

# 2019 Annual Report on the Commercial Harvest of Kangaroos in Western Australia



This report is provided to the Australian Government as a requirement of the *Management Plan for the Commercial Harvest of Kangaroos in Western Australia 2019–2023* under Aim 6, Action 16, Performance Indicator 25.

April 2020



Department of **Biodiversity,  
Conservation and Attractions**

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## 1. HARVEST STATISTICS

The statistics for Western Australia's red and western grey commercial kangaroo harvest are presented below in Tables 1.1 and 1.2 and Figures 1.1 and 1.2. Commercial harvest for red kangaroos in 2019 was 9.2 per cent of the allowable quota and 16.5 per cent for western grey kangaroos.

### 1.1. Red Kangaroos

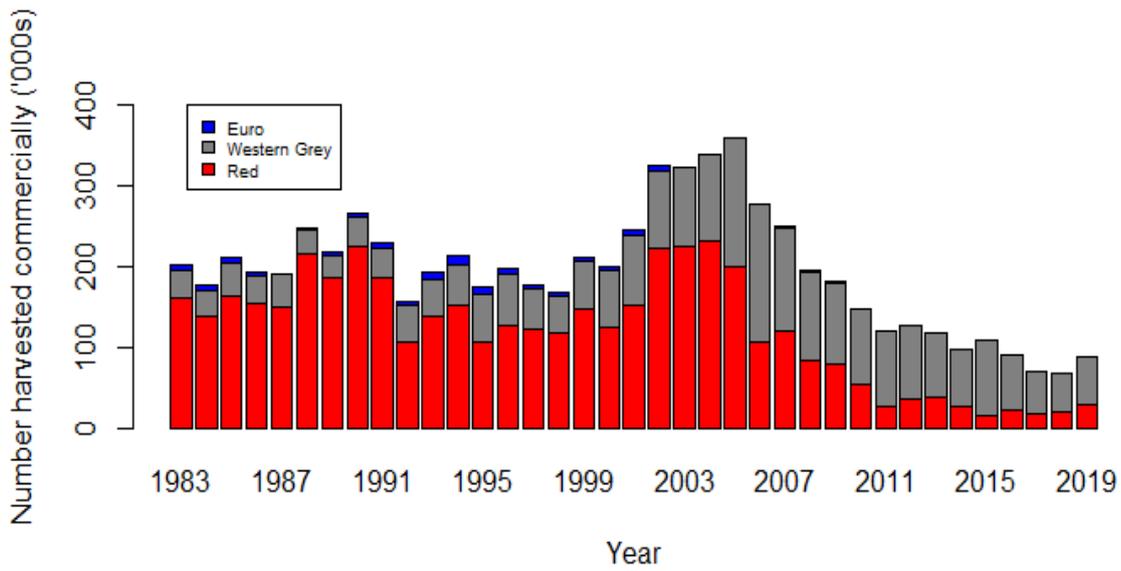
Table 1.1 Commercial harvest figures for red kangaroos for the 2019 calendar year

Population Monitoring Zone	2019 Quota	Number harvested	Sex ratio (% male)	Average male carcass weight (kg)	Average female carcass weight (kg)
Central	145,750	5,460	77.9	26	15.4
Northern	102,620	5,614	58.1	26.6	14.7
South East	62,000	17,472	96	24.7	15.5
<b>Totals (WA)</b>	<b>310,370</b>	<b>28,546</b>	<b>77.9</b>	<b>26</b>	<b>15.4</b>
Proportion state quota harvested	9.2				

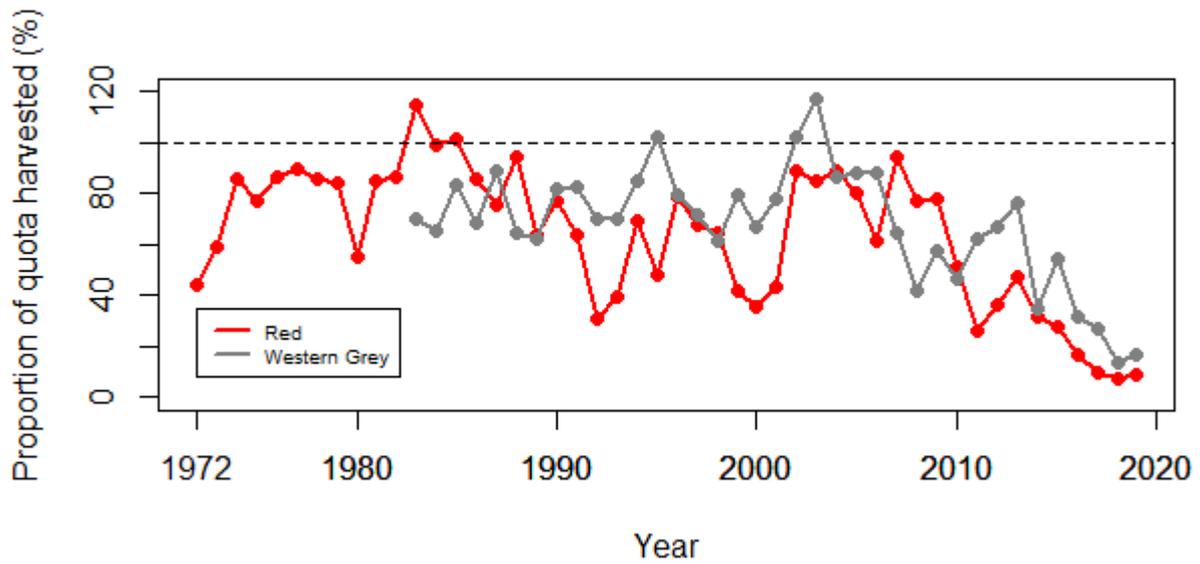
### 1.2. Grey Kangaroos

Table 1.2 Commercial harvest figures for western grey kangaroos for the 2019 calendar year

Population Monitoring Zone	2019 Quota	Number harvested	Sex ratio (% male)	Average male carcass weight (kg)	Average female carcass weight (kg)
Central	95,650	4,355	68.6	75,701	21,299
South East	122,525	7,733	94.1	25.3	21.3
South West	145,395	47,838	69.9	30.6	18.7
<b>Totals (WA)</b>	<b>363,570</b>	<b>59,926</b>	<b>73</b>	<b>29.3</b>	<b>18.5</b>
Proportion state quota harvested	16.5				



**Figure 1.1.** Total harvest in the State for red and western grey kangaroos



**Figure 1.2** Proportion of quota harvested in the State for red and western grey kangaroos

## 2. INDUSTRY COMPLIANCE

Table 2.1 Summary of compliance monitoring of the commercial kangaroo industry in Western Australia for the 2019 calendar year

Category	Commercial Activity			
	Regulation 23 Fauna Taking (commercial products) licence <u>take, supply, preliminary process</u>	Regulation 37 Fauna Processing licence	Regulation 8: Active Chiller Units*	Regulation 10: Licence to Deal in Skins
Licences issued	256	31	83	1
Licensees/premises inspected	0	4	4	0
Alleged offences	0	0	0	0
Type of alleged offence	0	0	0	0
Letters of warning issued	0	0	0	0
Caution notices issued	0	0	0	0
Prosecutions initiated	0	0	0	0
Convictions	0	0	0	0
Dismissals	0	0	0	0
Prosecutions pending	0	0	0	0

\* Active chiller units are those chillers identified on shooter returns where there is at least one shooting day of effort assigned to that chiller during the year.

\*\* *Biodiversity Conservation Act 2016*

## 2. UNUSUAL CIRCUMSTANCES

### 2.1. Rainfall and Drought

The following information is an excerpt from the annual climate summary for Western Australia published by the Bureau of Meteorology (product code IDCKGC51R0; accessed 24 March 2020). The full annual climate summary is available from: <http://www.bom.gov.au/climate/current/annual/wa/summary.shtml>

2019 was the warmest year and second-driest on record for Western Australia. For each month of the year, the State mean maximum temperature was above average, and record warm in January, July, September, November and December. Monthly rainfall was below average for all months for WA, and record dry in spring. Severe tropical cyclone *Veronica* produced heavy rainfall along the Pilbara coast and adjacent inland in late March.

Overall, it was dry across most of WA with record warm daytime temperatures.

- WA annual rainfall was 49% below average and the second driest year on record since 1924.
- Severe tropical cyclone *Veronica* brought heavy rainfall to the Pilbara coast in late March, including Indee which received 263 mm in 24 hours on the 25th, and 634 mm over the 3-day period to the 26th, about twice of its normal annual rainfall
- The rain from *Veronica* ensured areas near the Pilbara coast and adjacent inland had above average annual rain
- Monthly rainfall was below average for all months for WA, and amongst top five driest in May, September and November
- The driest locations were in central and inland south eastern WA with annual rainfall less than 50 mm; an annual total of 46.2 mm at Giles was its second-driest year on record and driest since 1961
- Several sites in the north, central and southeast of the State either had their driest year on record or driest for several decade
- The wettest locations were in the Perth hills and along the State's far southwest with annual rainfall of 900 mm-1050 mm; Northcliffe recorded the highest annual total of the year at 1055.6 mm

Western Australian Rainfall Deciles 1 January to 31 December 2019  
 Distribution Based on Gridded Data  
 Australian Bureau of Meteorology

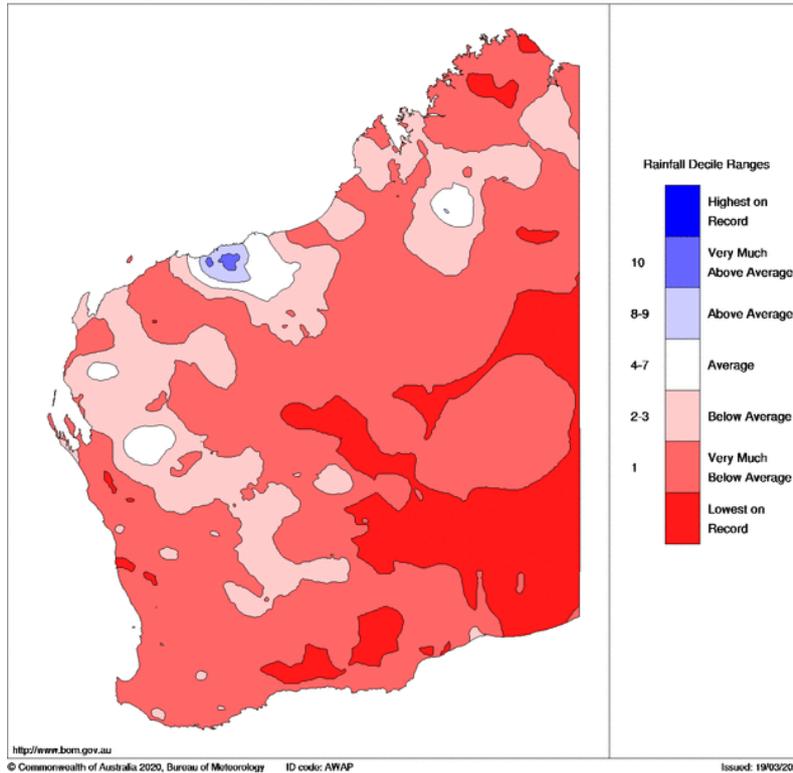


Figure 2.1.A: Rainfall deciles for Western Australia for the 2019 calendar year

Western Australian Rainfall totals (mm) 1 January to 31 December 2019  
 Australian Bureau of Meteorology

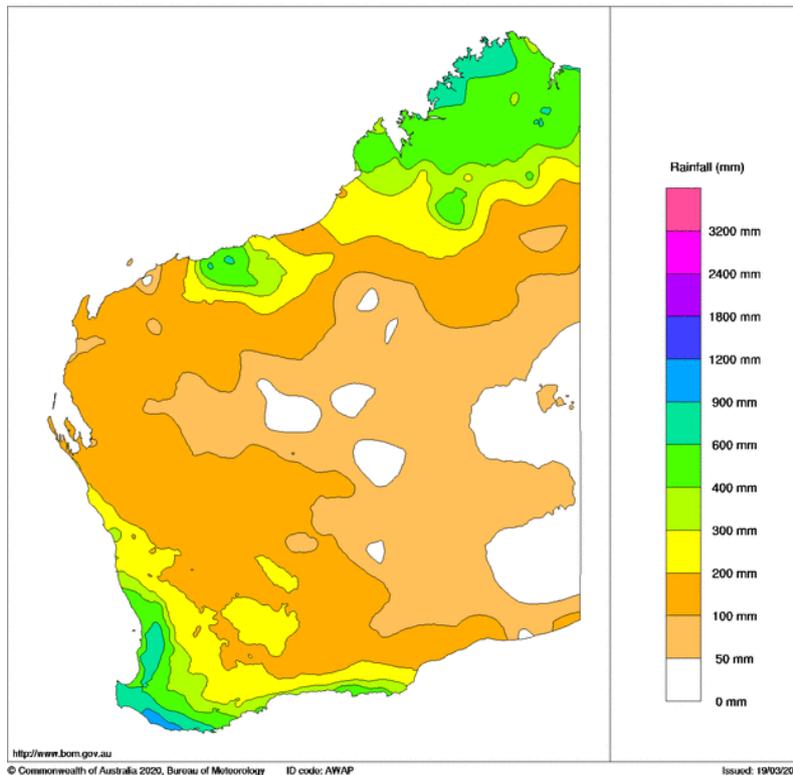


Figure 2.2 .B: Rainfall totals for Western Australia for the 2019 calendar year

Western Australian Rainfall Deficiencies 1 January to 31 December 2019  
 Distribution Based on Gridded Data  
 Australian Bureau of Meteorology

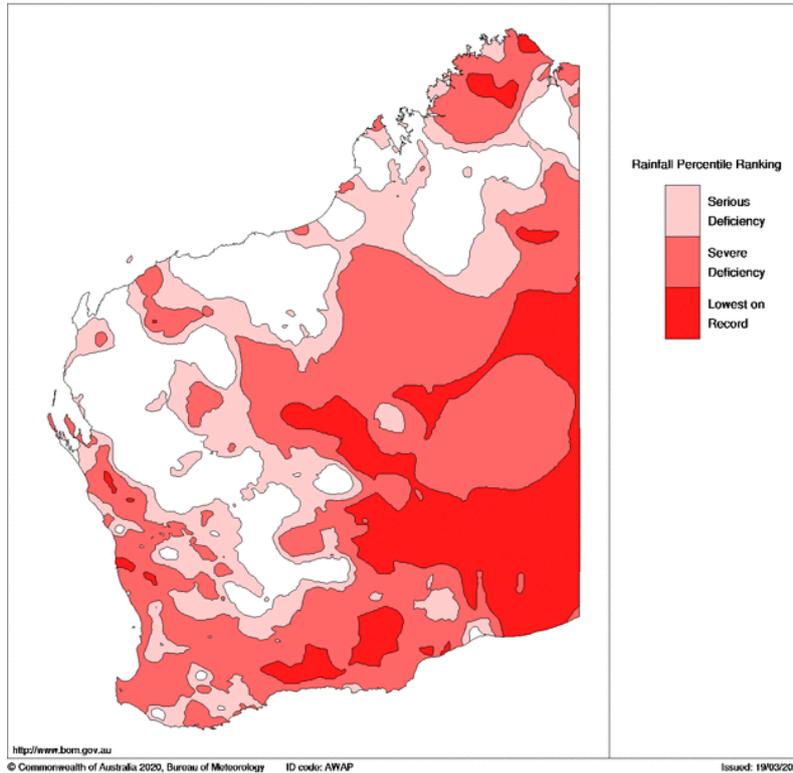


Figure 2.3.C: Drought map for Western Australia for the 2019 calendar year

January to December 2019

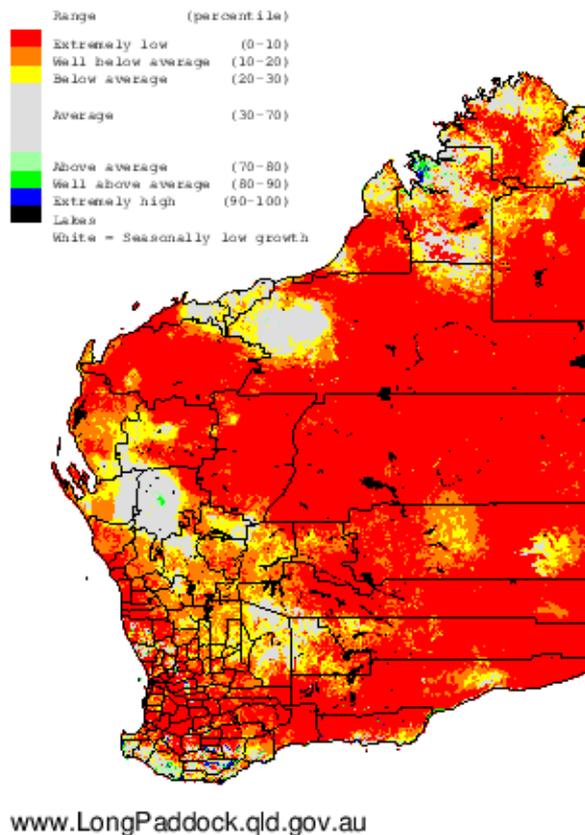


Figure 2.4.D: Pasture growth in Western Australia from January 2019 to December 2019, relative to historical records from 1957

## **2.2. Disease**

No significant disease outbreaks were detected or reported in populations of commercially harvested kangaroo species in Western Australia in 2019.

## **2.3. Market factors**

Limited demand for carcasses from processors, exacerbated by the closure of V.I.P. Petfoods in 2016, continues to contribute to the significant reduction in active shooting of kangaroos for commercial purposes. A few small processors have been established however this has not significantly increased demand across the industry.

## **3. RESEARCH ACTIVITY**

No research or adaptive management experiments related to the commercial harvesting of kangaroos were undertaken or sponsored by the Department in 2019.

#### 4. ASSESSMENT OF PLAN ACTIONS AGAINST PERFORMANCE INDICATORS

Table 4.1 Assessment of Plan against performance indicators

Performance Indicator	Description	Year					Comments
		2019	2020	2021	2022	2023	
1	Licence conditions for the commercial taking, processing and dealing of kangaroos will stipulate that kangaroos cannot be shot, sold or received unless they have been taken in accordance with the Commercial Code.	✓					
2	Copies of the Commercial Code will be made available from the department's website.	✓					See: <a href="http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia">http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia</a>
3	The department will participate in and support any revisions to the nationally-endorsed Commercial Code.	✓					The Department is participating in the review of the Code of Practice.
4	All prospective commercial kangaroo shooters must have completed an accredited test of marksmanship and completed accredited vocational training in Game Harvester Skill Set as a prerequisite before being issued with a licence to take fauna for commercial products.	✓					900-80638V01 - Game Harvester Skill Set.
5	Audits of licences issued for commercial activities are conducted annually to ensure licences are being issued appropriately in accordance with relevant legislation and departmental policies.	✓					
6	Databases are maintained to ensure licensee information is current and accurate.	✓					

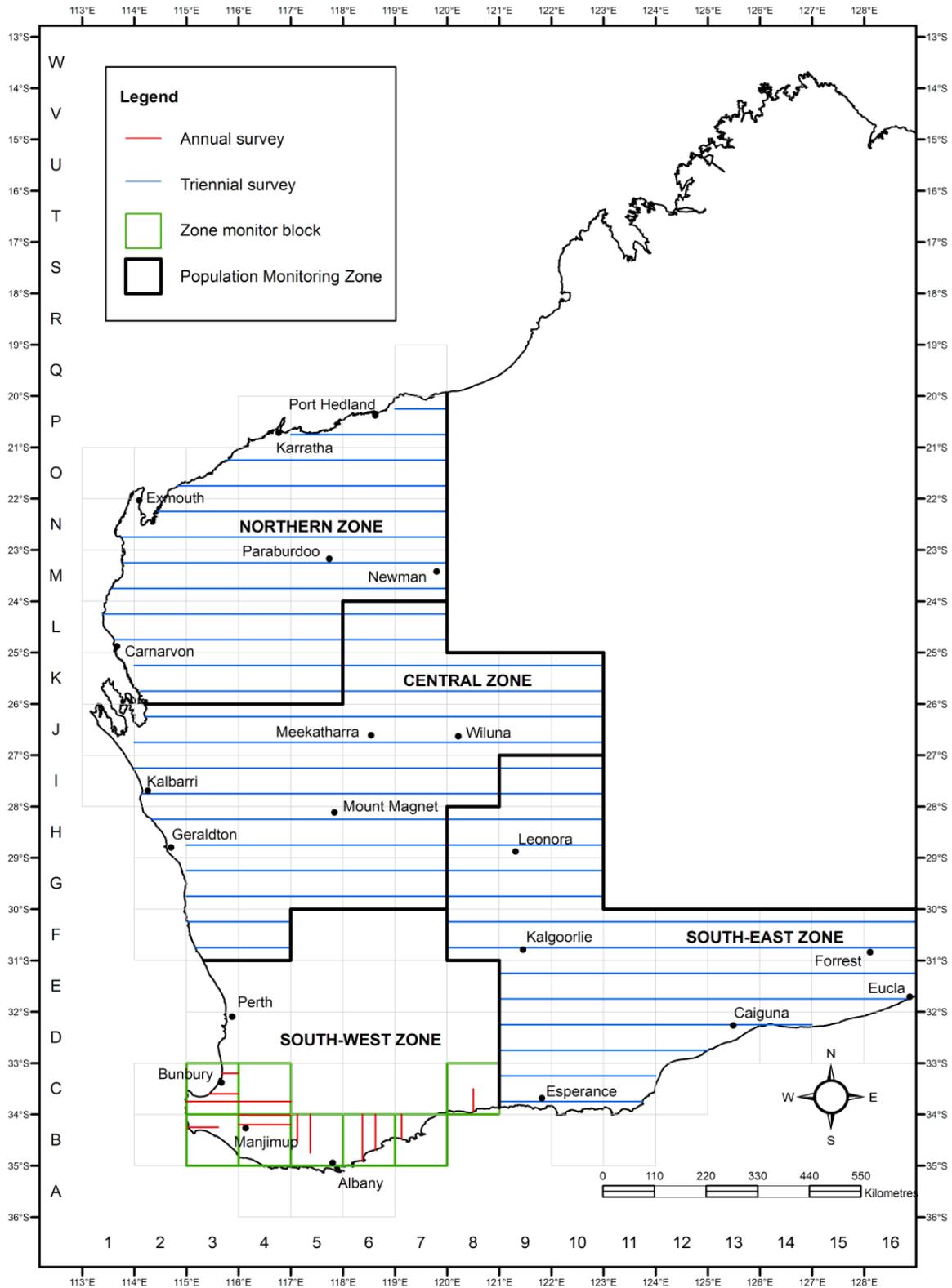
Performance Indicator	Description	Year					Comments
		2019	2020	2021	2022	2023	
7	Licence conditions are reviewed as required, and amended where necessary.	✓					The Department is participating in the review of the Code of Practice.
8	Licensees are advised in writing of any changes to licence conditions within one month of such changes being approved by the CEO or delegate.	✓					
9	All active kangaroo processing establishments are inspected by authorised departmental officers annually to ensure compliance with legislative requirements.	✗					The decline of the commercial kangaroo industry in Western Australia has impacted a number of processors. In 2019 many continued to operate at a very small scale and often only as the need arose. Thirteen per cent of processors were inspected in 2019.
10	At least thirty percent of active chillers are inspected by authorised departmental officers annually to ensure compliance with legislative requirements.	✗					Five percent of active chillers were inspected in 2019. Of the 83 licenced chillers, 30 of these reported less than ten shooting days.
11	Reports of unlicensed activities and activities in breach of legislation and licence conditions are investigated to the fullest extent possible and, where sufficient evidence is available, offenders are issued with expiation notices or prosecuted as appropriate.	✓					
12	Incoming industry returns are reviewed, and discrepancies are investigated.	✓					
13	A compliance database will be maintained and improved to support investigations and inspections.	✓					A revised compliance database is in development.
14	Aerial surveys are undertaken triennially for each monitoring zone and population estimates are calculated in accordance with the Management Plan.	✓					

Performance Indicator	Description	Year					Comments
		2019	2020	2021	2022	2023	
15	Commercial harvest quotas are set in accordance with the Management Plan.	✓					
16	Population Monitoring Zone quotas and the state-wide quotas are never exceeded.	✓					
17	The Commonwealth Government is advised of commercial harvest quotas via a quota report for the following calendar year by 30 November.	✗					The Commonwealth was advised of the commercial harvest quota on 16 December 2019.
18	The quota report will be made available to the public via the department's website.	✓					See: <a href="http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia">http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia</a>
19	Sudden, sustained or acute changes in the information provided through harvest returns will be investigated to identify possible causes of the change.	✓					
20	Commercial kangaroo harvest rates will be reduced or the commercial kangaroo harvest suspended if density estimates reach the thresholds identified in the management plan (WAKMP 2019-2023 Table 2). Any suspensions or reductions will remain in place until surveys or data indicates that kangaroo densities have increased above density thresholds.	✓					
21	Changes to the kangaroo management program will be communicated to relevant stakeholders via the department's website and directly to stakeholders where appropriate.	✓					
22	During the life of the Management Plan, the department will support research on harvested species of kangaroos or commercial harvest management as appropriate.	✓					

Performance Indicator	Description	Year					Comments
		2019	2020	2021	2022	2023	
23	All proposals to undertake active adaptive management experiments are reviewed and assessed by the department in accordance with the criteria outlined in the Management Plan.	✓					
24	As a minimum, trends in population estimates, harvest tallies, carcass weights and sex ratios will be analysed annually and published on the department's website in annual and quota reports.	✓					
25	An annual report will be provided to the Commonwealth Government by 31 March of the following year.	✗					The 2019 Annual Report was provided to the Commonwealth on 14 April 2020.
26	KMAC meets at least once per year to review the progress of the Management Plan in relation to the goal and aims of the plan.	✓					
27	KMAC is provided with annual updates on the commercial harvest and issue of tags issue throughout the life of the Management Plan.	✓					
28	KMAC is provided with other relevant information as required or as necessary throughout the life of the Management Plan.	✓					

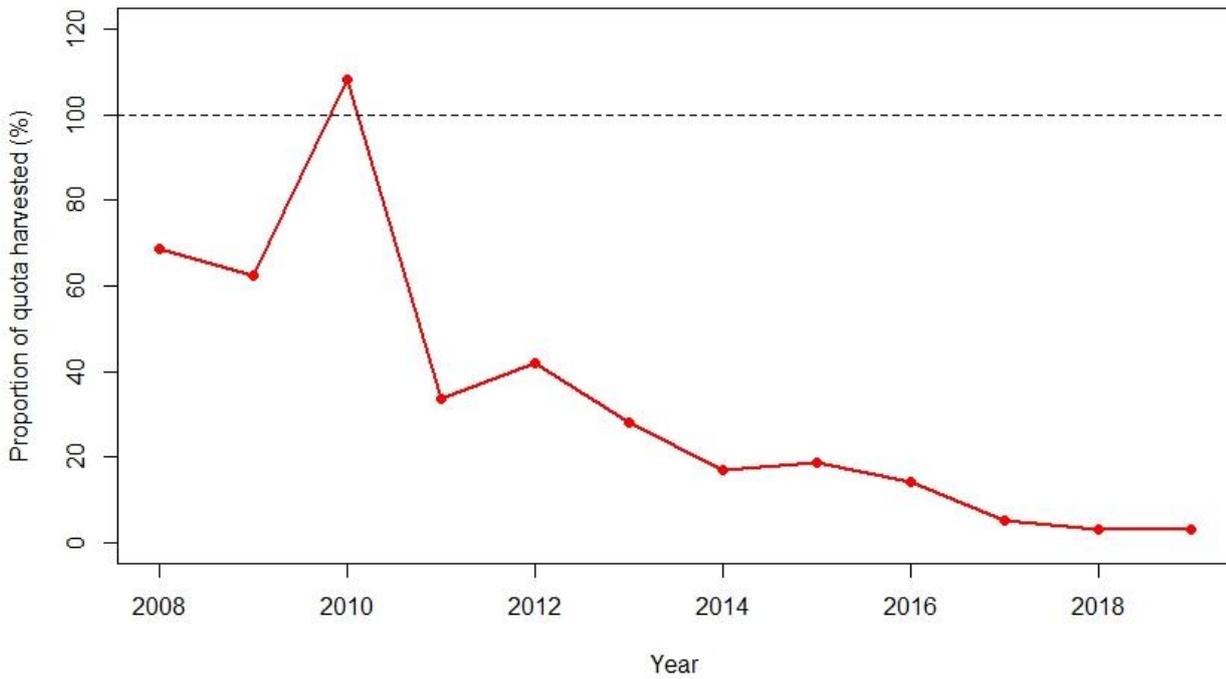
Performance Indicator	Description	Year					Comments
		2019	2020	2021	2022	2023	
29	Throughout the life of the Management Plan, the department's website will contain the following information as a minimum standard: <ul style="list-style-type: none"> <li>• the current management plan;</li> <li>• the current quota report;</li> <li>• the current annual report submitted to the Commonwealth Government;</li> <li>• information sheets on kangaroo biology and management;</li> <li>• the Commercial Code; and</li> <li>• relevant contact information.</li> </ul>	✓					See: <a href="http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia">http://www.dpaw.wa.gov.au/plants-and-animals/animals/kangaroo-management-in-western-australia</a>
30	Publicly available information on kangaroo management is provided to interested parties as soon as practicable on request.	✓					
31	Relevant departmental staff will participate in interviews with the media where appropriate.	✓					
32	Media releases are prepared for issues of interest to the community when appropriate.	✓					
33	As a minimum, all first time commercial kangaroo licence holders, or those who have not held a valid licence during the term of the current Management Plan, will be provided with an up to date information pack to make licence holders aware of relevant requirements and responsibilities.	✓					

## APPENDIX 1 Harvest Statistics for Monitoring Zones

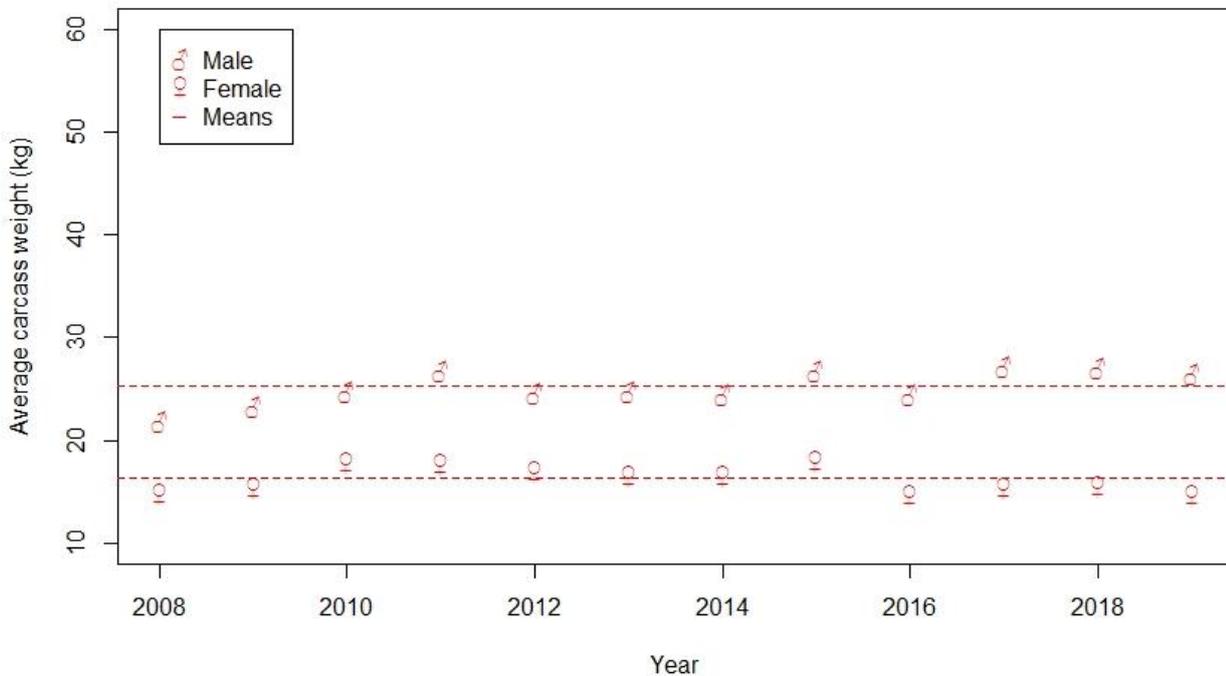


Map of Population monitoring zones for commercial harvesting of kangaroos in Western Australia.

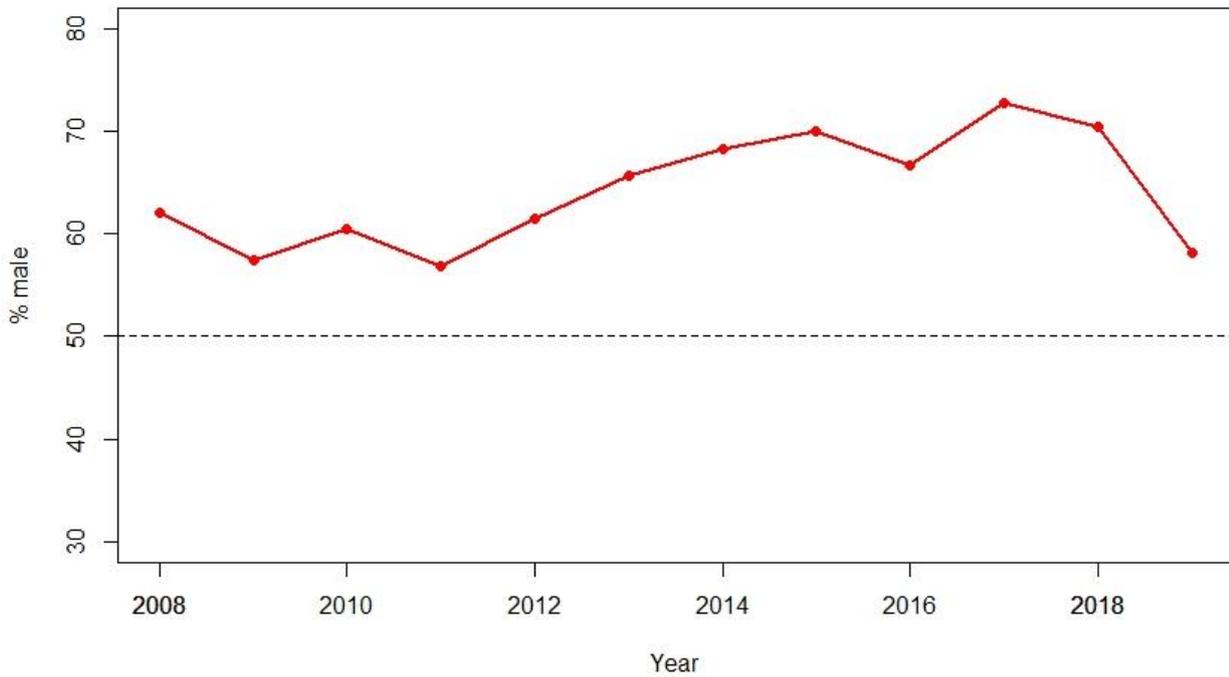
### 1. Northern Zone



**Figure A1.1.** Proportion of total quota harvested (%) for red kangaroos in the Northern Zone between 2008 and 2019.

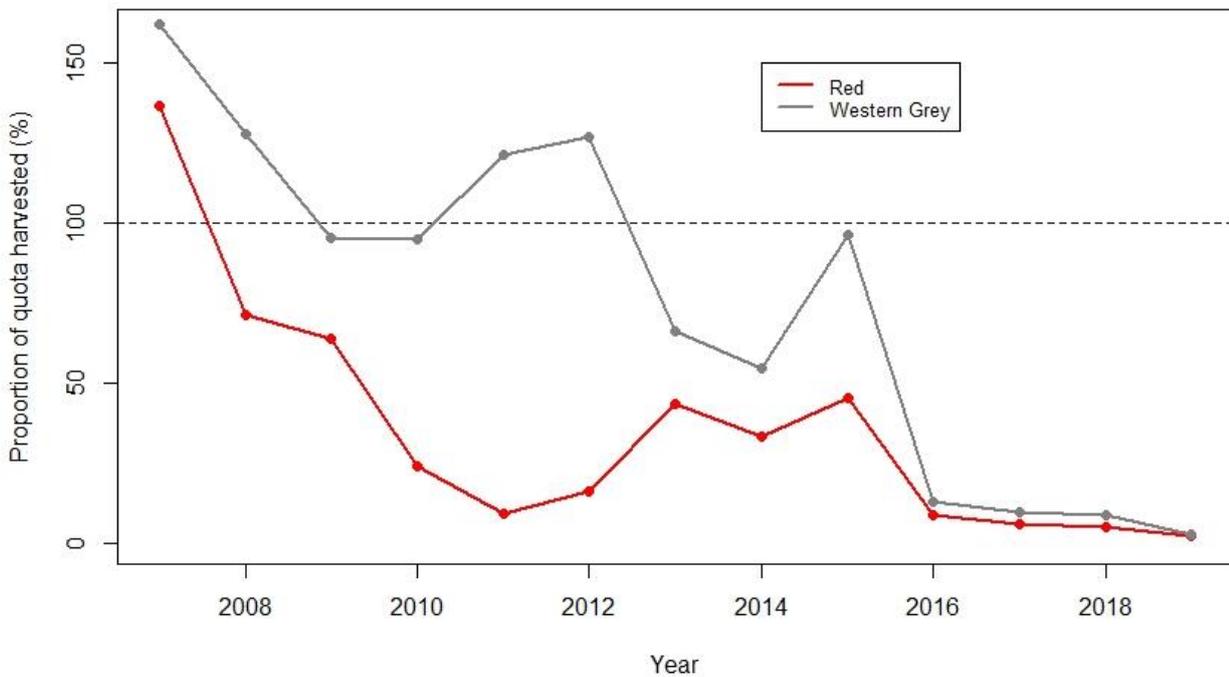


**Figure A1.2.** Average carcass weight of male and female red kangaroos harvested in the Northern Zone between 2008 and 2019. The upper red dashed line represents the average carcass weight for male kangaroos across all years and the lower red dashed line is the average carcass weight for females.

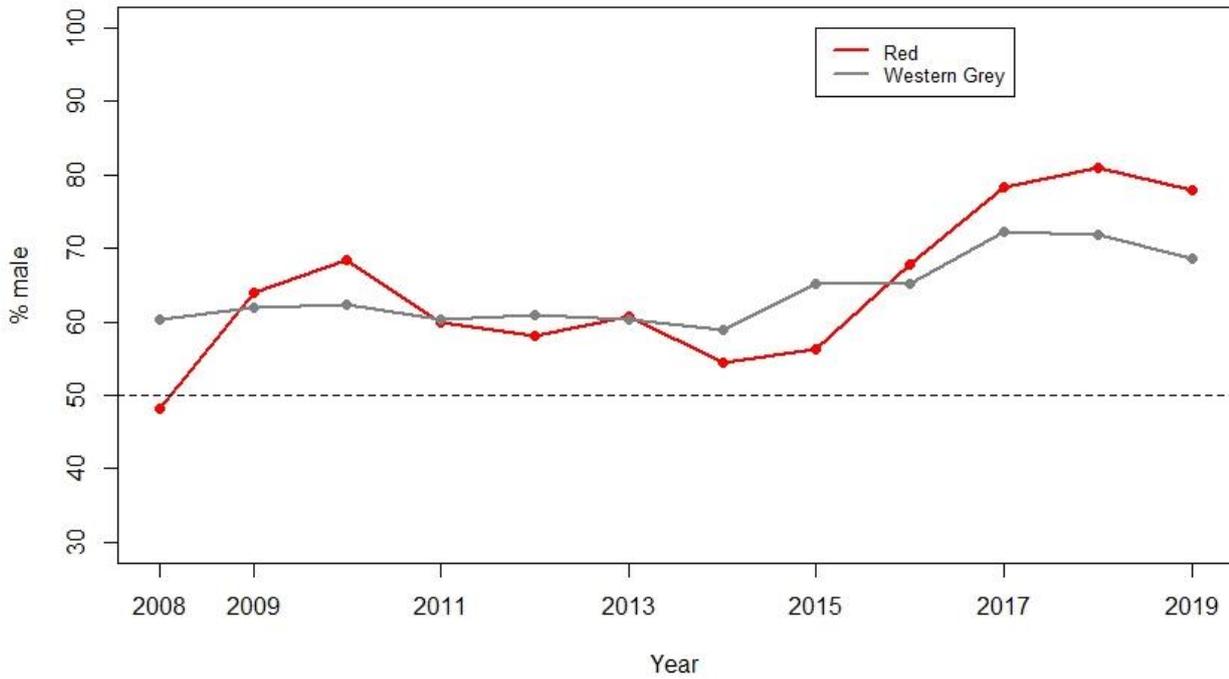


**Figure A1.3.** Sex ratio (expressed as a percentage) of male to female red kangaroos harvested in the Northern Zone between 2008 and 2019.

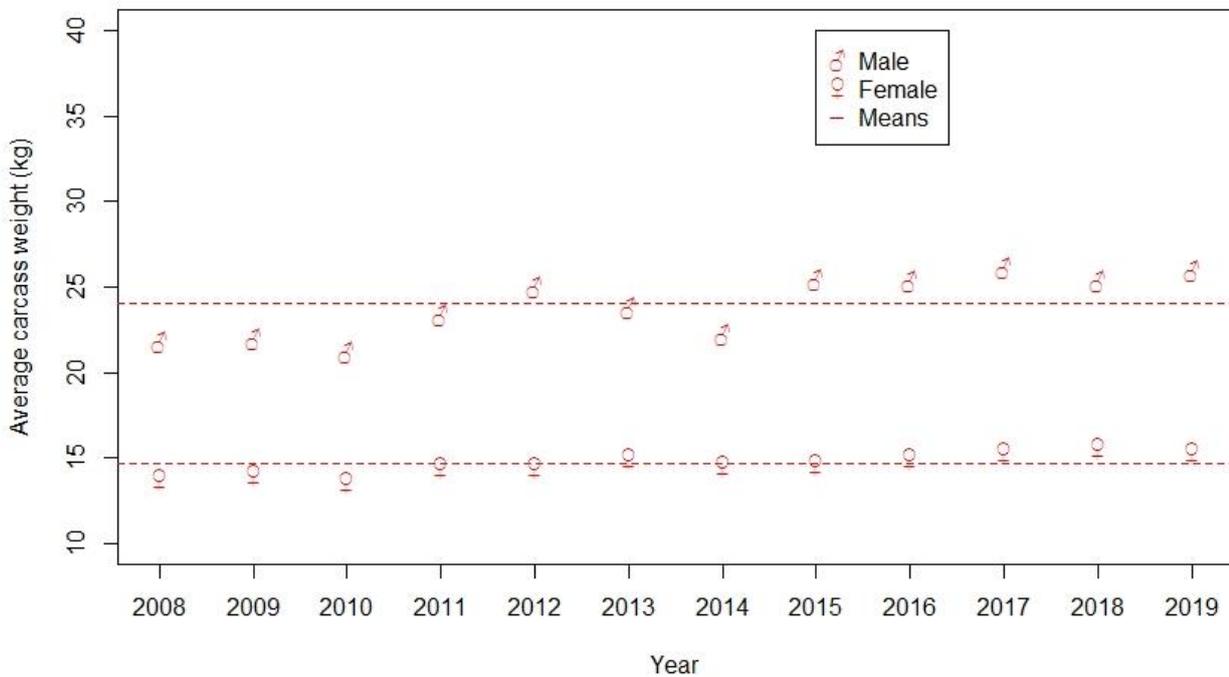
## 2. Central Zone



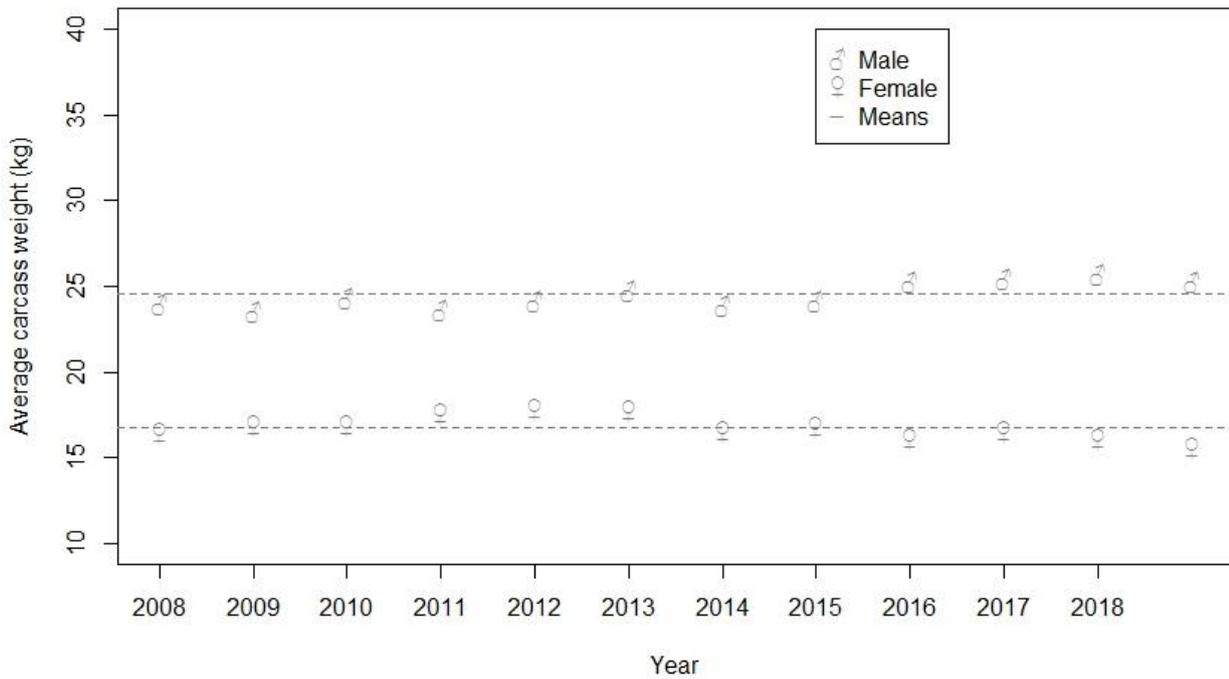
**Figure A2.1.** Proportion of total quota harvested (%) for red and western grey kangaroos in the Central Zone between 2008 and 2019.



**Figure A2.2.** Sex ratio (expressed as a percentage) of male to female kangaroos harvested in the Central Zone between 2008 and 2019.

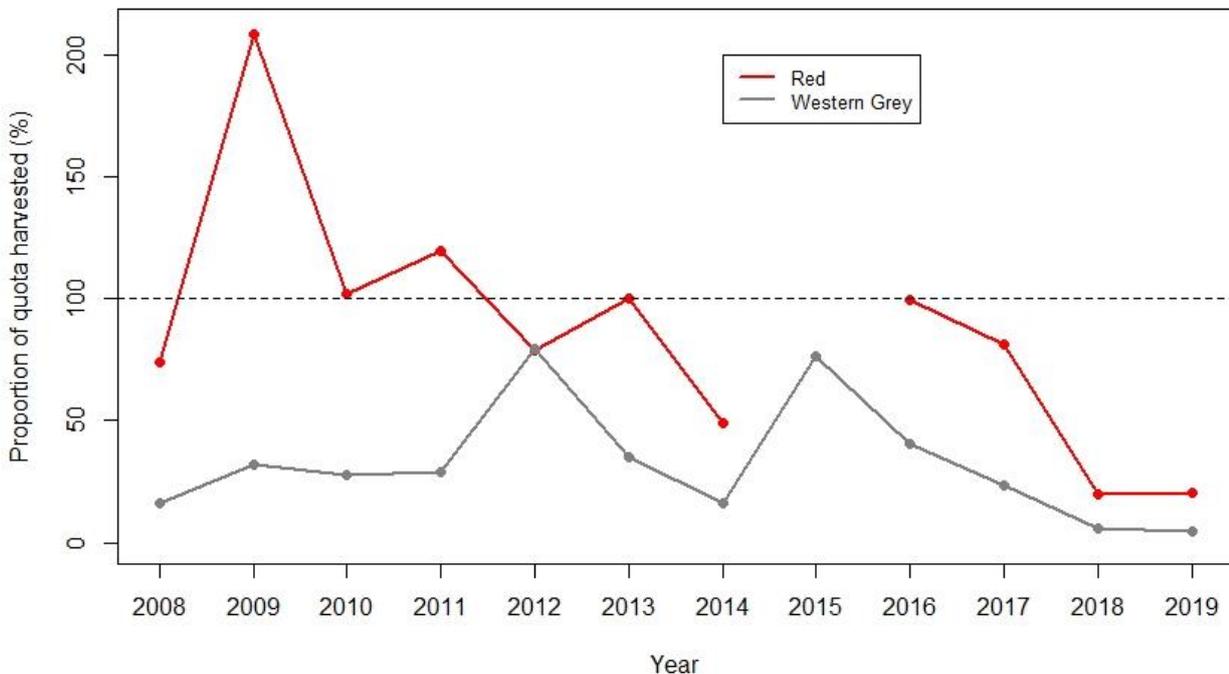


**Figure A2.3.** Average carcass weight of male and female red kangaroos harvested in the Central Zone between 2008 and 2019. The upper red dashed line represents the average carcass weight for male kangaroos across all years and the lower red dashed line is the average carcass weight for females.

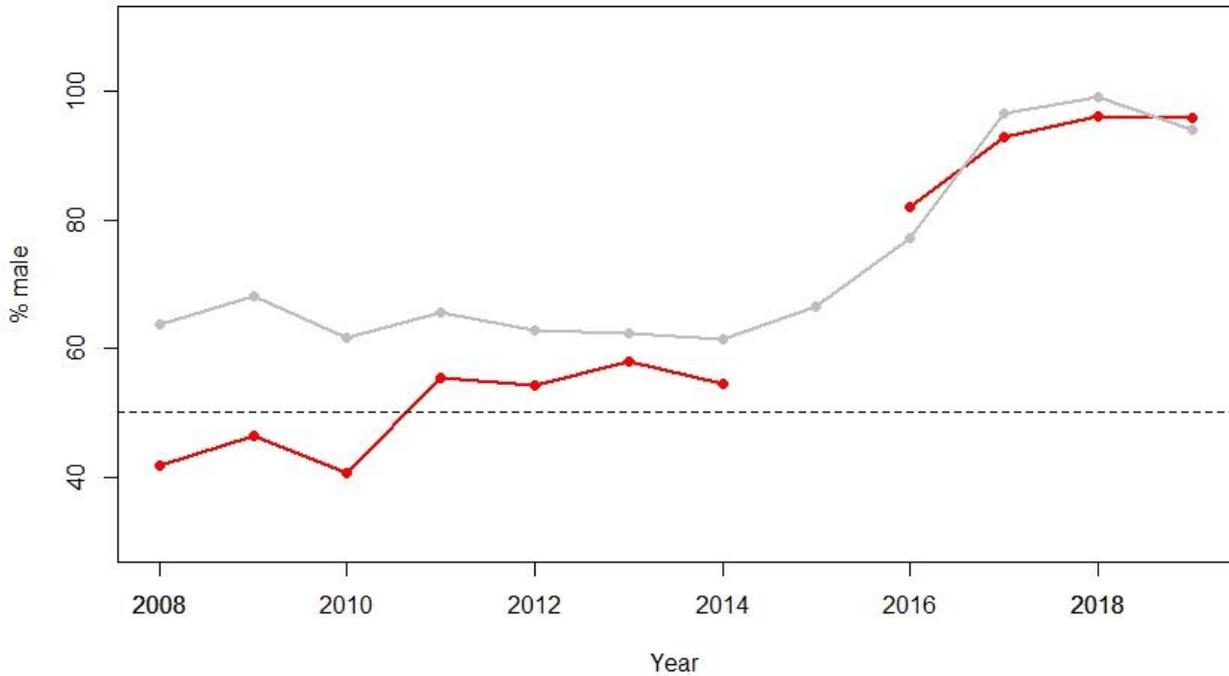


**Figure A2.4.** Average carcass weight of male and female grey kangaroos harvested in the Central Zone between 2008 and 2019. The upper grey dashed line represents the average carcass weight for male kangaroos across all years and the lower grey dashed line is the average carcass weight for females.

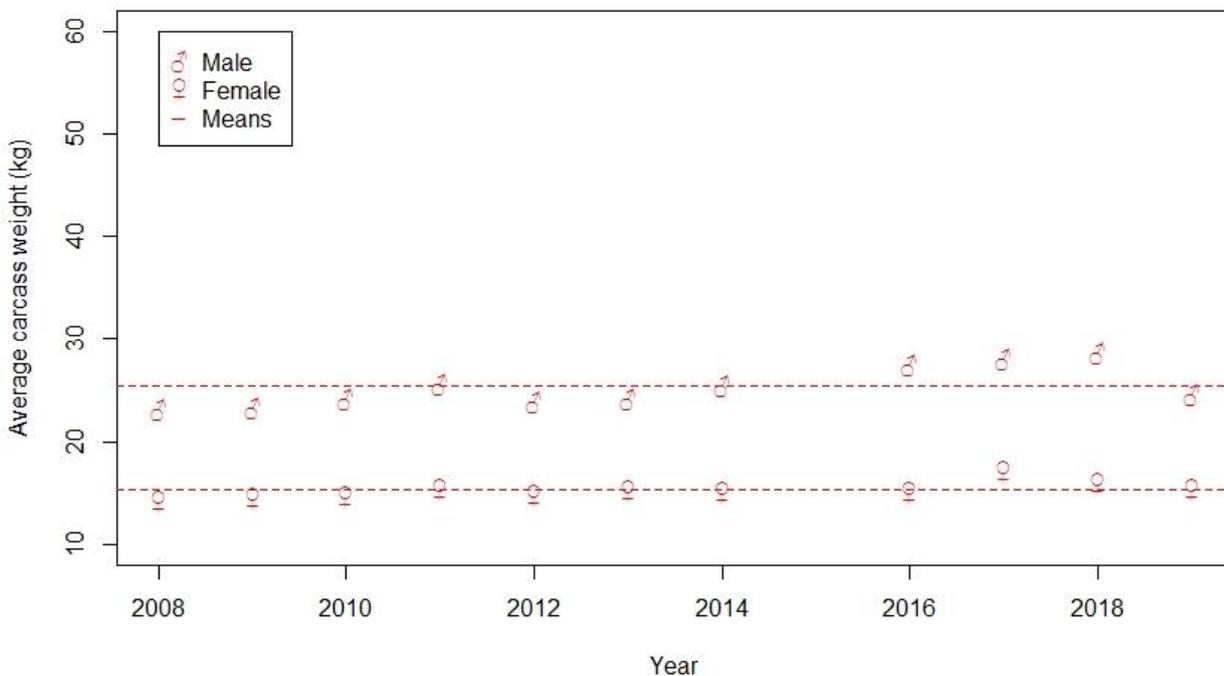
### 3. South East Zone



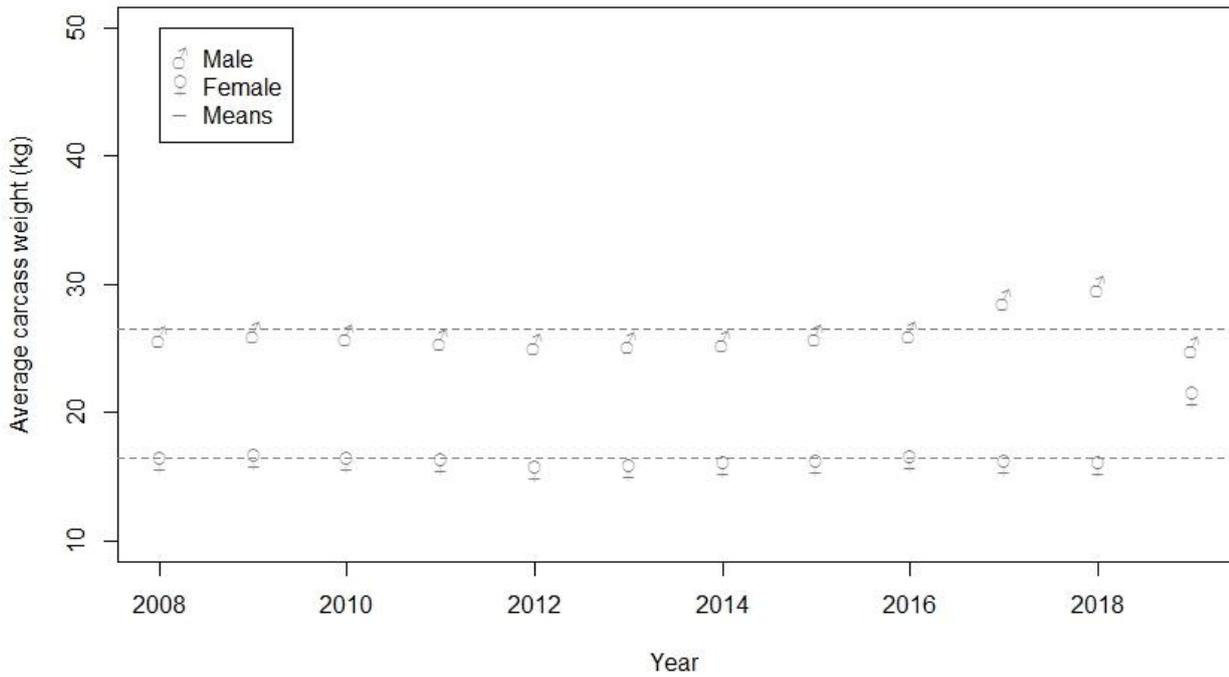
**Figure A3.1.** Proportion of total quota harvested (%) for red and western grey kangaroos in the South East Zone between 2008 and 2019. Note: No red kangaroo harvest was taken in 2015.



**Figure A3.2.** Sex ratio (expressed as a percentage) of male to female kangaroos harvested in the South East Zone between 2008 and 2019. Note: No red kangaroo harvest was taken in 2015.

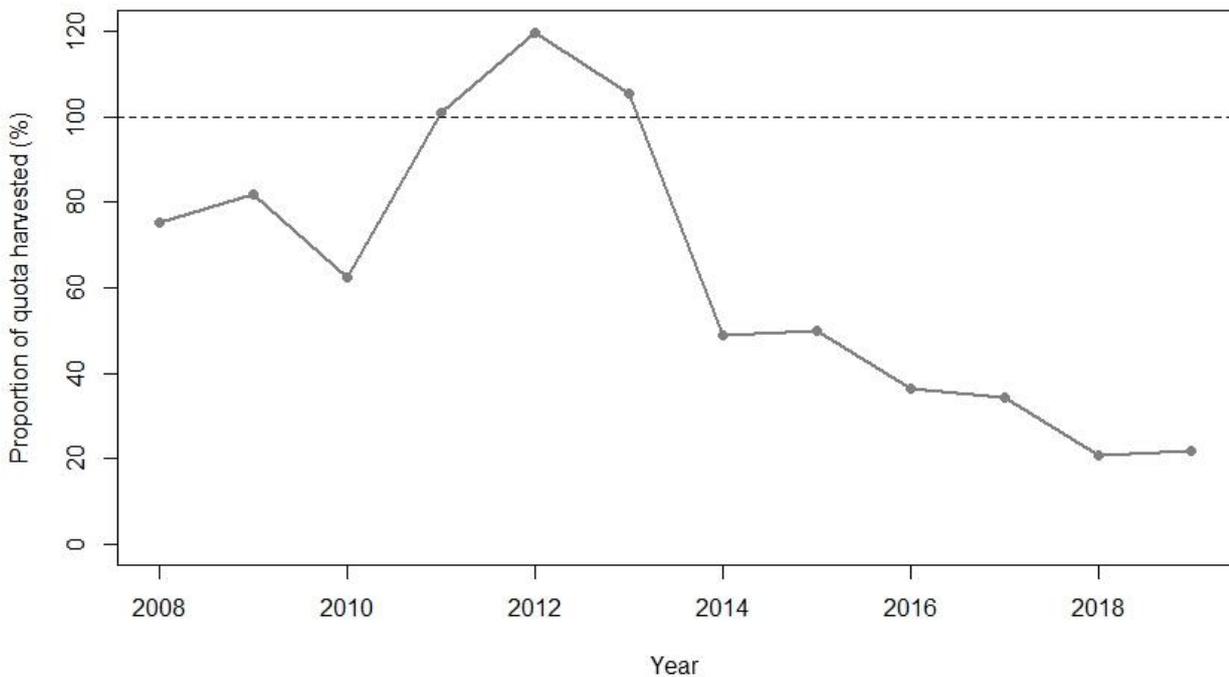


**Figure A3.3.** Average carcass weight of male and female red kangaroos harvested in the South East Zone between 2008 and 2019. The upper red dashed line represents the average carcass weight for male kangaroos across all years and the lower red dashed line is the average carcass weight for females. Note: No red kangaroo harvest was taken in 2015.

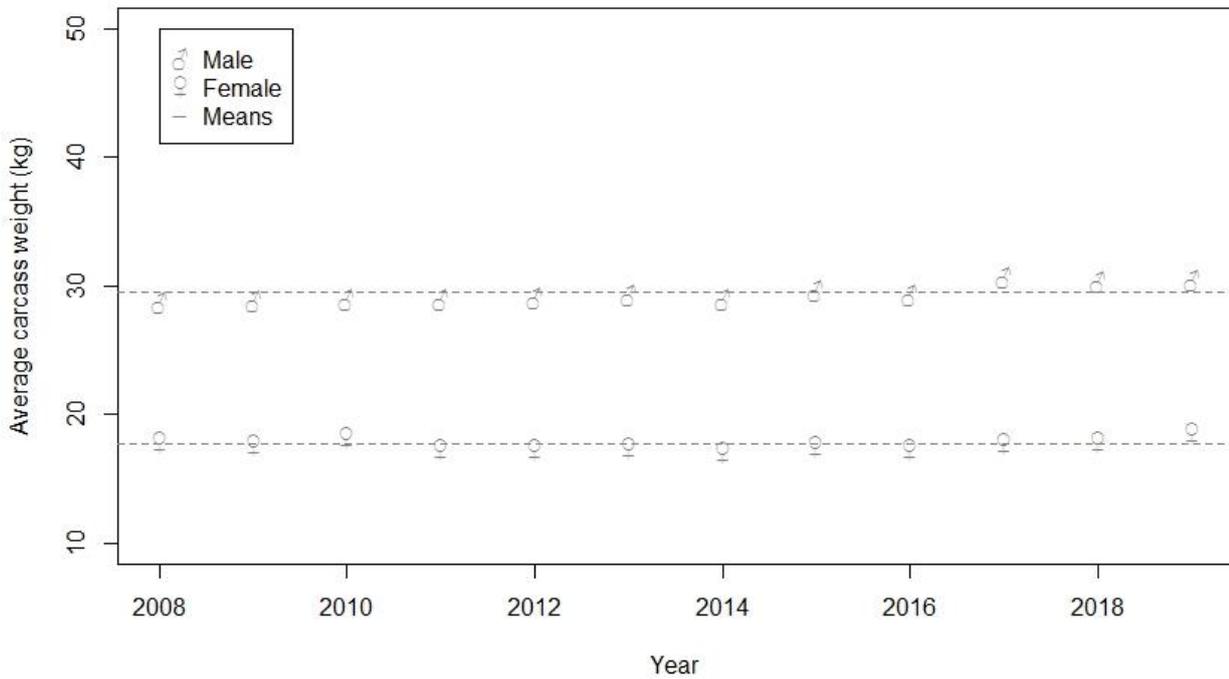


**Figure A3.4.** Average carcass weight of male and female grey kangaroos harvested in the South East Zone between 2008 and 2019. The upper grey dashed line represents the average carcass weight for male kangaroos across all years and the lower grey dashed line is the average carcass weight for females.

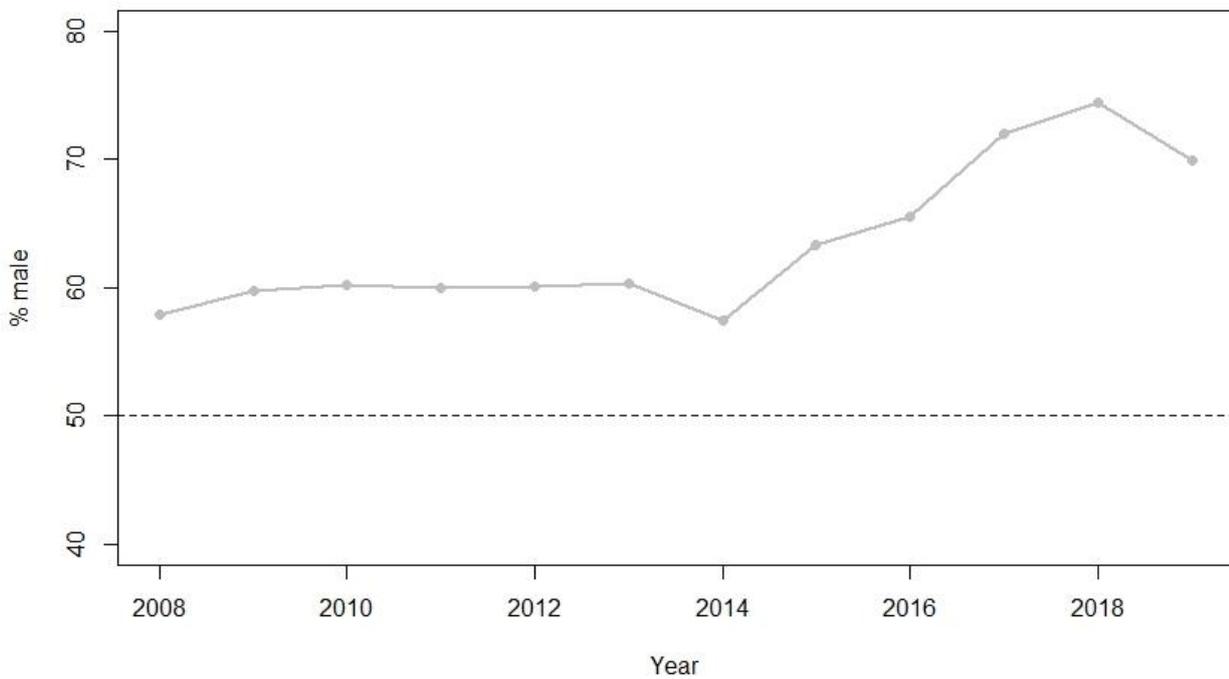
#### 4. South West Zone



**Figure A4.1.** Proportion of total quota harvested (%) for grey kangaroos in the South West Zone between 2008 and 2019.



**Figure A4.2.** Average carcass weight of male and female grey kangaroos harvested in the South West Zone between 2008 and 2019. The upper grey dashed line represents the average carcass weight for male kangaroos across all years and the lower grey dashed line is the average carcass weight for females.



**Figure A4.3.** Sex ratio (as a percentage) of male to female grey kangaroos harvested in the South West Zone between 2008 and 2019.