Ningaloo Turtle Program

Volunteer Trainers' Guide

NINGALOO TURTLE PROGRAM – COMMUNITY MONITORING VOLUNTEER TRAINING

Methods and Procedures for Training Volunteers for Turtle Monitoring.

Induction and Occupational Health and Safety (OH & S) issues (to be conducted by Volunteer Coordinator/Team Leader or other designated person):
This includes watching a training video. Volunteers should have read Field Manual **before** training starts – although not expected to know it inside-out.

Learning the monitoring methods involves 3 ways:
1. **reading** manual prior to beach training
2. **watching** the training DVD and
3. **practical** field training with a competent trainer.

FIELD TRAINING

TRAINERS SHOULD:
1. Have the Rucksack for the relevant section of beach where training is to be conducted. The Rucksack should contain:
    a) Folder for the particular section.
    b) Trainer File with all relevant paperwork including this guide.
    c) Name tag stickers & black texta
    d) Monitoring kit containing disposable camera, tape measure, GPS, spare batteries, spare pencil & disposable gloves.
    e) First Aid Kit
    f) 2-way radio

2. Wear appropriate footwear & carry drinking water.

3. Carry a copy of the **Field Guide** (**FG**) for **all** training activities as a reference and have a good working knowledge of the layout and content of the **FG.**

4. Conduct a quick "Everyone introduce yourself" activity at the beach before starting the training. This helps to find out their names and gives an idea of the background of their trainees.

5. Put the trainees at ease – a lot get quite nervous about the training and the assessment.

6. Cater for people who don't have a good command of English or whose written skills are lacking. Speak clearly and avoid getting impatient with them, however speaking very slowly and very loudly doesn't help!

7. Give trainees time – don't pressure them, but at the same time do not let the session run for too long.

8. Ensure that all trainees get involved during the training sessions – some will stay in the background and rely on others to answer questions. Getting them to take turns doing things and answering questions during the training session ensures everyone learns.

9. Explain that training usually involves 3 mornings, after which they can "shadow" competent volunteers for a few mornings, before being assessed. However if a trainee obviously grasps everything quickly or has had previous turtle experience, then the trainer can use their discretion to cut that particular volunteer's training to 2 days.

10. Ensure each volunteer has filled out a DEC volunteer sheet and they have had an OH&S induction. If not, hand out the volunteer sheet for the relevant volunteers to fill out before starting training and give brief OH & S talk – mainly hat, sunscreen, drinking water/dehydration, suitable footwear, use of the 2-way radios if necessary.

11. Explain that the Competency Assessment is all practical field assessment, based on performance of all the procedures/methods they will have covered in training, with no written exams or tests. They will be able to experience a "dummy" assessment during the last day of training.

12. Emphasise there is no such thing as a failure and that sometimes there may not be enough tracks or nests of to able to award competency. In such a case each trainee will be given further opportunities, as soon as possible, to gain their competency.

Each TRAINEE volunteer should be given:
1. a clip-board with training data sheet and other sheets/reports that may need to be filled in;

2. have access to a kit, containing GPS, disposable camera, tape-measure, spare batteries, spare pencil & disposable gloves; and

3. a 2-way radio or if not enough to go around, have access to one.

IMPORTANT POINTS FOR TRAINERS

1. Making everyone feel comfortable before starting any training session is worth the effort. Lots of people feel nervous learning in a group situation, particularly the first session before getting to know anyone.

   People's brains go into "lock down/can't learn" mode if they are really uncomfortable.

   SOLUTION: Quick group intro – trainer first then each volunteer eg name, where from, why they are volunteering. Humour goes a long way to relaxing the group, but not every trainer will be comfortable with that.

2. Once the first session is underway, it is important that the trainer monitors the group dynamics – e.g .if they are all young Uni students and there is an "outsider" in their 60s. Between finding tracks, the trainer can walk with people they think are feeling uncomfortable find out more about them & get to know them better.

3. Important not to let ONE trainee volunteer dominate the group. Ensure everyone in the group has a turn. Use of the Trainer's Checklist will ensure that every part of the training is covered and that everyone gets a turn at using the GPS, 2-way etc.

TRAINING PROCEDURES

Training/Knowledge Required	Explanations
Hierarchical classification of monitoring locations (Induction)	Explain the hierarchical division of the monitoring section of the coast – e.g. Ningaloo Region, NW Cape Division, Graveyards section, the Five Mile – Five Mile North sub-section **(FG p 3 & 4) – REFER TO DIAGRAMS IN THE FIELD GUIDE**
Monitoring kit	Go through the contents and **emphasise** the need for volunteers to report any missing/faulty equipment to the team leaders via communications log, which is in every clip-board for each section (**FG p7**)
Monitoring methods	Explain flow chart of monitoring methods (**FG p 8 & 9**)
Correct use of 2-way radios	• Demonstrate correct use of 2-way radios – **CORRECT RADIO ETIQUETTE – not to be used for chit-chat . Use Channel 1** • **Emphasise** use of the transmit button – **must be pressed to talk**, **not pressed to receive** • Allow trainees to practice • **EMPHASISE THE NEED TO HAVE RADIO ON AT ALL TIMES DURING MONITORING A SECTION OF BEACH.**
Locating sub-section totem marker (FG p5)	• Locate & show volunteers the **TOTEM MARKER FOR START OF** and **AT END** OF start of training sub-section. • Show where to find GPS locations of start and end markers of the section on laminated sheet in folder. • Emphasise using GPS and the locations given for verification of end of section, when monitoring section new to the volunteer. • Start at imaginary line from totem to water –**NB if heading north don't include tracks south of the line – if heading south don't include tracks north of this line**
Filling in data sheet header	• Use **pencil** and **block letters** when filling out data sheet • Ensure all trainees fill in **data sheet header** – eg date, start time, start sub-section, recorder, GPS no & camera number • Explain that recorder's name should be first and last name, **no nicknames or just first names** (in case problem with data sheet and they have to be contacted) • Show how to get date & time from GPS if no watch
Locating high tide mark	• Ensure volunteers can locate high tide mark (Signs are flattening of wet sand and the obvious flotsam line – wherever possible ask trainees to demonstrate/show you before telling them the signs) • For monitoring ensure people walk just below this line.
Identifying emerge & return tracks	On encountering first track on a beach list the signs which indicate direction of track – eg which way sand pushed

	• **FOR GREEN TURTLES:** trace front flipper marks to centre to make an arrow in direction of travel and **emphasise** the tail mark is pushed into the sand pointing in the opposite direction of travel (actually putting your finger into some of the tail marks is a good idea!) Get the trainees to do the same. • **FOR LOGGERHEAD AND HAWKSBILL TURTLES** indicate the way the sand is pushed and draw the **J** shape of the back flipper marks – *emphasise the top of the J points in direction of travel*. **For all types of tracks** It is advisable to get all the trainees to trace the arrows, and Js in the sand on a part of the track – this ensures they know the direction & understand what you are talking about, if they are INITIALLY a bit confused.
Identifying species by track	• When the first track of the first training session (**in Jurabi Coast Division this is often a green turtle track**) ask if any trainee knows what it is – some have read the manual thoroughly – gives everyone a confidence boost if they get it right without being told! • Point out the distinguishing characteristics of tracks for each species, explain how the turtle moves(eg alternate or simultaneous flipper movement) and makes the track – demonstrating on the sand is effective (especially for visual learners). Also refer to diagrams in the **FG (pages 13 – 16)**. . **Greens**: • opposite flipper marks (front and back) • tail mark and • plastron drag **Loggerheads** • alternate pattern – with J shape • generally no tail mark **Hawksbills** • alternate pattern with J shape • squiggly tail mark Draw lines that clearly show the opposite/alternate pattern on the track. Get all trainees to do the same on the track – this ensures they all know what you mean. • Emphasis that hawksbills are a lot smaller and often have wiggly tail mark, plastron drag narrower • Mention size of track for the species (eg 95 – 144cm for greens, size overlap from 70-85 for hawksbills and loggerheads) **FG p 11** or laminated sheet in folder

	- Encourage trainees to measure track when determining whether hawksbill or loggerhead, although **reiterate** that there is an overlap in size between the 2 species - When measuring tracks – go from outer edge to outer edge (**FG p 11**) – get out tape measure and demonstrate how to measure a track. **NB** **DON'T OVERLOAD THE TRAINEES WITH INFORMATION ABOUT ALL 3 TYPES OF TURTLETRACKS AT ONCE!** Usually, along the Jurabi Coast, the first track will be a green and often the only type of track encountered in a training session. Trainees will become comfortable with this track and then can often spot the difference if/when loggerhead or hawksbill track located. - When a track from a different species is located go through characteristics of that particular track.
Taking photos for identification	- Emphasise that every kit has a disposable camera for use when unsure of whether there is a nest or unsure of species' track – **HOWEVER WOULD EXPECT THAT COMPETENT TRACKERS WOULD ONLY TAKE A PHOTOGRAPG ON LIMITED OCCASIONS.** - Demonstrate how to photograph the track (**FG p 17 & 18**). **NB - if photo taken reiterate that photo number must be recorded on data sheet, in relevant column.**
Determination of false crawls & nesting - characteristics and field signs	- Follow a track to determine whether false crawl or successful nest – **emphasise OFTEN better to follow return track than emerge track.** - If follow return track and find obvious body pit then regard as false crawl (RECORD ON DATA SHEET) – no need to check further along track as turtles don't tend to nest then make body pit afterwards. - If nest go through characteristics of nest – identify escarpment, sand misting over emerge track, sand mound fill-in over successful nest, damp & well aerated sand, primary body pit filled in, shallow secondary body pit, vegetation dug up - Correlate the different parts of the nest with the different phase of nesting – explaining: - how turtles dig the primary body pit, egg chamber, fill-in and - which flippers do what (eg front flippers body pit, back flippers egg chamber, both flippers fill-in, but back flippers doing the mounding. (Trainees find it much easier to understand nests when they have seen the complete nesting process.)

	3. Point out the approximate location of the egg chamber – they need to imagine or see where the primary pit was dug and where the back of the turtle's carapace would be positioned. • **False crawl** – no sign of nest, may just be simple U-turn with no digging, or just body pits with lots of sand moved but no evidence of covering/filling in.
Tallying false crawls	• Demonstrate the tally method in the false crawls table – most people know but the occasional person has not used this method eg ⊬⊬⊬ = 5 • **Throughout training session check trainees data sheets to ensure correct procedures for recording data are being followed.**
Position of nest on beach	• Refer trainees to diagram on data sheet • Go through the different positions I, H, E and D **I** = intertidal – from **water's edge** to **high tide mark** **H** = between **high tide mark** and **edge of vegetation** **E** = between **edge of vegetation** and **base of dune** **D** = **base of dune** and **beyond**
How to use GPS	**Should have been covered in Induction** – if not then: • Show how to: a) turn on and off (to power-off the button needs to be held down) b) determine when ready to use c) page (quit) from screens d) check battery level e) read time and date from GPS f) read latitude and longitude • When demonstrating make sure everyone is paying attention and can see the screen of a GPS. If only 1 GPS, do a demo making sure everyone can see the screen and what buttons to press, then ensure every trainee uses the GPS during the training session.
Recording data in Table B: Nests	• Record species type (G/L/H/U) • GPS the nest – turn GPS on and allow time to acquire satellites • Indicate where nest would be – get trainee to put GPS over nest location and wait for approximately 1 minute until the Lat & Long readouts stable • Get one trainee to read out coordinates – all trainees record lat & long coordinates of nest • Ask one trainee to read back coordinates to eliminate errors in

	recording coordinates
	• For every nest encountered – get every trainee to locate nest, place GPS on nest and call out coordinates
	• Ask the trainees to determine position of nest on beach – get them to write this on the data sheet – discuss the answers
Determination of nest damage & print identification	• Discuss difference between **new nest** & **old nest**
	• Record all the other data needed for each nest – check each trainee sheet to ensure recording data correctly
	• Tell trainees to look for prints within a 5 metre radius of the nest – if footprints found – identify the prints – use the laminated sheet
Correct marking of tracks & nest	• Emphasise the need to mark the **both the emerge & return tracks** - demonstrate how to mark the tracks – emphasise to mark track away from the high tide mark to avoid it getting washed away
	• During training ensure every trainee gets a turn at marking tracks well above the high tide mark
	• **Demonstrate how to mark the nests** and ensure each trainee gets a chance to mark a nest – **DO NOT TRASH THE ESCARPMENT – JUST A LINE ACROSS THE NEST AT THE OPPOSITE END FROM THE EGG CHAMBER**
Location of finishing totem marker & recording of finish time	• At then end of the training session find the finishing totem marker
	• Emphasise if monitoring on beach and cannot locate marker – use the GPS and coordinates given in the file to find marker or end of section
	• **Record finish time on the data sheet**
Marking of page numbers & totalling false crawls	• At end of section ensure trainees total the false crawl tallies
	• Emphasise the need write in correct page numbers eg P 1 of 1, or if 2 sheets used P 1 of 2 & P 2 of 2
Marine Turtle Rescue Report	• Go through "How to Determine a Stranded Turtle" flowchart to determine if turtle really needs to be rescues.
	• If there is a stranded turtle during training – use this as an opportunity to fill in **Marine Turtle Rescue Report**
	• If no stranded turtle encountered during training, show how to fill in the report – possibly Day 3 of training – can get all the trainees to fill in Rescue Report for a "mock" rescue
	• **Important to stress that turtles resting on the reef flat or the beach, and which are obviously not stuck, are not regarded as stranded turtles!**
	• If stranded turtles are freed – just let them make their own way the water – guiding them if necessary.

	DO NOT PUSH THEM ACROSS THE REEF FLAT TO THE WATER
Mortality report	• Go through the Stranding & Mortality Sheet – how to fill it in • During the training, if possible use live resting turtle to demonstrate how to measure carapace length, tail and head measurements (but not if it seems to disturb the turtle) – **emphasise must use gloves if touching dead turtle** • If cannot no turtle available as a model use diagrams on the mortality sheet to show where to take the measurements
Filling in communications log	• Emphasise the need to fill in the communications log if filled in mortality report, rescue report or have any else to communicate – eg no spare batteries in GPS, no ruler etc
Tagged turtle resighting report	• Indicate where tags are located – on rear edge of the 2 front flippers and some have more than 1 tag • Check turtles still on beach and on reef flat for tags and if tags found then record the relevant tag numbers on the Tagged Turtles Resighting Sheet • Emphasise the need to **CORRECTLY IDENTIFY THE TURTLE** – if unsure take photo or if monitoring with someone else get the other person to identify the turtle if possible – ALWAYS **USE THE KEY**
Turtle & Hatchling identification	• Go through the **KEY FOR TURTLE IDENTIFICATION** – wherever possible use a resting turtle on the beach as a model - obviously only if it can be done without disturbing the turtle! • Point out the **costal scales (don't call them scutes)** – 5 pairs for loggerheads and 4 pairs for greens, hawksbills & flatbacks. • If 4 pairs evident – size is a big factor between greens and hawkbills, but also difference in the pre-frontal scales (Greens 1 pair, Hawksbills 2 pairs) – also hawksbill has obvious "beak". • Hawksbills have overlapping scales – Greens don't. • Difference between greens and flatbacks – dome of the carapace and flatbacks have a pair of pre-ocular scales but Greens don't. • **For identification of hatchlings** – refer to photos of hatchlings in monitoring folders**.** Point out distinguishing features:

| | **Loggerhead hatchlings:**
3 distinct ridges on back & 5 pairs costal scales

Green hatchlings:
distinct white edging on flippers and carapace, 4 pairs of costal scales.

Hawksbill hatchlings:
4 pairs of costal scales and unlike greens no white edgings

Use the photos in the FG to emphasise the differences. |

BEACH MONITORING VOLUNTEER ASSESSMENT

The assessment is used to determine the trainee volunteer's ability to use the Beach Monitoring Method as accurately as possible. The assessment ensures the trainee volunteer can correctly fill in the data sheet, identify turtle species according to beach tracks, identify false crawls or successful nesting and all the other procedures which are part of the beach monitoring method. Trainee volunteers need to be able to correctly use a GPS to determine and record the location of successful nests. They also need to be able to identify any turtles which have tags and identify hatchlings which might be seen.

METHOD FOR ASSESSMENT

1. The assessor should use the **Volunteer Competency Assessment Sheet** to record the competencies of the trainee volunteers. Refer to the Appendix 1: Example Assessment Sheet. Only 1 assessment sheet is required for each group being assessed.

2. Each volunteer should have a copy of the **Volunteer Competency Assessment Answer Sheet** (refer to Appendix 2: Example Volunteer Competency Assessment Answer Sheet). This allows the trainer to assess all the volunteers for each track encountered, allowing for a more efficient the assessment session, which takes up less time. The volunteers record their answers on the answer sheet, which is shown to the assessor, who marks √ or **X** for each of the categories listed on the Volunteer's for each track encountered. The assessor should record the results on the assessment sheet as the assessment session progresses.

3. When volunteers are being assessed using this method, it is essential that the assessor tells the group that each person is to work individually and that there should be no collaboration in deducing the type of track and whether there is a nest or false crawl.

4. For each nest encountered, the assessor should ensure that every volunteer being assessed has a turn at determining using a GPS to record the approximate location of the nest.

5. For turtle identification, an assessor could use a resting turtle for students to identify, providing the turtle is comfortable with having people looking t it.

   The group should approach from behind to look at the turtle. The trainee volunteers would determine the species and write on their answers of the back of their answer sheet, along with the determining characteristics. If not turtles are encountered during the assessment session or an encountered turtle is too "flighty", the assessor can ask the trainees to write the distinguishing characteristics of the 3 species of turtle encountered along the Jurabi Coast.

6. It is not necessary for a trainee volunteer to get absolutely everything right to gain Competency. See Appendix 1: Example Assessment Sheet for 3 hypothetical trainees.

   J Bloggs attained did not get anything wrong so is classed as Competent.

   B Simpson made a few mistakes made a few more mistakes than J Bloggs but still demonstrated a level that overall would be deemed Competent.

F Bat would definitely not be deemed competent – even a 50% nest accuracy would be too low.

Appendix 1: Beach Monitoring Volunteer Competency Assessment Sheet

Date: _____   **Assessor Name:** _____

Volunteer Name	Arrives on time	Fills in data sheet header correctly	Correctly identifies emerging and returning tracks	identifies turtle species from tracks — G	identifies turtle species from tracks — L	identifies turtle species from tracks — H	Determines successful nesting & identifies the different parts of the nest	Correctly identifies false crawls	Identifies nest location on beach I/H/E/D	Identifies nest disturbance and tracks	Data sheet completed and filled in correctly	Correctly uses GPS	Correctly marks tracks & nests	Correctly identifies turtle species/ knows the features	Final Assessment & Comment
J Bloggs	√	√	√√√√	√√ √√ √√ √√	√√	√	x√√√√√√ √	√√√	√√√	√	√	√√	√√	√√	C
B Simpson	√	√	x√√√	x√ √√ √√ √√	√√	√	xx√√√√√	√√√	√√√	√	√	√√	√√	√√	C
F Bat	X	X	xx√	x√ x√ x√ √√	x√	√	xxxxxx√√ √	x√√	x√√	x	√	√√	√√	x√	FA or NFT

C = Competent   FA = Further Assessment   NFT = Needs further training

Assessor Signature:

Appendix 2: Beach Monitoring Volunteer Competency Assessment Answer Sheet

Volunteer Name:................................... **Date:**.......................... **Assessor Name:**...................................

Species (G/L/H/U)	Track Emerge or return (E/R)	False Crawl or Nest? FC or N	Observed features of false crawl or nest	If nest - location of nest on beach? (I/H/E/D)	Tracks identified (D/F/G/H) or if none leave blank	Assessor Checked

Appendix 3: Turtle Identification Sheet

Type of Turtle	Distinguishing Characteristics