a school field. It can even be as big as a whole park or a city.

Set a time



BioBlitzes usually last 24 hours, during which citizen scientists (people like you and me!) work around the clock to find, document and identify as many plant and animal species as possible. But it can even be shorter or longer than that: a few hours or even 10 days!

BioBlitz example

The City Nature Challenge (CNC) is a friendly competition to find the city that can:

- Record the most observations
- Find the most species
- Engage the most people

Cities are often overlooked when we think of places for nature. But knowing what species are dwelling in our city and where they are can help us study and protect them.

Find out more information on how to organize your city for the yearly CNC or collaborate and contribute observations to any participating city:

Visit



THIS IS A BLANK PAGE.
DESCRIBE YOUR PROJECT OR DRAW SOMETHING HERE.

Introduction to iNaturalist

It's easy to record and identify any living thing when you have technology at your fingertips. Using an app like iNaturalist during BioBlitz events can help speed up the learning process.

Download the app 

Visit 

inaturalist.org



How iNaturalist works



Artificial intelligence (AI): It uses machine learning to mimic human intelligence. The more we 'teach' the system (by submitting photos of plants or animals), the better it becomes at identifying our observations based on what is visually similar or seen nearby.

Citizen science


Each time you record and share your observations of the natural world, you'll be contributing valuable data as a citizen scientist!

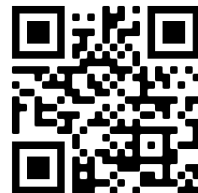


Crowdsourcing: It provides two-way communication for its users to learn from one another. You can get feedback from actual scientists, experts and other naturalists.

Learn how to make an observation 



Learn how to take better photos 



Guide to iNaturalist

iNaturalist in web browser

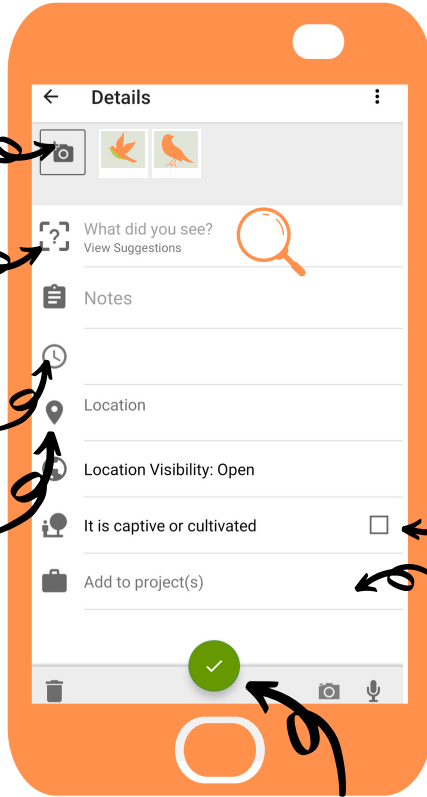
1 Tap 'New Observation'. 

2 Add multiple photos of the same individual plant or animal.

3 Identify the plant or animal (if you can).

4 Date and time added automatically.

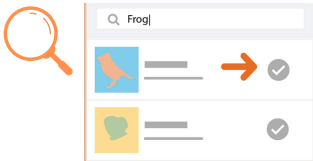
5 Where you saw it should be added automatically. If not, check if your phone's location has been turned on.



6 Click here if your observation is not wild, like a potted plant, pet, or animal in the zoo.

7 Join any project, or just leave it empty.

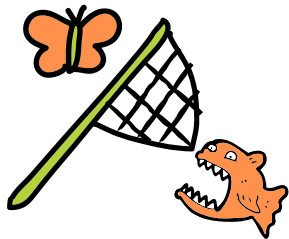
8 **SUBMIT!**



More info on 3

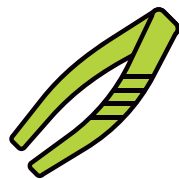
Choose one of the automatic suggestions, or search for something else. It's fine if you don't know what it is, and it's fine to only add a simple label such as 'plant/animal' or just 'frog'. The iNaturalist community can help to add, improve or confirm the identification of what you found.

Assemble your Nature Exploration Kit



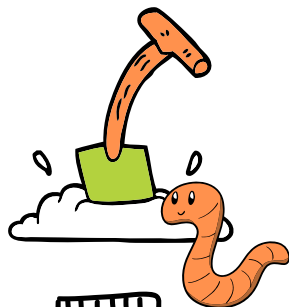
Insect net

For bagging flying bugs or water creatures. Turn the net inside out to release what you catch into a container.



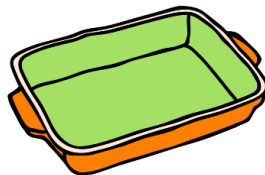
Tweezers

To slowly grip small creatures and release them into a container.



Hand spade

For digging up worms and other shy creatures living in the ground.



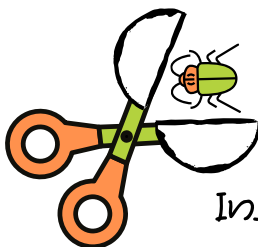
Tray

Filled with a little water to keep your water creatures in a temporary home.



Container

Container with a lid that has holes or an aquarium tank to keep your captive bugs or water creatures so you can photograph them before release. You can also use containers to make a pitfall trap for nocturnal creepy crawlies.

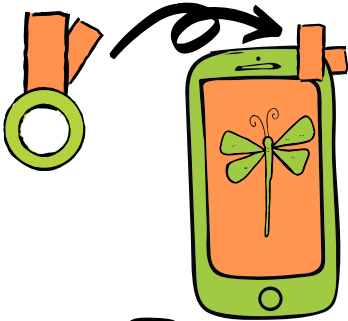


Insect catcher scissors

A funny tool to catch insects. Be very careful not to injure your specimen! You can even use it as a 'spoon' to scoop and transfer tiny creatures between containers.

Clip-on phone lens

To help you take better close-up photos.



Badge

Show off your 'Nature Explorer' badge.



Guide/Book

Bring a field guide to help you identify what you see or a notebook for taking notes and making sketches. You can take this handbook too, of course!



Phone/ Camera

A smartphone (with iNaturalist app installed) or digital camera, preferably with zoom and/or macro settings.



Backpack

To keep this kit, snacks and drinks in case you get hungry or thirsty. You should have an emergency contact number in the bag.



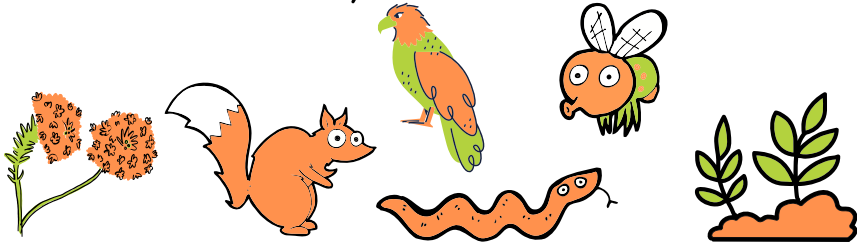
Magnifying bug viewer/ Magnifying glass

For inspecting the strange creatures you've caught, and to help you take better photos of them.



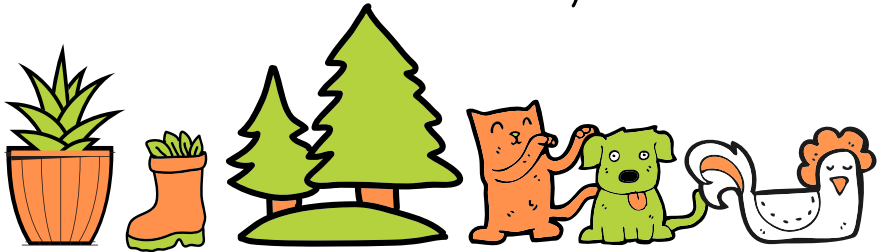
Wild and non-wild

DO take photos of...




Wild animals that often hide and move secretly. Find plants that are growing on their own. For wild animals, the best time to look for them is at dusk and dawn (mosquitoes become active during these times too, so be careful!). You can also go out to different types of urban habitats (see the pages on 'Finding nature at home' and 'Parks and beyond').

You can ALSO take photos of...



Captive animals (including pets, caged animals and farm animals) and cultivated plants (including ornamentals, vegetables, potted plants, and trees used for landscaping — anything that was planted and did not grow on its own). It may be difficult to determine whether a plant is cultivated or wild (unless you're the person who planted it). Knowing what people like to plant and what animals people have at home (even pets) helps us to understand the cultural and social aspects of urban biodiversity.

Finding nature at home

MISSION: Add a  for every space that you've explored in and around your home.



Outdoor garden

Any greenery will attract wildlife. This can include existing garden space, a courtyard (for apartments), green patches, or introduced greeneries such as potted plants, urban farms, nurseries, etc.

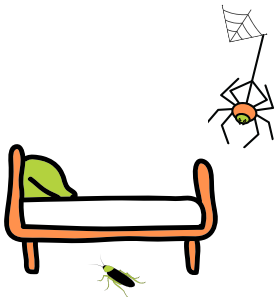
Drain, roof...

Plants seem to grow out of nowhere sometimes. Look for out-of-the-ordinary spaces outside your home like drains (where you can find wild flowers, drain guppies or tadpoles), gutters (growing weeds introduced by birds) or the roof (where you might even find bats or a bird's nest)!




In your house

There are many species that dwell indoors — the corner of your room, windowsills and floors, the ceiling... And places like your storeroom and kitchen probably attract various wildlife like spiders, flies, ants, moths, beetles, cockroaches, silverfish or mites. Some of them are actually quite harmless!



Parks and beyond

MISSION: Go to different places to find nature, and add a .

Park, lake, forest

Go to places where you can easily spot many plants and animals.

I've explored this park/lake/forest:



Unusual habitat

Look for places that don't immediately cross your mind when you think of nature. Try going to places like cemeteries, urban rivers, abandoned spaces, roadsides, rooftop gardens, underground and more! **Make sure you're not trespassing and always put safety first!**

I've explored this unusual habitat:




Here, there, everywhere

Maybe you're out running, on your way to work or school, visiting the post office or night market or going to a place of worship... Wherever you go in your daily routine, just look up, down and around you to find nature!

I've explored nature on my way to:



Animal hide-and-seek

MISSION: Add a  for every trick you've completed to spot a hiding animal.



Look closer

To look for shy insects, turn leaves over. Many garden creatures also feed on our flowers and vegetables, so it's a good place to look for them!

Dark and wet

Some creatures prefer dark, moist places. Peek under plant pots, lift up logs and stones and sift through dead leaves, soil or compost bins.

Do use gloves or a spade to avoid getting bitten! Water bodies such as ponds attract many animals too.



Use your senses

Look for unusual movements, shapes, colours or sounds. Follow the sound of birds chirping or frogs croaking. Look out for any sudden movements on the ground or above your head.

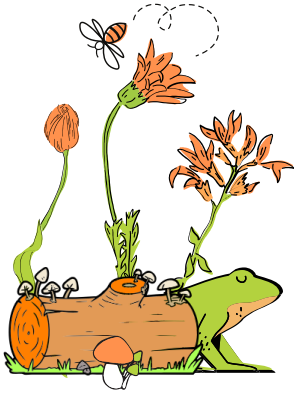
Who left this?

Wildlife sometimes leave clues, some sort of trace that we can follow. Look for: nests, webs, bones, fur, feathers, droppings, tracks or bite marks.



Enhancing urban habitats

MISSION: Add a if you've tried any of these tips.



What you can do

Do nothing

Simply leave your garden or an empty space alone and soon you'll find all sorts of animals checking in and plants growing.

Do something

There are many ways to make your home more welcoming to wildlife without endangering them (or yourself). Try these and be surprised!

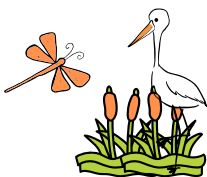
Plant more... And plant different kinds of species. Also choose plants that serve as a food source for hungry wildlife.



Create 'houses' for them; a personal space where they can seek shelter. Look for ideas on how to build a simple birdhouse or a bee's hotel.



If you have any fruits or veggies you can't finish, why not just leave the extra ones out? You can also leave a bowl of water for visiting wildlife!



Create a pond for wildlife. You can search online to learn how to create a 'no dig' backyard pond using a container, some stones, aquatic plants and fish to control mosquito breeding.

Thank you!

This handbook is designed for anyone who is interested in nature in the city. It provides ideas and resources to help you look for, attract and understand urban biodiversity and can be used to support biodiversity documentation.

We would like to first thank all citizen scientists, volunteers, naturalists and supporting organizations across Malaysia with whom we have worked over the years. Without you, this handbook would not have been possible.

We would like to especially thank the United Nations Development Programme (UNDP) Malaysia, Singapore and Brunei Darussalam for supporting the identification and mapping of urban biodiversity and ecosystems through the Urban Biodiversity Challenge (UBC), and for supporting the production of this handbook.

If you want to know more...

BioBlitz

Guide to BioBlitz: National Geographic

<https://media.nationalgeographic.org/assets/file/NationalGeographicBioBlitzGuide.pdf>

Guide to running a BioBlitz: Natural History Museum, Bristol Natural History Consortium, Stockholm Environment Institute York and Marine Biological Association

www.nhm.ac.uk/content/dam/nhmwww/take-part/Citizenscience/bioblitz-guide.pdf

Urban biodiversity

Discover wildlife in Malaysian cities: Urban Biodiversity Initiative (UBI)

<https://ubi-my.com/>

NOTES

DISCLAIMER: THE INFORMATION CONTAINED IN THIS HANDBOOK IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY, AND DOES NOT INDICATE ENDORSEMENT BY SEKITAR KITA OR UNDP OF THE ORGANIZATIONS, PLATFORMS AND/OR PRODUCTS DESCRIBED HEREIN. SEKITAR KITA AND UNDP ARE NOT RESPONSIBLE, DIRECTLY OR INDIRECTLY, FOR ANY LOSS, DAMAGE OR INJURY TO PROPERTY OR PERSON IN CONNECTION WITH THE USAGE OF THIS HANDBOOK.

Nature bingo



Mission:

- Go exploring with family and friends.
- Search for wildlife shown below. These are some of the most common urban wildlife that can be found in Malaysia.
- Like traditional BINGO, the first person who crosses off 4 in a row (horizontally, vertically or diagonally) wins.
- Have fun!



Garden bird



Frog/toad



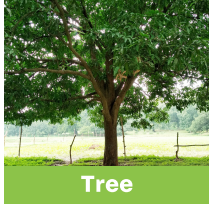
Wildflower



Grass/sedges



Dragonfly



Tree



Ant



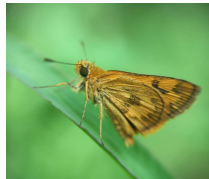
Worm



Fern



Waterbird



Butterfly/moth



Gecko



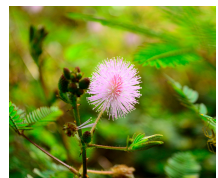
Beetle



Fungi



Snail



Creeping plant