



THE FRESHWATER TURTLE TIMES

**1 MILLION TURTLES COMMUNITY CONSERVATION PROGRAM UPDATES,
RESEARCH INSIGHTS, AND MORE**



Photo credit: Dr Donald McKnight

In this issue:

- **2025 Turtle Month Webinar.**
- **Upcoming events.**
- **Turtle Beers!**
- **1 Million Turtles program update.**
- **Seeing TurtleSAT in action.**
- **Community stories.**



AUSTRALIAN MUSEUM
**EUREKA
PRIZES**
2023 WINNER

Join us in the upcoming Turtle Month Webinar!

The 1st of November marks the start of turtle month.

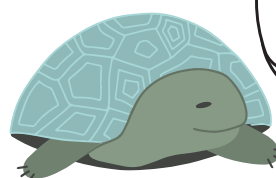
Every year, the 1 Million Turtles team celebrates the start of turtle month with an online webinar sharing all things turtle-related, interesting updates about the program, and the field of turtle research.

This year, the team will be hosting an online webinar on **Saturday 1st November, starting at 5pm (AEDT)** and we would love to see you there!

[To register, click here.](#)

Overview of webinar program:

- 1 Million Turtles program updates.
- TurtleSAT highlights.
- Upcoming events.
- Science projects in progress, including nesting searches, floating islands, hatchling recruitment and predation, and protecting turtles from roads.
- Merchandise!



Happy Turtle
Month
to us :)



Upcoming events

Biohaven Islands launch

Date: Fri 24th October

Time: 10am

Location: Fernhill Estate, Sydney, NSW

Description: Public are welcome to watch the island's launch. Please email lisa@mulgoalandcare.org.au if interested.

The Great Spring Clean Up

Date: Sun 26th October

Time: 10am to 11.30am

Location: Bibra Lake Regional Playground, WA

Description: Join the Walliabup Wildlife Warriors cleaning Bibra Lake up for turtles.
[Click here for more information.](#)

Turtle Talk & Walk

Date: Sun 26th October

Time: 11am - 12.30pm

Location: Nangak Tamboree Wildlife Sanctuary, VIC

Description: Hear from Associate Professor James Van Dyke about TurtleSAT.
[Click here for more information.](#)

Turtle Zombie Walk

Date: Fri 31st October

Time: 5pm to 8pm

Location: Enright Reserve, Hamilton Hill, WA

Description: Join a family-friendly dress-up event to celebrate turtles this Halloween.
[Click here for more information.](#)

BioBlitz Croom Reserve

Date: Fri 7th to Sat 8th November

Time: 7.30pm (Fri) to 7.30pm (Sat)

Location: Croom Reserve, NSW

Description: A chance to be a citizen scientist at their third annual BioBlitz.
[Click here for more information.](#)

Picnic for Nature

Date: Sun 9th November

Time: 10am to 2pm

Location: Walka Water Works, NSW

Description: The Save Walka Reserve Community Alliance Inc. are holding a picnic to celebrate local nature.

Biohaven Islands launch

Date: November

Location: Sefton Golf Course and Kelson Park, Sydney, NSW

Description: Public are welcome to watch the launching of islands. Check the 1MT Facebook page for further details.

Scan the QR code with a smartphone for the 1MT Facebook page where you can keep updated



DRINK BEER. SAVE TURTLES.™

Date: Sun 9th November

Time: 12pm to 4pm

Location: Brew Mountains Brewery, Vally Heights, NSW

[To register, click here.](#)



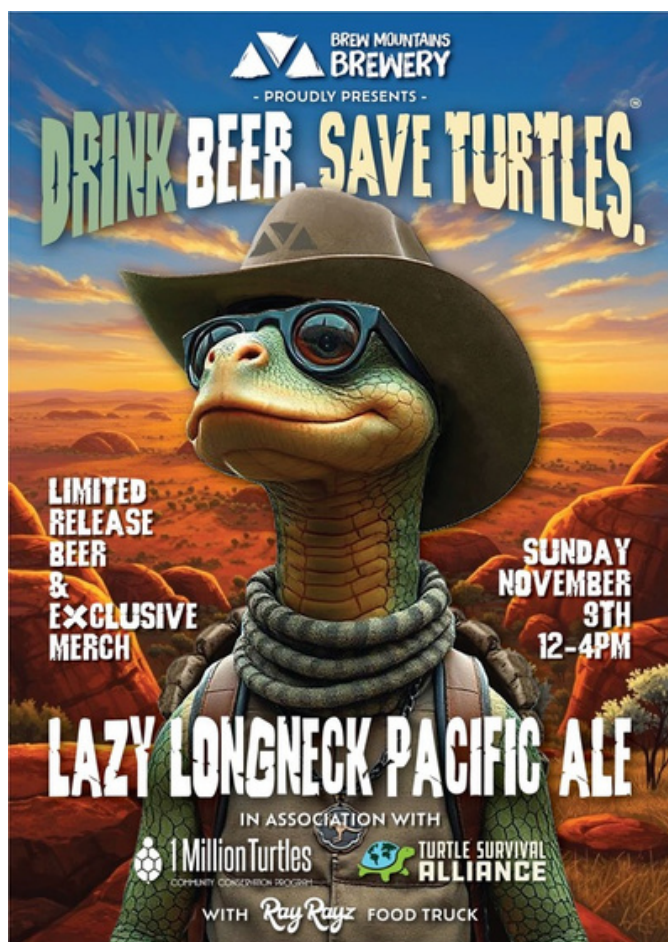
Join us for the first-ever
Drink Beer. Save Turtles.®
 event outside the U.S.A.!

Everyone is welcome to this exciting event hosted by Brew Mountains Brewery, featuring the limited-release Lazy Longneck Pacific Ale, exclusive merchandise, and a great cause.

In proud collaboration with 1 Million Turtles and the Turtle Survival Alliance, this event supports real-world conservation. For every drink poured, \$1 will go directly to turtle conservation and research in Australia. Plus profits from merchandise sales — including t-shirts and caps — help fund these efforts.

Come raise a glass, snag some merch, and make a difference for turtles.

Visit [Brew Mountains' website](#) to purchase your t-shirt today.



Updates from TurtleSAT

TurtleSAT, our mobile phone application and web resource, offers a user-friendly interface for individuals to actively engage in turtle conservation.

With human activity and pest animals posing threats to freshwater turtles, TurtleSAT serves as a platform for visualising these threats in local communities and nationwide.

Thank you to those of you that have already used TurtleSAT to enter in sightings of turtles in your local area!

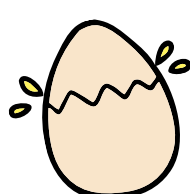
Over the past four years, 1MT has attracted over 3,000 participants via the TurtleSAT app. These citizen scientists have saved more than 2,300 turtles and protected over 1,600 turtle nests.

Over 30,600 records of freshwater turtles have been submitted!

The app facilitates education about on-ground conservation efforts and provides tools and pathways for individuals to actively participate in conservation initiatives (e.g. nest protection). On pages 10 and 11 of this newsletter, you can read about how TurtleSAT has led to the Turtle Safe Roads initiative.

A survey of over 140 TurtleSAT users showed that self-reported gains in knowledge and skills from engaging in our citizen science program were positively linked to attitudinal and behavioural changes, such as being more aware of turtles on roads and adopting turtle-friendly practices on their own properties or in their local communities.

Each female adult turtle helped doesn't just mean one turtle saved. That one female could lay 20 eggs per year. If she's been saved with 50 remaining breeding years ahead of her, and 5% of the eggs survive to adulthood...we're talking big numbers. The 2,300 turtles saved could mean over 100,000 future turtles saved! Combine this with eggs saved per nest, and those turtles each laying eggs in the future... The ripple effect becomes a wave. A little goes a long way in turtle conservation!



***Keep those TurtleSAT
records coming!***

Access TurtleSAT
by scanning the
QR code



TurtleSAT in action part 1: Updating conservation statuses

TurtleSAT doesn't just help the public learn more about turtles and engage in saving them, but it also helps secure funding for conservation and filling in data gaps about population statuses.

The [Species Profile and Threats Database](#) provides information about species and ecological communities listed under the Environment Protection and Biodiversity Conservation Act 1999.

Previously, several Australian freshwater turtles were classified as 'data deficient' on the database. Thanks to the records submitted to TurtleSAT, the statuses of many turtles in the table below have been updated in the past five years through detailed conservation advice documents prepared by 1 Million Turtles CIs.

Scientific name/s	Common name/s	Conservation status
<i>Carettochelys insculpta</i>	Pig-nosed Turtle, Pitted Shell Turtle	Vulnerable
<i>Chelodina longicollis</i>	Eastern Long-necked Turtle	Not listed
<i>Elseya irwini</i>	Irwin's Turtle, White-headed Snapping Turtle	Vulnerable
<i>Elusor macrurus</i>	Mary River Turtle, Mary River Tortoise	Critically Endangered
<i>Emydura subglobosa angkibaanya</i> , <i>Emydura subglobosa subglobosa</i>	Jardine River Turtle, Red-flushed River Turtle	Critically Endangered
<i>Myuchelys belli</i> (<i>Elseya belli</i> , <i>Wollumbinia belli</i>)	Bell's Turtle, Namoi River Turtle, Bell's Saw-shelled Turtle, Western Sawshelled Turtle	Endangered
<i>Myuchelys purvisi</i> (<i>Elseya purvisi</i>)	Purvis' Turtle	Endangered
<i>Myuchelys purvisi</i> (<i>Flaviemys purvisi</i>)	Manning River Helmeted Turtle, Purvis' Turtle	Endangered
<i>Myuchelys georgesi</i> (<i>Wollumbinia georgesi</i>)	Bellinger River Snapping Turtle, Georges' Snapping Turtle, Georges Helmeted Turtle	Critically Endangered
<i>Myuchelys purvisi</i> (<i>Wollumbinia purvisi</i>)	Manning River Helmeted Turtle, Manning River Sawshell Turtle, Purvis' Turtle	Endangered
<i>Rheodytes leukops</i>	Fitzroy River Turtle, Fitzroy Tortoise, Fitzroy Turtle, White-eyed River Diver	Endangered



TurtleSAT in action part 2: Nest predictor

Hosted on 1millionturtles.com/turtle-nest-predictor, the Turtle Nest Predictor is an interactive system built in Google Earth Engine.

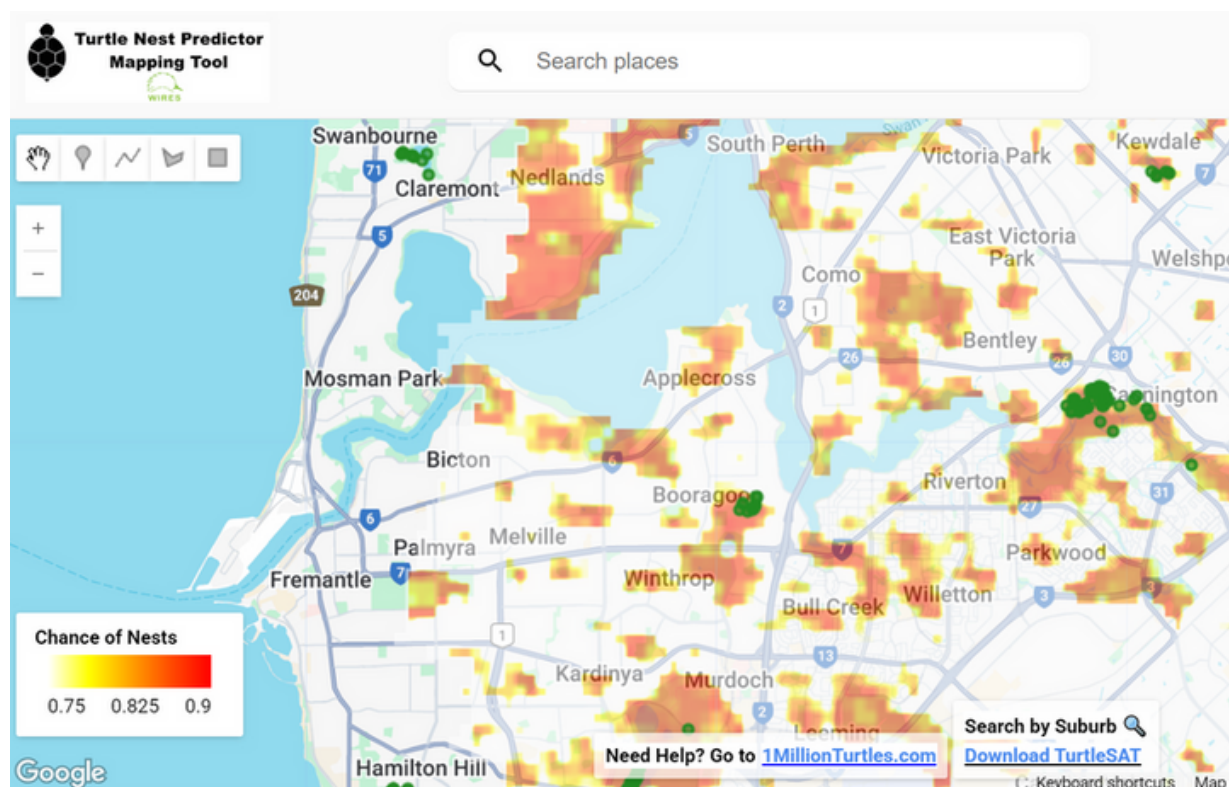
It visualises three key layers of information critical for turtle conservation:

1. **Local Nesting Hotspots:** areas with high likelihood of turtle nesting activity based on community data.
2. **Road-Crossing Risk Zones:** places where turtles are most likely to cross roads during nesting migrations.
3. **Heat-Vulnerable Nests:** nest zones predicted to experience extreme temperatures that could affect hatchling survival.

These maps are continuously refined through real-world data submitted by citizen scientists using the TurtleSAT app, meaning your observations directly improve the model and guide on-the-ground conservation actions.

How to use the Turtle Nest Predictor Mapping Tool

1. Download and open the TurtleSAT app.
2. Click on More and select the Nest Predictor tool.
3. Enter in your suburb.
4. Choose your conservation focus.
5. Zoom in and around your local parks, wetlands, or creeks, to see where turtles are likely to be!
6. This information can be used to protect nests, advocate to protect important habitat, and for turtle-safe roads.



On this map, the green represents submitted records of turtle nests. The red and yellow patches are where nests have been predicted to be.



TurtleSAT in action part 3: TurtleRT

Introducing the new TurtleSAT tool on the block: TurtleRT!

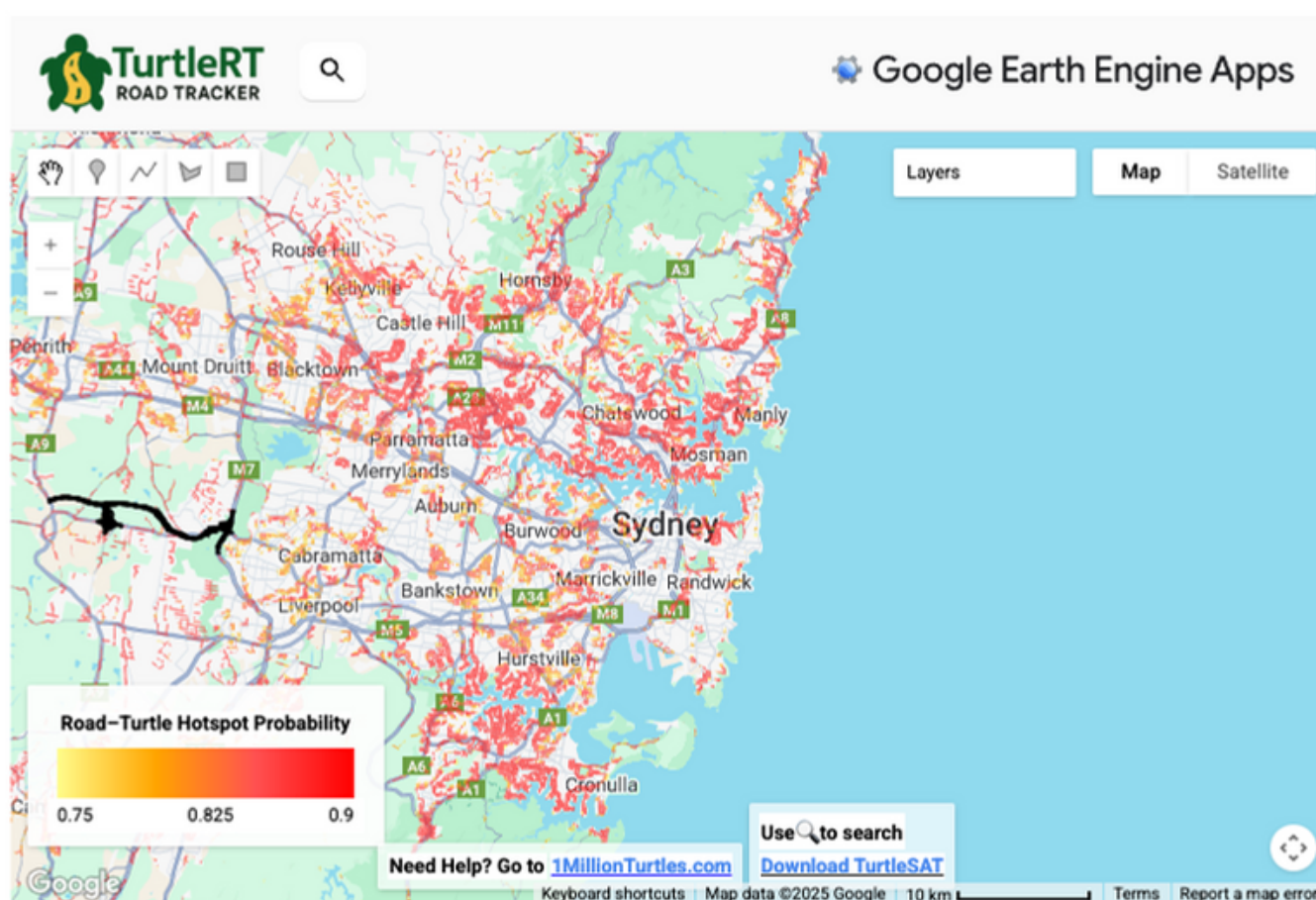
TurtleRT – Road Tracker predicts turtle crossing hotspots on roads using real-time sightings and AI modelling.

Designed for both communities and road authorities, it pinpoints high-risk areas, informs signage and mitigation planning, and helps protect turtles by improving road safety.



Click Here to open it through your browser

Check out TurtleRT by scanning the QR code. Then “Add to Home Screen” for a shortcut icon



TurtleSAT in action part 4: Education equals action

The more records submitted to TurtleSAT, the better we can identify turtle hotspots. This helps scientists know where to advocate for conservation efforts such as setting up road barriers, biohaven islands, and more.

A study looked into the effects of educational signage on public knowledge and engagement with turtle conservation. They looked at three sites in New South Wales and the number of entries submitted into TurtleSAT before and after the implementation of educational signs.

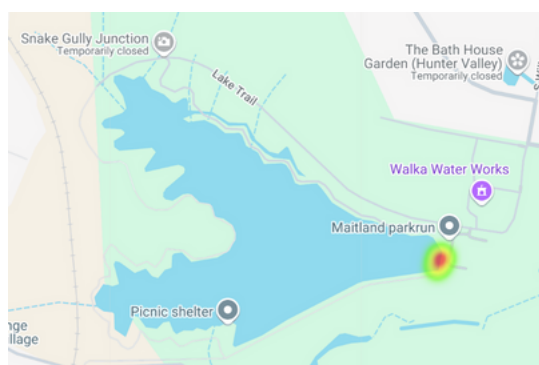
At Lake Alexandra, the team also surveyed members of the public, assessing changes in visitor knowledge and attitudes before and after the signs were put up.



TurtleSAT in action part 4: Education equals action

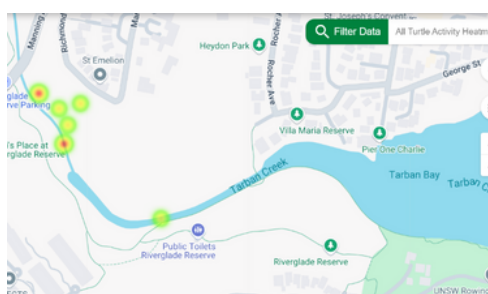
The data from TurtleSat showed a huge increase in reported sightings of turtles. Riverglades Reserve went up by 400%, Lake Alexandra went up by 661%, and Walka Water Works had an 8,000% increase! It was clear that people are keen to engage with turtle conservation, but may just not be aware of the opportunities in their local areas to do so. Survey results also showed that having signs available led to an increase in turtle-related knowledge.

Before

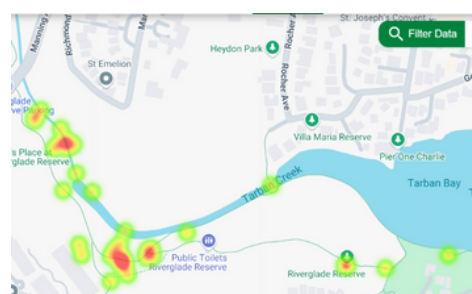


Walka Water Works, Maitland

After



Riverglades, Hunters Hill



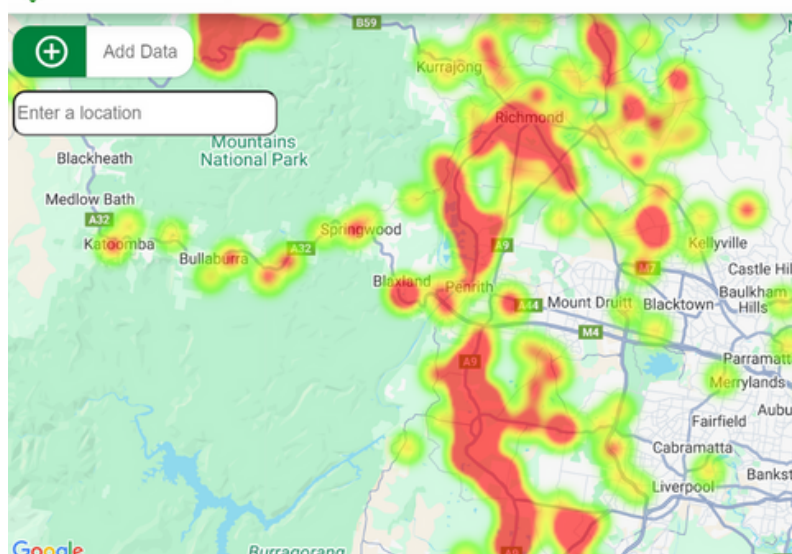
Lake Alexandra, Mittagong



These are heat maps - the patches show the areas where turtle sightings were recorded, with red representing a high concentration of records.



TurtleSAT in action part 5: Road barriers saving turtles in NSW

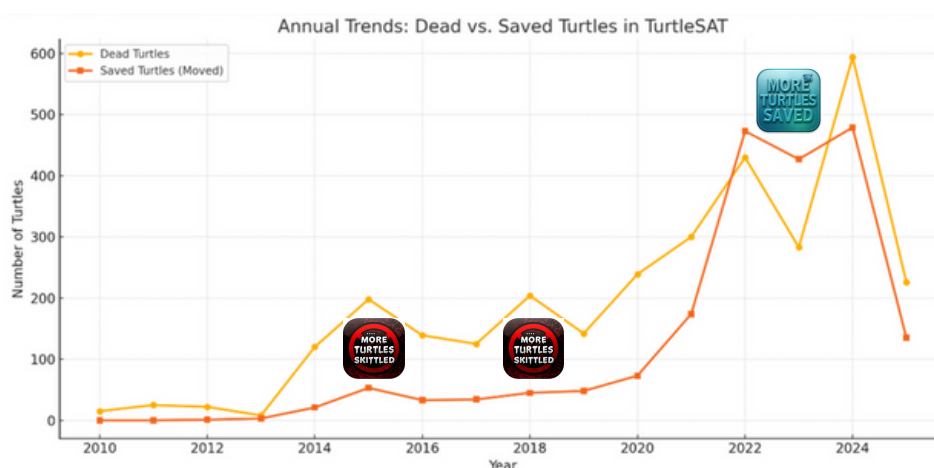


Using the records added to TurtleSAT, we can predict the locations where it is likely freshwater turtles will nest.

This is done by combining the dataset of over 30,000 records collected by citizen scientists with environmental variables, such as distance to water, vegetation density, and canopy cover.

As expected, the results showed that areas near water bodies with minimal canopy cover and open ground were most likely to be used for turtle nesting.

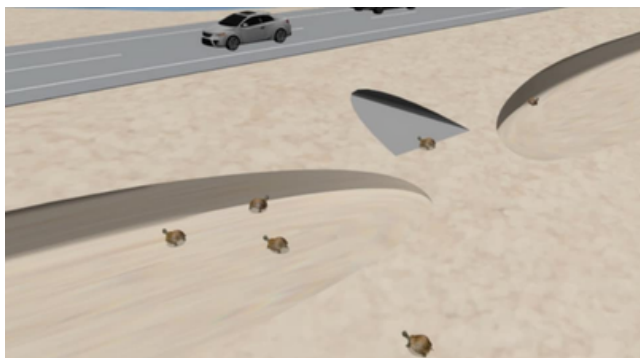
The heat map above shows the density of road mortality hotspots in Western Sydney. If you go onto the TurtleSAT website, you can zoom in and out on your local area to see the records near you. The graph below shows the increase in number of turtles recorded on TurtleSAT since 2010 that were dead (yellow) or saved/moved (orange). Please note that the dip for the year 2025 is because the year isn't over yet, with nesting season coming up soon.



A goal was established to enhance biodiversity conservation across NSW by developing 'Turtle Safe Roads,' where infrastructure and road management practices can work in harmony with wildlife protection.



TurtleSAT in action part 5: Road barriers saving turtles in NSW



Predicting where turtles may nest is invaluable for road planning. A pilot study was undertaken in collaboration with Transport NSW to see if a solution could be found for dangerous road passing.



The long-term aim is to design underpasses beneath busy roads, allowing turtles safe passage.

Using TurtleSAT data, two roads in Western Sydney were identified as a high risk for turtles. These were selected as the trial and control sites for the pilot study.

Barriers were built during night works. To measure effectiveness, dash camera driving surveys were conducted five times a week.

Turtle mortality continued on neighbouring roads. Excitingly, no turtle fatalities were recorded on the trial and control sites that had barrier fences installed!

Other species benefited from the barriers, too. Snakes and blue-tongue lizards were observed being directed away from the roads because of the barriers.

Should the road barriers be repeated elsewhere, we can protect even more of our beloved Aussie fauna.



Walliabup Wildlife Warriors: The power of volunteering



A nesting female southwestern snake-necked turtle in Bibra Lake.

In the summer of 2023–2024, extreme drying across Perth’s wetlands—following nearly nine months with virtually no rainfall—left Bibra Lake the driest it has ever been.

Ordinarily, even in years when the lake recedes, the substrate remains muddy enough to prevent predators from accessing aestivating turtles. But last year’s exceptional drought hardened the lakebed and gave foxes unprecedented access to turtles sheltering in the mud.

Predation by European red foxes is just one of several threats faced by turtles in the Beelihar Wetlands, alongside road mortality, habitat loss, and declining rainfall due to climate change. As wetlands dry, turtles must increasingly migrate to other waterbodies—routes that are now fragmented by major roads. Coordinated action is urgently needed to safeguard the region’s turtle populations.

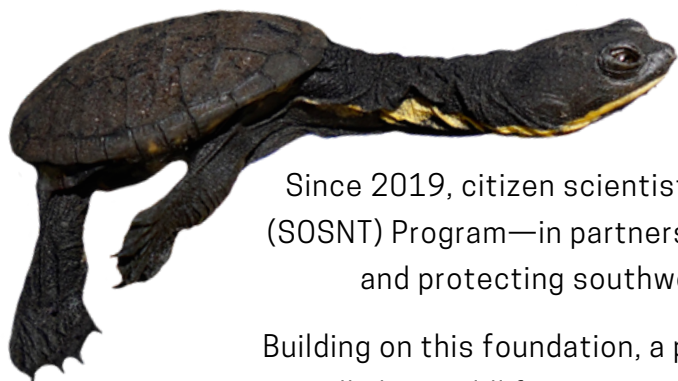
During these conditions, foxes were observed excavating and killing turtles from the exposed lakebed on multiple occasions.



A European red fox on the dried lakebed of Bibra Lake.



Walliabup Wildlife Warriors: The power of volunteering



That's where the Walliabup Wildlife Warriors come into the story!



Since 2019, citizen scientists participating in the Save Our Snake-necked Turtle (SOSNT) Program—in partnership with the City of Cockburn—have been monitoring and protecting southwestern snake-necked turtles throughout Perth.

Building on this foundation, a passionate, dedicated group of volunteers formed the Walliabup Wildlife Warriors (WWW) in 2024 under the umbrella of the Wetlands Conservation Society (WCS) to intensify local action at Bibra Lake.

There are numerous ways that Walliabup Wildlife Warriors have been working together to protect turtles.

1. **Driving turtle taxis.** Reducing speed limits on key roads would have a large impact on reducing the number of turtle deaths, but this isn't always possible. Volunteers driving laps around lakes to spot turtles needing assistance help prevent road deaths. (See Page 14 for Steve's story!)
2. **Advocating for change.** Petitioning members of parliament and decision makers to take action can help facilitate top-down change. (But takes patience and perseverance!)
3. **Increasing awareness.** Often, there can be turtle nests nearby but out of sight, such as in overflow car parks. Signage to educate the public to take care are crucial in reducing accidental damage to turtles and their nests. The WWW team have used inventive ways to signpost nests, such as making barriers around nests with recycled high-vis vests and caution tape.
4. **Providing advice.** If you find yourself in the area, confused over what to do with a turtle, give 0419 044 986 a call! Felicity from WWW is on hand to provide advice on what to do next.



Keen to get involved?
Scan the QR code to find out more!



Your stories!

It was a great surprise to find a turtle laying eggs in our backyard. Not knowing how to protect the nest I searched online and discovered the 1 Million Turtles and TurtleSAT website. I logged our nest and followed the advice on how to protect it from predators. Then ... nothing ... for ages.

It was close to 2 years after recording the nest when Ligia contacted us From La Trobe Uni regarding a research project she was doing on taste aversion for predators (foxes) on turtle nests. I showed Ligia the photos I had taken of the turtle, and she confirmed it was a broad-shell. To my surprise there was an eggshell beside the opened nest. A short walk away Ligia discovered another nest (albeit a disturbed one). Ligia conducted her trial on our farm over the winter. It is terrific that all this stemmed from the 1 Million Turtles project and TurtleSAT. It enabled Ligia to find our nest site and I'm chuffed that we have done our little bit to help these beautiful creatures.

- Davina

Steve, a volunteer for Walliabup Wildlife Warriors:



Steve Shaw has called Bibra Lake home for over 40 years. He remembers when turtles were a regular part of the landscape—woven into the rhythm of the wetlands, part of the environment, part of the story.

But one night changed everything. A few years ago, Steve witnessed the tragic deaths of eight turtles on a single stretch of road. “That affected me,” he says. “I thought—this is not good.” Fast forward to today, and the silence is deafening. “You don’t see them anymore. Why? Because our decision makers haven’t done anything substantial to protect them.”

That’s when Steve found the Walliabup Wildlife Warriors. It opened his eyes to the bigger picture—and gave him a way to act. He slotted in where he could help most: as a Turtle ‘Uber Driver’, spotting nesting turtles attempting to cross dangerous roads during peak mass nesting times and ensuring they cross safely to nest. You will find Steve on road patrol from 1pm to 5pm during these times doing bog laps of Bibra Lake - and has personally saved over 10 turtles just in the last 2 weeks.

But Steve’s commitment goes far deeper.

He personally invested in camera monitoring equipment to gather critical fox data, and helped advocate for State Government funding to expand surveillance and improve predator management.

Steve’s message is clear: “We have to do something about this. We want turtles around for our grandkids.”

His story is one of heartbreak turned into action. Of quiet leadership. Of refusing to look away. And of showing what one person can do when they decide to protect what matters.





Have a story?

We're really keen to share the turtle conservation achievements of groups and individuals around Australia. If you would like to share your group's activities in a future newsletter please let us know via 1millionturtlesprogram@gmail.com and include 'newsletter update' in your subject heading.

And don't forget to **tag us @1millionturtles** on Facebook if you are sharing your turtle photos, activities and stories.

To find out more

Visit our 1 Million Turtles <https://1millionturtles.com> website for more information about the 1 Million Turtles program, the team members who support the project, videos, training modules, some of the recorded webinars, and more.

We also have two Facebook pages; (1) [TurtleSAT](#) which provides updates on interesting sightings and community alerts such as red-eared sliders (invasive species), and (2) [1 Million Turtles](#) which provides general freshwater turtle information, project updates and invitations.

1 Million Turtles team contacts

Remember that if you would like one-on-one support from a team member please contact 1 Million Turtles 1millionturtlesprogram@gmail.com, include 'Need 1 on 1 support' in the subject heading, provide us with some information on the nature of the assistance you require along with your location and best contact details, and a local contact with be in touch with you.



NSW/ACT - Professor Ricky Spencer, Assoc. Professor Deb Bower



VIC/TAS- Assoc. Professor James Van Dyke (and NSW Riverina)



SA - Dr Sylvia Clarke, Professor Mike Thompson



WA - Dr Anthony Santoro, Atlanta Veld



QLD - Ms Marilyn Connell



NT - Assoc. Professor Deb Bower

