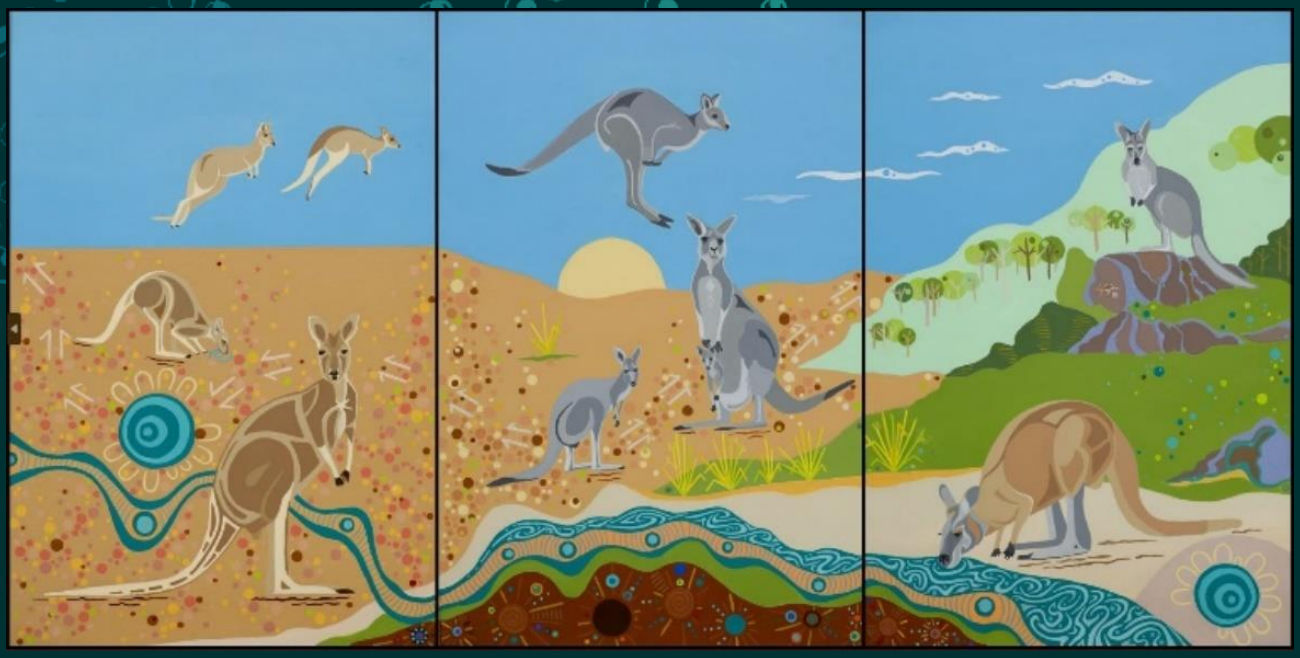
Queensland Macropod Management Program

Annual Report 2024



Artwork by Abigail Chaloupka, proud Ballardong Noogah woman.

The Department of the Environment, Tourism, Science and Innovation acknowledges the Country and people of Queensland's First Nations. We pay our respect to Elders past and present. We acknowledge and thank First Nations people for the enduring relationship connecting people, Country and ancestors—an unbreakable bond that safely stewarded and protected the land, waters and sky for thousands of generations.

Queensland Government

Prepared by: Queensland Parks and Wildlife Service and Partnerships, Department of the Environment, Tourism, Science and Innovation

Disclaimer

This document has been prepared with all due diligence and care, based on the best available information at the time of publication. The department holds no responsibility for any errors or omissions within this document. Any decisions made by other parties based on this document are solely the responsibility of those parties. Information contained in this document is from a number of sources and, as such, does not necessarily represent government or departmental policy.

If you need to access this document in a language other than English, please call the Translating and Interpreting Service (TIS National) on 131 450 and ask them to telephone Library Services on +61 7 3170 5470.

This publication can be made available in an alternative format (e.g. large print or audiotape) on request for people with vision impairment; phone +61 7 3170 5470 or email <library@des.qld.gov.au>.

March 2025

Preface

This report, prepared by the Department of the Environment, Tourism, Science and Innovation (the department), summarises the activities of the Macropod Management Program in Queensland for the period 1 January 2024 to 31 December 2024. In accordance with the Queensland Wildlife Trade Management Plan for Export—Commercially Harvested Macropods 2023–2027, the report addresses:

- actual harvest by zone and species compared to quota
- harvest sex ratio, average carcass weights and skin take
- any special quota used
- non-commercial harvest mortality
- compliance statistics
- climate
- research and experiments
- program improvements.

For the 2024 harvest period, there were 988 macropod harvesting licences. There were 91 dealer licences for macropods, which included nine dealer licences for meat processing and two dealer licences for tanning. Data from dealer returns, entered up to 31st December 2024, indicates that there were 516,847 macropods commercially harvested and sold, representing just 2.9% of the entire population. The harvest was entirely for carcasses used for both human consumption and pet food.

No quota was exceeded for any species in any harvest zone in 2024. In the five harvest zones, the percentage of the population used for each species was less than 8.3%. The highest percentage use of quota was for common wallaroos in zone 4 at 54.6%.

The commercial harvest is typically biased towards males due to their generally larger size and weight when compared to females. For 2024 the harvest for each species was biased towards males by 87.1% or greater.

During the 2024 harvest period, the department issued 66 infringement notices and 949 warning notices for offences relating to the commercial macropod harvest.

Contents

List of figures

1. Background

The department administers the harvest in accordance with the following overarching goal: 'to provide for the sustainable use of macropod species covered by the plan, in accordance with the principles of ecologically sustainable development' (Department of Environment and Science (Qld) (2023)).

There are three main aspects to the program:

- monitoring populations
- setting quotas
- managing the harvest.

Three species can be commercially harvested in Queensland:

- eastern grey kangaroo *(Macropus giganteus)*
- red kangaroo *(Osphranter rufus)*
- common wallaroo *(Osphranter robustus).*

These harvested species are abundant over a broad area of Queensland and Australia. None of these species are listed as threatened under state or Australian Government legislation; all are listed as 'least concern' wildlife under the *Nature Conservation (Animals) Regulation 2020*.

The harvesting of these macropods is regulated through or with consideration to the:

- *Nature Conservation Act 1992*
  - *Nature Conservation (Animals) Regulation 2020*
  - *Nature Conservation (Macropod) Conservation Plan 2017*
- *Environment Protection and Biodiversity Conservation Act 1999*
- Queensland Wildlife Trade Management Plan for Export—Commercially Harvested Macropods—2023–2027
- *Animal Care and Protection Act 2001*
- *Food Production (Safety) Act 2000.*

Management of the harvest is facilitated via quotas that set the number of animals that can be taken. Quotas are based on population estimates derived from annual aerial surveys of the commercially harvested species. From 2003 to 2022, quotas have been set for each species for four harvest zones to ensure that harvest pressure is distributed across the range of the species. As of 2023 the quotas are set for each species in six harvest zones (Figure 1):

Harvest zones 2023 – current	Harvest zones 2003 – 2022
No harvest zone (zero quota)	No harvest zone (zero quota)
Zone 1 (formerly western zone)	Eastern harvest zone
Zone 2 (formerly north region of central zone)	Central harvest zone
Zone 3 (formerly south region of central zone)	Western harvest zone
Zone 4 (formerly east region of central zone)	
Zone 5 (formerly eastern zone)	

Quotas are calculated using a fixed proportion of the estimated macropod populations within the harvest areas. Proportions are adjusted for each species across the harvest zones in relation to the margins of error present in population estimates derived from the aerial surveys. The maximum proportions used for each species are 15% of the populations for eastern grey kangaroos and common wallaroos and 20% of the population for red kangaroos. For zones 1 and 5, where survey effort is less extensive when compared to zones 2, 3 and 4, the more conservative maximum proportion of 10% is applied for all three species.

These sustainable-use harvest proportions are based on research and modelling undertaken by Caughley et al. (1987) and Hacker et al. (2002) and are currently accepted by the scientific community, state and Australian governments, for determining state quota limits.

This annual report summarises the activities of the Macropod Management Program for the period 1 January 2024 to 31 December 2024. In accordance with the Queensland Wildlife Trade Management Plan for Export—Commercially Harvested Macropods—2023–2027, the report will address:

- harvest by zone and species compared to quota
- harvest sex ratio, average carcass weights and skin take
- any special quota used
- non-commercial harvest mortality
- compliance statistics
- climate
- research and experiments
- program improvements.

All macropod species are ‘protected animals’ in Queensland under the *Nature Conservation (Animals) Regulation 2020* which provides for the licensing of a range of activities in relation to the commercial harvesting of macropods in Queensland.

Harvested macropods must be taken in accordance with the *Nature Conservation (Macropod) Conservation Plan 2017* under a licence issued by the department.

The harvest is controlled by the use of single use, tamper evident numbered tags with a unique colour code for each species and year. The following applies to the use of tags:

- Tags are issued to a specific harvester.
- Tags must be securely attached to the skin of every macropod harvested.
- A tag can only be removed from the macropod skin during the skin tanning process at a licensed tannery.
- The tags are self-locking and tamper-evident.
- The tags are individually numbered and of a different colour for each consecutive year and species.
- A fee (fixed by regulation) is charged for the sale of tags.

Record and return of operations are submitted to the department by harvesters and dealers, monthly. Harvest statistics from returns are used to monitor and manage the harvest.

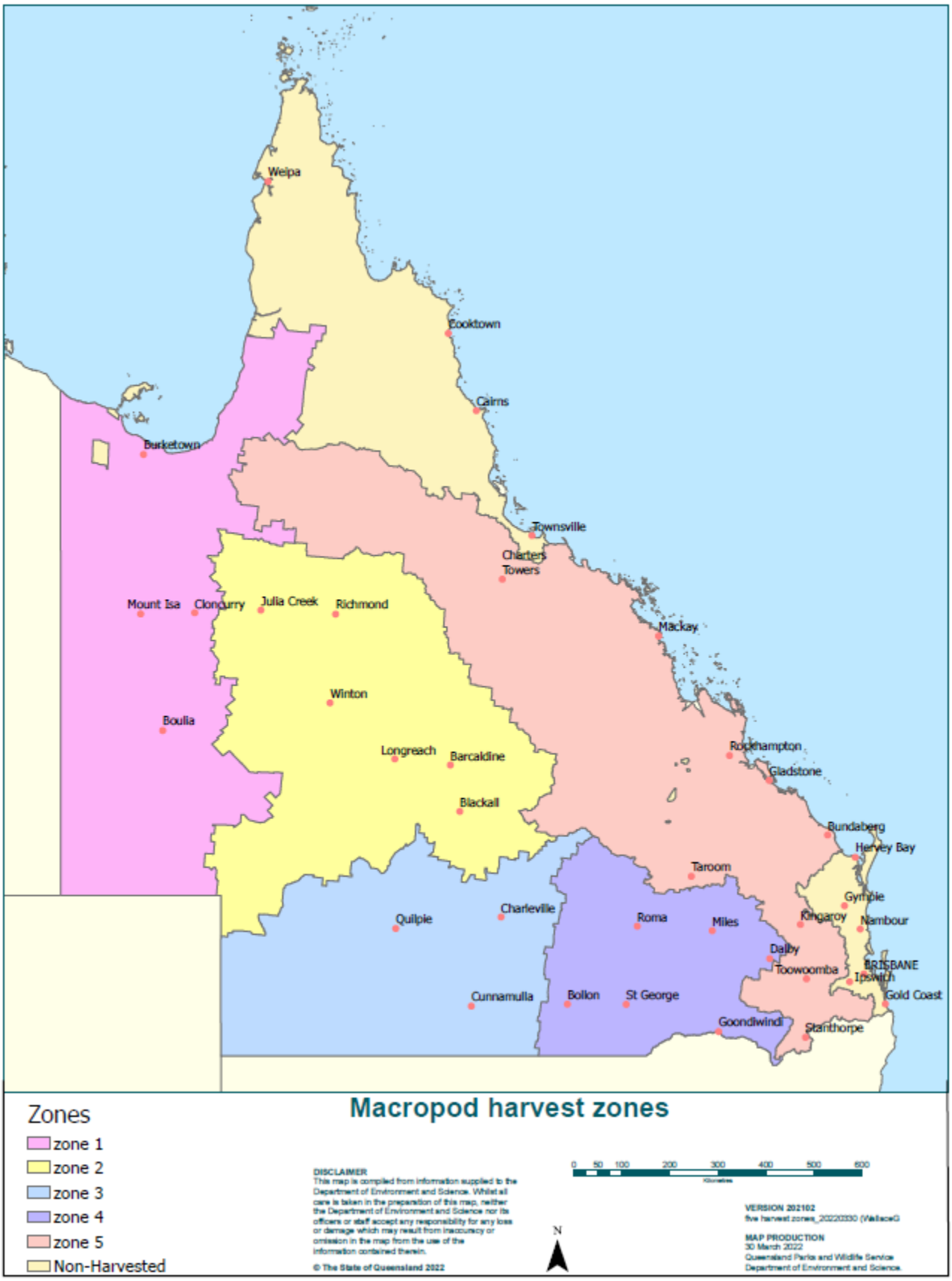


Figure 1: Queensland macropod harvest zones since 2023.

2. Harvest management

For the 2024 harvest period, 988 macropod harvesting licences were issued. There were 91 dealer licences for macropods, which included nine dealer licences for macropods (meat processing) and two dealer licence for macropods (tanning) issued.

All licences were issued in accordance with legislative requirements and within regulatory timeframes.

Tags were limited to the quota amount for each species in each zone to ensure no over-harvest occurred. The highest number of tags sold as a proportion of quota was 100% for common wallaroos, in zone 4. The actual harvest for this species in this zone was 54.6% of available quota. Statistics on the harvest and tag sales are updated monthly and made available to the public via the Queensland Government website. This assists the industry to monitor the harvest and tag availability. To ensure harvesters have fair and equitable access to the finite number of tags available, the program regulates the distribution of tags. This is done by establishing a tag allowance for each harvester and ensuring the tags are being used before further tags are ordered.

Table 1: Quotas, tag sales and reported harvest of macropods for 2024.

Tag categories by zone	2024 quotas	Tags sold		Reported harvest	
		Number of tags	% of quota	Number of macropods	% of quota
Zone 1					
Red kangaroo	99,250	24,550	24.7	19,532	19.7%
Common wallaroo	22,250	2,050	9.2	911	4.1%
Zone 2					
Eastern grey kangaroo	0	NA	NA	NA	NA
Red kangaroo	623,550	158,650	25.4	138,116	22.1%
Common wallaroo	88,150	43,100	48.9	34,708	39.4%
Zone 3					
Eastern grey kangaroo	116,900	22,200	19	16,781	14.4%
Red kangaroo	298,950	69,400	23.2	57,405	19.2%
Common wallaroo	29,250	14,650	50.1	9,227	31.5%
Zone 4					
Eastern grey kangaroo	580,750	151,650	26.1	125,269	21.6%
Red kangaroo	105,800	41,150	38.9	27,202	25.7%
Common wallaroo	7,650	7,650	100	4,175	54.6%
Zone 5					
Eastern grey kangaroo	419,450	85,100	20.3	67,234	16.0%
Red kangaroo	23,750	13,850	58.3	8,811	37.1%
Common wallaroo	70,700	14,900	21.1	7,476	10.6%
Total	2,486,400	648,900	26.1	516,847	20.8%

3. Harvest

The data from dealer returns, entered up to 31st December 2024, indicates that there were 516,847 macropods commercially harvested and sold, representing 20.8% of the overall quota and just 2.9% of the population. The harvest of macropods does not occur evenly across the harvest zones. Figure 2 shows the distribution of the harvest across the state. Of all animals harvested, there were 209,284 eastern grey kangaroos, 251,066 red kangaroos and 59,497 common wallaroos (Figure 3).

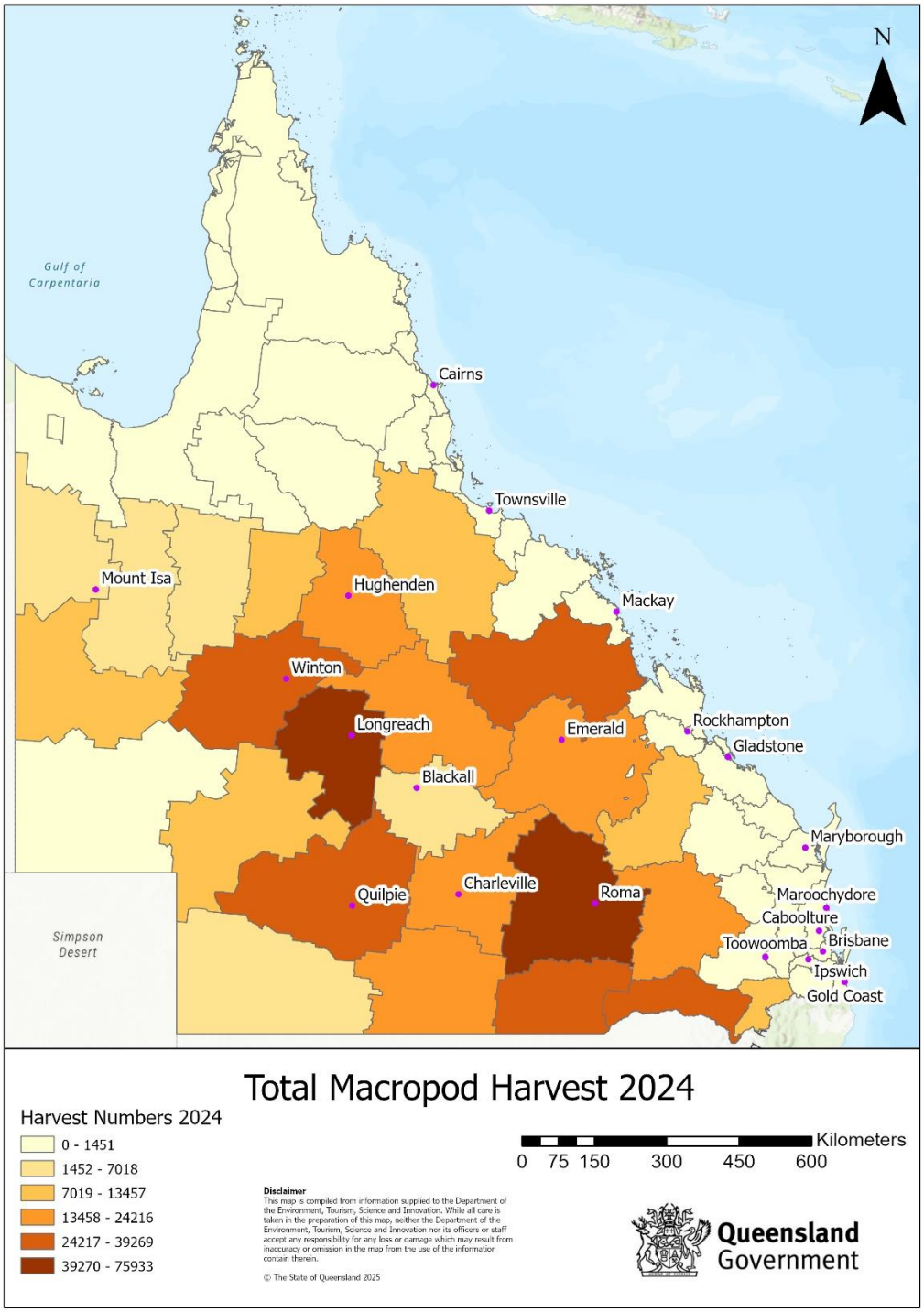


Figure 2: Reported macropod harvest numbers by local government area in 2024.

For all three harvested species the percentage of the population harvested in 2024 was only 2.9% of the 2023 estimated population (Figure 4). For eastern grey kangaroos, 2.2% of the estimated population in the harvest area was harvested while for red kangaroos and common wallaroos, 3.9% and 3.2% were harvested, respectively.

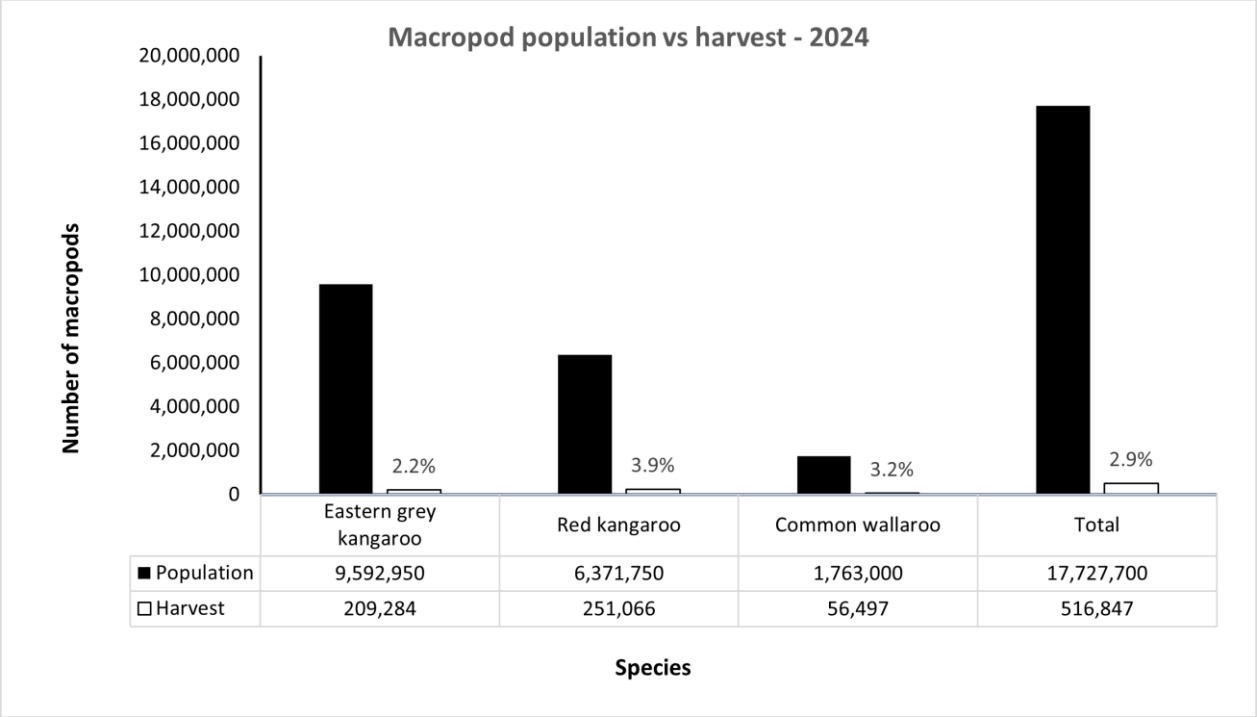


Figure 3: Percentage of the 2023 estimated macropod population harvested in 2024.

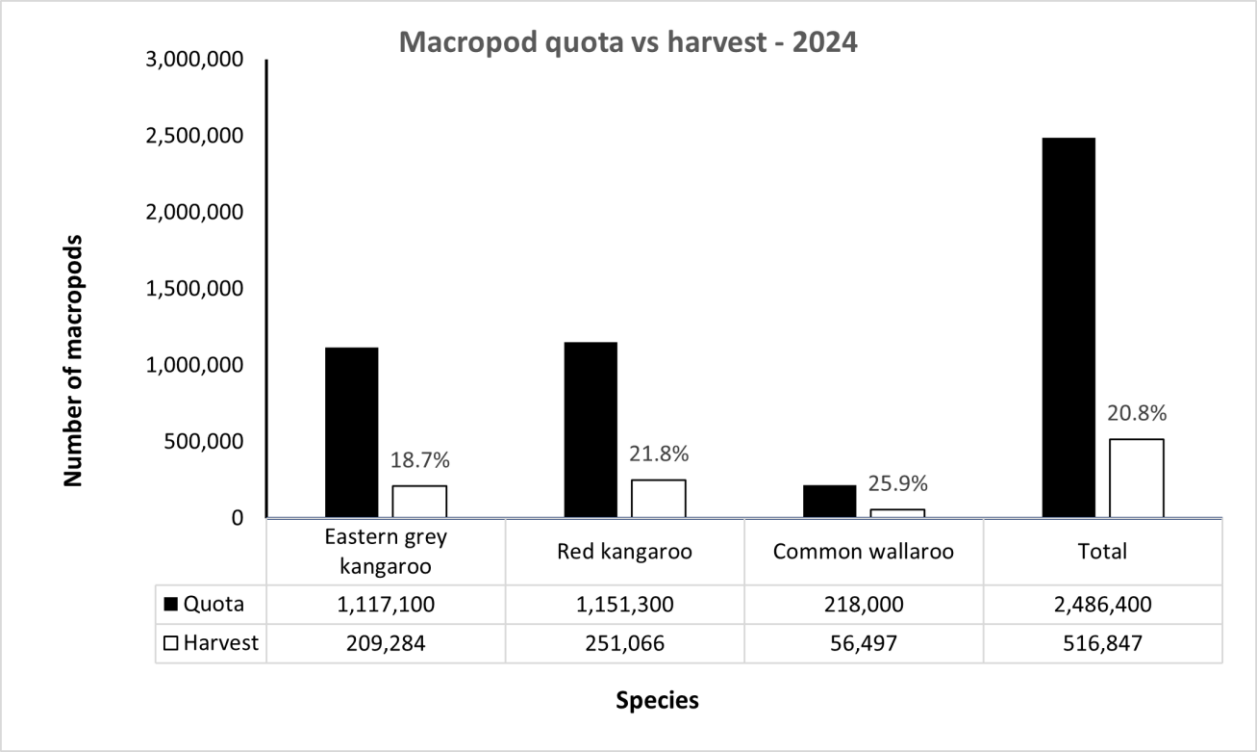


Figure 4: Harvest quotas compared to the total number of macropods harvested in 2024.

Tables 2–5 contain detailed summaries of the harvest in 2024. Quotas for each species in each zone were not exceeded in 2024. The highest percentage of quota used, was for common wallaroos in zone 4, at 54.6%. In all harvest zones the percentage of the population harvested for each species was below 9%.

Table 2: Population estimates, quotas, harvest take and proportions for all zones combined in 2024.

Species	Population estimate 2023	Quota 2024	Harvest take 2024	% quota used 2024	% population harvested 2024
Eastern grey kangaroo	9,592,950	1,117,100	209,284	18.7	2.2
Red kangaroo	6,371,750	1,151,300	251,066	21.8	3.9
Common wallaroo	1,763,000	218,000	56,497	25.9	3.2
Total	17,747,700	2,486,400	516,847	20.8	2.9

Note: Population estimates are based on aerial surveys conducted in 2023, which were used to set the 2024 quotas. Population estimate figures are rounded to the nearest 50. Harvest figures are based on data available 28th January 2025.

Table 3: Eastern grey kangaroo population estimates, quotas, harvest takes and proportions in 2024.

Zone	Population estimate 2023	Quota 2024	Harvest take 2024	% quota utilised 2024	% population harvested 2024
Zone 1	257,000	NA	NA	NA	NA
Zone 2	490,450	0	0	NA	NA
Zone 3	779,350	116,900	16,781	14.4	2.2
Zone 4	3,871,650	580,750	125,269	21.6	3.2
Zone 5	4,194,500	419,450	67,234	16.0	1.6
Total	9,592,950	1,117,100	209,284	18.7	2.2

Note: Population estimates are based on aerial surveys conducted in 2023, which were used to set the 2024 quotas. Population estimate figures are rounded to the nearest 50. Harvest figures are based on data available 28th January 2025.

Table 4: Red kangaroo population estimates, quotas, harvest takes and proportions in 2024.

Zone	Population estimate 2023	Quota 2024	Harvest take 2024	% quota utilised 2024	% population harvested 2024
Zone 1	992,700	992,250	19,532	19.7	2.0
Zone 2	3,117,800	623,550	138,116	22.1	4.4
Zone 3	1,494,750	298,950	57,405	19.2	3.8
Zone 4	529,000	105,800	27,202	25.7	5.1
Zone 5	237,500	23,750	8,811	37.1	3.7
Total	6,371,750	1,151,300	251,066	21.8	3.9

Note: population estimates are based on aerial surveys conducted in 2023, which were used to set the 2024 quotas. Population estimate figures are rounded to the nearest 50. Harvest figures are based on data available 28th January 2025.

Table 5: Common wallaroo population estimates, quotas, harvest takes and proportions in 2024.

Zone	Population estimate 2023	Quota 2024	Harvest take 2024	% quota utilised 2024	% population harvested 2024
Zone 1	222,450	22,250	911	4.1	0.4
Zone 2	587,650	88,150	34,708	39.4	5.9
Zone 3	194,850	29,250	9,227	31.5	4.7
Zone 4	51,100	7,650	4,175	54.6	8.2
Zone 5	706,950	70,700	7,476	10.6	1.1
Total	1,763,000	218,000	56,497	16.3	3.2

Note: population estimates are based on aerial surveys conducted in 2023, which were used to set the 2024 quotas. Population estimate figures are rounded to the nearest 50. Harvest figures are based on data available 28th January 2025.

3.1. Harvest sex ratio

The harvest is typically biased towards males due to their generally larger size and weight when compared to females. For 2024, the harvest for each species was biased towards males by more than 87% (Figure 5). Females composed 10.1% of the overall harvest.

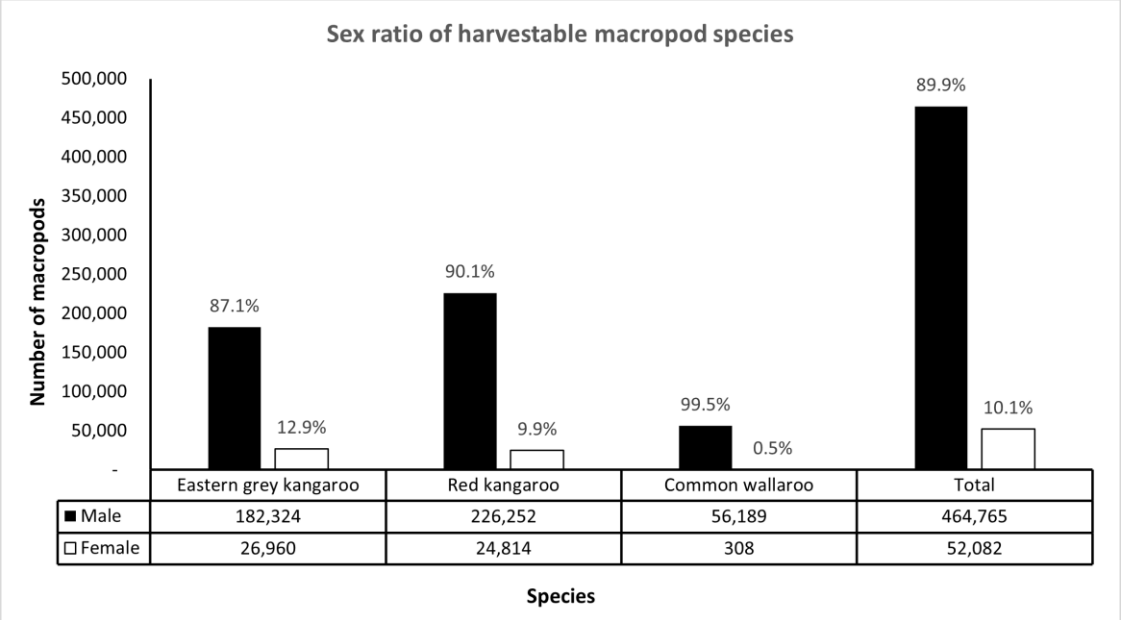


Figure 5: Sex ratio of harvested male and female macropod species for all zones combined in 2024.

For eastern grey kangaroos the greatest percentage take of females was 18.9% in zone 5. The overall take of females for this species was 12.9% of the harvest (Figure 6).

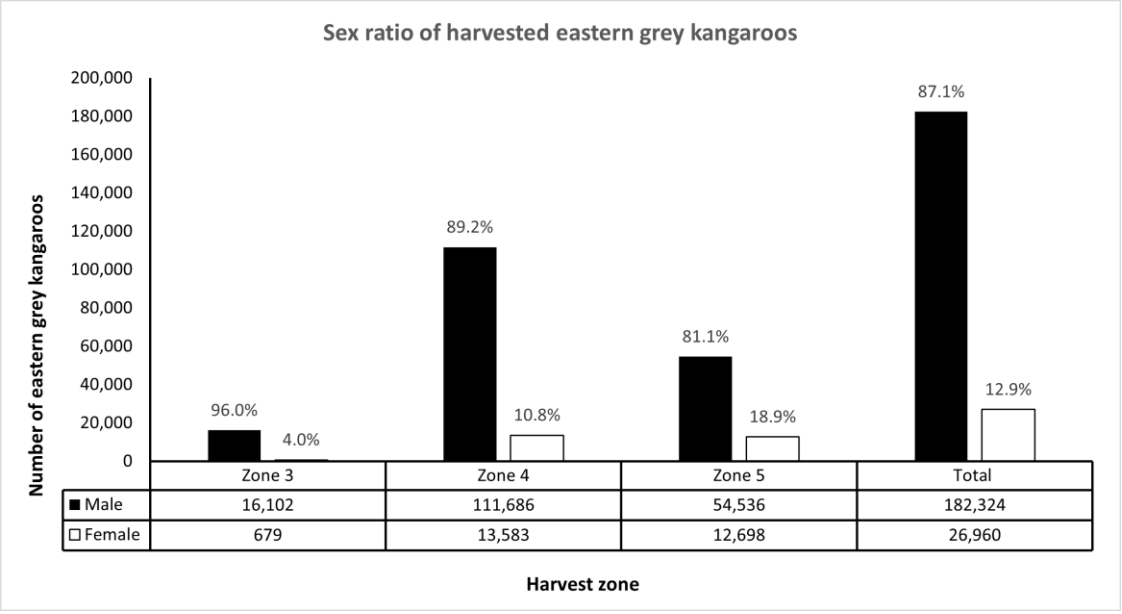


Figure 6: Sex ratio of harvested eastern grey kangaroos by zone. Note: there is no harvest quota for eastern grey kangaroos in zone 1 and there was no quota for zone 2 in 2024, due to a trigger point being reached in the population estimates for the second year in a row.

For red kangaroos, the highest percentage of females harvested was 15.9% in zone 5. The overall take of females for this species was 9.9% of the harvest (Figure 7).

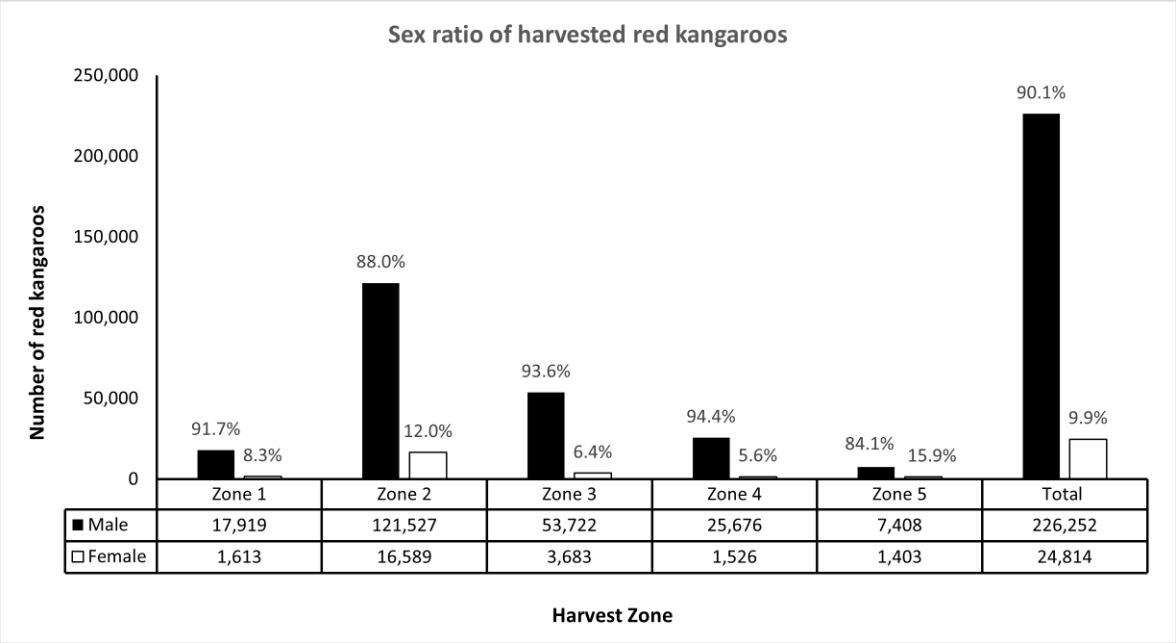


Figure 7: Sex ratio of harvested red kangaroos by zone.

For common wallaroos the percentage of the harvest containing females was by far the lowest amongst the three commercially harvested species, at an overall total harvest of only 308 animals. The greatest percentage take of females for this species was 1% in zone 4 (Figure 8).

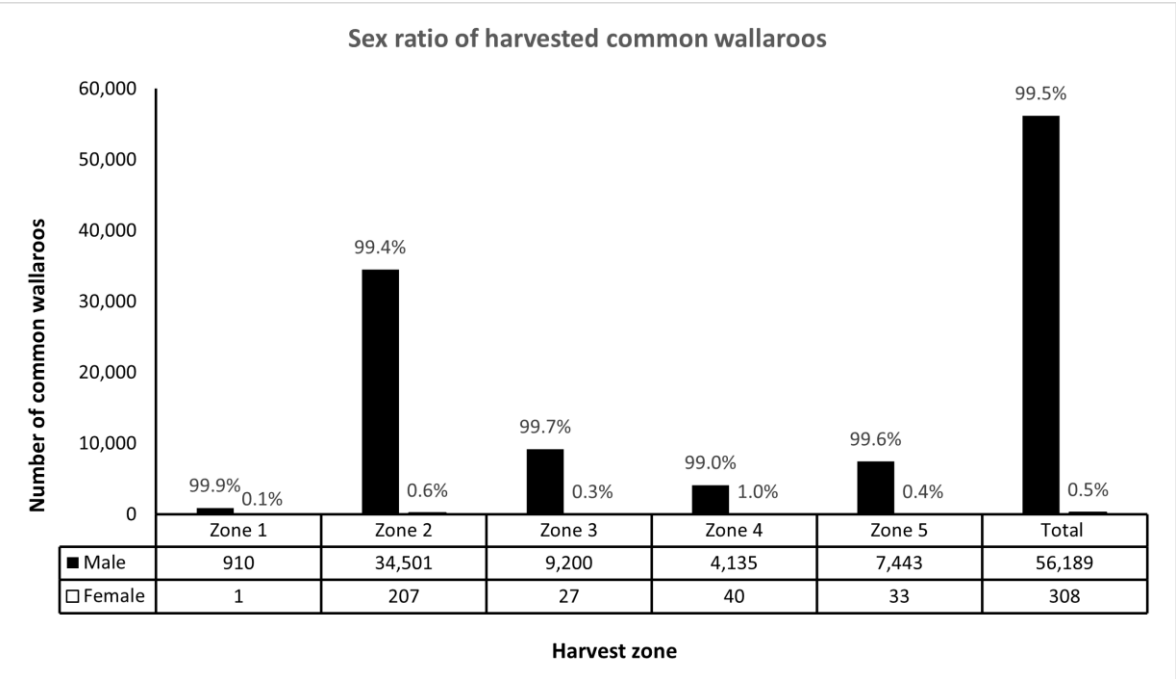


Figure 8: Sex ratio of harvested common wallaroos by zone.

The proportion of the total macropod harvest comprising females in 2024 was 10.1%. The percentage of females harvested in 2024 decreased by 3.7% from the previous year and is consistent with long term trends.

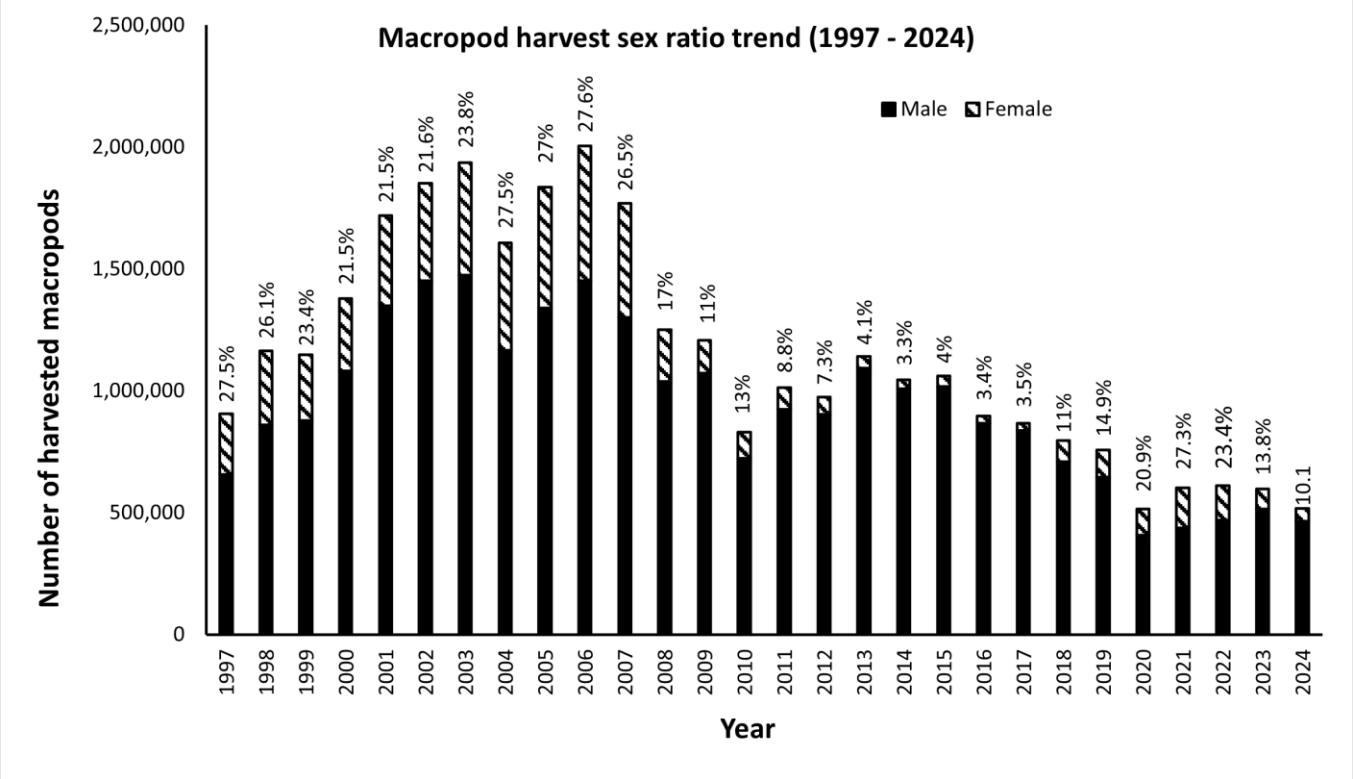


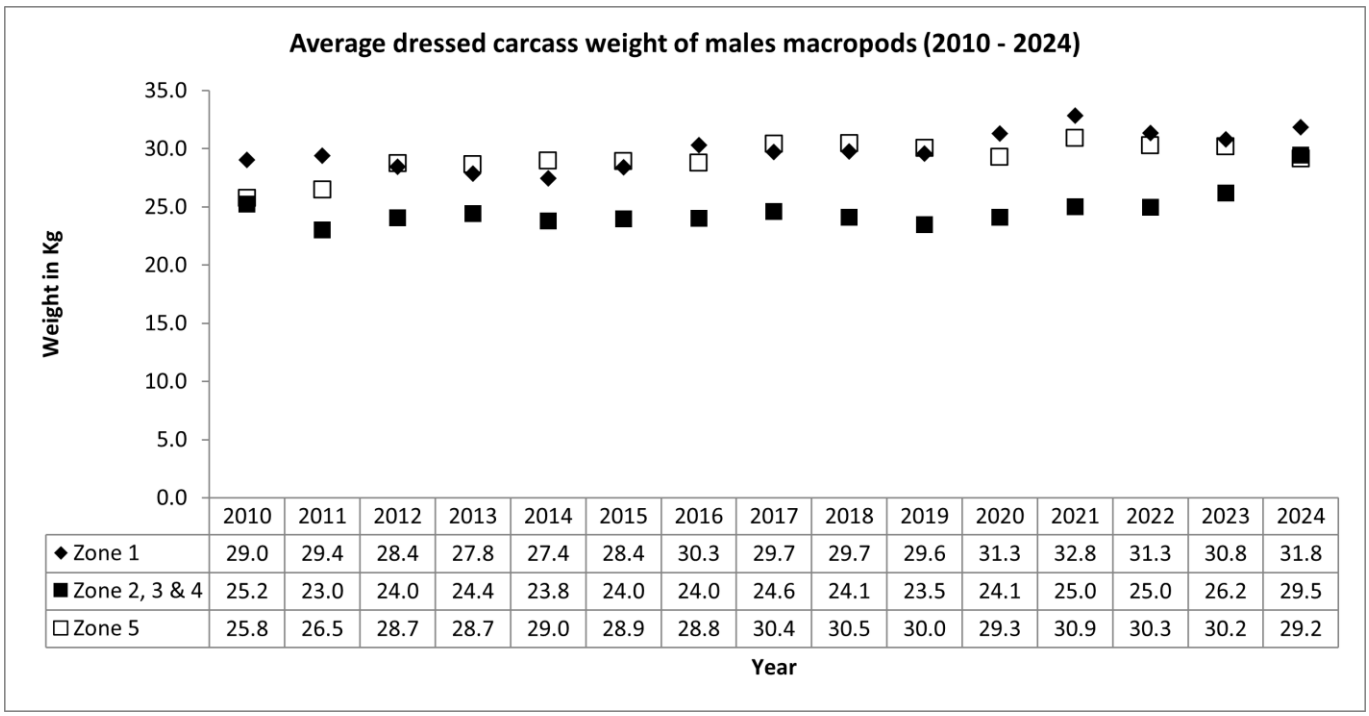
Figure 9: Macropod harvest sex ratio trend from 1997 to 2024 (percentage of female harvest shown).

3.2. Carcass and skin harvest

The harvest of macropods in Queensland is predominantly for meat products used for human consumption and pet food. The majority of macropod skins utilised for leather and fur products are sourced from meat processors. No macropods were reported as commercially harvested for their skins only in 2024.

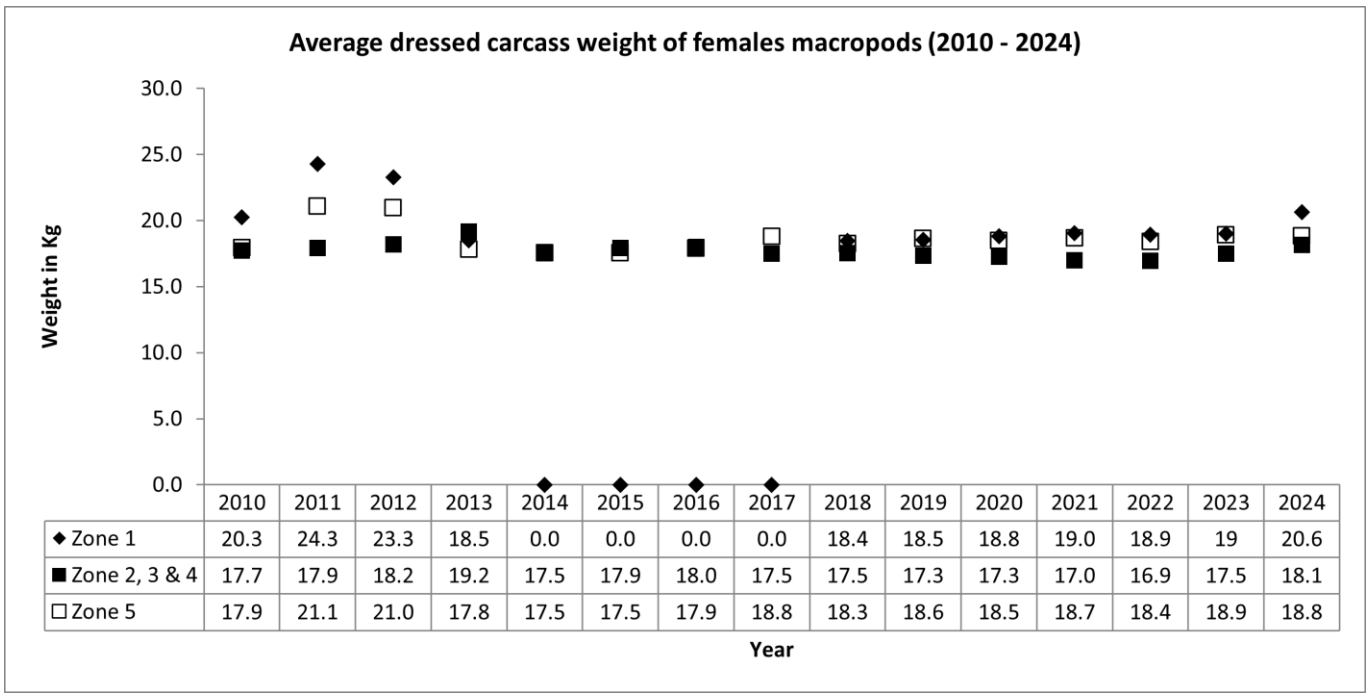
3.3. Average weight

The average dressed carcass weights per harvest zone and species are shown in figures 10 to 13. Carcass weights have fluctuated slightly in the past 13 years in each harvest zone with no significant increases or decreases having occurred in that time. A number of dealer sites have established a minimum preferred dressed weight requirement between 16kg and 18kg. This is driven by economic reasons with efficiencies gained in processing heavier carcasses.



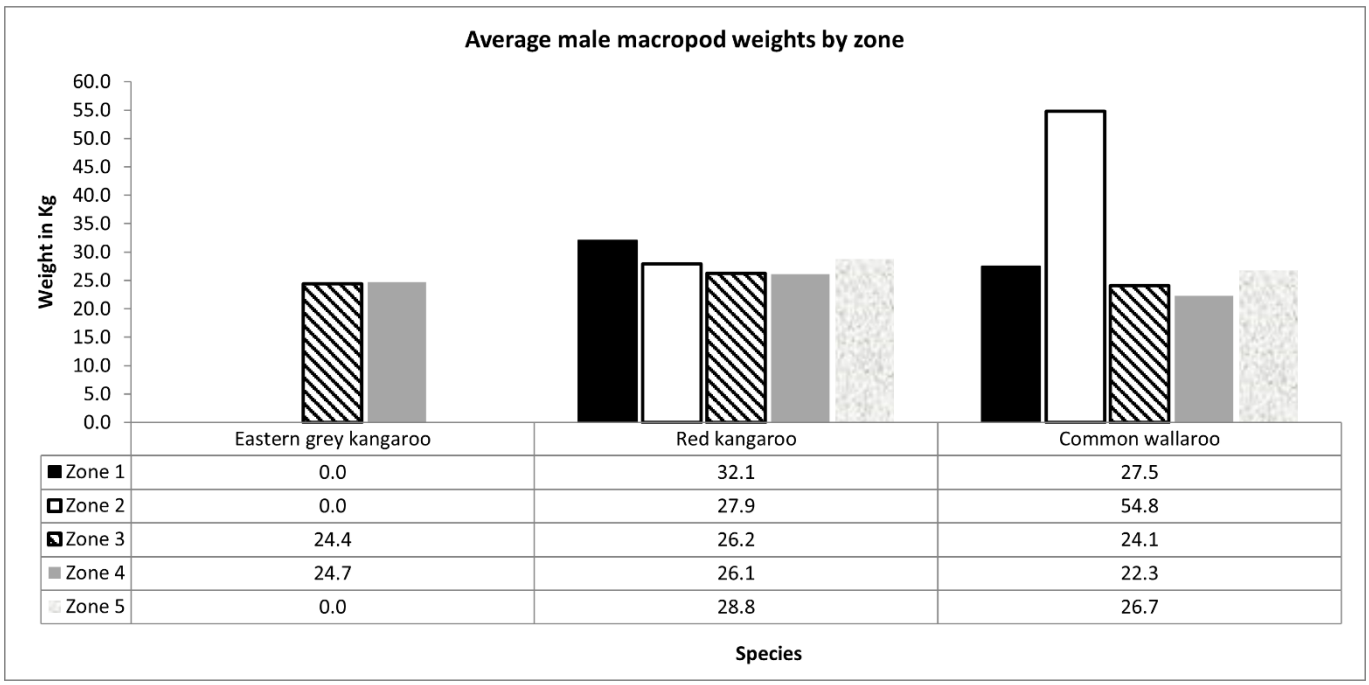
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
◆ Zone 1	29.0	29.4	28.4	27.8	27.4	28.4	30.3	29.7	29.7	29.6	31.3	32.8	31.3	30.8	31.8
■ Zone 2, 3 & 4	25.2	23.0	24.0	24.4	23.8	24.0	24.0	24.6	24.1	23.5	24.1	25.0	25.0	26.2	29.5
□ Zone 5	25.8	26.5	28.7	28.7	29.0	28.9	28.8	30.4	30.5	30.0	29.3	30.9	30.3	30.2	29.2

Figure 10: Average dressed carcass weights of male macropods, harvested between 2010 - 2024. Note: zones 2, 3 and 4 are combined to allow comparisons with precious years.



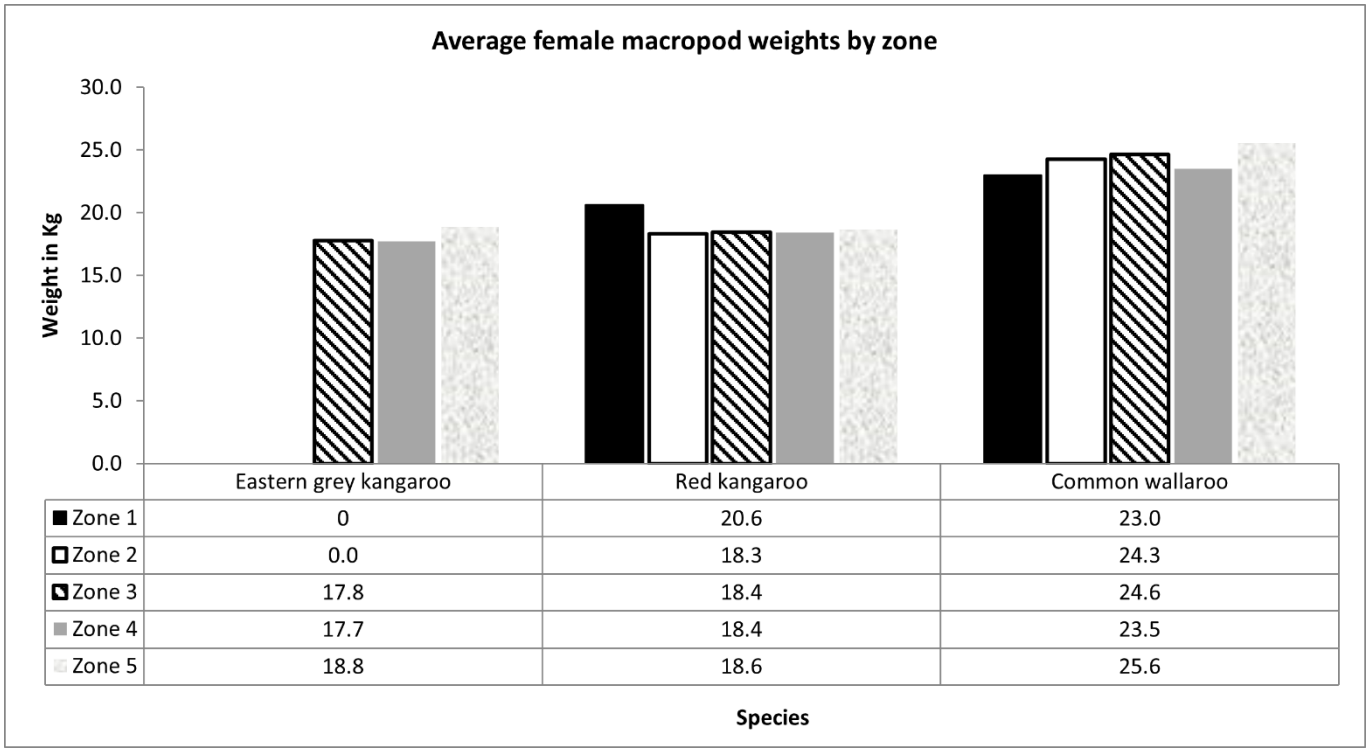
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
◆ Zone 1	20.3	24.3	23.3	18.5	0.0	0.0	0.0	0.0	18.4	18.5	18.8	19.0	18.9	19	20.6
■ Zone 2, 3 & 4	17.7	17.9	18.2	19.2	17.5	17.9	18.0	17.5	17.5	17.3	17.3	17.0	16.9	17.5	18.1
□ Zone 5	17.9	21.1	21.0	17.8	17.5	17.5	17.9	18.8	18.3	18.6	18.5	18.7	18.4	18.9	18.8

Figure 11: Average dressed weights of female macropods, harvested between 2010 - 2024. Note: zones 2, 3 and 4 are combined to allow comparisons with precious years.



	Eastern grey kangaroo	Red kangaroo	Common wallaroo
Zone 1	0.0	32.1	27.5
Zone 2	0.0	27.9	54.8
Zone 3	24.4	26.2	24.1
Zone 4	24.7	26.1	22.3
Zone 5	0.0	28.8	26.7

Figure 12: Average dressed carcass weight for male macropod species harvested in 2024. Note: there was no quota issued for eastern grey kangaroos in zones 1 and 2.



	Eastern grey kangaroo	Red kangaroo	Common wallaroo
Zone 1	0	20.6	23.0
Zone 2	0.0	18.3	24.3
Zone 3	17.8	18.4	24.6
Zone 4	17.7	18.4	23.5
Zone 5	18.8	18.6	25.6

Figure 13: Average dressed carcass weight for female macropod species harvested in 2024. Note: there was no quota issued for eastern grey kangaroos in zones 1 and 2.

4. Special quotas

No special quotas were utilised in 2024. A special quota can only be considered once the harvest quota for a particular species has been reached in a harvest zone. Situations where a special quota may be considered include where there is a high macropod population density in a particular area or where adverse weather conditions such as prolonged drought are having a detrimental effect on macropod health.

5. The extent of non-commercial harvest mortality

There are many forms of macropod mortality outside of the commercial harvest. It is possible for the department to collect and report data on two forms of non-commercial harvest mortality which can be considered when determining commercial quotas. These are damage mitigation permits (DMPs), and disease outbreak mortality.

6. Damage Mitigation Permits

Damage mitigation permits (DMPs) are issued by the department where macropods may cause damage or loss of property or present a threat to human health or wellbeing. The issuing of these permits is limited to a maximum of 2% of the estimated population for each species. The number of macropods harvested under DMP's, on average, remained below 25% of the allowable DMP take (Figure 14). For comparative purposes, a summary of the macropods taken under DMPs for each species for 2020–2024 is outlined in Figure 15.

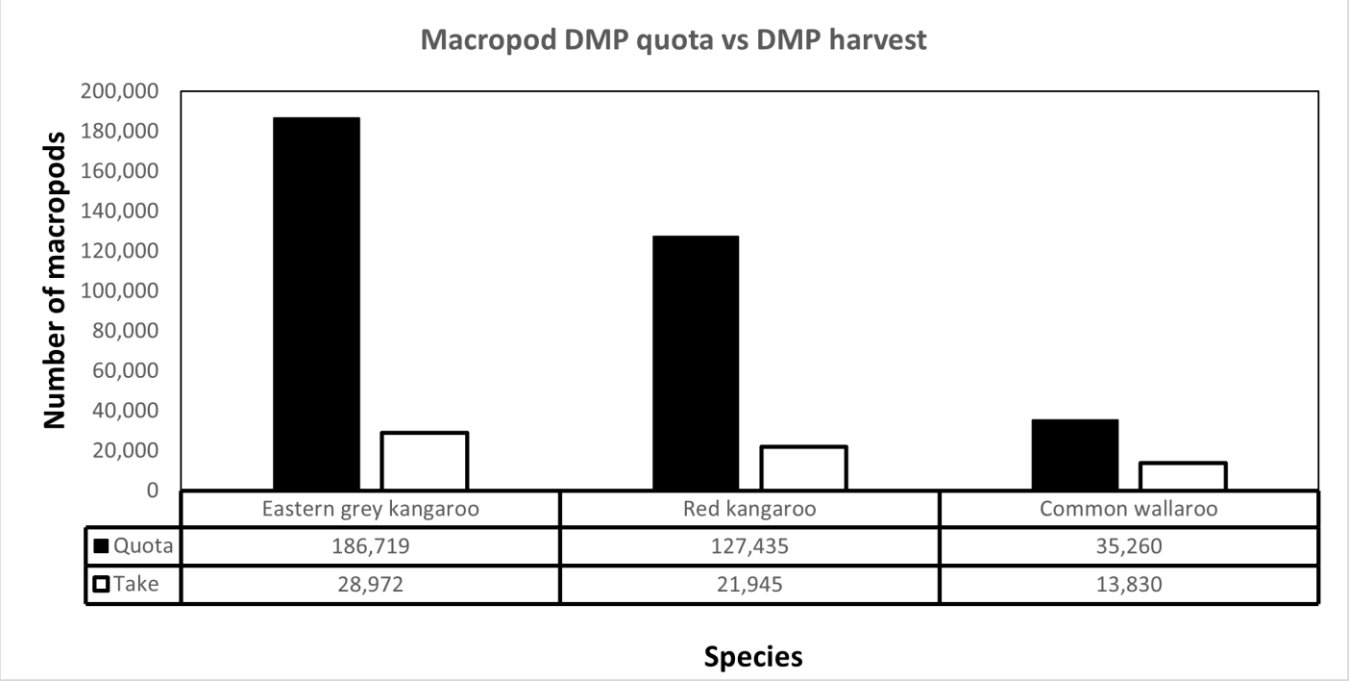
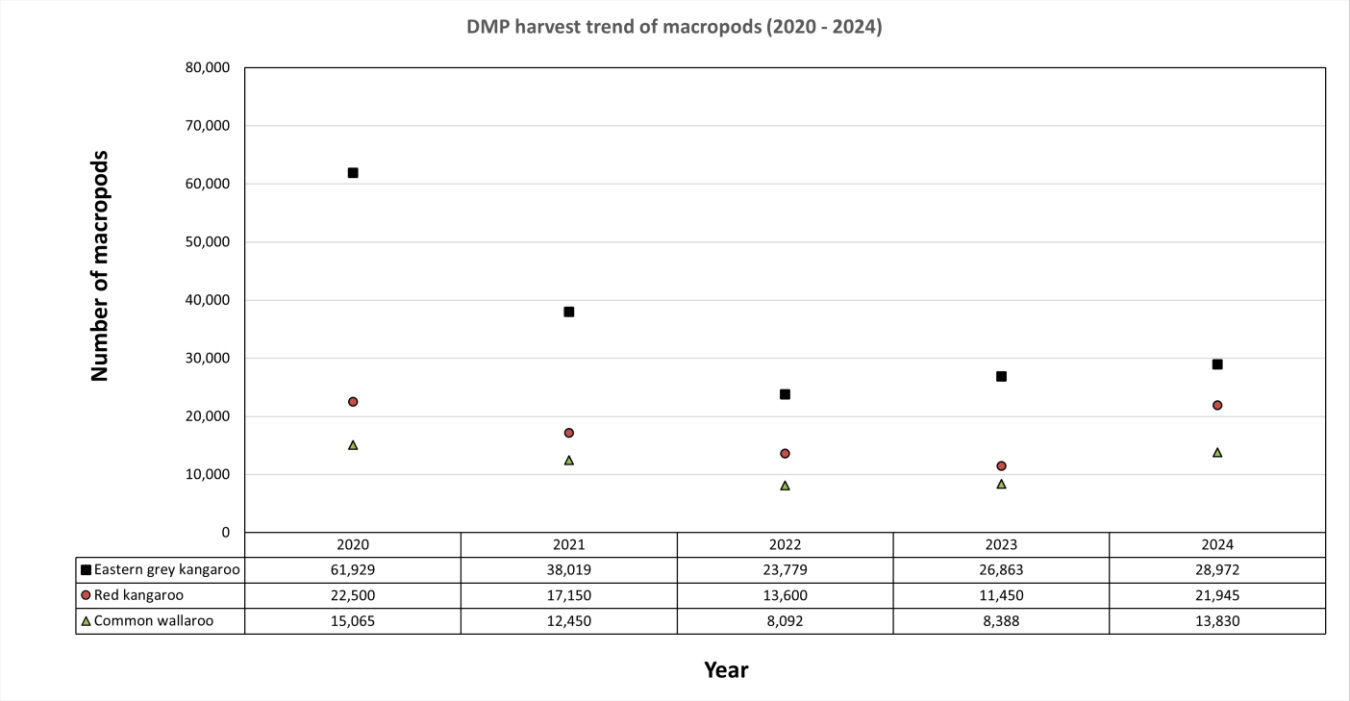


Figure 14: Macropod non-commercial quota and non-commercial harvest through damage mitigation permits (DMP) in 2024.



	2020	2021	2022	2023	2024
Eastern grey kangaroo	61,929	38,019	23,779	26,863	28,972
Red kangaroo	22,500	17,150	13,600	11,450	21,945
Common wallaroo	15,065	12,450	8,092	8,388	13,830

Figure 15: Trend of macropods harvested under damage mitigation permits between 2020 - 2024.

7. Disease outbreak mortality

No reports of disease outbreaks in macropods across Queensland were reported during 2024.

8. Long-term population, quota and harvest trends

Since 1991, the Queensland Government has conducted an annual program of aerial surveys by helicopter to directly monitor populations of the three macropod species covered by the Queensland Wildlife Trade Management Plan for Export—Commercially Harvested Macropods 2023–2027. These surveys occur over 22 representative monitor blocks across the state and are utilised to obtain population estimates that inform the quota.

In 2011 a correction factor of 1.85 was applied to population estimates for common wallaroos in Queensland. Prior to 2011 a conservative correction factor of 1.2 was used for common wallaroos. Current harvesting rates (quotas ranging from 10 to 20% of population estimates) are considered sustainable (Caughley et. al. 1987, Hacker et. al. 2002). None of the three commercially harvested species has shown a consistent decline in abundance since 1992 (Figure 16) which would necessitate a reassessment of the harvest take and species conservation status. Whilst no consistent declines have been observed, the macropod populations in Queensland have fluctuated over time. Of these species, the eastern grey kangaroo is consistently most abundant across the harvest zones, followed by the red kangaroo. Common wallaroos are the lowest. All three species occur in numbers of over 1,000,000 across the harvest zones.

Figures 16–19 below outline data on the three commercially harvested macropod species pertaining to population, commercial harvest quota and macropods commercially harvested and sold for the years

1992–2024. It should be noted that harvest quotas are calculated from population estimates based on aerial surveys conducted in the previous year to the harvest. Combined population estimates, quota and harvest data have been used for the period post-regionalisation to enable comparison with data collated prior to this period. As quotas are set as a constant proportion of the populations, they fluctuate as populations fluctuate, however, numerous factors influence harvest rates for commercial macropods. These include population levels, market forces, environmental conditions and access by harvesters. As a consequence, there is no clear pattern or trend in the proportion of the quota harvested since 1992.

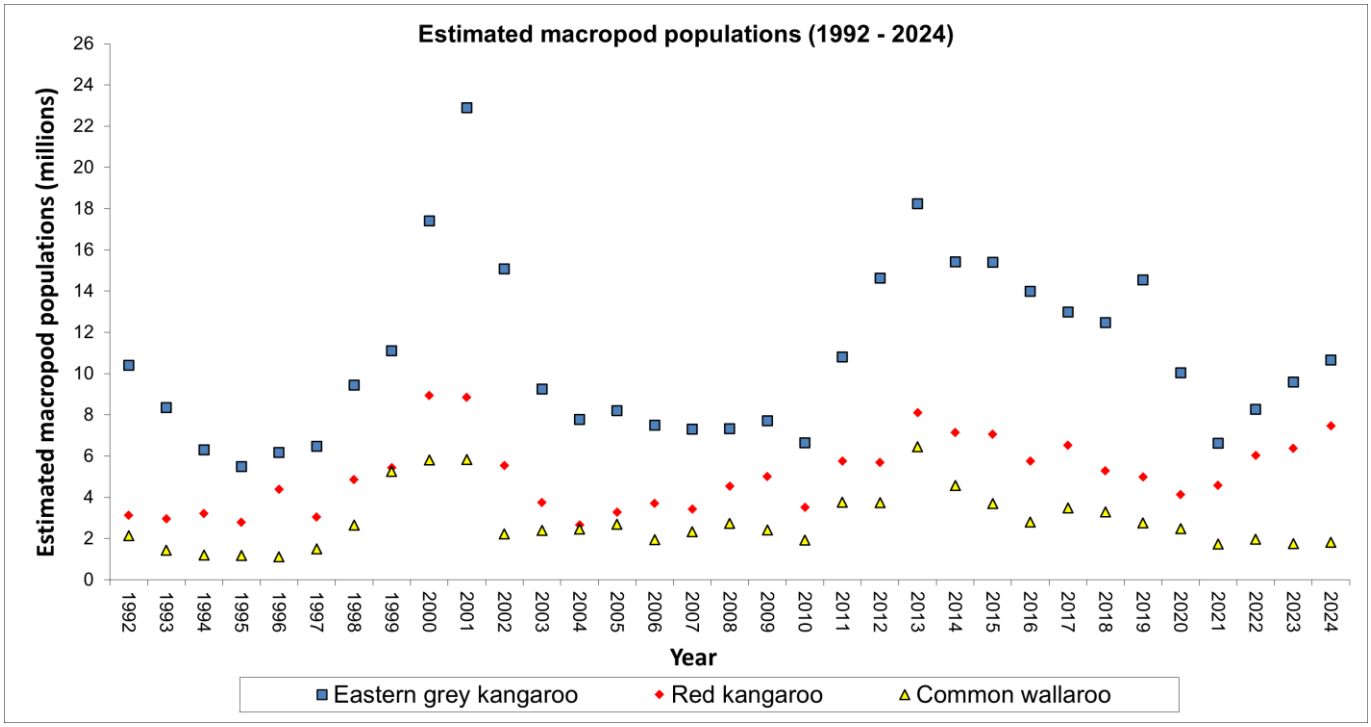


Figure 16: Estimated macropod populations in Queensland harvest zones from 1992 - 2024.

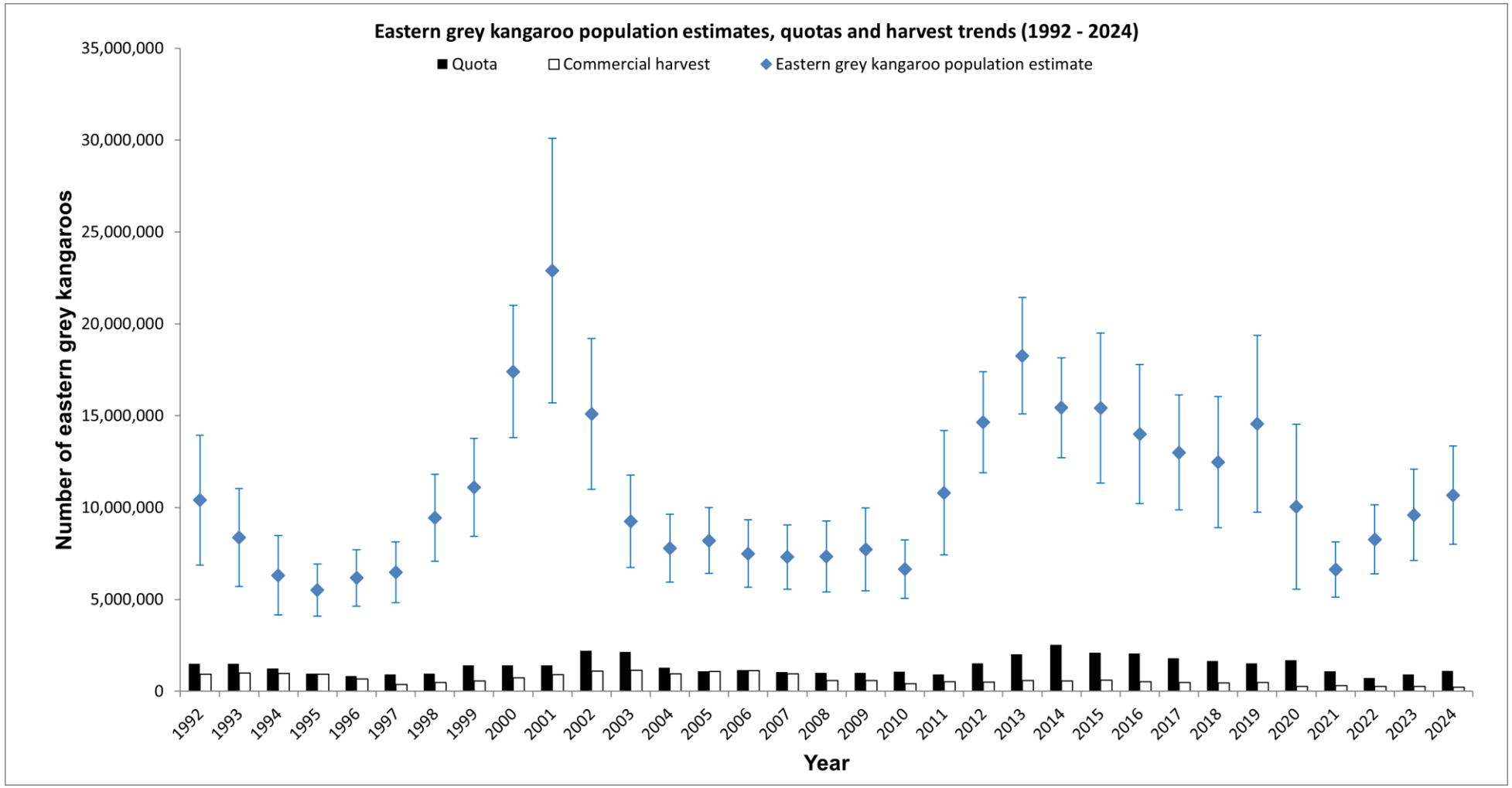


Figure 17: Long-term estimated populations (± SE), commercial harvest quotas and actual harvest of eastern grey kangaroos. Note: Harvest quotas are based on survey estimates from the previous year.

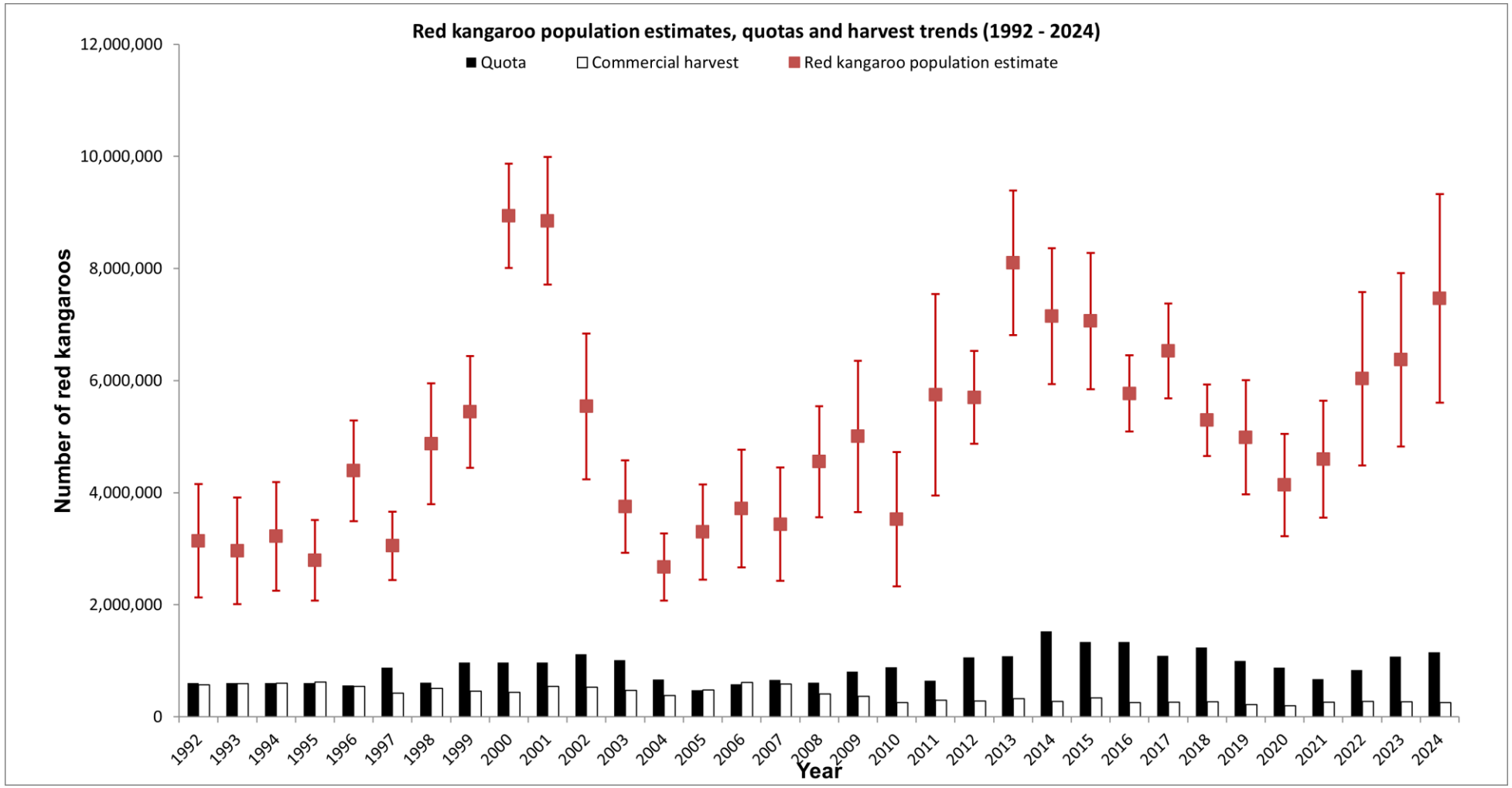


Figure 18: Long-term estimated populations (± SE), commercial harvest quotas and actual harvest of red kangaroos. Note: Harvest quotas are based on survey estimates from the previous year.

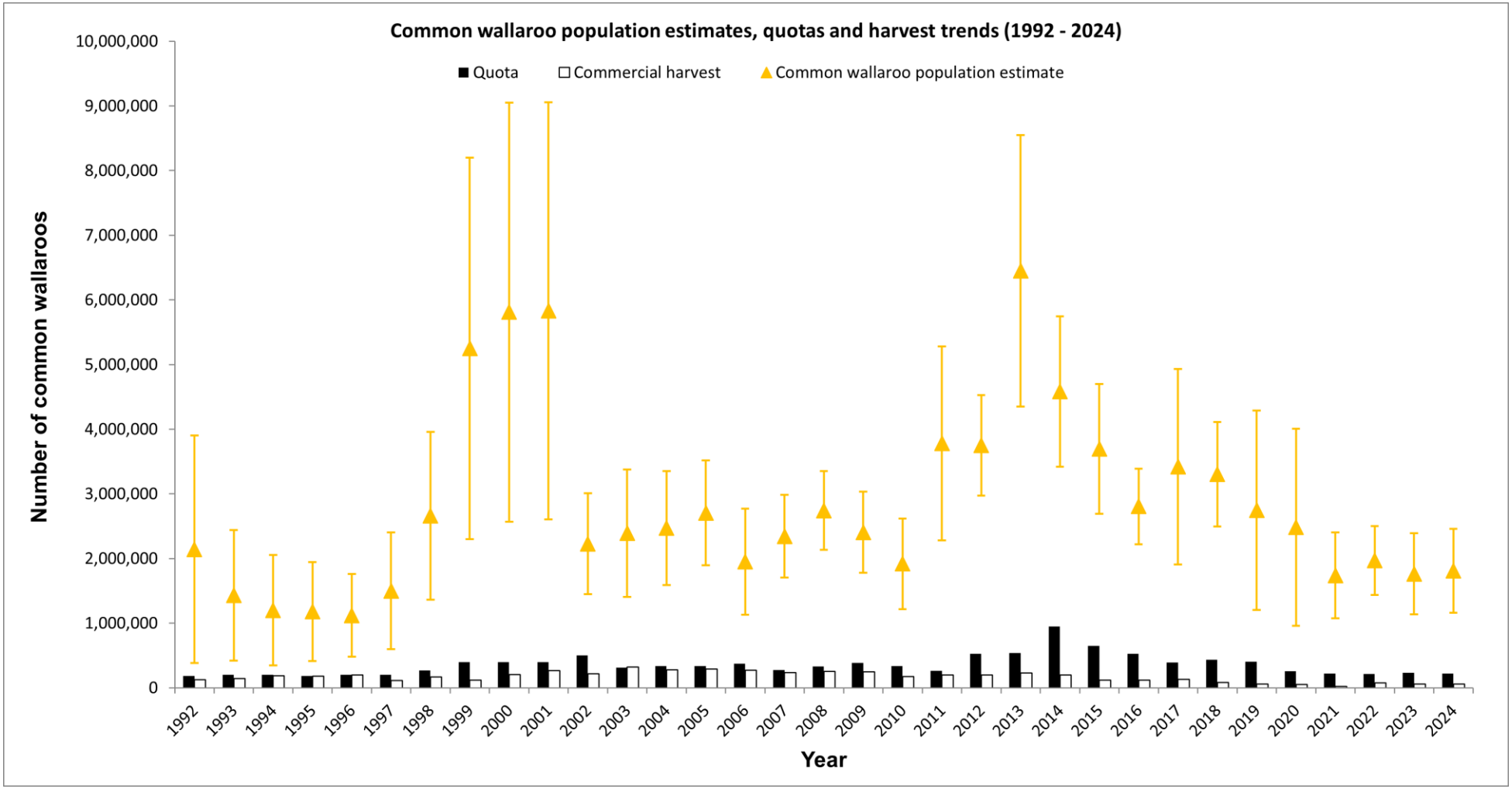


Figure 19: Long-term estimated populations (± SE), commercial harvest quotas and actual harvest of common wallaroos. Note: Harvest quotas are based on survey estimates from the previous year.

9. Compliance

During the 2024 harvest period, inspections of dealer sites, processor sites and harvesters were completed state-wide. Overall compliance was considered good. Inspections were targeted towards higher risk sites.

The harvest of macropods in Queensland requires compliance, investigation and enforcement resources. Compliance activities are conducted both infield and through desktop auditing. There are five compliance officers authorised under the *Nature Conservation Act 1992* within the Macropod Management Unit. The majority of macropod harvest field compliance activities are undertaken by these officers; however the department undertakes collaborative compliance work with wildlife rangers, the Queensland Police Service, and Safe Food Production Queensland (SFPQ).

Other compliance activities are conducted by the Macropod Management Unit including licence audits, harvest return analysis, report compilation and licence application assessment. Licensees are assessed at time of application against suitability criteria. These include accrual of 10 or more demerit points, convictions against the *Nature Conservation Act 1992* or any other matters relevant to the person's ability to carry out the activities authorised by the licence in a competent and ethical way.

Compliance priorities for the 2024 harvest period were:

- Harvesters hold the appropriate licence.
- Macropods are correctly tagged with a valid 2024 harvest period tag.
- Macropods are tagged with the correct species/zone tag.
- Prohibited (non-head-shot) macropods are not traded.
- Compliance with the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes 2020.
- Harvesters produce/carry valid written landholder consent as per licence conditions.
- Ensure timely, complete, and accurate harvest returns.

The integrity of a quota relies upon the premise that tags are not reused or applied to the wrong species or used in the wrong harvest zone. To objectively and adequately demonstrate effective compliance levels, an inspection target of 1% of the overall harvest; with 10% of the sample inspected at a detailed level has been established.

9.1. Inspections

The department conducted both programmed and unannounced inspections of harvesters, dealers and processors. During the 2024 harvest period, officers conducted 64 in field inspections throughout the state. Other complaints and evidence of non-compliance were also investigated.

Throughout the harvest period, inspection targets were a minimum of 1% of the harvest being visually inspected and 0.1% of the harvest being inspected in detail. The visual inspection target of 1% was met, as was the detailed inspection target of 0.1% (Table 6). All operating processor sites were inspected during the 2024 harvest period. In addition to planned inspections, compliance officers investigate reports of illegal harvesting to the fullest extent possible.

Table 6: Inspection targets.

	Inspection target	Inspections conducted
Visual inspection—1% of overall harvest	5168 – (1%)	10,771 – (2.08% of harvest)
Detailed inspection of 0.1% of harvest	517 – (0.1%)	1,470 – (0.28% of harvest)

9.2. Compliance and enforcement measures

Breaches of legislation are subject to enforcement action such as warning notices, fines, licence cancellation or suspension and prosecution.

Enforcement action is taken in accordance with the department's enforcement guidelines. Written warnings or infringement notices are given at the discretion of compliance officers, in accordance with the department's enforcement guidelines and in consultation with the Manager. Decisions on possible prosecutions involve consultation with the Manager and department's litigation unit.

During the 2024 harvest period, a total of 66 infringement notices and 949 warning notices were issued (Table 7). During the 2024 harvest period three licences were suspended and one cancelled due to compliance issues. An additional 15 licences were suspended due to late returns.
One licence holder appeared in the magistrate's court during 2024 for one offence under the Nature Conservation Act 1992. The licence holder was fined $2,000, with no conviction recorded.

Table 7: Details of offences during 2024.

Dealer	PIN	Warning
Fail to give return for each period/by prescribed time.	2	35
Failure to have record complete, accurate, legible and in ink.	0	1
Harvester		
Fail to comply with condition of authority.	0	14
Fail to give return of operations for each month of the harvest period/by prescribed time.	65	924
Fail to properly attach a tag immediately after macropod is dressed.	0	7
Failure to have record complete, accurate, legible and in ink.	0	2
Failure to show authority or identification without reasonable excuse. (S318 offence)	0	1
Keep, use, sell or give away a prohibited macropod.	1	0
Keep/use lawfully taken protected wildlife without lawful authority.	0	0
Sell/give Macropod to person other than of prescribed class of person.	0	1
Total	66	949

10. Climate

Queensland's average rainfall totals across the state were greater than the long-term averages for most areas in 2024, though this figure varied considerably between months. Between May and October, most months recorded rainfall totals below long-term averages, with the remaining months of the year recording averages well-above long-term averages.

All local government areas of Queensland were considered drought free at the conclusion of the harvest period (Figure 20). Harvest zones 1, 3 and 4 recorded above average rainfalls for the harvest period, while zones 2 and 5 recorded average to above average. Temperatures across the Queensland harvest zones were also above the average long-term maximums and minimums (1961-1990 average).

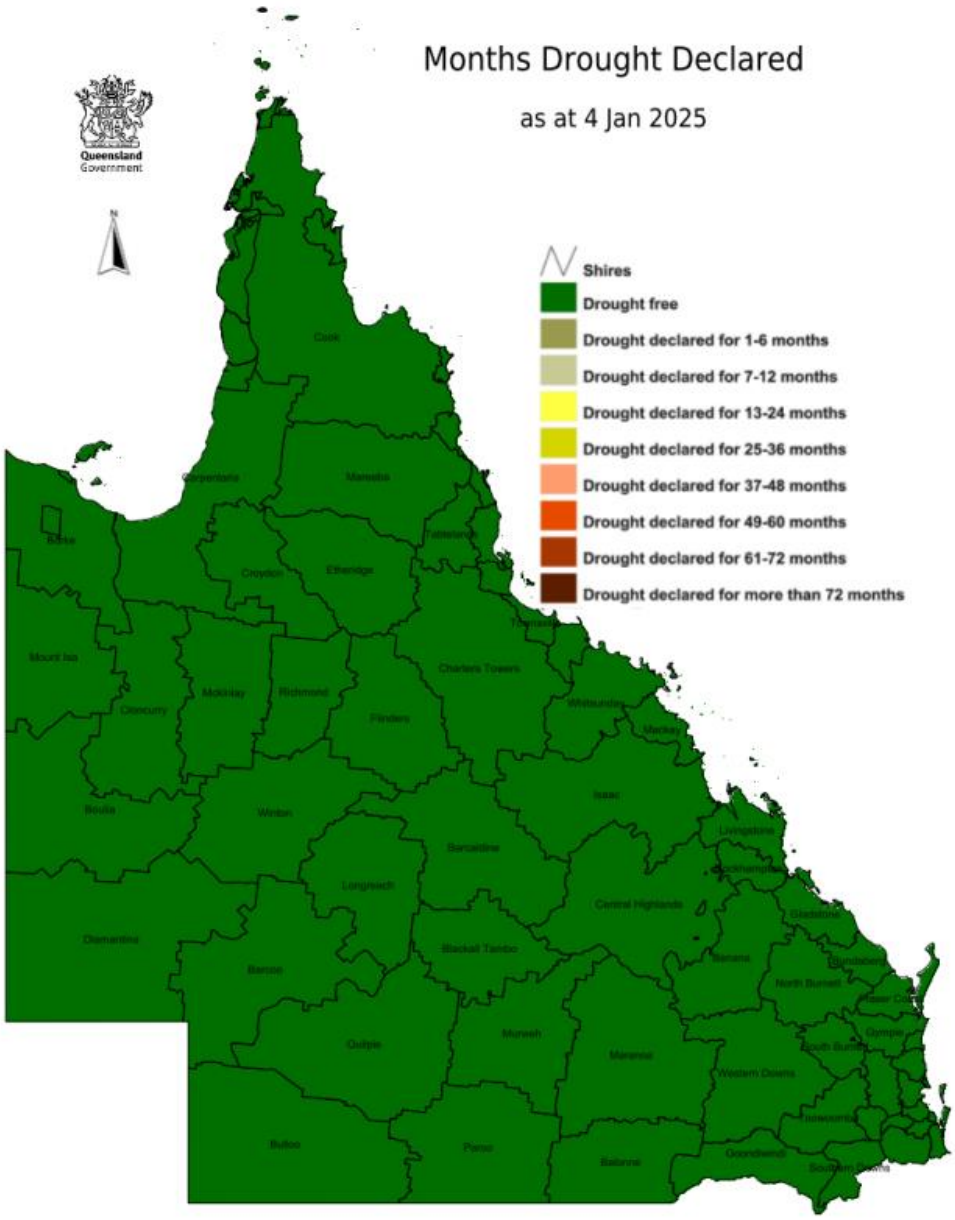


Figure 20: Queensland drought declarations as at 4th January 2025.

11. Research and experiments

In 2022 the Macropod Management Unit increased the survey coverage using helicopters across the Queensland harvest zones. The unit has continued to collect aerial survey data over seven new helicopter survey blocks. Data collected from these surveys continues to be analysed and will be used to inform ongoing population estimate models in the future.

The department continues to respond to requests for data from researchers and other stakeholders as they arise.

12. Program improvements

In 2023, the department transitioned to harvest tags manufactured from Category 2 HDPE. These laminated tags remain highly durable and retain all the advantages of the previous Tyvek tags but without the risk of fraying. They are 100% recyclable, litter-free and locally made in Queensland. The Macropod Management Unit continues to grow the circular economy by returning all packaging used to transport tags back to the manufacturer for reuse. The Macropod Management Unit continue to look for innovations and are currently working with the manufacturer to achieve a fully biodegradable product and further reductions in packaging and transport costs in the future.

In January 2023, the Macropod Management Unit made submitting records of returns compulsory using the Online Services portal. However, exceptions are provided to licence holders who do not have access to the internet. For the 2024 harvest period, 97.5% of all records of returns were submitted online.

Due to the majority of licence holders now entering data directly into Macropods Online, the Macropod Management Unit were able to run regular audits of licence holders compliance with the requirement to provide a return of operations within 14 days of the end of each month. Through the use of Warning Notices and where necessary PINs, the number of licence holders complying with this regulatory requirement was 99% by the close of the 2024 harvest period.

13. References

Department of Environment and Science (Qld) (2023). Queensland Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2023–2027. Queensland Department of Environment and Science; Brisbane.

Bureau of Meteorology, 2024, Annual Climate Summary for Queensland, Queensland in 2024 (bom.gov.au) accessed January 2025.

Caughley, G., Shepard, N. and G. Short. 1987. Kangaroos, their ecology and management in the sheep rangelands of Australia. Cambridge University Press; Cambridge.

Hacker, R., McLeod, S., Druhan, J., Tenhumberg, B. and U. Pradhan. 2002. Managing Kangaroos in the Murray-Darling Basin. Technical Report to the Murray-Darling Basin Commission; Canberra.

Appendix 1

Queensland Wildlife Trade Management Plan for Export—Commercially Harvested Macropods 2023–2027, performance indicators

Aim	Action	Performance indicator	Progress in 2024
Aim 1. Ensure the commercial use of macropods in Queensland is ecologically sustainable.	**Action 1.1**. Populations within the sustainable harvest zones will be estimated annually based on aerial surveys.	**1.1.1**. Macropod population estimates are obtained annually using aerial surveys conducted over the life of this plan.	Achieved
	Action 1.2. Macropod harvest quotas will be set in accordance with the provisions of the Queensland Wildlife Trade Management Plan 2023–27.	**1.2.1**. All macropod harvest quotas are set in accordance with the provisions of the Queensland Wildlife Trade Management Plan 2023–27.	Achieved
		1.2.2. The Commonwealth is advised of harvest quotas for the following calendar year by 30 November. The quota submission will contain the following information: – Population estimates for each species in each harvest zone – quotas calculated as proportion of population estimate – any proposed changes to quotas – any changes to the harvest zones – data outlining trends in population estimates, quotas and harvest.	Achieved
		1.2.3. If Commonwealth approval is required for quotas set above the rates specified in this plan as part of an adaptive management experiment, approval will be obtained before the additional quota is implemented.	NA
		1.2.4. The quota report is made available to the public on the Queensland Government website.	Achieved
	Action 1.3. Special macropod harvest quotas will be set in accordance with the provisions of the Queensland Wildlife Trade Management Plan 2023–27.	**1.3.1**. Special macropod harvest quotas are set and utilised in accordance with the provisions of the Queensland Wildlife Trade Management Plan 2023–27.	NA
	Action 1.4. Macropod populations will be monitored indirectly throughout the life of this plan.	**1.4.1**. Where a harvest zone showed greater than 40 per cent female harvest, then appropriate management action would be taken.	NA
	Action 1.5. Annual population estimates for commercially harvested macropod species will be	**1.5.1**. Where an estimated population for a population estimate region within the Central harvest zone falls below a set trigger point of 1.5 standard deviations below the long term average	Achieved

Aim	Action	Performance indicator	Progress in 2024
	assessed against predetermined trigger points in each population estimate region.	for that region then the harvest quota will be reduced for that region in the next calendar year.	
		1.5.2. Where an estimated population for a population estimate region within the Central harvest zone falls below a set trigger point of two standard deviations below the long-term average for that region then the harvest quota will be further reduced or suspended for that region in the next calendar year.	Achieved
Aim 2. Ensure humane treatment of commercially-harvested macropods.	**Action 2.1**. The department will work with accredited providers to ensure that all potential harvesters are competent to achieve the standards set out in the code of practice before being issued a license.	**2.1.1.** All successful applicants for harvester's licences have completed the approved training course and the approved shooting test.	Achieved
		2.1.2. Approved course of training is reviewed and revised if necessary during the life of this plan.	Achieved
		2.1.3. The code of practice is provided to all new applicants when they receive their licence and is available on the Queensland Government website.	Achieved
	Action 2.2. The department will monitor compliance with the code of practice by commercial macropod industry operators.	**2.2.1.** All licensees who are found to have breached licence conditions in relation to animal welfare are issued with warning notices, PINs or are prosecuted as appropriate.	Achieved
	Action 2.3. The department will contribute to nationally-focused research in improving animal welfare outcomes, if requested.	**2.3.1.** Research proposals from universities and other research institutions concerned with the welfare aspects of the commercial harvest of macropods are considered during the life of this plan. Assistance to such research will be provided where appropriate.	Achieved

Aim	Action	Performance indicator	Progress in 2024
Aim 3. Promote First Nations culture as it relates to the sustainable use of macropods in Queensland.	**Action 3.1**. Throughout the life of this plan the cultural importance of macropods to First Nations people will be promoted.	**3.1.1**. All licence holders will receive regular information on the cultural importance of macropods to First Nations people.	Achieved
		3.1.2. All relevant stakeholder groups, who are not licence holders, will receive information on the cultural importance of macropods to First Nations people.	Achieved
		3.1.3. The Queensland Government website will provide information on the cultural importance of macropods to First Nations people.	Achieved
Aim 4. Manage and administer commercial operators via licensing.	**Action 4.1**. All relevant activities are licensed in accordance with the applicable Queensland legislation and department policy.	**4.1.1** All licences across Queensland are assessed, processed and issued appropriately in accordance with Queensland legislation.	Achieved
		4.1.2 Databases are maintained to ensure licensee information is current and accurate.	Achieved
	Action 4.2. Licence conditions are applied where required.	**4.2.1.** Licence conditions are imposed on licences where required and in accordance with Queensland legislation.	Achieved
		4.2.2. Information notices explaining conditions and rights of review are provided with all licences with licence conditions.	Achieved
Aim 5. Monitor macropod industry compliance.	**Action 5.1.** The department will undertake both regular and opportunistic monitoring of compliance by commercial macropod industry operators.	**5.1.1.** A minimum of one per cent of harvested macropods are inspected by departmental staff to ensure compliance with Queensland legislation and licence conditions.	Achieved
		5.1.2. During the life of this plan all macropod processing works in Queensland are inspected by department staff annually and dealer sites are inspected opportunistically to ensure compliance with Queensland legislation and licence conditions.	Achieved
		5.1.3. During the life of this plan, harvester's vehicles loaded with macropod carcasses are inspected opportunistically to ensure compliance with Queensland legislation and licence conditions and the results of these inspections are documented.	Achieved
	Action 5.2. Activities not in accordance with Queensland legislation and Queensland Wildlife Trade Management Plan 2023–27 will be investigated and where an offence has been committed, and it is appropriate, prosecute.	**5.2.1.** Reports of unlicensed activities and activities in breach of legislation are investigated to the fullest extent possible, and where sufficient evidence is available offenders are issued with warning notices or PINs or prosecuted as appropriate.	Achieved

Aim	Action	Performance indicator	Progress in 2024
	Action 5.3. The accuracy of industry returns will be continually monitored during the life of this plan.	**5.3.1.** During the life of this plan, incoming industry returns are scrutinised and discrepancies are investigated and resolved.	Achieved
	Action 5.4. A compliance database will be maintained to support investigations, inspections and audits.	**5.4.1**. A compliance database of investigations, inspections and audits is maintained.	Achieved
Aim 6. Undertake program reporting and review**.**	**Action 6.1.** An annual report on the Queensland Wildlife Trade Management Plan 2023-27 will be prepared and submitted to the Commonwealth.	**6.1.1.** An annual report on the operation of the Queensland Wildlife Trade Management Plan 2023–27 for each calendar year is submitted to the Commonwealth Government by the end of March of the following year.	Achieved
		6.1.2. All annual reports prepared during the life of this plan are available on the Queensland Government website.	Achieved
	Action 6.2. The review of this plan will commence no later than 12 months prior to the expiry of this plan in order to assess the success of the plan in achieving its goal.	**6.2.1.** The Queensland Wildlife Trade Management Plan 2023–27 will be reviewed no later than 12 months prior to the expiry of this plan.	Achieved
		6.2.2. The success of the current plan in achieving its goal is assessed by measuring the aims against the performance indicators.	Achieved
		6.2.3. The results of the plan review are presented to the Commonwealth no later than six months prior to the expiry of this plan.	Achieved
Aim 7. Facilitate adaptive management and research.	**Action 7.1.** The department will respond to changes as they arise.	**7.1.1.** Changes to the macropod management program will be communicated on the Queensland Government website and directly to stakeholders.	Achieved
	Action 7.2. The department will facilitate research into the ecology and harvest management of macropods.	**7.2.1.** Research proposals from universities and other research institutions concerned with the ecological aspects of the commercial harvest of macropods are considered during the life of this plan. Assistance to such research will be provided where appropriate.	Achieved

Aim	Action	Performance indicator	Progress in 2024
Aim 8. Promote community awareness and participation.	**Action 8.1.** Relevant public documents will be made available on the Queensland Government website.	**8.1.1.** Throughout the life of this plan, the department's website contains the following information as a minimum standard: – current and previous wildlife trade management plans – monthly tag issue and commercial harvest statistics – historical harvest statistics – population survey reports – current population estimates – current commercial quotas – current harvest period notice – code of practice – contact information for the Macropod Management Unit – access and guidelines to the department's online system for licence/tag applications and submitting returns – current forms for commercial macropod licences.	Achieved
	Action 8.2. Relevant information regarding licensing arrangements will be developed as required and made available to all licensees.	**8.2.1.** A copy of the current harvest period notice and code of practice is made available to harvesters and dealers throughout the life of this plan to ensure that licensees are aware of relevant licensing requirements and responsibilities.	Achieved