

**Wild Cat Breach**  
Lorna Glen Compound  
Chronology  
Neil Burrows  
July 2014

**26th May 2014 @11:23PM:**

A wild cat was detected in the fauna refuge compound at Lorna Glen (LG) by surveillance camera No. 1 in the SE corner of the compound. Initially, there was some uncertainty as to whether there was one or two cats – general consensus was one cat. It may have accessed the compound via the south gate; there is a gap in the hot wires between the top of the gate and post (Plate 1), and the cat spent a considerable amount of time patrolling in this vicinity once inside the compound.



*Plate 1: Possible cat entrance point around the top of the gate and the post (photo Neil Hamilton).*



*Camera 1: 26/5/14; 11.23pm  
3.33.am*

*Camera 1 28/5/14; 4.05 am*

*Camera 3 28/5/14;*

**27th May – 6th June:**

The Breach Response Plan was activated. Keith and Rhonda Skelly, (LG caretakers) set 9 drum traps (with legholds and lures) and 3 large cage traps in the vicinity of where the cat was most active based on camera information. Cameras were set with some of the drum traps and all cameras were checked daily to monitor the behaviour and activity of the cat. Cameras revealed that the cat was disinterested in the drum traps and lures. This is unusual – on the previous two breaches the cats were quickly caught on the drum traps using a road kill bird as a lure. On the other hand, cage traps have not been successful in the past and

are unlikely to be successful in the future. From previous experience, it was evident that the high density of native mammals in the compound (boodies and bandicoots) precludes setting traps on the ground for two reasons; i) very high probability of death or injury to native mammals and ii) traps are set off by native mammals, reducing the chances of trapping the cat.

#### **7th-15<sup>th</sup> June:**

Kelly Rayner, Neil Hamilton and Mark Blythman set a total of 37 drum, bucket and tall nally-bin trap sets based on the cat's activity pattern as detected by the cameras. Three large cage traps were also set with food lures. They also set a barrier of elevated (drum) traps across the track near the gate, hoping the cat would jump up onto the traps. A variety of lures were used including pongo (cat faeces/urine), FAPs, tweeters, tinsel and freshly dissected scats/urine. Traps, cameras and tracks were checked daily. During this period, there were two 'near misses' – the first - the cat stepped either side of the trap set in a bucket (tinsel lure) and the second, the cat placed two paws on the edge of the bucket to investigate (no lures), but did not jump up onto the bucket. With the exception of these two occasions the cat showed no interest in the traps and lures, repeatedly walking past without investigating.

There was no by-catch in the elevated (drum) traps, except for a crow, which was banded and released unharmed. Kelly provided a 'mud map' showing where the cat was most active – In her report Kelly noted that, "*The cat spends a couple of nights at a time around the gate then switches to the north west corner - from tracks and cameras it repeatedly walks up and down the fence in those sections*". Kelly's map also showed the general area where traps were set.

Martu were engaged to track the cat on 12 and 13 June. While they were able to track it, they were not able to find its daytime refuge.

Traps were closed on 14 June. Neil H departed LG 10 June, Kelly and Mark departed 15 June. Neil H provided some advice on improving security of the compound. Keith and Rhoda maintained daily checking and monitoring of traps and cameras, including keeping a log of observations.

#### **16th-24<sup>th</sup> June:**

Mike Wysong set 14 drum traps along the southern boundary and three in the NW corner, locations where the cat was most active based on the cameras. Mike used a variety of lures (pongo, tinsel, feathers, tweeters). Keith and Rhonda checked the traps and the cameras daily and kept a log. The cat was showing no interest in the traps / lures. It was most active in the vicinity of the south gate.

#### **25<sup>th</sup> June:**

Neil Burrows arrived at LG with night vision gear (NVG) and a plan to set up a hide and ambush the cat. It was clear from almost 330 trap nights that the cat was unlikely to be trapped in the drum/bucket traps and was showing little interest in the lures.

I examined data from the cameras that had been logged by Keith and Rhonda. This confirmed that over the last few days, the cat continued to be most active in the SE corner in the vicinity of the south gate, with occasional forays to the NW of the compound, which is consistent with the historical data. It was also evident that it most often, but not always, came out of its daytime refuge soon after sunset – often first detected by cameras between 1830 hrs and 2130 hrs.

At ~1600 hrs on 25 June I set up in a hide in the compound made by Keith S. It was some 40 m east of the south gate and set back some 10 m from the track. The NVG I used is gear that we have had in the department for 15 years or so - it's old but it's Gen 3, so high quality. Downside is that it is a monocular, can't be fitted to a gun and is hand-held. Had to fix the shotgun to brackets set about 20 cm above the ground and set it up on a line of fire across the track from the hide. The plan being that when the cat walked into the line of fire, as determined using the NVG, I would fire the shotgun. A shoot plan was prepared and submitted to the Goldfields Region and the DPaW Firearms officer.

Sunset was about 1715 hrs at which time I was prone inside the hide - one hand on the shotgun resting in its mounts, the other holding the NVG. At 1750, through the NVG I detected the cat coming down the track from the west past the gate. As it approached the hide and the line of fire, I switched on the IR illuminator on the NVG to give me a clearer picture. As soon as I did this, the cat, which was about 5 m from the line of fire and about 20 m from the hide, stopped, stared intensely at me for about 3-4 seconds, then turned around and went back up the track before I could take the shot. I realised it had seen me - when I switched on the IR illuminator, a match-head size red light comes on inside the illuminator, obviously to generate the IR. With the illuminator pointing directly at it, the cat had seen the tiny red light, and it was enough for it to turn away.

I stayed in the hide a little longer, but it was clear the cat was not coming back - I packed up and came back to the homestead. The lesson - can't use an illuminator in this situation. I didn't need to turn the illuminator on – the Gen 3 NVG works quite adequately without it, but when it's on, it does give a very clear picture. A lesson learnt.



*Plate 2: Hide 2, east of the south gate*



*Plate 3: Gen 3 night vision monocular with IR illuminator*

### **26<sup>th</sup> June:**

AM: Keith S and I returned to the compound, checked the cameras, checked for cat tracks, dragged the tracks and checked traps. Did not detect any new cat tracks or pics from last night. After seeing 'me' (via the illuminator), it seems the cat went to ground for the night. The cameras continue to frustrate - most not recording any night time activity when clearly there had been boodie, rabbit etc. past the cameras. The cameras are inconsistent - sometimes working, other times not. Suspect it is to do with the motion sensors? This issue needs to be addressed as the cameras are now a crucial surveillance / security and intelligence gathering tool.

PM: Picked up 10 Moultrie cameras, which were in the bush next to 10 of Mike Wysong's Reconyx cameras for comparison. Checked images on both cameras and both seem to be recording similar images. Moultrie reaction time (from sensing movement to taking pic) is about 0.4 sec. slower than Reconyx, so need to angle cameras down the road. Relocated Moultries to the compound along the south boundary where cat was most active. Built a second hide ~ 100 m east of hide 1, thinking the cat may not come near hide 1 again.

Settled in to hide 2 in the compound at 1630 hrs and stayed until 2215 hrs. Could not stay awake any longer, also very cold, so returned to the homestead. No sign of the cat.

### **27<sup>th</sup> June**

AM: With Keith and Rhonda, checked cameras, checked, dragged up tracks and checked traps. No signs of the cat. After its 'fright' on Wednesday night, it seems to have gone quite. Keith is of the view it is a female cat from the camera shots; I agree but for different reasons – the Martu informed me a couple of years ago that female cats walk fairly straight lines down the roads whereas males walk sinuous, meandering lines. This has since proven to be reliable – this cat walks a fairly straight line.

PM: Back to hide 2. Stayed from 1630 hrs – 2130 hrs. Cold night (-3 min.). No sign of the cat but was visited by 2 boodies and a rabbit.

## **28<sup>th</sup> June**

AM: With Keith and Rhonda, checked and dragged up tracks, checked cameras and traps. Moultrie cameras detected cat some 300 m west of the gate and ~ 450 m from hide 2. Ryconix did not detect any night activity. Cat passed Moultrie cameras at around 1830 hrs but did not come further east to the hide. Based on footprints, the cat spent only a short time / distance on the track last night. Will give the hide a rest tonight and let the cat settle into a routine. Will check cameras and tracks tomorrow morning and decide where to build another (3rd) hide.

PM: Watched the Dockers beat the Eagles.

## **29<sup>th</sup> June**

AM: With Keith and Rhonda, checked and dragged tracks, checked cameras and pulled the drum traps. Detected cat tracks once again on the south boundary mid-way between the SW corner and the gate. Camera tripped at 1830 hrs – no image, but based on tracks, suspect it was the cat. Seems the cat has established a new patrol pattern in this area ~ 2-3 km west of the south gate on the southern boundary.

As a back-up to the 'ambush' strategy, I had an idea to set road traps, or 'stingers' (a continuous line of overlapping leghold traps set across the track/road to intercept the cat as it patrols the tracks/roads), but rather than leaving them out all night, I decided to leave them out for ~4 hours only during the period when the cat is most active on the track, so most likely to hit the traps. As mentioned above, from the cameras, this cat was often an 'early riser', first appearing on cameras on the south boundary track between 1830 hrs and 2130 hrs - a three hour period. Leaving the stingers out for only 3-4 hours after sunset when the cat was likely patrolling the track would not eliminate by-catch, but it would significantly reduce it, compared with leaving them out all night (~13 hours at this time of year).

PM: Keith S and I dug in and set the stingers along the south boundary about mid-way between the gate and the SW corner – where footprints and cameras had shown the cat to be most active, and about 1.5 km west of hide 3. The first set was ~500 m east of the SW corner; the next two sets were ~900 m apart further to the east. The stingers were ~2.5 m across. In setting 'stingers', it is not possible to have complete overlap of the trip plates, so there are gaps through which the cat can pass without setting off a trap. For this reason, it is necessary to set at least three stingers up 0.5-1 km apart. Increasing the number of stingers increases the chance of catching the cat, but also increases the chance of by-catch (boodies and bandicoots). Setting three stingers and leaving them 'open' for just 4 hours after sunset then closing them, was deemed to be an acceptable trade-off.

That evening I stayed in the hide from 1630 hrs to 2130 hrs. No sign of the cat. After closing the hide, I checked and closed the stingers by covering them with branches to prevent native animals being caught during the night. There was no by-catch but also no cat when I closed them at ~2145 hrs.





*Plate 4: Setting a 'stinger'. Three stingers were set on the track where the cat was most active and closed ~4 hours after sunset to reduce risk of by-catch.*

### **30<sup>th</sup> June**

AM: With Keith and Rhonda, checked and dragged up tracks, checked cameras. Detected cat tracks once again on the south boundary between the stingers, but it had not walked near the stingers.

PM: Out to the compound. Opened up the stingers (removed covering branches), checked and tidied them up. Settled into the hide and kept vigilant for the cat. At 2125 hrs, closed the hide and went to check the stingers. Nothing in the first stinger, so closed it down by covering it with a sheet of MDF. Drove to the next stinger and was relieved to see the cat caught by 2 legs (one front, one back). Euthanized the cat with a .22 shot to the brain. Removed it from the traps, covered the remaining traps with MDF and went down to check the third stinger. Nothing in it so covered it with MDF. From the camera set on the stinger, the cat was caught at 2128 hrs. I arrived at the stinger to close it down at 2144 hrs, just 16 minutes after the cat was caught.



*Plate 5: First camera detection of the cat on the night it was trapped. Note time – 7:54 PM (date on camera is incorrect – should be 06/30/2014). Cat was trapped in a stinger at 9:28 PM.*

## 1st July

Processed the cat: Young female, not in breeding condition (not lactating, not pregnant), 3.4 kg (small to medium cat). Stomach was empty, as was the entire digestive tract. With Keith, went out to the compound, checked the cameras, dismantled the stingers, checked for footprints. The cat had actually crossed the first and second stingers without treading on a trap – there are unavoidable gaps between the trip plates on a stinger set, however, when it attempted to cross the second stinger a second time, it was caught – I estimate a cat has a 30% chance of stepping on a trap trip plate when it crosses a stinger set, hence the need to put out at least three sets of stingers – eventually the cat will tread on a trip plate.

As at 7th July, I am informed by Keith Skelly that there are no signs of cat in the compound.



*Plate 5: Compound cat # 4. Grey tabby, female, 3.4 kg.*

## **Observations and recommendations**

- This cat, the fourth to breach the compound, was inside for ~37 days – the longest time yet. I have not calculated cost to remove it, but it is probably in the vicinity of 20-30k.
- Unlike other cats, this cat showed no interest in the drum traps / lures etc., hence the long period before it was removed.
- There are obviously some weaknesses with compound security – these have been reported elsewhere by Neil Hamilton – some of these issues can and must be dealt with urgently, others are a longer term proposition. Suggest a workshop to focus on the issue of compound security.
- The cameras are unreliable. This issue needs to be addressed as they are crucial for surveillance and intelligence gathering.

- Set up correctly, night ambush using NVG and a shotgun can be an effective strategy for removing difficult cats – this cat would have been removed in the first hour on the first night I arrived at LG if I had not turned on the IR illuminator and scared it away.
- Stingers can be a highly effective technique for trapping cats when all else fails, but there is a high risk of by-catch. Strategically setting stingers (in the right place and for a short period of time) based on intelligence from cameras and footprints will not eliminate by-catch but will significantly reduce it and increase the chances of catching the cat. Stingers should not be set by people without training.
- I am of the view that cats in the compound do little damage to wildlife in the early stages. Empty stomachs in three of the four cats (did not check one of the cats) suggests the cats are anxious about being trapped in the compound and are pre-occupied with trying to get back to their 'patch', or home range outside the compound. This cat obviously fed during its 37 days inside, but there is no evidence that it went on a killing spree. Left in the compound for a longer period, I have no doubt it would eventually settle in to its new environment and cause significant damage.
- I will make changes to the Breach Response Plan in light of this experience.

### **Acknowledgements**

Keith and Rhonda Skelly are to be acknowledged and commended for the enormous amount of time and effort they put in on this cat. The data they meticulously recorded each morning from the cameras was invaluable in deciding how to catch the cat. Keith tried some novel approaches – when we run out of ideas, we run out of hope. Thank you.

The effort and dedication of others, including Kelly, Mark, Neil and Mike, was great – thank you all. Also, thanks to the Martu trackers who always make an important contribution. As usual, the Goldfields Region (especially Tjokkie) was responsive and supportive – thank you.