



WA Bug Barcode Blitz 2024 – Teacher/Facilitator Information

Calling Regional Towns and Indigenous Rangers!

Get ready for an exciting opportunity to make a real difference in conserving Western Australia's unique biodiversity during National Science Week this year.

The WA Barcoding Blitz 2024 is a movement that invites communities to step up as environmental stewards through an engaging and impactful citizen science initiative. Your passion and participation are crucial!

What is the National Science Week WA Barcoding Blitz all about?

We want school kids and the community to help identify insects and save our biodiversity! We've only identified 20-30% of invertebrates in Australia. We also want to hear how these insects play a role in Indigenous culture, with hopes of having Indigenous ranger groups share in this experience.

What Do You Do?

Starting the week of August 12th:

- Local residents, Indigenous Rangers, and students are invited to collect insect or spider specimens with provided tools and step-by-step instructions.
- Use apps like iNaturalist to document findings.

On Wed August 14th and Sat August 17th:

- Participate in a live-streamed event to prepare and process DNA using a provided kit.

- Extract DNA, amplify it with a PCR machine, and use gel electrophoresis.
- DNA will be sent to Perth for sequencing, with a follow-up session to discuss results.
- Selected specimens may be sent to Murdoch University's lab for conservation research.

Check out the video of what you'll be doing: [Watch Video](#)

Why Should You Join?

1. **Be a Guardian of Biodiversity:** Directly contribute to the conservation of WA's unique species.
2. **Community Engagement:** Foster environmental stewardship and scientific literacy within your community.
3. **STEM Excitement:** Engage in hands-on activities that spark interest in environmental STEM careers.
4. **Inclusivity and Access:** Promote technological access and engage diverse groups, including Indigenous Rangers and underrepresented youth.

What's in it for You?

- **Conservation Impact:** Contribute to scientific research and conservation planning.
- **Learning and Engagement:** Gain new skills, meet like-minded individuals, and join an exciting scientific journey.
- **Community Pride:** Help put your town on the map as a leader in environmental conservation.

Special Call to Indigenous Rangers!

We highly encourage Indigenous Rangers to collect samples from on country and bring them to the event. Your unique knowledge and connection to the land are invaluable.

Key Dates

- **17th July:** Registrations Close
- **Thurs 1st Aug:** Teacher/Facilitator Webinar Info Session/Equipment ID and setup (time TBC)
- **Fri 19th July:** Lab Kits sent priority from Perth
- **Mon 5th Aug - Tues 13th Aug:** Collect specimens as per Collection Guide
- **Wed 14th Aug or Sat 17th Aug, 9.30 AM - 2.30 PM:** Live stream from Perth for DNA barcoding process
- **Mon 20th - 22nd Aug:** Post samples to Perth for sequencing
- **Week of 26th Aug:** 1-hour RESULTS webinar (recorded)

Interested? Then you must have:

- **Nominated Teacher/Facilitator:** Responsible for the event, arranging community participation, receiving equipment, posting samples, etc. (\$150 payment for this person)
- **Students/Community:** Recommended max of 16 participants for DNA barcoding process. Equipment for 8 samples, working in pairs. Safety glasses, gloves, and ability to follow a multi-step process required.
- **AGE Limit:** Secondary school age students to adults

LIVE STREAM Broadcast from Murdoch University:

If you can't dial in, a pre-recorded video will be available to guide you through the DNA barcoding process.

DRAFT Live Stream Program (9.30 AM – 2.30 PM)

- **9.30:** Introduction to WA Barcoding Blitz - overview of the day
- **9.40:** Part 1: Prepare workspace with Kit (provided)
- **10.00:** DNA extraction from specimen (guided by online experts from Murdoch Uni)
- **10.15:** Load samples and process in PCR machine (2 hours)
- **10.15 - 10.30:** BREAK
- **10.30:** SHOW and TELL - Each group talks about where they found specimens on country (Max 3 mins each)
- **11.00:** Special Guest Bug and Spider Scientists and Indigenous Elders/Rangers sharing stories.
- **12.00:** Lunch
- **12.30:** How to use a Micropipette and practice loading samples into gel electrophoresis tank
- **1.00:** Load PCR samples into gel electrophoresis and process
- **1.20:** Prepare documents, upload photos to iNaturalist, Q and A
- **1.40:** Check results of gel, take photos, and discuss what it shows.
- **2.00:** Prepare samples for posting to Perth, clean up, pack up
- **2.30:** End of Session

Keen to Join?

Email Pauline.Charman@Biobarcode.com.au ASAP!