

# 2022 Harvest Report

Commercial Kangaroo Harvest  
South Australia



**Government  
of South Australia**

Department for  
Environment and Water

Department for Environment and Water

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# Foreword

Kangaroos are an iconic part of South Australian landscapes. They are valued for their role in ecosystems, and as a resource that can be used sustainably. The Department for Environment and Water (DEW) is responsible for the conservation and management of kangaroos in South Australia in accordance with the *National Parks and Wildlife Act 1972* (NPW Act). DEW responsibilities range from policy leadership to on-ground operations in consultation with government, industry and communities.

Widespread changes to the environment since European settlement have influenced the abundance of many native species. Some species have declined in number, while others have adapted to the changes and can exploit the opportunities provided by altered habitats. Those species which have adapted well – including kangaroos – are now present in large numbers, or are more widespread than before.

Large numbers of kangaroos may conflict with some land uses and the objectives for which land is being managed. When this conflict occurs, kangaroos can cause detrimental impacts that may be environmental, economic, or social in nature. In years of drought, these conflicts are magnified, especially where localised movement of kangaroos may occur as they seek feed and water resources.

The NPW Act provides for the commercial harvest of the common kangaroo species (Red Kangaroo, Western Grey Kangaroo, Eastern Grey Kangaroo, Euro and Tammar Wallaby) and also for the destruction of kangaroos for the purposes of mitigating or preventing their impacts. High-quality science, effective monitoring and compliance provide the foundation for the management of our environment and natural resources, including our kangaroo species. This is achieved through appropriate management of legislation, research, investigations, assessments, monitoring and evaluation.

DEW's partnerships with industries, government agencies, Landscape Boards and the community ensures that there is continual improvement in its kangaroo management capability and capacity, and that the best skills and expertise are used to inform decision making.



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# Summary

## Legislation

All kangaroo species in South Australia are protected under the *National Parks and Wildlife Act 1972* (NPW Act), have value in ecosystem processes, and contribute to biodiversity. The NPW Act (cf. section 60G) and associated regulations allow for the sustainable harvest of the following common kangaroo species:

- Red Kangaroo (*Macropus rufus*)
- Western Grey Kangaroo (*M. fuliginosus*)
- Eastern Grey Kangaroo (*M. giganteus*)
- Euro (*M. robustus*)
- Tammar Wallaby (*M. eugenii*)

The NPW Act recognises the genus of all of these species as being *Macropus*, rather than *Notamacropus* or *Osphranter*, as some are now recognised in the Australian Faunal Directory, therefore *Macropus* has been used in this report for consistency.

The wildlife trade provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) regulate the export of kangaroo products from Australia. The harvest and export of these protected species requires a management plan endorsed under the NPW Act and a Wildlife Trade Management Plan endorsed under the EPBC Act.

The Department for Environment and Water (DEW) manages the commercial harvest of kangaroos in South Australia. Management of the commercial harvest is currently implemented through the South Australian Commercial Kangaroo Management Plan 2020 – 2024 (the Management Plan). The Management Plan meets the requirements of the NPW Act, and the EPBC Act, as an approved Wildlife Trade Management Plan.

This harvest report details the operation of the Management Plan and includes the following information:

- Harvest for 2022, by harvest sub-region and species
- Harvest quota management
- Special Land Management Quota issued
- Non-commercial destruction statistics
- Compliance statistics
- Current management programs on reserves
- Research that the Department is involved with, relating to kangaroos.

## 2022 Quotas

In accordance with the Management Plan, annual harvest quotas were based on the results of kangaroo population surveys (aerial and ground) and modelled population estimates.

## 2022 Harvest regions

The Management Plan defines five harvest regions that consist of 17 sub-regions (Table 1 and Figure 1). Harvest sub-regions are primarily based on the administrative boundaries of the former Soil Conservation Board districts (or an amalgamation thereof).

*Table 1: Kangaroo harvest regions and sub-regions for South Australia during 2022.*

Harvest Region	Harvest Sub-region
Eastern Pastoral	North Flinders
	North East Pastoral
	Eastern Districts
	Mallee
Western Pastoral	Marla-Oodnadatta
	Marree (inside dog fence)
	Marree (outside dog fence)
	Kingooonya Gawler Ranges
Eastern Agricultural	South Flinders Yorke Mid North
Western Agricultural	Eyre East Eyre West
Southern Agricultural	Hills and Fleurieu
	Kangaroo Island
	Upper South East
	Lower South East

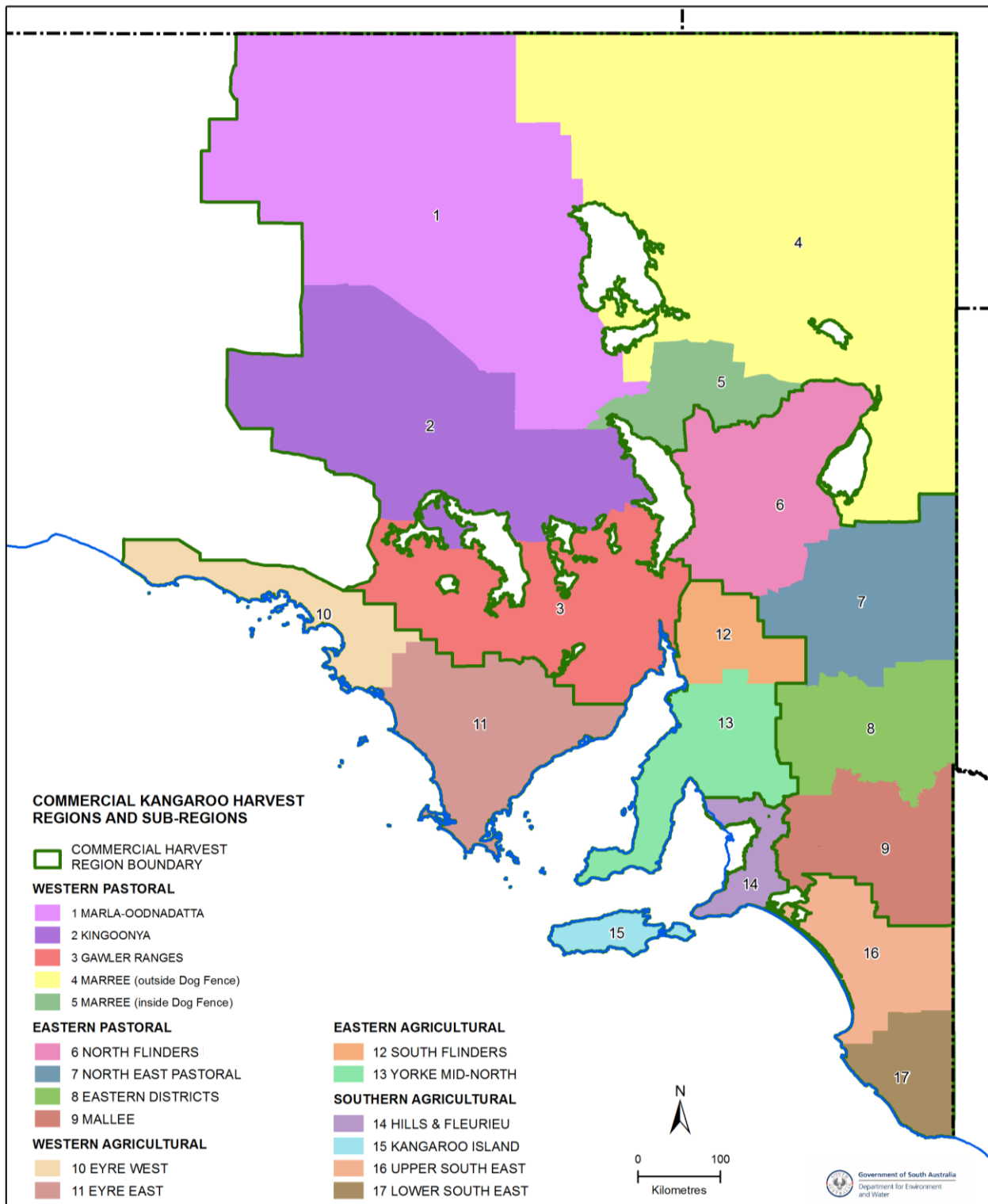


Figure 1: Commercial Kangaroo Harvest regions and sub-regions of South Australia

# 2022 Harvest

Harvest returns are received each month by DEW from kangaroo field processors (shooters) and kangaroo meat processors. Data from kangaroo field processor returns may be subject to amendment (During 2022, 49,379 Red Kangaroos were harvested, the highest number of the 5 species harvested. Western Grey Kangaroos were the next most harvested species (37,148; Table 3). Overall, 100,896 kangaroos were harvested during 2022, which is slightly higher than for 2021 (97,389 kangaroos, Table 3).

Table 2). Data sourced from kangaroo meat processor returns (Table 3) are regarded as the more accurate in terms of numbers, as these data are related to payments made to kangaroo field processors.

All harvest and quota data presented in this report includes the additional sustainable use quota issued from 1 July 2022 for Eastern and Western Grey Kangaroos in the Lower South East harvest sub-region (refer to DEW (2022) for more information).

During 2022, 49,379 Red Kangaroos were harvested, the highest number of the 5 species harvested. Western Grey Kangaroos were the next most harvested species (37,148; Table 3). Overall, 100,896 kangaroos were harvested during 2022, which is slightly higher than for 2021 (97,389 kangaroos, Table 3).

*Table 2: Harvest statistics from kangaroo field processor returns for the 2022 calendar year.*

Species	Pop. est.	Quota*	Harvest*	% Quota harvested
Red Kangaroo	1,387,013	257,000	49,379	19%
Western Grey Kangaroo	1,011,909	159,000	37,148	23%
Euro	302,821	27,800	7,739	28%
Eastern Grey Kangaroo	92,317	8,500	6,779	80%
Tammar Wallaby	42,221	3,500	135	4%
<b>Total</b>	<b>2,836,281</b>	<b>455,800</b>	<b>101,180</b>	<b>22%</b>

\* Including Special Land Management Quota.

There is a discrepancy between meat processor and field processor totals of 284 kangaroo carcasses. This represents 0.06% of the quota and is not considered significant, given the varied sources from which these data are compiled. The higher number of kangaroos recorded using the field processor returns may relate to outstanding issues awaiting resolution with field processors and meat processors, where errors have been identified on their returns. The discrepancy may change once these matters have been resolved.

*Table 3: Harvest statistics from kangaroo meat processor returns for the 2022 and 2021 calendar years.*

Species	Quota*	Harvest*	% Quota harvested
Red Kangaroo			
2022	257,000	49,371	19%
2021	214,100	41,775	20%
Western Grey Kangaroo			
2022	159,000	37,064	23%
2021	165,100	42,063	25%
Euro			
2022	27,800	7,682	28%
2021	60,800	7,918	13%
Eastern Grey Kangaroo			
2022	8,500	6,644	78%
2021	5,700	5,633	99%
Tammar Wallaby			
2022	3,500	135	4%
2021	3,500	0	0%
<b>Total</b>			
<b>2022</b>	<b>455,800</b>	<b>100,896</b>	<b>22%</b>
<b>2021</b>	<b>449,200</b>	<b>97,389</b>	<b>22%</b>

\* Including Special Land Management Quota.



## Harvest region data

The 2022 kangaroo harvest data by harvest region and species is provided in Tables 4-8 and is sourced from kangaroo field processor returns. These tables do not include the Special Land Management Quota (SLMQ) which is detailed in the Harvest Quota Management section.

The largest harvest of Red Kangaroos occurred in the Eastern Pastoral harvest region, with 21,866 kangaroos harvested, however, the harvest region with the highest percentage of available quota harvested was Eastern Agricultural (84%, Table 4). Western Grey Kangaroos had the highest harvest in the Southern Agricultural harvest region of 13,268, but the harvest region with the largest percentage of harvest was Eastern Agricultural with 41% of the available quota harvested (Table 5). Euros were most harvested in both total take and percentage of quota taken in the Eastern Agricultural harvest region (4,166 kangaroos, 51% of quota, Table 6). Eastern Grey Kangaroos were available for harvest in one harvest sub-region (Lower South East) within the Southern Agricultural harvest region and had the highest proportion of quota harvested of any species, with 6,779 kangaroos harvested, equating to 98% of quota (Table 7). Tammar Wallabies were first harvested from Kangaroo Island during 2022 with 135 wallabies harvested (Table 8).

The male bias in the harvest has been declining since 2018, most likely in response to the lifting of the 'male only' harvest requirement of some kangaroo meat processors and drought conditions changing population demographics. During 2018, the sex bias was reported as 70-95% male bias for the Red and Western Grey Kangaroos in the 2018 Harvest Report (DEW 2019). During 2022, the male bias in the large kangaroo species increased to 49 – 68% from the 2021 bias of 45-63% (Table 4, 5 and 7). Euros continue to show a high male bias of 96-100% as females are not usually economically viable due to their small size (Table 6). The male bias of Tammar Wallabies harvested in 2022 was 55%, most likely due to the small size of both males and females (Table 8).

*Table 4: Harvest and sex bias of Red Kangaroos during 2022 calendar year.*

Harvest Region	Pop. est.	% p*	Quota <sup>1</sup>	Harvest <sup>1,2</sup>	% q*	# Females	# Males	Male bias (%)
Western Pastoral	864,373	0-20	133,500	19,654	15%	6,242	13,409	68%
Eastern Pastoral	471,621	17-20	93,300	21,866	23%	8,696	13,169	60%
Eastern Agricultural	51,019	10-20	9,400	7,859	84%	2,648	5,210	66%
<b>Total</b>	<b>1,387,013</b>	<b>0-20</b>	<b>236,200</b>	<b>49,379</b>	<b>21%</b>	<b>17,586</b>	<b>31,788</b>	<b>64%</b>

<sup>1</sup>Quota and Harvest do not include Special Land Management Quota

<sup>2</sup> Harvest includes 5 carcasses left in field (did not meet industry standards) that are not included in the # Females and # Males.

\* % q = commercial take as percentage of approved quota; % p = allowed commercial take as percentage of population estimate (range relates to individual harvest sub-region quotas).

Table 5: Harvest and sex bias of Western Grey Kangaroos during 2022 calendar year.

Harvest Region	Pop. est.	% p*	Quota <sup>1</sup>	Harvest <sup>1,2</sup>	% q*	# Females	# Males	Male bias (%)
Western Pastoral	177,776	15	26,600	4,190	16%	1,681	2,509	60%
Eastern Pastoral	156,575	10-15	21,300	5,175	24%	2,239	2,936	57%
Western Agricultural	219,181	15	32,700	1,598	5%	816	782	49%
Eastern Agricultural	198,653	15	29,700	12,217	41%	5,443	6,771	55%
Southern Agricultural	259,724	7.5-15	33,600	13,268	39%	6,317	6,949	52%
<b>Total</b>	<b>1,011,909</b>	<b>7.5-15</b>	<b>143,900</b>	<b>36,448</b>	<b>25%</b>	<b>16,496</b>	<b>19,947</b>	<b>55%</b>

<sup>1</sup>Quota and Harvest do not include Special Land Management Quota

<sup>2</sup>Harvest includes 5 carcasses left in field (did not meet industry standards), that are not included in the # Females and # Males.

\* % q = commercial take as percentage of approved quota; % p = allowed commercial take as percentage of population estimate (range relates to individual harvest sub-region quotas).

Table 6: Harvest and sex bias of Euros during 2022 calendar year.

Harvest Region	Pop. est.	% p*	Quota <sup>1</sup>	Harvest <sup>1,2</sup>	% q*	# Females	# Males	Male bias (%)
Western Pastoral	142,874	10	14,200	1,863	13%	13	1,850	99%
Eastern Pastoral	77,882	0-12	1,000	7	1%	0	7	100%
Eastern Agricultural	82,065	10	8,100	4,166	51%	178	3,985	96%
<b>Total</b>	<b>302,821</b>	<b>0-12</b>	<b>23,300</b>	<b>6,036</b>	<b>26%</b>	<b>191</b>	<b>5,842</b>	<b>97%</b>

<sup>1</sup>Quota and Harvest do not include Special Land Management Quota

<sup>2</sup>Harvest includes 3 carcasses left in field (did not meet industry standards), that are not included in the # Females and # Males.

\* % q = commercial take as percentage of approved quota; % p = allowed commercial take as percentage of population estimate (range relates to individual harvest sub-region quotas).

Table 7: Harvest and sex bias of Eastern Grey Kangaroos during 2022 calendar year.

Harvest Region	Pop. est.	% p*	Quota <sup>1</sup>	Harvest <sup>1,2</sup>	% q*	# Females	# Males	Male bias (%)
Southern Agricultural	92,317	7.5	6,900	6,779	98%	3,005	3,774	56%
<b>Total</b>	<b>92,317</b>	<b>7.5</b>	<b>6,900</b>	<b>6,779</b>	<b>98%</b>	<b>3,005</b>	<b>3,774</b>	<b>56%</b>

<sup>1</sup>Quota and Harvest do not include Special Land Management Quota and harvest

<sup>2</sup>No carcasses were left in field

\* % q = commercial take as percentage of approved quota; % p = allowed commercial take as percentage of population estimate (range relates to individual harvest sub-region quotas).

Table 8: Harvest and sex bias of Tammar Wallabies during 2022 calendar year.

Harvest Region	Pop. est.	% p*	Quota <sup>1</sup>	Harvest <sup>1,2</sup>	% q*	# Females	# Males	Male bias (%)
Southern Agricultural	42,221	7%	2,900	135	5%	61	74	55%
<b>Total</b>	<b>42,221</b>	<b>7%</b>	<b>2,900</b>	<b>135</b>	<b>5%</b>	<b>61</b>	<b>74</b>	<b>55%</b>

<sup>1</sup> Quota and Harvest do not include Special Land Management Quota and harvest

<sup>2</sup> No carcasses were left in field

\* % q = commercial take as percentage of approved quota; % p = allowed commercial take as percentage of population estimate (range relates to individual harvest sub-region quotas).

## Carcass weights

Commercial harvests typically have a bias towards larger and heavier animals. The average number of kangaroos harvested and average weight per carcass for males and females for each harvest region and species are presented below (Tables 9-13). Only data relating to Sustainable Use quota are presented below to maintain consistency between regions where Special Land Management Quota (SLMQ) was released and where SLMQ was not released. Data do not include carcasses left in the field.

Average weights of carcasses for the large kangaroo species ranged from  $25.8 \pm 6.1$  kg to  $32.7 \pm 7.8$  kg for males and  $17.1 \pm 2.1$  kg to  $20.6 \pm 2.7$  kg for females (Table 9, 10, 12). The heaviest kangaroos were harvested from the Southern Agricultural harvest region, where the average weight for male Eastern Grey Kangaroo was  $33.9 \pm 6.5$  kg and average weight for female Eastern Grey Kangaroo was  $20.6 \pm 2.7$  kg (Table 12). Euros are sometimes smaller animals than the other kangaroo species, particularly female Euros. The heaviest average weight for male and female Euros came from Western Pastoral,  $26.6 \pm 4.7$  kg and  $15.1 \pm 2.0$  kg, respectively (Table 11). A total of 135 Tammar Wallabies were harvested during 2022, which was made up of 61 female and 74 male wallabies. Tammar Wallabies are the smallest macropod harvested in South Australia, with males averaging  $5.1 \pm 0.6$  kg and females  $3.5 \pm 0.4$  kg (Table 13). The weights of kangaroos reported here are very similar to those reported last year in the 2021 Harvest Report (DEW 2022).

Table 9: Average weight  $\pm$  standard deviation (SD) of harvested Red Kangaroos during 2022.

Harvest region	# Females	# Males	Ave. female weight (kg)	Ave. male weight (kg)
Western Pastoral	6,242	13,409	$18.1 \pm 2.5$	$27.7 \pm 11.0$
Eastern Pastoral	8,696	13,169	$17.1 \pm 2.1$	$26.0 \pm 5.2$
Eastern Agricultural	2,648	5,210	$17.5 \pm 5.8$	$26.3 \pm 6.3$
<b>Total</b>	<b>17,586</b>	<b>31,788</b>	<b><math>17.5 \pm 3.6</math></b>	<b><math>26.7 \pm 8.0</math></b>

Table 10: Average weights± standard deviation (SD) of harvested Western Grey Kangaroos during 2022.

Harvest region	# Females	# Males	Ave. female weight (kg)	Ave. male weight (kg)
Western Pastoral	1,681	2,509	19.1 ± 6.4	29.2 ± 6.2
Eastern Pastoral	2,239	2,936	17.8 ± 2.1	25.8 ± 6.1
Western Agricultural	816	782	19.6 ± 3.0	29.2 ± 5.8
Eastern Agricultural	5,443	6,771	18.0 ± 2.2	26.5 ± 5.6
Southern Agricultural	6,317	6,949	19.3 ± 3.0	32.5 ± 7.6
<b>Total</b>	<b>16,496</b>	<b>19,947</b>	<b>18.4 ± 3.5</b>	<b>28.3 ± 6.8</b>

Table 11: Average weights± standard deviation (SD) of harvested Euros during 2022.

Harvest region	# Females	# Males	Ave. female weight (kg)	Ave. male weight (kg)
Western Pastoral	13	1,850	15.1 ± 2.0	26.6 ± 4.7
Eastern Pastoral	0	7	-	29.4 ± 4.9
Eastern Agricultural	178	3,985	14.5 ± 2.4	25.9 ± 4.9
<b>Total</b>	<b>191</b>	<b>5,842</b>	<b>14.6 ± 2.4</b>	<b>26.1 ± 4.8</b>

Table 12: Average weights ± standard deviation (SD) of harvested Eastern Grey Kangaroos during 2022.

Harvest region	#Females	#Males	Ave. female weight (kg)	Ave. male weight (kg)
Southern Agricultural	3,005	3,774	20.6 ± 2.7	33.9 ± 6.5
<b>Total</b>	<b>3,005</b>	<b>3,774</b>	<b>20.6 ± 2.7</b>	<b>33.9 ± 6.5</b>

Table 13: Average weights ± standard deviation (SD) of harvested Tammar Wallabies during 2022.

Harvest region <sup>1</sup>	# Females	# Males	Ave. female weight (kg)	Ave. male weight (kg)
Southern Agricultural	61	74	3.5 ± 0.4	5.1 ± 0.6
<b>Total</b>	<b>61</b>	<b>74</b>	<b>3.5 ± 0.4</b>	<b>5.1 ± 0.6</b>

# Harvest Quota Management

## Sustainable Use Quota

Sustainable Use Quota were set according to the Management Plan and reported in the 2022 Quota Report (DEW 2021). Sustainable Use Quota were issued at 7.5% to 20% of the population estimate depending on the species for each harvest sub-region.

Sealed tags were sold throughout the year in accordance with the allocated harvest region quotas for 2022. Harvest reports were viewed regularly, allowing the progress of the kangaroo quota utilisation in each region to be monitored.

The harvest of kangaroos in most harvest regions was generally low when compared to the available quota in 2022. Three species had harvests that exceeded 50% of the allocated quota, which included Red kangaroos (84%) and Euros (51%) in the Eastern Agricultural harvest region and Eastern Grey Kangaroos (98%) in the Southern Agricultural harvest region.

The kangaroo harvesting industry in South Australia has continued to take approximately 100,000 kangaroos annually since 2010, irrespective of the numbers of kangaroos present within the landscape and available quotas.

## Special Land Management Quota

Special Land Management Quota (SLMQ) may be set at up to 1.5% of the estimated population size of each species, and is used when land management issues arise that may be due to localised or widespread seasonal conditions. This reserve of tags is available within a Commercial Harvest Management Region for use when all commercial quota has been allocated to kangaroo field processors and kangaroo land management issues remain. Given that SLMQ can be released before all quota has been harvested, there may be circumstances where the Sustainable Use quota is not fully harvested at the end of the year, but SLMQ was still released.

SLMQ is only for the harvest of kangaroos that would otherwise be culled under non-commercial DEW issued Permits to Destroy Wildlife, and is designed to reduce the number of kangaroos destroyed under these permits and not utilised by the commercial industry.

During 2022, no Sustainable Use quota was issued for Euros in the North Flinders Harvest Sub-region due to Euro survey density for 2021 being below the low population threshold. However, advice from land managers indicated that in localised areas within the sub-region, Euros remained at high levels. A subsequent survey of the area provided evidence of a Euro density of 13.8/km<sup>2</sup>. In response to the survey findings, a SLMQ of 2000 for Euros in the North Flinders Harvest Sub-region was issued, and 1,654 males and 47 females were harvested (total = 1,703 including two carcasses left in the field that did not meet industry standards).

A SLMQ for Western Grey Kangaroos was also released for the Hills and Fleurieu Harvest Sub-region. A quota of 700 Western Grey Kangaroo was released, which resulted in 384 males and 316 females being harvested (total = 700).

# Non-commercial destruction permits

Details of permits issued for non-commercial destruction of kangaroos (Permits to Destroy Wildlife) in each commercial harvest region for 2022 are provided in Table 14.

Permits have been allocated to harvest regions using the following rules:

- Where a permit for a property straddles harvest regions, the permit is attributed to the harvest region having the majority of the property area.
- Where a permit has been issued and the majority or entirety of the land is outside the commercial harvest area, then that permit has been included in Harvest Region 'Outside commercial harvest area'.

Table 14: Non-commercial destruction of kangaroos per commercial harvest region during 2022.

Harvest region	Species available for commercial harvest										Total permits issued <sup>c</sup>	Total animals on permit
	Red Kangaroo		Western Grey Kangaroo <sup>a</sup>		Euro		Eastern Grey Kangaroo		Tammar Wallaby			
	Permits issued <sup>b</sup>	Animals on permit	Permits issued <sup>b</sup>	Animals on permit	Permits issued <sup>b</sup>	Animals on permit	Permits issued <sup>b</sup>	Animals on permit	Permits issued <sup>b</sup>	Animals on permit		
Western Pastoral	6	660	7	770	3	152					16	1,582
Eastern Pastoral ^	59	3,081	152	9,642	5	755	1	50			217	13,528
Western Agricultural	4	200	95	7,208	4	140					103	7,548
Eastern Agricultural^	53	1,921	135	5,814	56	1,717					244	9,452
Southern Agricultural	0	0	450	21,502	1	2	23	980	40	5670	514	28,154
Outside commercial harvest area*	0	0	29	1,225	0	0	0	0	0	0	29	1,225
Total	122	5,862	868	46,161	69	2,766	24	1,030	40	5,670	1,123	61,489

<sup>a</sup> includes both the mainland Western Grey Kangaroo and the Kangaroo Island Western Grey Kangaroo.

<sup>b</sup> number of permits that include this species.

<sup>c</sup> as a single permit may list multiple species, the reported 'total permits issued' are greater than the actual number of permits issued.

<sup>^</sup> Eastern Pastoral Region now includes Murray Plains Soil Conservation Board (SCB); Eastern Agricultural Region now includes approx. 2/3 of Lower North SCB and Yorke Peninsula SCB; as of 1 January 2020.

\* Adelaide Metropolitan Area is outside the expanded commercial harvest area, but has WG Kangaroos issued on permits in environments similar to adjacent Southern Agricultural Region.

# Compliance

## Compliance checks

During 2022, DEW staff routinely checked field processor returns for incorrect information which was then investigated and corrected. The lodgement of monthly returns was monitored, with compliance action taken against permit holders who submitted late returns. Likewise, field processors with outstanding expired sealed tags were followed-up to ensure tags were returned.

Fifty-seven field chiller sites (including mobile chillers, drive-through sites and fixed chillers) were in operation throughout the pastoral and agricultural areas of South Australia during 2022. DEW wardens inspected 38 individual field chillers during 2022. Some sites were inspected twice and therefore a total of 44 chiller inspections were conducted.

The aim of these checks was to ensure that field operations are compliant with the *National Parks and Wildlife Act 1972* (the Act) and associated regulations.

When inspected, field chillers are checked to ensure:

- Kangaroos are taken according to the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes (2020).
- Sealed tags are correctly affixed to kangaroo carcasses.
- Sealed tags are valid for use.
- Sealed tags affixed to each carcass are correct for that species.
- Harvester ID, date of harvest and location are stated on each carcass.
- Carcasses are presented in the correct form.
- Any food safety issues are documented and reported to the Biosecurity SA Food Safety Program (PIRSA).

Chiller inspections are also an important means of maintaining relationships with field processors (62 permit holders in 2022) and gaining an understanding of landscape condition.

Four kangaroo meat processors and two skin processors (tanners) operated in South Australia during 2022. Compliance inspections at the meat processors' facilities

provide a good picture of the level of field processors' adherence with carcass tagging requirements and the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes (2020). Three inspections were made of meat processing facilities and one inspection was conducted at the tanneries.

Eleven audits, a mixture of e-audits and field audits, of field processors' field record books and landholder consents were undertaken during 2022.

## Compliance action

Wardens are able to issue verbal warnings, educational letters, written cautions and expiation notices. Expiation notices attract a financial penalty. If a caution is issued to an individual and that person continues to commit the same offence, an expiation notice is generally issued. Serious or habitual offenders may have court action taken against them.

During 2022, 10 expiation notices, 24 caution notices and four warning letters were issued regarding offences in relation to kangaroos harvested in South Australia, as detailed in Table 15.

*Table 15: Kangaroo management compliance activities for kangaroos harvested in South Australia during 2022.*

Description of offence	Result
Permit holder to supply returns within 14 days	2 Warnings 10 Cautions 5 Expiations
Use of out of date sealed tags	9 Cautions 2 Expiations
Fail to return unused and out-of-date sealed tag	1 Expiation 4 Cautions
Other	2 Warnings 1 Caution 1 Expiation

## Compliance priorities in 2022

The following points summarise the outcomes against the compliance priorities for 2022, as stated in the 2021 Commercial Kangaroo Harvest Report for South Australia.

1. Complete training of initial nine DEW staff within the expanded commercial harvest area.
  - In progress – Six of the original nine staff have completed training. Training of the remaining three staff will continue in line with staff availability by participation in field chiller checks. During 2022 an additional 10 staff participated in chiller inspections who were not included in the original training during 2020.
2. Complete the audit process for field processors who have commenced operating since 1 January 2020.
  - In progress - Six field processors who commenced operating since 1 January 2020 were audited during 2022. Twelve field processors remain to be audited.
3. A stronger focus on field chiller inspections (where possible), which have been disrupted due to COVID-19 restrictions during 2020 and 2021.
  - 66% of active chiller sites were visited during 2022 compared to 59% of active chiller sites visited during 2021.

## Compliance priorities for 2023

Compliance priorities for implementation during 2023 include

1. Continued engagement of DEW staff across the entire commercial harvest area in the kangaroo management program (e.g. field chiller checks, training of additional staff).
2. Complete audit process for field processors who have commenced operating since 1 January 2020.
3. Visit active chiller sites that were not visited during 2022 to continue stronger field presence after disruption due to COVID-19 restrictions during 2020 and 2021.

## Interstate Liaison

Kangaroo carcasses may be imported into South Australia from kangaroo harvest programs interstate. During routine inspections, and as a result of information received, five imported kangaroo carcasses were identified as requiring further investigation. Evidence was collected and forwarded to the appropriate interstate authorities for follow-up investigation.



# Kangaroo Management on Reserves

Kangaroos are managed where they impact conservation values on reserves managed by the South Australian National Parks and Wildlife Service. The management of kangaroos on DEW managed reserves is guided by a policy framework that is based on scientific principles and informed by the objectives of the *National Parks and Wildlife Act 1972*. A proposal to control kangaroo populations on reserves must demonstrate the impact of kangaroos on the conservation values of the reserve, detail monitoring programs to evaluate the success of the control program, and demonstrate adequate control measures for introduced herbivores. The objectives of these programs are to improve conservation values by aiding ecological restoration and/or threatened species recovery. All kangaroos are culled in accordance with the respective National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes (2020) or Non-Commercial Purposes.

During 2022, non-commercial kangaroo control programs were undertaken on 11 DEW reserves. A total of 840 Western Grey Kangaroos, 43 Red Kangaroos and 144 Euros were destroyed (Table 16). In addition, 808 Western Grey Kangaroos, 491 Red Kangaroos and 181 Euros were commercially harvested from 5 NPW Reserves (total = 1480 kangaroos), which is an increase from 1026 kangaroos culled on reserves in 2021. Data on the kangaroos that have been commercially harvested from NPW reserves is included in the 2022 Harvest Details section (tables) of this report.

*Table 16: Numbers of non-commercially destroyed kangaroos on reserves declared under the National Parks and Wildlife Act 1972 in South Australia during 2022.*

Harvest region	Reserve	Western Grey Kangaroo	Red Kangaroo	Euro
Western Agricultural	Coffin Bay NP	399		
	Lincoln NP	48		
Western Pastoral	Gawler Ranges NP	25	43	14
	Ironstone Hill CP	23		
Eastern Pastoral	Ikara-Flinders Ranges NP			130
Southern Agricultural	Para Wirra CP	224		
	Newland Head CP	18		
	Kaiserstuhl CP	44		
	Stipiturus CP	26		
	Charleston CP	17		
	Deep Creek NP	16		
<b>Total</b>		<b>840</b>	<b>43</b>	<b>144</b>

# Research

No new research projects related to kangaroo management were supported by DEW during 2022.

# References

DEW (2019) *2018 Commercial Kangaroo Harvest Report for South Australia*, Government of South Australia, through Department for Environment and Water, Adelaide.

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DEW (2022) *2021 Commercial Kangaroo Harvest Report for South Australia*, Government of South Australia, through Department for Environment and Water, Adelaide.

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