A survey for black rats (*Rattus rattus*) in the Shark Bay communities of Denham, Monkey Mia and Useless Loop.

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INTRODUCTION

Black rats (*Rattus rattus*) are one of most prolific invasive species on the planet. Through their commensal relationship with humans they have spread to almost every corner of the globe, including six continents (only excluding Antarctica) and over half of the 123 oceanic island groups worldwide (Atkinson 1985). European vessels brought them to Australia with the first European settlers, although they may have arrived on mainland Australia as early as the 1600s on Dutch vessels (Banks and Hughes 2012). Black rats have successfully invaded over 110 continental (or landbridge) islands surrounding the Australia mainland, more than 40 of which were in Western Australian waters (Abbott and Burbidge 1995; DEWHA 2009).

Their impacts on the flora and fauna of island ecosystems around the world have been devastating, often resulting in species extirpation or extinction (Towns *et al.* 2006). The magnitude of these impacts has been attributed to the plasticity in black rats, which allows them to colonise and persist in almost any habitat (Jones *et al.* 2008). Given the high conservation values of many of Australia's offshore islands (Burbidge and Manly 2002) and the negative impacts caused by invasive rats, "Predation by exotic rats on Australian offshore islands of less than 1000 km^2 (100,000 ha)" is listed as a Key Threatening Processes under the *Environment Protection and Biodiversity Conservation Act* 1999 (DEWHA 2009).

Techniques for eradicating invasive rodents from islands are now highly advanced, which means that black rats are routinely eradicated from islands for conservation purposes (Howald *et al.* 2007). In the past 30 years, black rats have been successfully eradicated from 30 islands in Western Australia (Burbidge 2004; Morris 2002). Although they continue to pose an ongoing biosecurity threat to island ecosystems due to their presence in most urban centres and coastal environments on the Western Australian mainland adjacent to islands, which was highlighted by the invasion of Penguin Island off Rockingham by black rats in 2011 (Bettink 2013).

The Shark Bay World Heritage Area (SBWH) is one of the few areas of the Western Australian coastline where there are no confirmed records of black rats from the mainland or islands (http://naturemap.dpaw.wa.gov.au; survey details in Baynes

1990; Burbidge and George 1978; McKenzie, *et al.* 2000). Black rats are known from Kalbarri National Park to the south and while there are no voucher records of black rats from Carnarvon, they are widespread in the town and surrounding farming areas (Garry Hearle DPaW 2014, pers. comm., March). [*Note that page 59 in the Shark Bay Terrestrial Reserves and Proposed Reserve Additions Management Plan No. 75 (2012) mentions the removal of rats* {should be goats} *from Bernier and Dorre islands.*]

The planned restoration of Dirk Hartog Island is likely to greatly increase visitation to this recently declared National Park. Given the commensal nature of black rats and their ability to use human transportation vectors (i.e., vehicles and vessels) in dispersal, the risk of black rats being introduced to this island from the mainland may increase. In this report, we examine the potential biosecurity risk black rats pose to Dirk Hartog Island by investigating whether the Shark Bay communities of Denham, Monkey Mia and Useless Loop harbour breeding populations of black rats.

METHODS

Black rats are usually found close to human habitation, preferring urban and other disturbed environments (Banks and Hughes 2012). Previous fauna surveys (including sub fossil analysis) and monitoring programs has failed to detect black rats on Heirisson Prong or Peron peninsula (e.g. Baynes 1990; McKenzie, *et al.* 2000; Short and Turner 2005).

We used a range of surveillance and detection approaches to determine if there is any evidence of previous or current populations of black rats in Denham, Monkey Mia or Useless Loop.

Public consultation

Black rat flyer

The Department of Parks and Wildlife (Parks and Wildlife) Public Information and Corporate Affairs group was engaged to design a flyer to request that the public report any sightings of black rats to the Department's office in Denham or to Russell Palmer at Woodvale (Appendix 1). Flyers were distributed to the 140 post boxes in

Denham in May 2014. They were also placed on community notice boards in Denham, Monkey Mia and Useless Loop, and the DPaW notice boards in Denham and Monkey Mia in May 2014.

Media – Shark Bay Inscription Post

Susan Pedersen (Parks and Wildlife) placed three articles on the black rat survey in the Department's "Conservation Matters" segment in the Shark Bay Inscription Post.

- Page 39 May 2014 edition – "Have you seen this rat?"
- Page 36 June 2014 edition – full page copy of the "Wanted" flyer
- Page 36 July 2014 edition – Rat survey update.

Consultation

A wide range of people were consulted in the process of setting/collecting camera traps and tracking tunnels, either to gain access to areas or in discussion with interested passers-by or workers. Key contacts included:

- Martin Grenside, Resort Manager, Monkey Mia Dolphin Resort;
- Dale Van Beem, Environmental Advisor, Shark Bay Resources, Useless Loop;
- Linda Reinhold, former Shark Bay District Ecologist, DPaW;
- Tony Millar, Carrarang Station;
- Nanga Bay Resort;
- Brian and Joke Veitch-Vaneechoutte, Tamala Station;
- Dr Jeff Short, Director and Principal Research Scientist, Wildlife Research and Management Pty Ltd, Kalamunda. Formerly with CSIRO, and
- Brian Galvin, Works Manager, Shire of Shark Bay.

Survey of pest control businesses operating in Geraldton and Kalbarri

Deanne von Senger (Parks and Wildlife) contacted all listed pest control businesses in Geraldton and Kalbarri in May/June (Appendix 2).

Survey activities

Camera traps

Nineteen camera traps (PC900 Reconyx Inc., WI, USA) were established on the 12–15th May 2014 and left in situ until the 9–11th July 2014 (Denham = 8, Monkey Mia = 5 and Useless Loop = 6; Table 1). Cameras were only set in areas where there was no or limited public access. Each camera was mounted 30 cm above the ground on sturdy plastic tent peg and it was usually faced in a southerly direction. A PVC bait capsule with a non-toxic bait or lure (peanut butter and oats) used to attract animals was placed within the detection zone of the camera trap (2–3 m away). The bait capsule was secured to the ground with a peg or it was tied to a solid object, usually the base of a shrub. Vegetation was cleared from the detection zone to reduce the incidence of false triggers caused by moving vegetation. Cameras were programmed to take three photos per trigger with intervals of five second between pictures. The quiet period was set to 15 seconds and the sensitivity was set to high.

Black rats can be distinguished from smaller rodent species known to occur in Shark Bay due to their large size and distinctive tail that is longer than their head-body length.

Tracking tunnels

In areas accessible to the public, such as the shoreline in Denham, we used footprint tracking tunnels baited with peanut butter to detect the presence of rodents. Tracking tunnels rely on ink and card to record the tracks of rodents attracted by the bait. Black plastic tunnels and pre-inked Black Trakka© cards were supplied by Gotcha Traps, Auckland (http://www.gotchatraps.co.nz/). In total, 42 tracking tunnels were set for the same period as the camera traps (Denham = 25, Monkey Mia = 2 and Useless Loop = 15; Table 2).

Raptor pellets

A request for sightings of barn owl (*Tyto alba*) roosting sites was circulated via email to the Department's Shark Bay district staff. Ross Mack (Parks and Wildlife) identified the Eagle Bluff shearing shed as a roost. Kim Branch found 12 barn owl

pellets there in April 2014 and Russell Palmer located a further 31 pellets in a different part of the building in May 2014. Barn owls were not present at the shed.

Numerous other potential barn owl roosting sites (abandoned or used sheds/buildings and dense tamarisk tree thickets) were searched. These sites yielded 65 Australian kestrel (*Falco cenchroides*) and 3 southern boobook owl (*Ninox novaeseelandiae*) pellets. These smaller raptors are known to occasionally take black rats. Pellets were sent to an expert for analysis (Georgeanna Story, *www.scatsabout.com.au*).

Feral cat and fox scat collections

Feral cats and foxes are known to prey on a wide range of rodents, including black rats. Searches were conducted for feral cat and fox scats in the process of setting camera traps and tracking tunnels. Targeted searches were undertaken at the Denham refuse tip (~5 hrs), Monkey Mia resort and surrounds (~4 hrs) and the water treatment plant at Useless Loop (~2 hrs). Scats were analysed by Georgeanna Story at *www.scatsabout.com.au.*

RESULTS

Public consultation

Reports of black rat sightings were very few. Only one person (Tim Hargreaves) responded to the “Wanted” flyer and several other people provided information on rats during discussions. Most residents reported that they had seen house mice and other smaller native rodents but they had never seen any rats.

Key reports:

1. Tim Hargreaves (Denham resident ~40 years) trapped and killed a rat ~30 years ago at his house in Denham.
2. Harry Butler reported seeing a black rat eating dugong fat at Arthur Bassett’s house in Denham. Harry believes the year was 1964.
3. March 2013, post on Shark Bay Buy, Sell and Swap ‘pet brown and white rat’ found on the loose in Hoult street, Denham.

4. March 2013, a pet ferret escaped at Monkey Mia. A number of people saw the ferret and reported it as the closest thing they had seen to a ‘rat’.
5. Tony Millar, Carrarang Station, reported seeing a rat jump out of a bale of hay in December 2013 as they unloaded fodder from a truck originally from North Hampton. The rat ran away into the surrounding bush. It was extremely dry at the time.
6. Danny (owner/operator) of Midwest Pest Management, observed rat scats at Nanga Bay Resort. Baits were laid.
7. Several people recalled seeing the native pale-field rat (*Rattus tunneyi*) at Heirisson Prong following a population outbreak there in the late 1990s (Short and Turner 2005; NatureMap).

Survey activities

Of the 19 camera traps set, 16 functioned for the entire survey period of ~ 60 days each. One camera was interfered with by the chef at Useless Loop taking a “selfie”. A fox removed the bait capsules from in front of two cameras near the salt loading jetty at Useless Loop, although the cameras continued to operate. Data was analysed from a total of 1083 camera trap–days, which represents ~25 992 hrs of field observations. No black rats were detected on any of the cameras. A range of other mammals were recorded, including feral cats, rabbits, foxes, small–sized rodents, euros, echidnas and pet dogs. Numerous species of birds and several species of reptiles were also recorded.

Forty of the 42 tracking tunnels were operational for the survey period. Two tracking tunnels set at the Denham golf course next to buildings were flooded by water following rain. All operating tunnels were visited by small rodents (mostly likely to be house mice), except for TT 41 that was set behind the BBQ at the Denham Villas (Table 2). TT 41 was visited by cockroaches.

The barn owl pellets contained a number species of small rodents, *Mus domesticus*, *Pseudomys hermannsburgensis* and *P. albocinereus*, but no remains of black rats were detected in the 43 pellets analysed (Table 3). None of the 65 Australian kestrel pellets (Carrarang Station n= 35, Denham n= 28 and Useless Loop n= 2) contained rodent remains (Table 3). The three southern boobook pellets found beneath a

tamarisk tree beside the water treatment plant at Useless Loop contained two *Mus domesticus* and one *Pseudomys hermannsburgensis*.

Rodent remains were only detected in 2 of the 53 cat scats from the Denham refuse tip and 2 of the 19 cat scats from Monkey Mia (Table 4). The samples of rodent hair obtained from these scats were too damaged to identify individuals to species level, but Georgeanna Story was able to determine that none were *Rattus* spp. Rodent remains were detected in 8 of the 19 fox/cat scats from Useless Loop (Table 4), 4 were *Mus musculus* and 4 *Pseudomys* spp.

DISCUSSION

We found no evidence of established breeding populations of black rats in the three Shark Bay communities of Denham, Monkey Mia and Useless Loop. It is possible they may have been resident in Denham in the 1960's or during historical times when the pearling industry was in full swing. It would appear that black rats occasionally get transported into Shark Bay from rat-infested areas elsewhere, but have not established breeding populations. The house mouse is ubiquitous throughout Shark Bay and their presence may limit opportunities for rats to establish. This is because many businesses, government agencies and residents regularly undertake mouse control with rodenticides in and around buildings in urban and rural areas of Shark Bay. Rats are also highly susceptible to these baits.

Shark Bay and the Great Australian Bight are the only two large areas of the Australian coastline outside of the tropics that lack black rats. These areas are amongst the most arid parts of the Australian coastline. This suggests that the high water requirements of black rats have limited their ability to persist in these environments, as is the case in the arid centre of the country (Dickman and Watts 2008). Black rats do persist however in the arid and relatively unaltered coastal areas of Cape Range to the north of Shark Bay. Greater access to rocky refuges that provide more favourable micro-climates may enhance the ability of black rats to survive at Cape Range. Access to rich coastal habitats such as mangroves, may also benefit black rat populations present in other arid sites, such as Carnarvon, which lacks extensive rocky habitats. Targeted surveys of mangrove communities for black rats along the north-eastern boundary of the SBWHA may provide an incite to

whether they can persist in this habitat without the influence of food subsidies from the urban and farming areas of Carnarvon.

No black rat remains were found in the 199 raptor/predator pellets/scats collected from Shark Bay. This diet analysis did show that *Pseudomys hermannsburgensis* were a common prey item for barn owls at the Eagle Bluff shearing shed on Peron peninsula. The occurrence of four *P. albocinereus* in this collection of barn owl pellets is of significance as this is believed to be the first record of this species for Peron. It is known from Heirisson Prong and several islands in the SBWHA (Baynes 1990; Burbidge and George 1978; McKenzie, *et al.* 2000).

References

Abbott I. and Burbidge A.A. (1995). The occurrence of mammal species on the islands of Australia: A summary of existing knowledge. *CALMScience* **1**: 259–324.

Atkinson, I.A.E. (1985). The spread of commensal species of *Rattus* to oceanic islands and their effects on island avifaunas. *Conservation of Island Birds* **3**: 35–81.

Banks P.B. and Hughes N.K. (2012). A review of the evidence for potential impacts of black rats (*Rattus rattus*) on wildlife and humans in Australia. *Wildlife Research* **39**: 78–88.

Baynes, A. (1990). The mammals of Shark Bay, Western Australia. Pp 313–325 in Berry P.F. Bradshaw S.D. and Wilson B.R. eds. Research in Shark Bay: Report of the France-Australe Bicentenary Expedition Committee. Western Australian Museum: Perth, Australia.

Bettink, K. (2013). Control and eradication of black rats (*Rattus rattus*) on Penguin Island, Western Australia, December 2012-July 2013. Department of Parks and Wildlife [Internal report].

Burbidge A. and George A. (1978). Flora and fauna of Dirk Hartog Island, Western Australia. *Journal of the Royal Society of Western Australia* **60**: 71–90.

Burbidge A.A. (2004). Montebello Renewal: Western Shield review – February 2003. *Conservation Science Western Australia* **5**: 194–201.

DEWHA. (2009). Threat abatement plan to reduce the impacts of exotic rodents on biodiversity on Australian offshore islands of less than 100 000 hectares. Department of Environment, Water, Heritage and the Arts, Canberra, Australia.

Dickman C.R. and Watts C.H.S. (2008). Black rat, *Rattus rattus*. Pp 707–709 in Van Dyck S. and Strahan R. eds. The Mammals of Australia. Reed New Holland, Sydney.

Jones H.P. Tershy B.R. Zavaleta E.S. Croll D.A. Keitt B.S. Finkelstein M.E. and Howald G.R. (2008). Severity of the effects of invasive rats on seabirds: a global review. *Conservation Biology* **22**: 16–26.

McKenzie N.L. Hall N. and Muir W.P. (2000). Non-volant mammals of the southern Carnarvon basin, Western Australia. *Records of the Western Australian Museum Supplement* **61**: 479–510.

Morris K.D. (2002). The eradication of the black rat (*Rattus rattus*) on Barrow and adjacent islands off the north-west coast of Western Australia. Pp 219–225 in Veitch C.R and Clout M.N. eds. Turning the Tide: the eradication of invasive species. IUCN SSC Invasive Species Specialist Group, IUCN, Gland, Switzerland and Cambridge, U.K.

Short J. and Turner B. (2005). Control of feral cats for nature conservation. IV. Population dynamics and morphological attributes of feral cats at Shark Bay, Western Australia. *Wildlife Research* **32**: 489–501.

Towns D.R. Atkinson I.A. and Daugherty C.H. (2006). Have the harmful effects of introduced rats on islands been exaggerated? *Biological Invasions* **8**: 863–891.

Table 1 Description and location of the 19 camera traps set in Shark Bay from May to July 2014

Camera No.	Location	Site description	Latitude	Longitude
Cam 68	Denham	Sewage treatment facility	-25.4823	112.9719
Cam 69	Denham	Sewage treatment facility	-25.6094	112.9445
Cam 70	Denham	Refuse tip	-25.5256	112.9380
Cam 71	Denham	Refuse tip	-25.7184	113.0589
Cam 67	Denham	Refuse tip	-25.7181	113.0593
Cam 72	Denham	Golf club – under water tank	-25.7188	113.0652
Cam 73	Denham	Refuse tip	-25.7794	113.0843
Cam 74	Denham	Airport – under water tank	-25.9301	113.1043
Cam 78	Monkey Mia	DPaW complex – under building	-25.8723	113.1094
Cam 82	Monkey Mia	DPaW complex – under building	-25.9032	113.1128
Cam 75	Monkey Mia	DPaW complex – garden area	-25.9774	113.1379
Cam 79	Monkey Mia	Caravan park – water overflow tamarisk trees	-25.9763	113.1441
Cam 76	Monkey Mia	Caravan park – water overflow tamarisk trees	-25.9838	113.1534
Cam 83	Useless Loop	Rocks behind beach	-25.9750	113.1549
Cam 84	Useless Loop	Next to salt loading facility	-26.0065	113.1697
Cam 80	Useless Loop	Next to salt loading facility	-26.0445	113.1875
Cam 81	Useless Loop	Water treatment facility – under date palm	-26.0032	113.1960
Cam 77	Useless Loop	Water treatment facility	-26.0028	113.1963
Cam 85	Useless Loop	Garden near mess building	-26.0020	113.1979

Table 2 Description and location of the 42 tracking tunnels set in Shark Bay from May to July 2014

Tracking tunnel No.	Location	Site description	Latitude	Longitude
TT 1	Denham	Sewage treatment facility	113.5558	-25.9138
TT 2	Denham	Sewage treatment facility	113.5547	-25.9146
TT 3	Denham	Sewage treatment facility	113.5537	-25.9137
TT 4	Denham	Little Lagoon viewing platform mangroves	113.5267	-25.9064
TT 5	Denham	Little Lagoon viewing platform mangroves	113.5267	-25.9064
TT 6	Denham	Little Lagoon mangroves	113.5259	-25.9061
TT 7	Denham	Little Lagoon mangroves	113.5256	-25.9058
TT 8	Denham	Golf club old toilet block	113.5550	-25.8935
TT 9	Denham	Golf club new toilet block	113.5546	-25.8933
TT 10	Monkey Mia	Caravan park under tamarisk trees	113.7168	-25.7948
TT 11	Monkey Mia	Caravan park under tamarisk trees	113.7167	-25.7948
TT 12	Useless Loop	Recreational jetty	113.4204	-26.1254
TT 13	Useless Loop	Recreational jetty	113.4205	-26.1260
TT 14	Useless Loop	Recreational jetty	113.4204	-26.1263
TT 15	Useless Loop	Recreational jetty - shrubs next to beach	113.4191	-26.1268
TT 16	Useless Loop	Rocks behind beach	113.4187	-26.1276
TT 17	Useless Loop	Rocks behind beach	113.4187	-26.1286
TT 18	Useless Loop	Rocks behind beach	113.4187	-26.1283
TT 19	Useless Loop	Rocks behind beach	113.4187	-26.1281
TT 20	Useless Loop	Rocks behind beach	113.4187	-26.1277
TT 21	Useless Loop	Tamarisk tree next to swimming pool	113.4184	-26.1275
TT 22	Useless Loop	Under building – men's quarters	113.4180	-26.1288
TT 23	Useless Loop	Under building – men's quarters	113.4178	-26.1290
TT 24	Useless Loop	Mess building - herb garden	113.4175	-26.1269
TT 25	Useless Loop	Mess building - garden	113.4172	-26.1268
TT 26	Useless Loop	Lookout - under fig tree	113.4185	-26.1294
TT 27	Denham	Town common - water tank	113.5540	-25.9037
TT 28	Denham	Shoreline - nitraria shrub near fish cleaning table	113.5323	-25.9276
TT 29	Denham	Shoreline - in tree guard	113.5319	-25.9274
TT 30	Denham	Shoreline - in tree guard	113.5315	-25.9272
TT 31	Denham	Shoreline - nitraria shrub in front of bottom shop	113.5302	-25.9267
TT 32	Denham	Shoreline - nitraria shrub in front of roundabout	113.5299	-25.9264
TT 33	Denham	Shoreline - nitraria shrub in front caravan park	113.5280	-25.9250
TT 34	Denham	Shoreline - nitraria shrub in front caravan park	113.5294	-25.9258
TT 35	Denham	Shoreline - nitraria shrub in front caravan park	113.5291	-25.9257
TT 36	Denham	Shoreline - nitraria shrub in front caravan park	113.5287	-25.9256
TT 37	Denham	Shoreline - nitraria shrub in front resort	113.5363	-25.9294
TT 38	Denham	Shoreline - nitraria shrub in front bottom	113.5388	-25.9304
TT 39	Denham	Shoreline - grass at Fry street	113.5410	-25.9313
TT 40	Denham	Shoreline - nitraria shrub Netta's beach	113.5441	-25.9325
TT 41	Denham	Denham villas - Behind BBQ	113.5367	-25.9285
TT 42	Denham	Acacia shrubs behind shops	113.5357	-25.9280

Table 3 Frequency of occurrence of prey categories in the pellets of barn owl (*Tyto alba*) and Australian kestrel (*Falco cenchroides*) from Shark Bay based on pellets collected in 2014.

Prey categories	Barn owls (n=31)*	Australian kestrel (n=65)
Mammals		
Mus domesticus	38.7	
Pseudomys hermannsburgensis	80.6	
Pseudomys albocinereus	12.9	
Birds	22.6	10.8
Skinks	9.7	64.6
Geckos	45.2	
Dragons		41.5
Beetles	48.4	76.9
Grasshoppers	19.4	36.9
Ants		76.9**
Centipedes		63.1
Other arthropods		7.7

*Analysis not completed on remaining 12 owl pellets.

**Likely to include some secondary ingestion of ants from the stomachs of reptiles

Table 4 Frequency of occurrence of prey categories in feral cat and fox scats collected from Shark Bay in May and July 2014.

Prey categories	Denham refuse tip (n= 53 cat scats)	Monkey Mia (n=19 cat scats)	Useless Loop (n= 9 cat and 10 fox)
Euro	0.0	0.0	21.1
Cat	11.3	0.0	5.3
Rabbit	22.6	63.2	31.6
Small rodent	**3.8**	**10.5**	**42.1**
Bird	18.9	5.3	52.6
Reptile	45.3	42.1	10.5
Invertebrate	62.3	52.6	52.6
Fish	28.3	0.0	21.1
Crustacean	0.0	0.0	10.5
Rubbish	60.4	10.5	0.0
Vegetation	9.4	10.5	10.5

Appendix 1
Poster distributed at Shark Bay communities

WANTED

Have you seen this rat?

Shark Bay is one of the few coastal regions of Western Australia where there are no records of the introduced **black rat** (*Rattus rattus*). **Black rats** usually live close to people. Parks and Wildlife wants to know if **black rats** are present in the Shark Bay area and is asking you to **report any sightings.**

Description: Adults weigh 95 to 340g, and have a body 16.5 to 20.5cm long. Their tails are longer than their bodies. They are usually brown or grey and have large ears and pointed snouts. The introduced house mouse is common in Shark Bay, but it is much smaller.

Habits: Black rats are usually found in coastal areas, near people. They are agile climbers and are often active at night.

Please report any black rat sightings to the Department of Parks and Wildlife

Denham office: (08) 9948 2226
Russell Palmer: (08) 9405 5100 or
email russell.palmer@dpaw.wa.gov.au

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APPENDIX 2

Summary of information provided to Deanne von Senger (Parks and Wildlife) by listed pest control businesses in Geraldton and Kalbarri.

- Pest-a-kill (9965 330) – Dominic (owner/operator). He has been controlling general pests in Denham/Monkey Mia over the past 15 years (excluding the last 2) on a monthly basis (10 times per year) and he has never seen or heard of rats in the area (only mice). The same applies for Useless Loop which he visited annually and Steep Point which he visited twice per year (November and May). One of his employees (Kevin Wallingford) commenced the Shark Bay work two years ago and is currently completing the works in that area. Dominic's company has been awarded the Departmental contract for pest control work at Steep Point, Monkey Mia and the Peron Homestead.

- Rusty's Pest Control (99645199/0407 936 591) – Russell does not operate in the Shark Bay area. However, he fishes on an annual basis at Steep Point and informed me that he did see something that looked like a rat on one of his trips.

- Central West Pest Control (99644563) – John (owner) has been controlling general pests in the Shark Bay area for the past 15 years. He has been tasked with controlling rats on the neighbouring stations (placed baiting stations in the roof – due to sounds) although he has never sited an alive or dead rat.

- Suncity Pest Control (99261903) confirmed that they do not operate in the Shark Bay area.

- Midwest Pest Management (0417 900 835) – Danny (owner/operator) had been tasked with controlling rats/mice, using bait stations, in the Monkey Mia resort around 2 years ago. He was also tasked with the maintenance of rodent bait stations at Nanga Bay Resort where he has observed rat scats and Hamelin Pool Station (baits for maintenance). His work is ongoing with Hamelin Pool Station and likely contract extensions for the others. He confirmed that he has not seen alive or dead rats only the scats.

- Central Fumigation and Pest Management Services (99642133) – They did complete termite control at the Peron Homestead in the past and had not seen rats in the area. They do not currently work in the Shark Bay area.

- Kalbarri Pest Control (99371352 / 0429371392)– Neville (owner/operator) has been operating in the Denham town site and Faure Island over the past 13 years. He has been tasked with putting baits in the roof spaces for residents. He has not observed a dead or alive rat.