

Turtle Watch



**Final Report
Dr Elaine Lewis**

**Lotterywest Ref: 11561/20110821
28 February 2013**



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Australian Association for Environmental Education -WA

Turtle Watch 2

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Project Aims:

1. To identify the predator/s involved in the destruction of oblong turtle nests at three sites – Herdsman Lake, Bibra Lake and Canning River.
2. To foster partnerships between the community, research organizations, educational institutions and industry in relation to the conservation of oblong turtles.

Identification of Predator/s

1. Camera Surveillance:

Mr Joe Tonga (Camera Surveillance Consultant, Natsync Environmental) purchased and tested surveillance cameras for the project. Mr Tonga obtained footage of a fox digging up hen's eggs at Herdsman Lake. See: <http://youtu.be/syxWgssIKL0> Mr Tonga has also devoted part of his website to the *Turtle Watch* project. Check out: www.wildlifesurveillance.wordpress.com and <http://youtu.be/BUKeii6UOJY>

Mr Tonga reported all cameras performed to high expectations and he filmed a fox and rats on camera. Joe stated, "*A fox at Bibra Lake has been caught on camera actually lowering its head sideways to the ground and picking up an egg with its teeth. With its mouth bulging, it turned around and ran off*".

2. Research Findings:

Dr J Giles, who completed her PhD research on oblong turtles some years ago, and Ms Caitlin Bartholomaeus, final year PhD candidate currently conducting research on oblong turtles, analysed the data and provided an up to date report on the status of oblong turtle predation. See attached report (Appendix 1).

Partnerships:

1. Stakeholders

The following stakeholder groups were involved:

- Turtle Watch project team: Dr Jacqueline Giles & Caitlin Bartholomaeus (Oblong Turtle Consultants); Joe Tonga (Camera Surveillance Consultant); Dr Jennifer Pearson (Community Education Consultant) and Dr Elaine Lewis (Project Leader).

- Eco-education centres: Roger Harris, Herdsman Lake Wildlife Centre (HLWC); Denise Crosbie, Cockburn Wetlands Education Centre (CWEC); and Hayley Bullimore, Canning River Eco Education Centre (CREEC).
- Local Government: Vicky Hartill, City of Cockburn (CoC); Climate Change Adaption funding for an ‘Oblong Turtle Population and Recruitment Capacity Study’ (CoC in partnership with CWEC). Hayley Bullimore, City of Canning, participated in a ‘Jazz in the Park’ event by organising a Turtle Watch session and display at CREEC.
- Environmental and Landcare departments/organisations committed to oblong turtle conservation e.g. South East Regional Council for Urban Landcare (SERCUL), Department of Environment and Conservation (DEC).
- Oblong Turtle Collaborative Research Group: Dr Catherine Baudains, Dr Jane Chambers & Dr Mirela Tulbure (Murdoch Uni); Caitlyn Bartholomaeus (Murdoch Uni PhD candidate); Richard Weatherall (ClimateWatch in EarthWatch Institute) and participants listed in the first two dot points above.
- Friends/volunteer groups interested in oblong turtle conservation e.g. Turtle Oblonga Rescue and Rehabilitation Network (TORRN), Friends of Herdsman Lake and Canning River Regional Park Volunteers.
- Universities: close collaboration between Murdoch University and UWA re oblong turtle research.

2. Turtle Hotline

Dr Elaine Lewis (Project Leader) prepared and distributed *Turtle Hotline* posters to the 3 sites – HLWC, CWEC & CREEC, as well as SERCUL – to encourage community participation. Please see: <http://www.aaeewa.org.au/partnerships.html>

All these sites received notification of turtle sightings. These sightings were then conveyed to Mr Tonga for surveillance purposes. Overall, a good response to the hotline was attained, with over 60 reports received during the project. The Turtle Hotline will continue after the official completion of the project.

3. Turtle Education Events

Six Turtle Watch public education session (three at each eco-centre) were planned in the original grant application, but as can be seen below the sessions were a huge success and there was ongoing demand for further sessions. These clearly demonstrate the sustainability of the project.

2011 events conducted:

See photographic evidence in Appendix 2.

- Saturday 16 July, 2011 - CWEC in partnership with CoC – ‘Get Wild About Wetlands’ presentation by Dr Giles.
- Sunday 21 August, 2011 - CREEC Community Science Fair – turtle activities stall organized by Dr Lewis.
- Friday 30 Sept, 2011 - ‘Frogfest’, at HLWC – including two talks on turtles presented by Dr Lewis.
- Saturday 15 October, 2011 - Bird Walk, at HLWC including a talk on turtles presented by Dr Giles.
- Sunday 6 November, 2011 - Manning Park community fair in partnership with CWEC and CoC - turtle activities stall organized by Dr Lewis.

2011 events conducted ...cont.:

- Thursday 17 November, 2011 - CREEC: turtle presentation by Dr Giles.

2012 events conducted:

- Sunday 4 March, 2012 - the City of Canning organised a 'Jazz in the Park' event in the Kent St weir park, along with a Turtle Watch session and display at CREEC.
- Friday 23 March, 2012 - oblong turtle presentations by Ms C. Bartholomaeus at Coolbinia Primary School.
- Friday 30 March, 2012 - CREEC's 'Earth Day Expo' featured five Turtle Watch sessions to primary aged classes.
- Wednesday 11 April, 2012 - 'Turtle Creations' workshop, Cockburn Wetlands Education Centre.
- Friday 27 April, 2012 - turtle session during 'Evening at the Forest', Baldivis Children's Forest, for presentation and hands-on activities.
- 18 June, 2012 - Bold Park Community School presentation and activities.
- 19 August, 2012 - CREEC 'Science Expo' display and activities.
- 1 September, 2012 - CREEC 'Little Green Steps' launch, display and activities.
- 3 October, 2012 - AAEE Conference, Melbourne, paper presented.
- 8 December, 2012 - CREEC 'Sustainability Fair' display and activities.
- During 2012 - Vicky Hartill (CoC) conducted the 'Environmental Education Initiatives for Primary Schools Program' involving over 20 school based sessions for primary aged students (from Kindy to Yr 7). These sessions included Turtle Watch activities.

2013 events conducted:

- Friday 1 February, 2013 - World Wetlands Day Conference, Cockburn, poster presentation.

2013 events scheduled:

- Friday 5 April, 2013 - 'Earth Day' celebrations at ECU Joondalup will feature Turtle Watch sessions all day.
- Friday 12 April, 2013 - 'Earth Day' celebrations at CREEC will feature Turtle Watch sessions all day.
- Friday 26 April, 2013 - 'Turtle Watch' seminar at UWA, for Science Communication forum.

4. ClimateWatch Partnership

ClimateWatch, part of the EarthWatch Institute, became a major supporter of the Turtle Watch project. First, through the addition of the oblong turtle as a target animal on the Climate Watch website.

See <http://www.climatewatch.org.au/species/reptiles/oblong-turtle>

Over 170 turtle recordings have been received on this ClimateWatch site since the start of the project. The Turtle Watch app enhanced this service to the community. Second, Climate Watch provided considerable support to the project by covering design costs for the promotional posters and bookmarks. See attached copy (Appendix 3).

5. Turtle Education

Information about the project can be found at: <http://www.aaeewa.org.au/> Click on the turtle. Dr Lewis also developed a collection of resources (K-7) for a turtle education kit for use by eco centres and schools. Please see: <http://www.aaeewa.org.au/turtlewatchedkit.html> and <http://stawa.net/> for a journal article on the kit (Appendix 3): Lewis, E., Nielsen, L., Pearson, J. & Baudains, C. (2012). Turtle Watch: Enhancing Science Engagement. *SCIOS: Journal of the Science Teachers' Association of Western Australia*, 48(2), 15-18.

6. Oblong Turtle Collaborative Research Group

Dr Elaine Lewis is a member of the Oblong Turtle Collaborative Research Group which meets at Murdoch University. An exciting development arising from this collaboration is Turtle Watch data is being collected by EarthWatch through the ClimateWatch website: climatewatch.org.au

7. E-bulletins

Bulletins have been distributed monthly to stakeholders since the commencement of the project. Excellent response/feedback to each edition was received. See example e-bulletins attached (Appendix 4).

To ensure the sustainability of Turtle Watch eco-centres have agreed to publish Turtle Watch news in their regular community newsletters.

8. Local Government Partnership

The City of Cockburn was awarded Climate Change Adaption funding for an 'Oblong Turtle Population and Recruitment Capacity Study' (CoC in partnership with CWEC). The public report for this turtle study, conducted at Bibra Lake, is attached (Appendix 5).

Sustainability of Project:

The sustainability of Turtle Watch has been embedded into project and is demonstrated by:

1. Ongoing turtle observation recordings on the ClimateWatch website.
2. The camera surveillance expert has agreed to provide additional turtle nesting footage, over the next five years, if it becomes available.
3. The original six community education events that were outlined in the project plan were extremely successful, with over thirty more events conducted at no cost to the project, and three more already scheduled for the current year.
4. New partnerships were formed to support the conservation of turtles and are continuing to develop, for example, with ClimateWatch and Turtle Oblong Rescue and Rehabilitation Network. Other recent partnership developments include:
 - CoC has been approached by organisations such as Conservation Volunteers Australia (CVA) to become involved in TurtleWatch. Vicky Hartill (CoC) has a meeting scheduled with CVA on the 5th March 2013 to determine their interest, level of commitment, capacity and role.
 - CoC, through Vicky Hartill, is developing a program on TurtleWatch with a secondary school, Emmanuel Catholic College. A newly installed fauna

underpass (in the CoC) will be investigated to determine its effectiveness. If required protective funnels may be constructed to and from the underpass to ensure safe passage from predation. CoC will monitor and report on the investigation as a case study, so it will be a major new TurtleWatch project.

5. Eco centres paid for another printing of the Turtle Watch bookmarks because the initial bookmarks were very effective as a publicity tool.
6. Eco centres agreed to continue to host Turtle Watch news and education programs at their own cost.
7. Eco centres commenced their own Turtle Watch community education programs, for example, the 'Turtle Creations' workshop at the Cockburn Wetlands Education Centre. Furthermore, these programs are ongoing at the centres.
8. Eco centre volunteers have undertaken Turtle Watch training so they can participate in community education events.

Summary:

This report provided evidence that the aims of the grant were fulfilled, and achieved outcomes that surpassed project goals. The camera surveillance and research components of the grant documented clear evidence of the impact of fox predation, with recommendations relating to acceptable management of foxes and providing protected nesting locations. Similarly, the partnerships component of the grant was overwhelming effective with many new partnerships established leading to positive outcomes, such as the partnership with Climate Watch supporting the production of promotional posters and bookmarks. Overall, Turtle Watch was ... and continues to be ... a highly successful community education project.

Yours sincerely,



Dr Elaine Lewis
Project Leader

