

Backyard Species Discovery – Aquatic Challenge

Aquatic animals and plants

The Backyard Species Discovery project is a virtual expedition to continue adding to our knowledge of Australian biodiversity while field work is still difficult due to COVID-19 travel restrictions.

While we can't promise you'll find a new species, you will discover some amazing plants and animals living in your own backyard, learn to identify them with the help of Bush Blitz scientists and contribute valuable data to the Atlas of Living Australia.

Aquatic environments (marine and freshwater) are home to thousands of species of animals and plants. We may be very familiar with marine environments – poking around in rockpools at the beach can uncover a rich diversity of marine species – but freshwater environments can sometimes be overlooked. Rivers, streams, dams and bogs are home to many species, including immature stages of insects such as dragonflies, caddisflies and mosquitoes, and adults such as water boatmen (bugs), diving beetles, crustaceans, snails and worms. By adding your observations of aquatic (freshwater or marine) species to iNaturalist, you can help researchers understand the local biodiversity of those environments.

Here is your challenge:

Photograph three species of aquatic animals or plants, either in freshwater or marine environments. Upload your image/s to the [Backyard Species Discovery project on iNaturalist](#). Send us links to your iNaturalist observations as evidence that you have successfully completed the challenge.

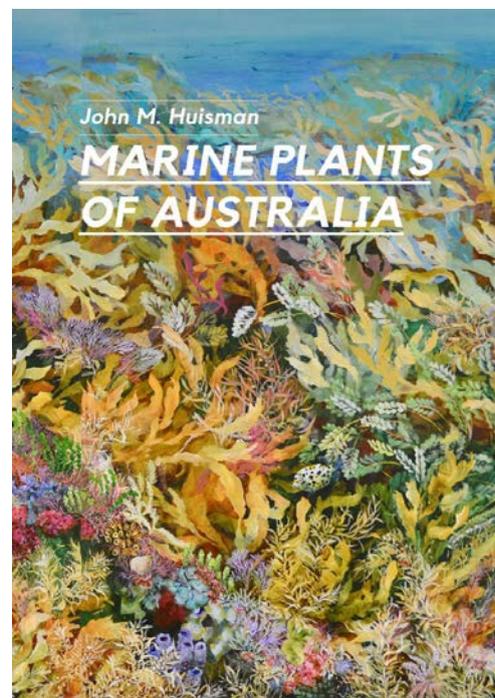
The prize:

A copy of 'Marine Plants of Australia' by John M. Huisman, published December 2019

Due date:

Email your entry with your name (or group name) to bushblitz@awe.gov.au by midnight AEST on Wednesday 2 September.

Applications will be judged by a panel and the winning entry will be announced on Friday 4 September, on the Bush Blitz website and social media platforms.



Tips:

- In freshwater streams and lakes, you can often find invertebrates hiding under rocks. In shallow flowing water you can use kick-sampling if you have a suitable net (methods here: <https://blog.nhbs.com/how-to-guides/the-nhbs-guide-to-kick-sampling/>). Put your catch into shallow trays of water for examination and photography. It's important to know if your specimens are larvae or adults, because some larvae can be hard to identify to species-level, but deciding if your specimens are larvae or adults can be tricky. There are various online resources you can use, such as this one: <https://www.mdfr.org.au/bugguide/index.htm>
- In marine environments, you can search rockpools and intertidal zones for species. Photograph live specimens where they are, or use a shallow tray if the specimens can be picked up. If you have an appropriate waterproof camera, you can swim and photograph species underwater. Images of non-living specimens, such as animals and shells that have been washed up on a beach, can also be added to iNaturalist.
- For animals, take a photo of the whole body of the animal, and from multiple angles if it will allow (such as back, belly, side). You can zoom in on interesting features such as its head or legs, to assist with identification. For plants, take a photo of the whole plant and close-ups of leaves, the point where leaves attach to the plant, flowers and seeds/fruit (if present). Make sure photos are in focus and measure any leaves, fruit and flowers. After uploading your photos, combine them into one observation. For more advice on [uploading images to the Backyard Species Discovery project](#) and [making your observations count](#) see our website.

Inspiration from the Backyard Species Discovery project:



[Toothplate of a ray](#)
© Thomas Mesaglio



[Threebar Porcupinefish](#) (*Dicotylichthys punctulatus*)
© Nick Lambert



[Water Fern](#) (*Azolla filiculoides*)
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