



Queensland Commercial Macropod Management Program

Annual Report 2012

Prepared by: Environmental Services and Regulation, Department of Environment and Heritage Protection

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March 2013

Preface

This annual report summarises the activities of the Commercial Macropod Management Program in Queensland for the period 1 January 2012 to 31 December 2012. In accordance with the Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012, 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
- unusual circumstances
- research and experiments
- program improvements.

For the 2012 harvest period, 1314 commercial wildlife harvesting licences for macropods, commonly known as harvester licences, and 118 commercial wildlife licences for dead macropods, commonly known as dealer's licences, were issued. Data from dealer returns, entered up to 18 February 2013, indicates that there were 975,304 macropods commercially harvested, representing 31.4% of the overall quota. The harvest was predominantly for carcasses used for both human consumption and pet food.

No quota was exceeded for any species in any zone in 2012. The highest percentage use of quota was for red kangaroos in the western zone at 61.6%. In all harvest zones, the percentage of the population used for each species was below 6%.

The commercial harvest is typically biased towards males due to their generally larger size and weight when compared to females. For 2012, the harvest for each species was biased towards males by 88.9% or greater.

During the 2012 harvest period, there were 7 joint/interagency inspection operations conducted. A total of 31 infringement notices were issued, 19 warning notices issued and 1 prosecution.

Contents

Preface.....	iii
1. Background.....	1
2. Harvest management	4
3. Harvest.....	5
3.1 Harvest sex ratio	8
3.2 Carcass and skin harvest.....	11
3.3 Average weight	13
4. Special quotas	14
5. The extent of non-commercial harvest mortality.....	14
6. Damage mitigation permits.....	14
7. Disease outbreak mortality	16
8. Long-term population, quota and harvest trends.....	16
9. Compliance	20
9.1 Inspections.....	20
9.2 Compliance and enforcement measures	21
10. Unusual circumstances	22
11. Research and experiments	22
12. Program improvements	22
13. References	22
Appendix 1	23
Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012, performance indicators	23

1. Background

The Department of Environment and Heritage Protection (the department) administers the harvest in accordance with the following overarching goal: 'to provide sustainable use, conservation of the species and their habitats in accordance with the principles of ecologically sustainable development' (Anon 2008).

There are 3 main aspects to the program:

- monitoring populations
- setting quotas
- managing the harvest.

Three species can be commercially harvested in Queensland:

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

These commercially harvested species are abundant over a broad area of Queensland and Australia. None of these species are listed as threatened under state or Commonwealth legislation; all are listed as 'least concern' wildlife under the Nature Conservation (Wildlife) Regulation 2006.

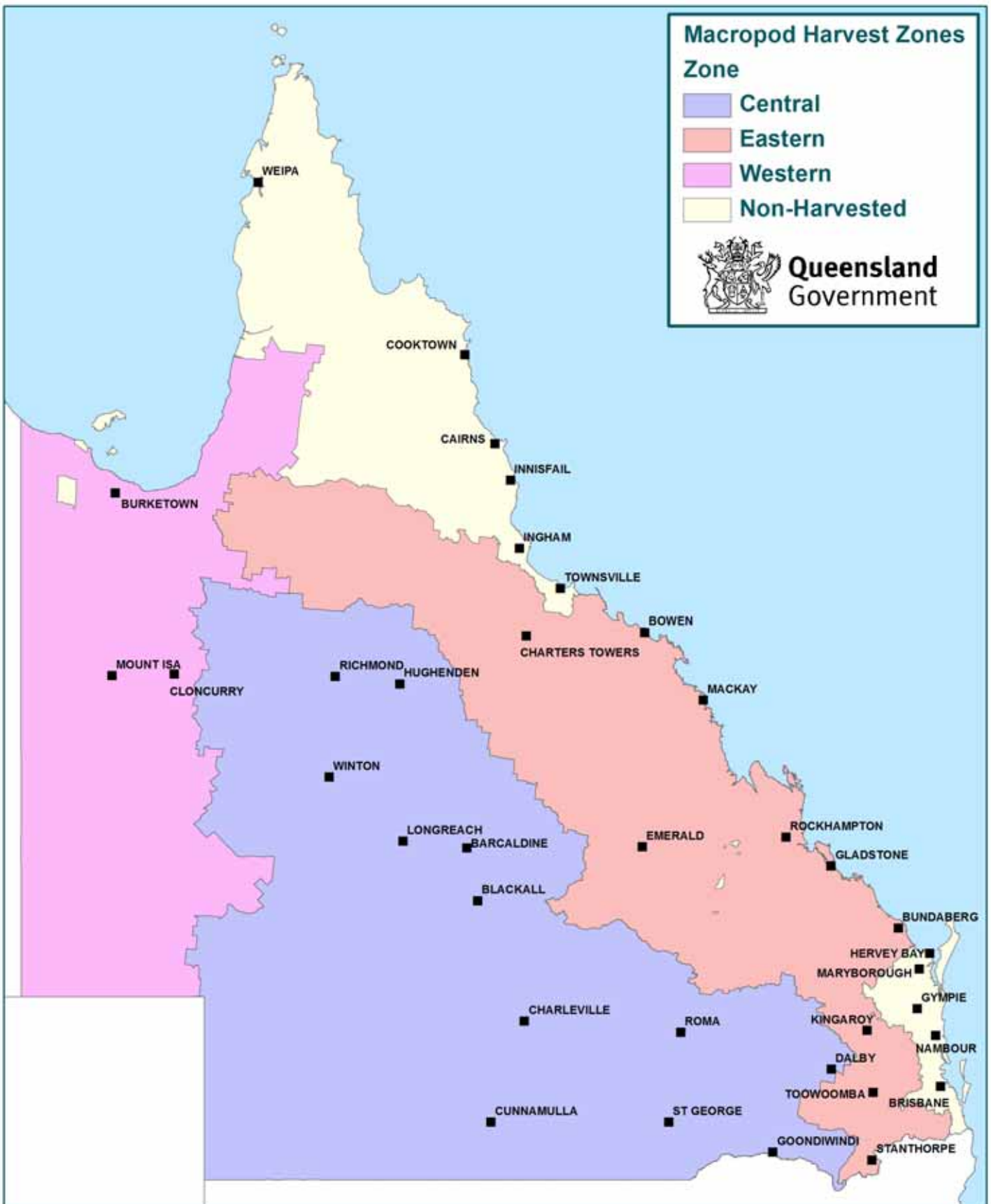
The harvesting of these macropods is regulated through the:

- *Nature Conservation Act 1992*
 - Nature Conservation (Administration) Regulation 2006
 - Nature Conservation (Wildlife Management) Regulation 2006
 - Nature Conservation (Wildlife) Regulation 2006
 - Nature Conservation (Macropod) Conservation Plan 2005
- *Environment Protection and Biodiversity Conservation Act 1999*
- Queensland Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012
- *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 largely based on population estimates derived from annual aerial surveys of the commercially harvested species. Quotas are set for each species for 4 harvest zones (Figure 1):

- non-harvest zone (quota zero)
- eastern harvest zone
- central harvest zone
- western harvest zone.

Figure 1 – Queensland harvest zones in 2012



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 the central zone. For the eastern and western zones, where survey effort is less extensive when compared to the central zone, the more conservative maximum proportion of 10% is applied for all 3 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, and the state and Commonwealth governments, for determining state quota limits.

This annual report summarises the activities of the Commercial Macropod Management Program for the period 1 January 2012 to 31 December 2012. In accordance with the Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012, the report will address:

- 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
- unusual circumstances
- research and experiments
- program improvements.

All macropod species are 'protected animals' in Queensland under the Nature Conservation (Wildlife) Regulation 2006. The Nature Conservation (Administration) Regulation 2006 provides for the licensing of a range of activities in relation to the commercial harvesting of macropods in Queensland.

Macropods can only be taken in accordance with the Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012 and the Nature Conservation (Macropod) Conservation Plan 2005 under a licence issued by the department.

The harvest is controlled by the use of self-locking numbered plastic 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 and are not transferable to any other harvester.
- Tags must be securely attached to the skin of every macropod commercially 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 tags.

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

2. Harvest management

The department issued 1314 harvester's licences and 118 dealer's licences for the 2012 harvest period. 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 75.1% for red kangaroos in the western zone. The actual harvest for this species in this zone was 61.6% of available quota. Statistics on the harvest and tag sales are updated monthly and made available to the public via the department's website. This assists the industry to monitor the harvest and tag availability.

Table 1 – Tag sales and harvest

Tag categories by zone	2012 quotas	Tags sold		Reported harvest	
		Number of tags	% of quota	Number of macropods	% of quota
Central zone					
Eastern grey kangaroo	1,326,400	530,300	39.9%	461,931	34.8%
Red kangaroo	1,020,500	322,000	31.5%	263,494	25.8%
Common wallaroo	438,350	232,750	53.1%	193,940	44.2%
Eastern zone					
Eastern grey kangaroo	195,450	48,350	24.7%	32,288	16.5%
Red kangaroo	10,900	5,600	51.4%	2,123	19.5%
Common wallaroo	55,400	10,400	18.8%	4,552	8.2%
Western zone					
Red kangaroo	26,550	19,950	75.1%	16,351	61.6%
Common wallaroo	30,400	1,850	6.1%	625	2%

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.

3. Harvest

The data from dealer returns, entered up to 18 February 2013, indicates that there were 975,304 macropods commercially harvested, representing 31.4% of the overall quota. The commercial harvest of macropods does not occur evenly across the harvest zones with the majority of harvesting occurring in the Central Harvest zone (Figure 2) Of the 975,304 animals harvested, there were 281,968 red kangaroos, 494,219 eastern grey kangaroos and 199,117 common wallaroos (Figure 3).

Figure 2 – Queensland harvest zones showing relative amount of commercial harvesting occurring in each local government area during the 2012 harvest period

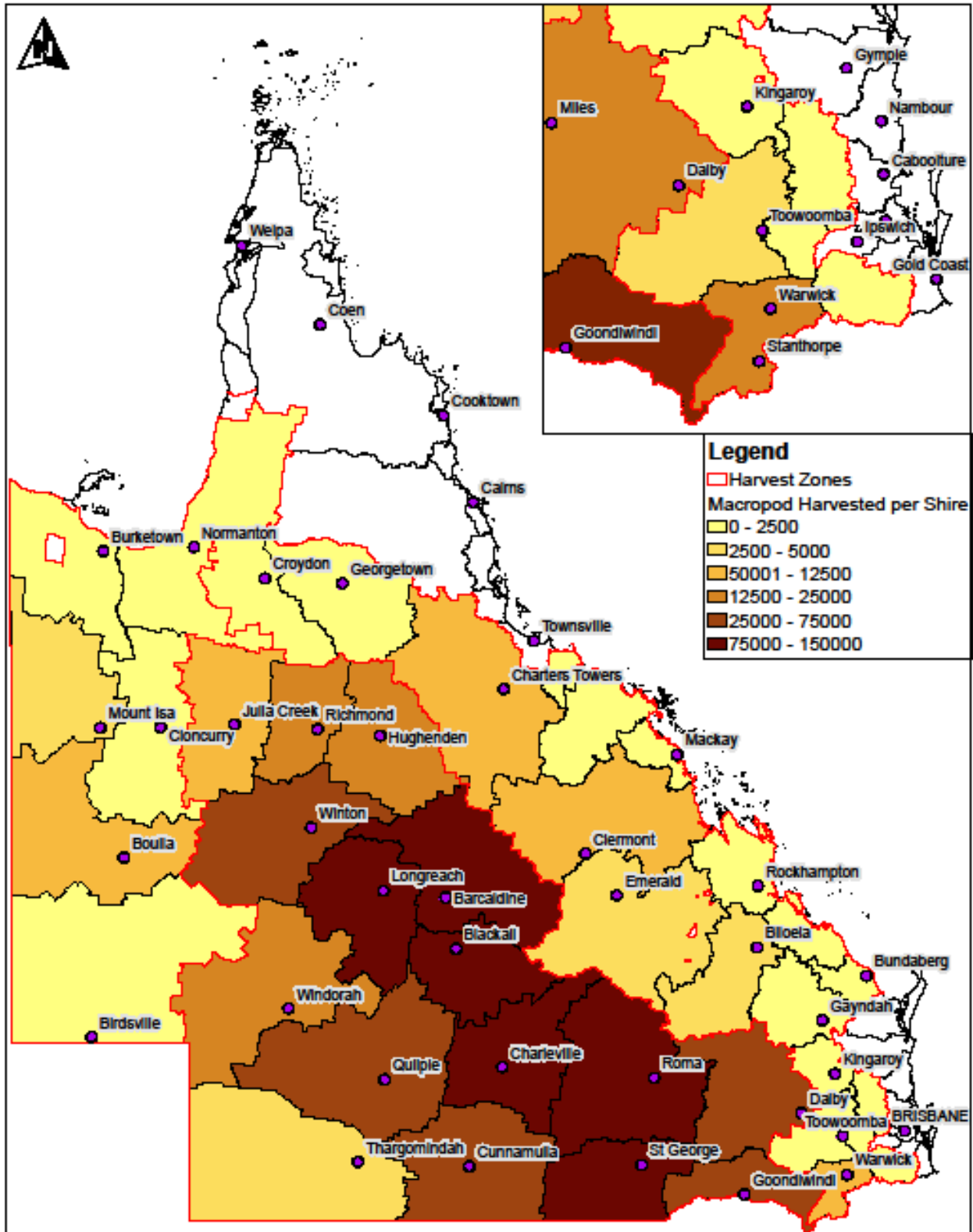
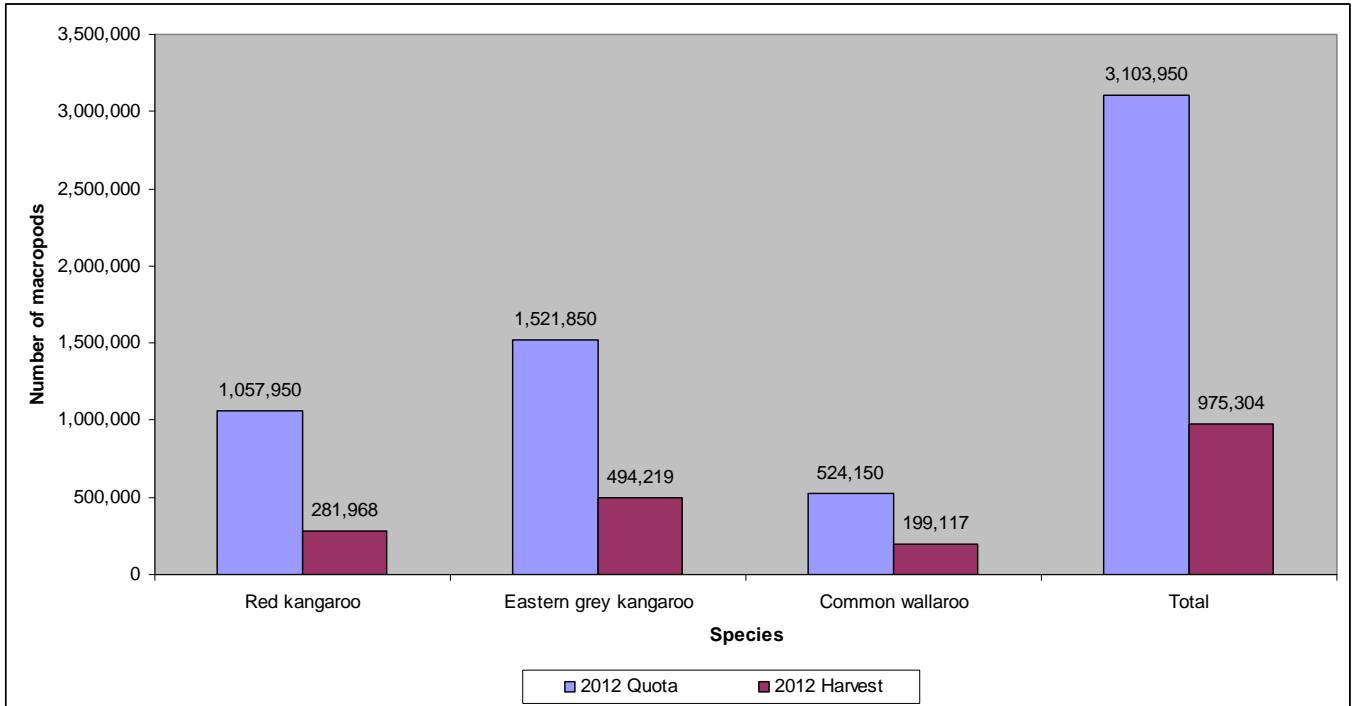
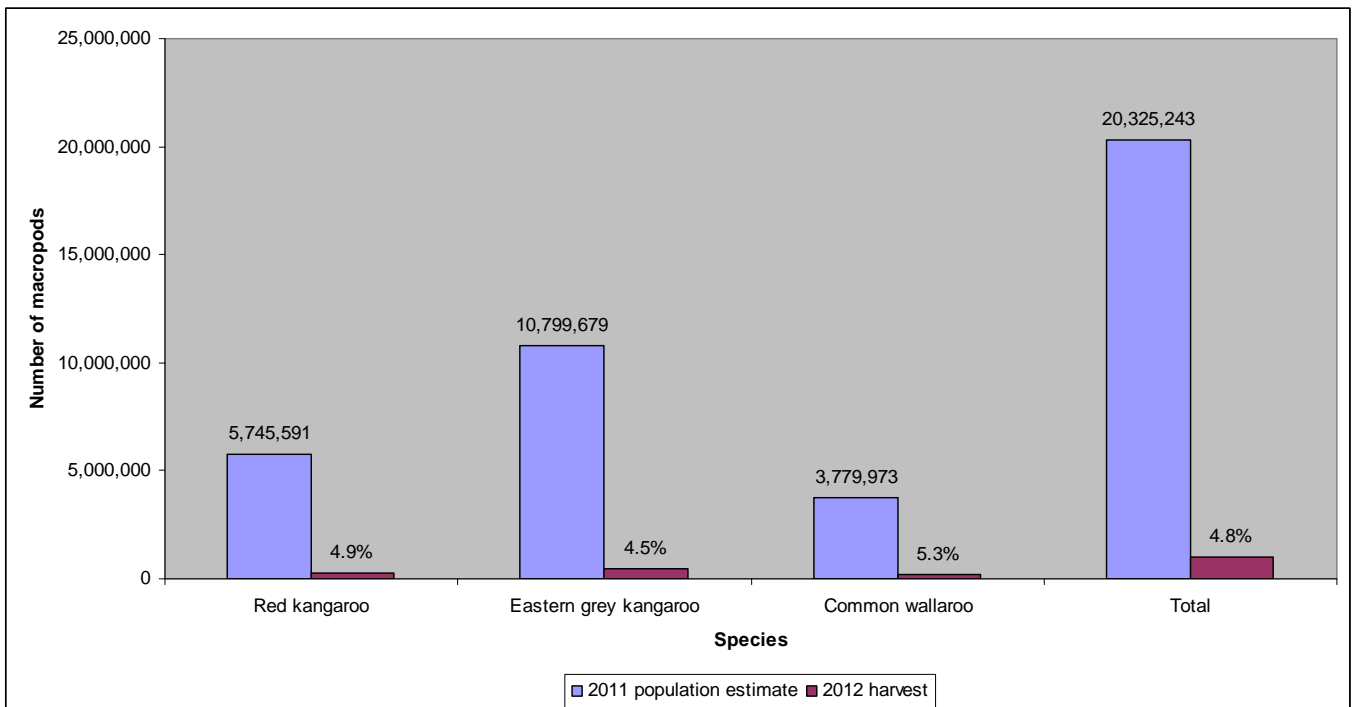


Figure 3 – Total number of macropods harvested in 2012 compared to quotas



For all 3 commercially harvested species the percentage of the population harvested in 2012 was under 6% of the 2011 estimated population (Figure 4). For common wallaroos, just over 5% of the estimated population in the harvest area was harvested, while just under 5% of the estimated population of red kangaroos and eastern grey kangaroos was harvested.

Figure 4 – Percentage of the 2011 estimated population harvested in 2012



Tables 2–5 contain detailed summaries of the commercial harvest in 2012. Quotas for each species in each zone were not exceeded in 2012. The highest percentage of quota used was for red kangaroos in the western zone at 61.6%. In all harvest zones the percentage of the population harvested for each species was below 7%.

Table 2 – Total harvest in 2012

Species	Population estimate 2011	Quota 2012	Harvest take 2012	% quota used 2012	% population harvested 2012
Red kangaroo	5,745,591	1,057,950	281,968	26.6%	4.9%
Eastern grey kangaroo	10,799,679	1,521,850	494,219	32.5%	4.6%
Common wallaroo	3,779,973	524,150	199,117	37.9%	5.3%
Total	20,325,243	3,103,950	975,304	31.4%	4.8%

Note: population estimates are based on aerial surveys conducted in 2011, which were used to set the 2012 quota. Harvest figures are based on data available 18 February 2013.

Table 3 – Harvest of red kangaroos in 2012

Zone	Population estimate 2011	Quota 2012	Harvest take 2012	% quota utilised 2012	% population harvested 2012
Central	5 371 081	1 020 500	263 494	25.8%	4.9%
Eastern	109 141	10 900	2 123	19.5%	1.9%
Western	265 368	26 550	16 351	61.6%	6.2%
Total	5 745 591	1 057 950	281 968	26.6%	4.9%

Note: population estimates are based on aerial surveys conducted in 2011, which were used to set the 2012 quota. Harvest figures are based on data available 18 February 2013.

Table 4 – Harvest of eastern grey kangaroos in 2012

Zone	Population estimate 2011	Quota 2012	Harvest take 2012	% quota utilised 2012	% population harvested 2012
Central	8 842 729	1 326 400	461 931	34.8%	5.2%
Eastern	1 954 533	195 450	32 288	16.5%	1.6%
Western	2 418	0	0	NA	NA
Total	10 799 679	1 521 850	494 219	32.5%	4.6%

Note: population estimates are based on aerial surveys conducted in 2011, which were used to set the 2012 quota. Harvest figures are based on data available 18 February 2013.

Table 5 – Harvest of common wallaroos in 2012

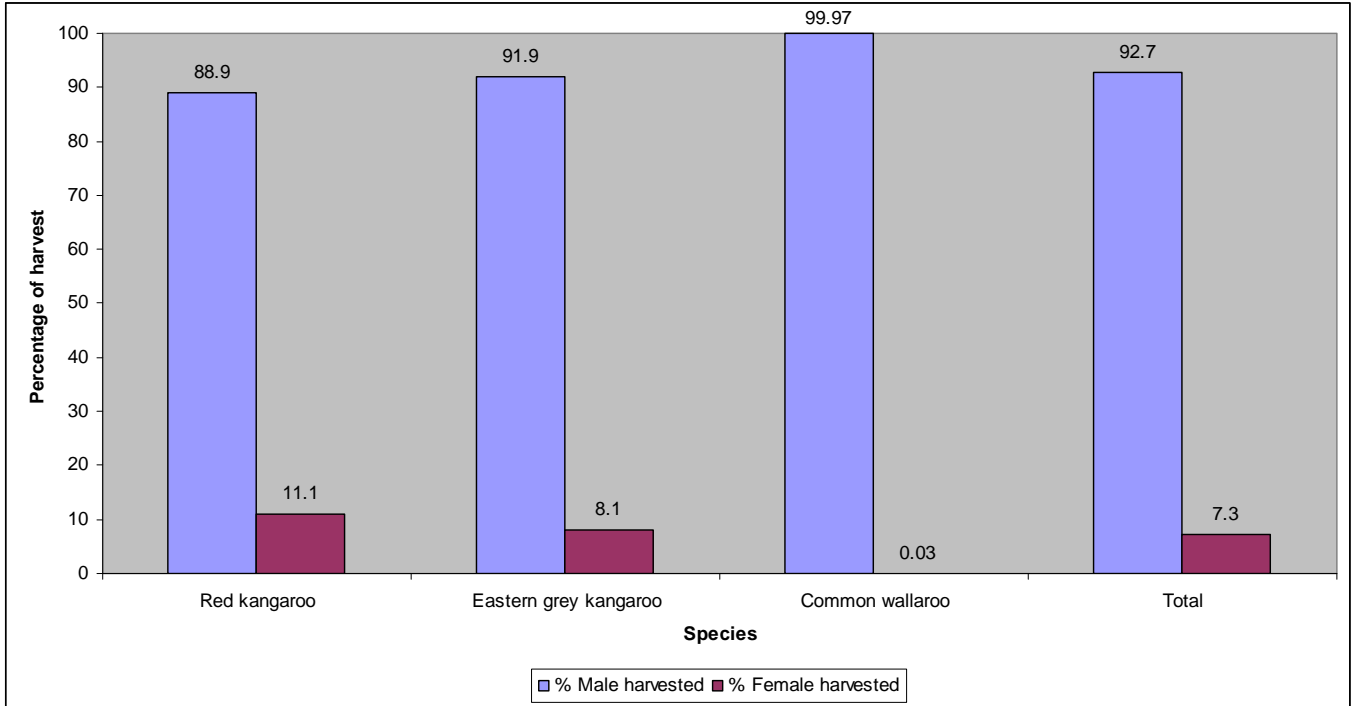
Zone	Population estimate 2011	Quota 2012	Harvest take 2012	% quota utilised 2012	% population harvested 2012
Central	2 922 313	438 350	193 940	44.2%	6.6%
Eastern	553 818	55 400	4 552	8.2%	0.8%
Western	303 842	30 400	625	2%	0.2%
Total	3 779 973	524 150	199 117	37.9%	5.3%

Note: population estimates are based on aerial surveys conducted in 2011, which were used to set the 2012 quota. Harvest figures are based on data available 18 February 2013.

3.1 Harvest sex ratio

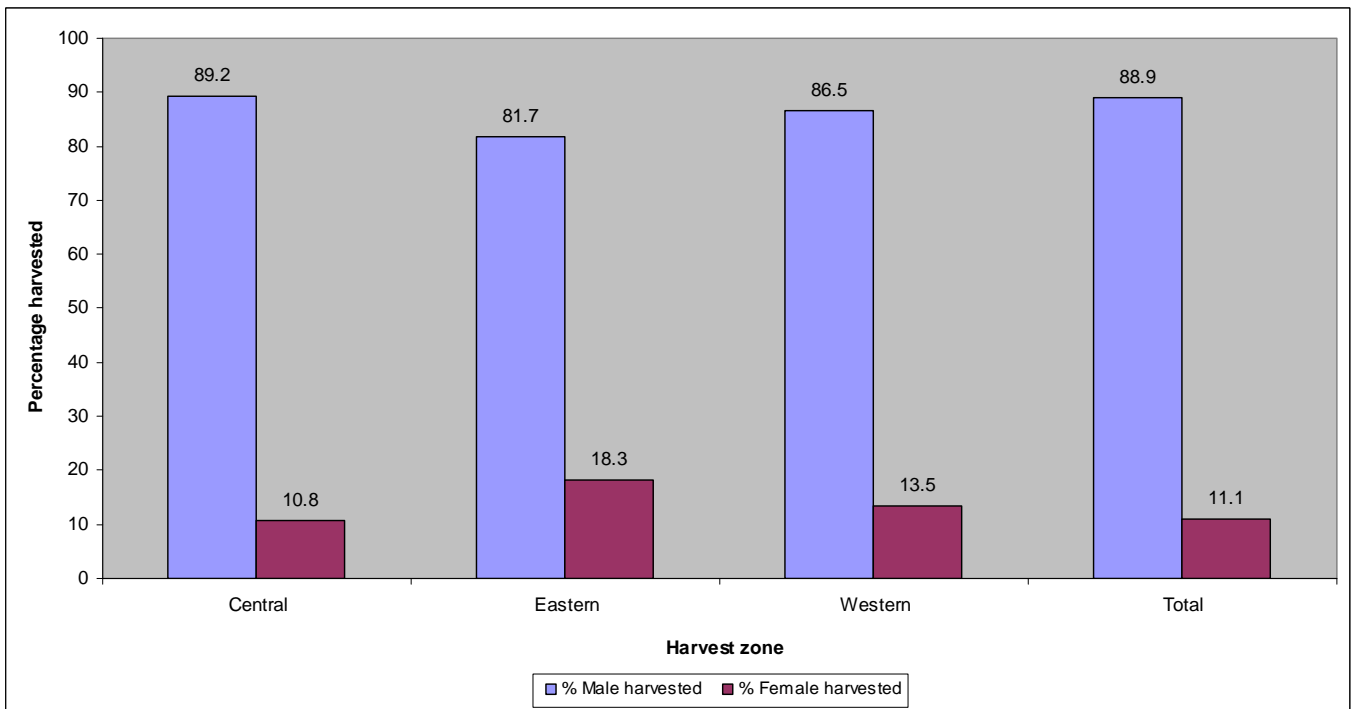
The commercial harvest is typically biased towards males due to their generally larger size and weight when compared to females. For 2012, the harvest for each species was biased towards males by 88.9% or greater (Figure 5). Females composed less than 8% of the overall harvest.

Figure 5 Sex ratio of harvested macropods in 2012 for all harvest zones combined



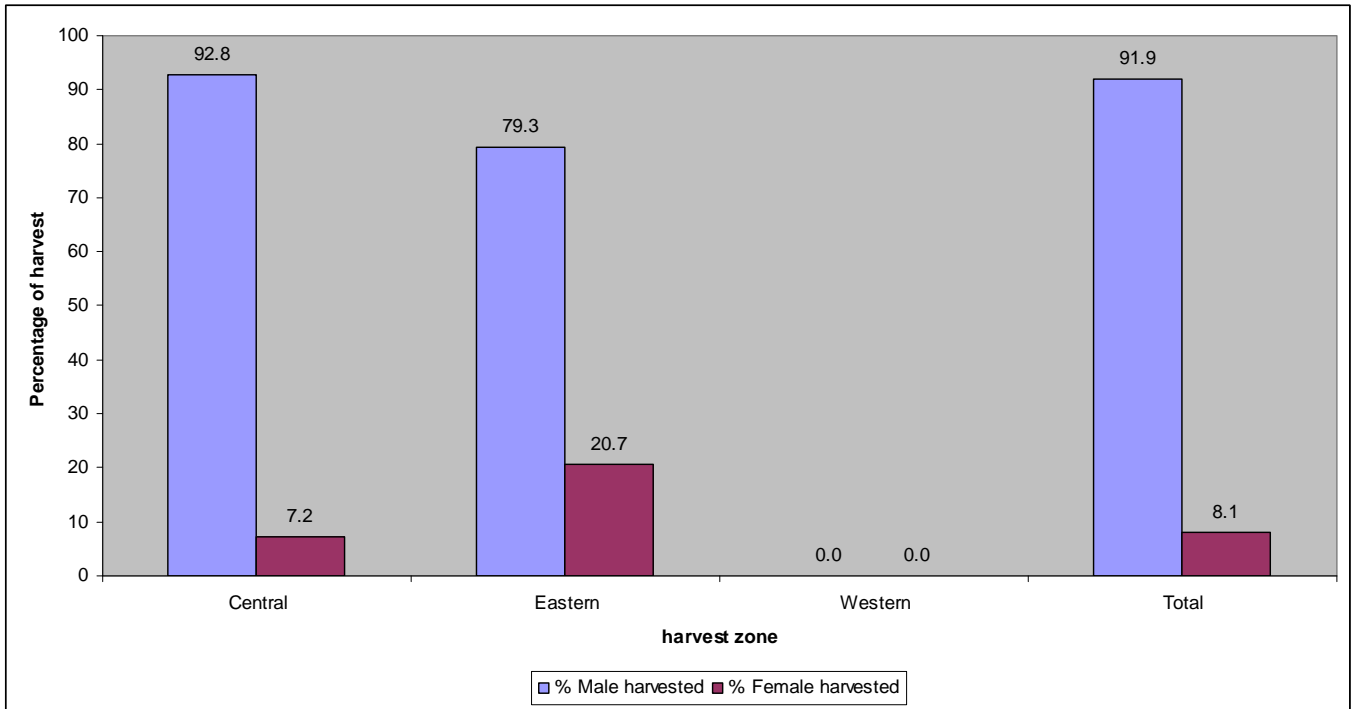
For red kangaroos, the highest percentage of females harvested was in the eastern zone at 18.3%. However, the overall take of females for this species was 10.9% of the harvest (Figure 6).

Figure 6 – Sex ratio of harvested red kangaroos in 2012



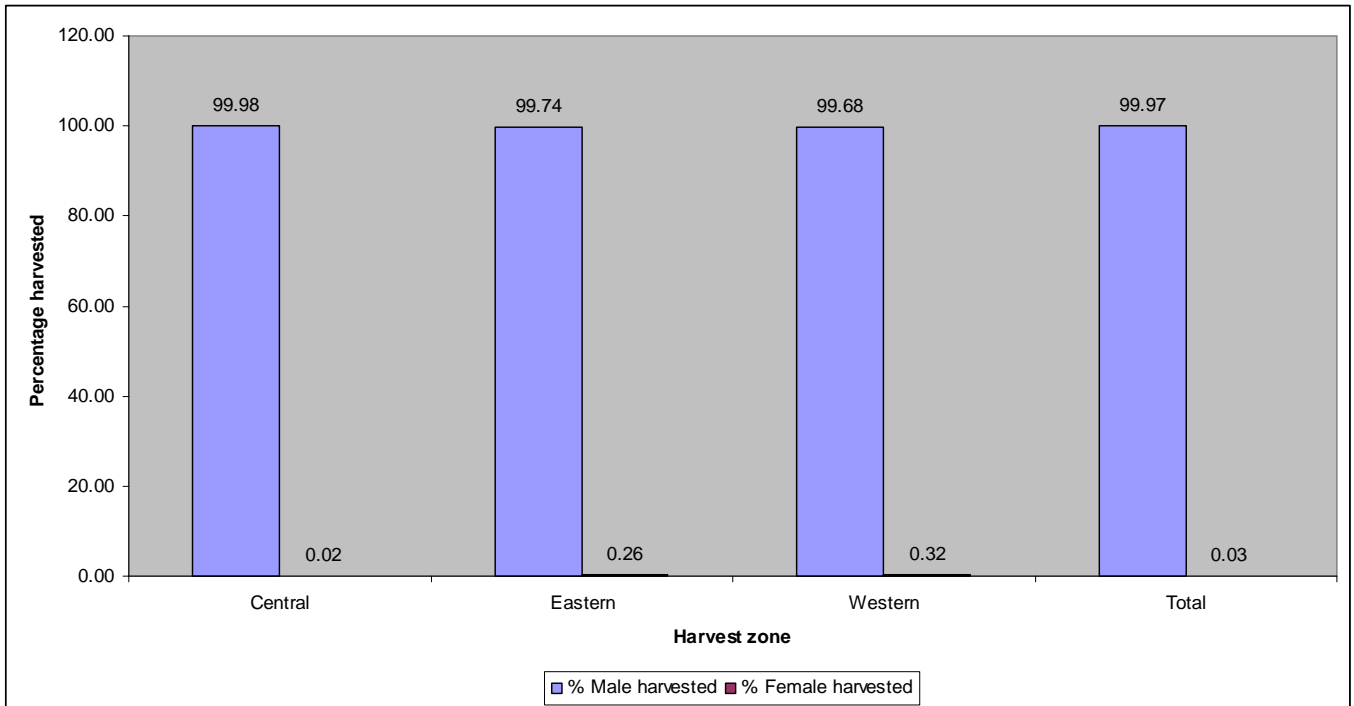
For eastern grey kangaroos the greatest percentage take of females was 20.7% in the eastern zone. Overall for this species, females comprised 8.1% of the harvest (Figure 7).

Figure 7 – Sex ratio of harvested eastern grey kangaroos in 2012



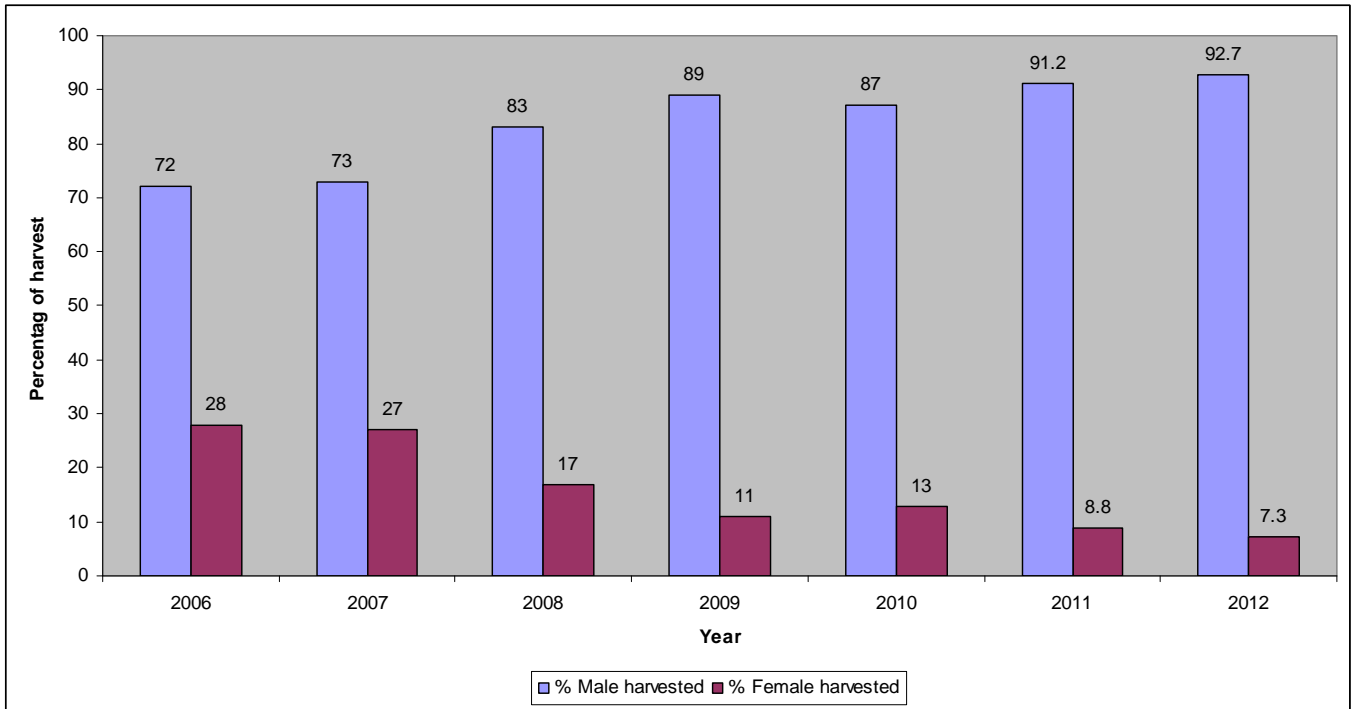
For common wallaroos the percentage of the harvest containing females was the lowest amongst the 3 commercially harvested species at an overall total of 0.03%. The highest take for females was 45 in the central zone (Figure 8).

Figure 8 – Sex ratio of harvested common wallaroos in 2012



The proportion of the commercial harvest comprising females in 2012 was less than 2011 and has been decreasing since 2006 (Figure 9).

Figure 9 – Queensland commercial macropod harvest sex ratio trend 2006 to 2012



3.2 Carcass and skin harvest

The commercial 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 harvested carcasses. Less than 6% of the commercial take are harvested for their skins only. (Figures 10–13) The largest skin only harvest in 2012 was for red kangaroos in the central zone at 25,517, followed by grey kangaroos in the central zone at 24,447.

Figure 10 – Macropod skin and carcass harvest for Queensland in 2012

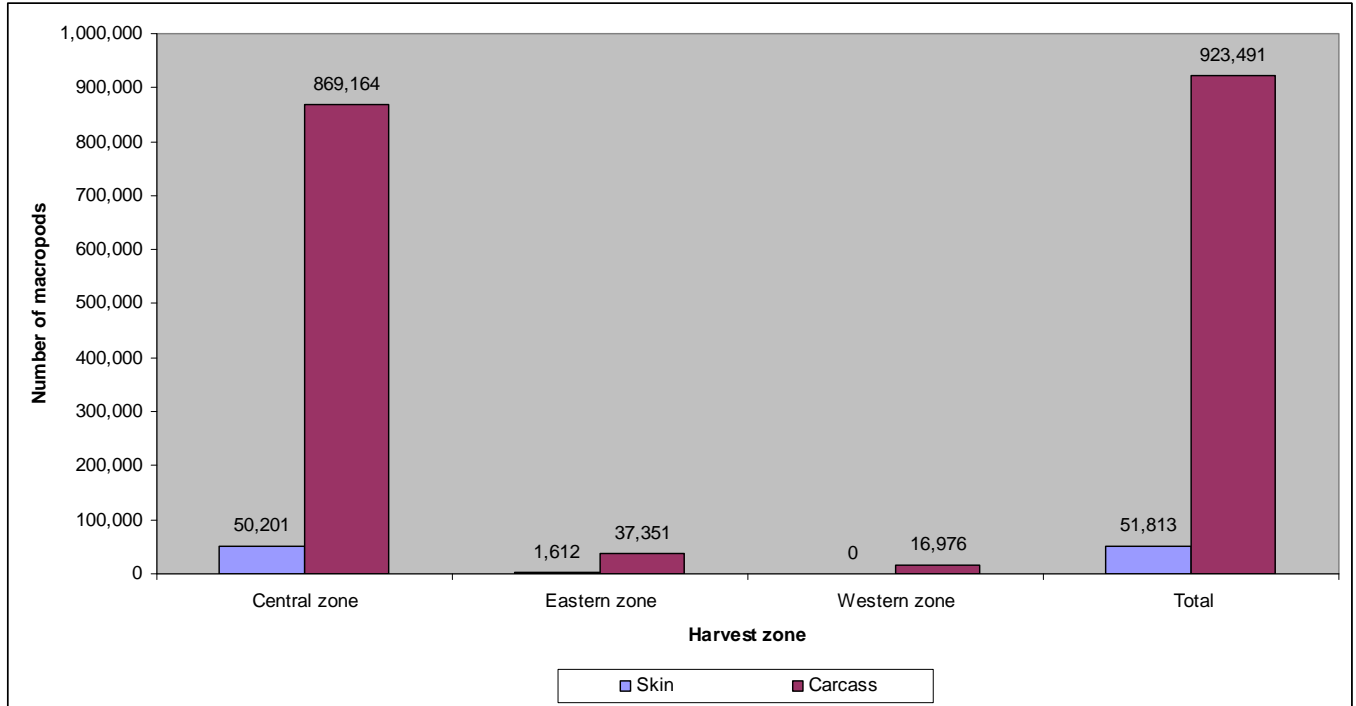


Figure 11 – Skin and carcass harvest of red kangaroos in 2012

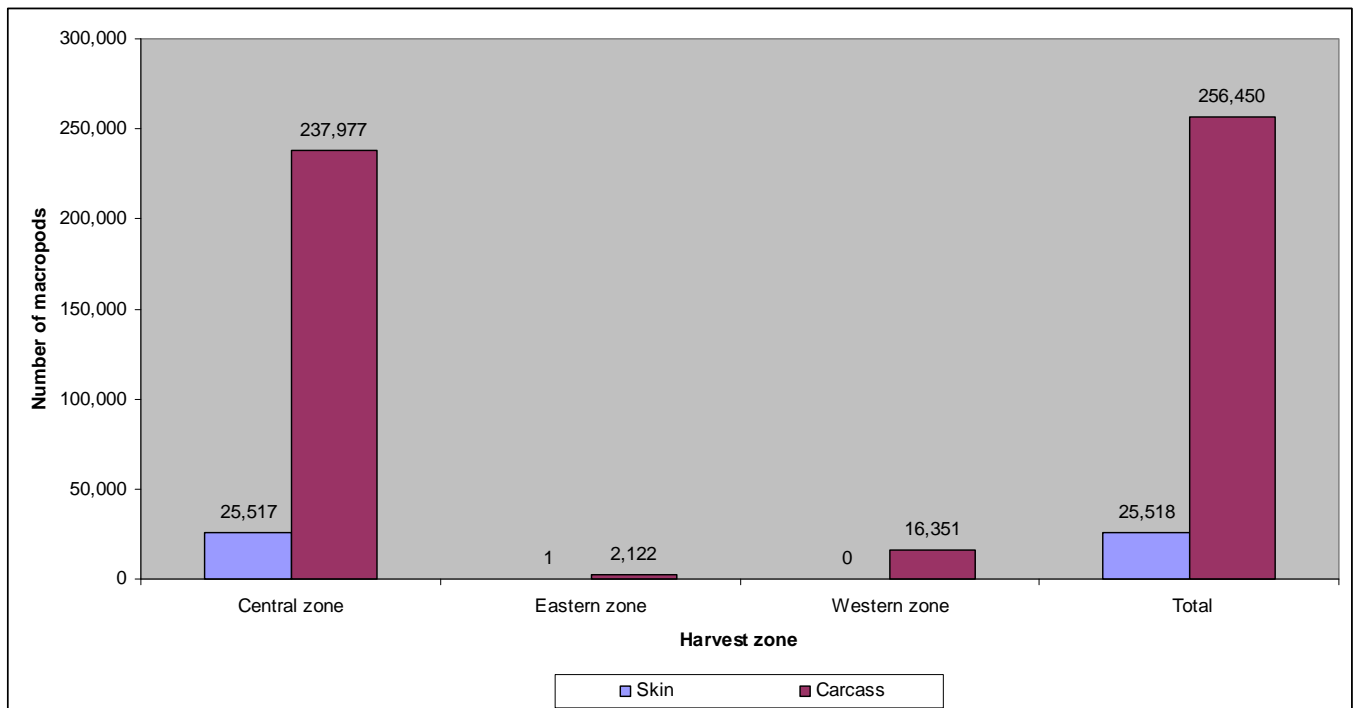


Figure 12 – Skin and carcass harvest for eastern grey kangaroos in 2012

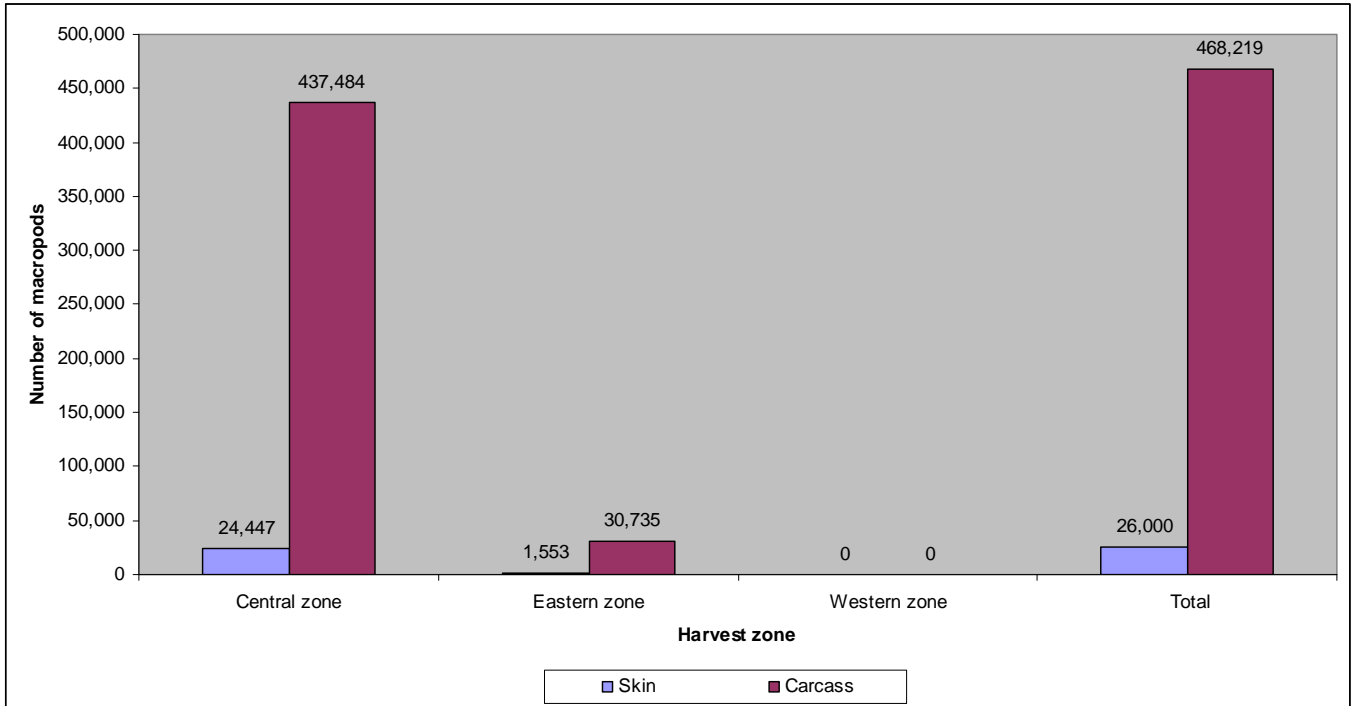
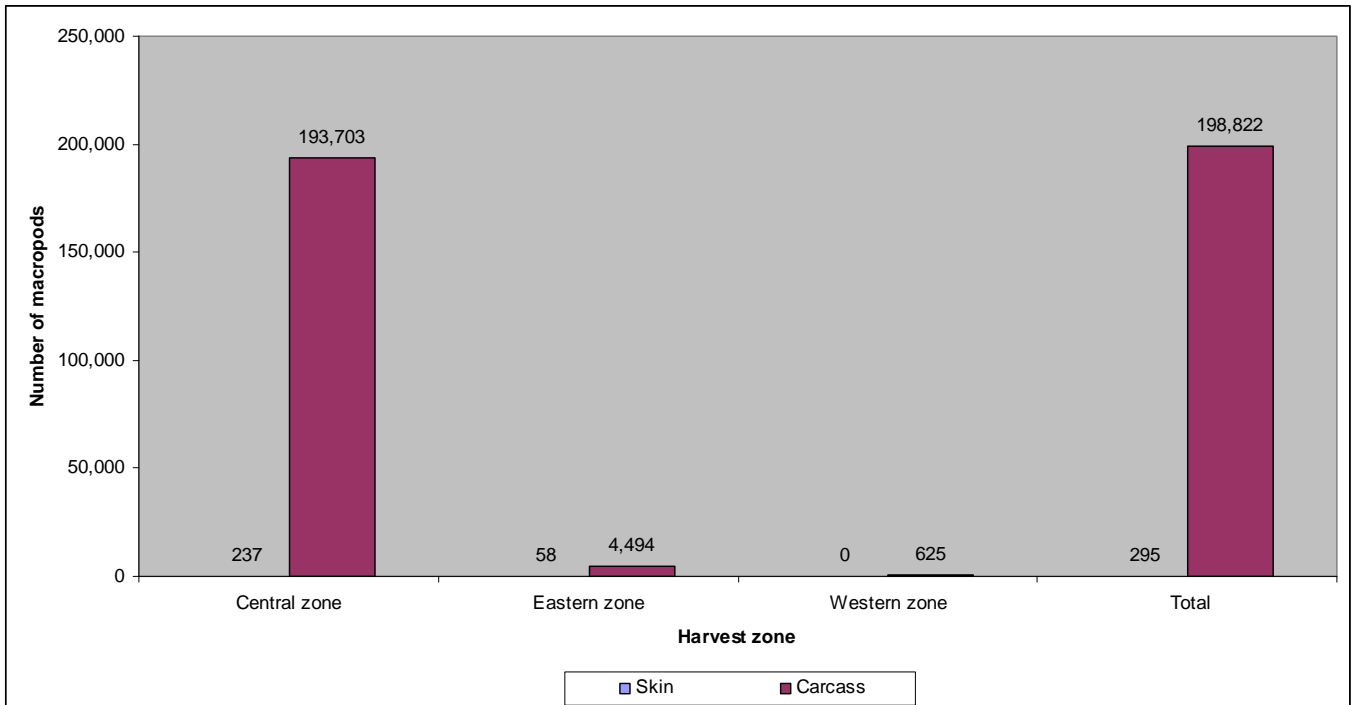


Figure 13 – Skin and carcass harvest for common wallaroos in 2012



3.3 Average weight

The average carcass weights per harvest zone and species are shown in figures 14 to 16. Carcass weights have fluctuated slightly in the past 4 years in each harvest zone. Weights are consistently lowest in the central zone. No significant increases or decreases have occurred in the last 5 years. The minimum weight of a fully dressed carcass as defined in the harvest period notice was 13 kilograms (kg) during the 2011 harvest period. A number of dealer sites established a minimum weight requirement between 16kg and 18kg. This was driven by economic reasons with efficiencies gained in processing heavier carcasses. Regular inspections of dealer sites and monitoring minimum carcass weights ensure the minimum weight requirement is met. Where carcasses are found that breach the minimum weight requirements, both the harvester and dealer may be issued warning or infringement notices and fined.

Figure 14 – Average weight of Queensland macropod carcasses 2007–2012

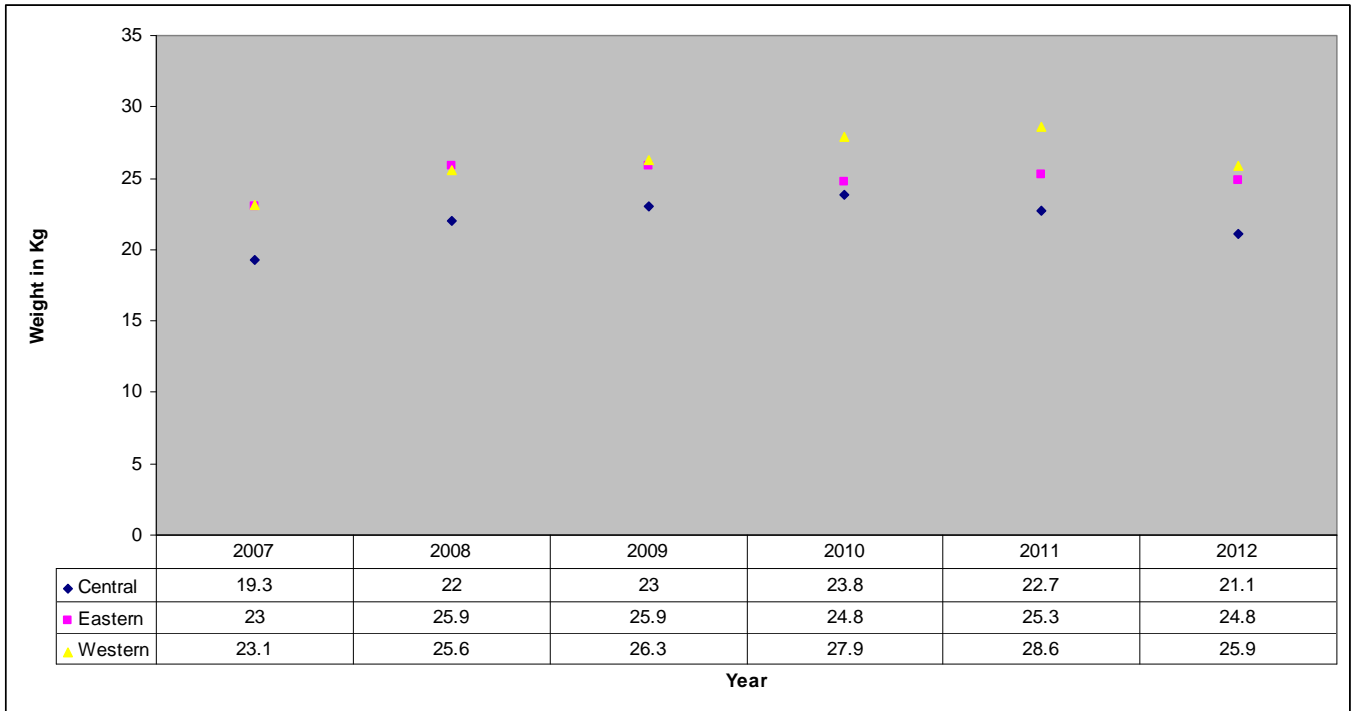
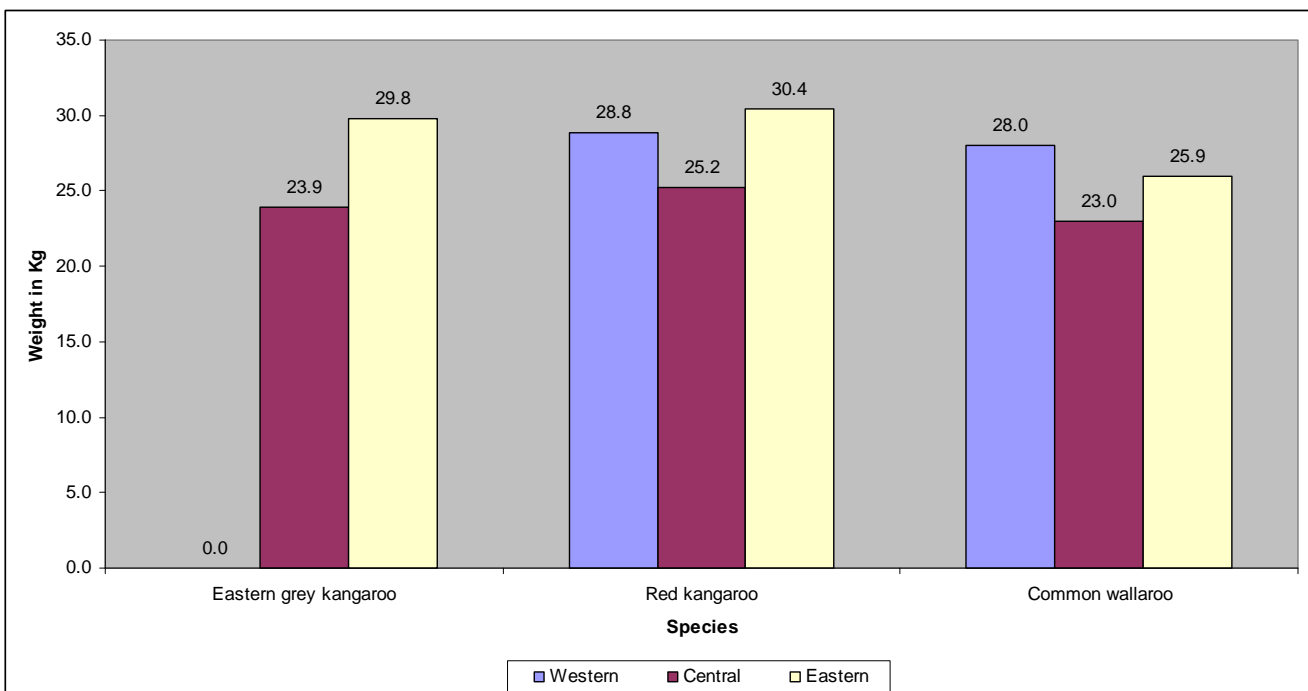
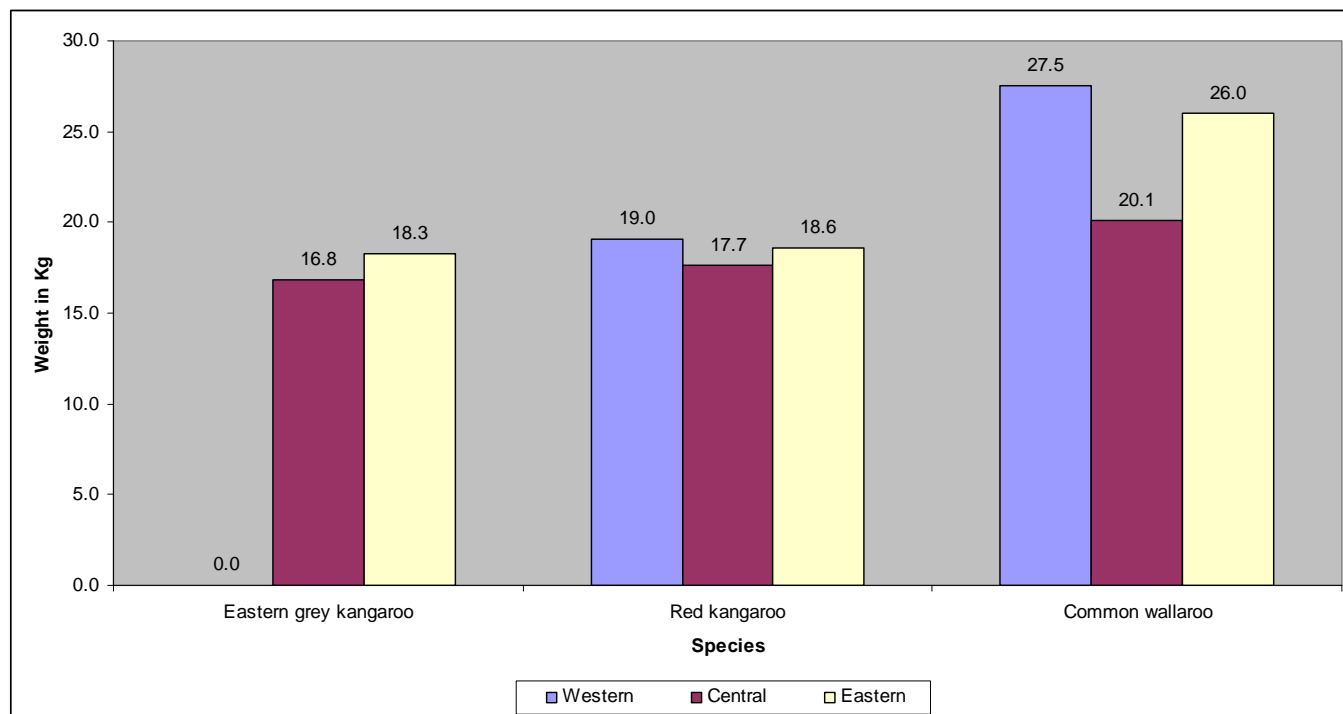


Figure 15 – Average carcass weight for male macropods harvested in 2012



Average carcass weights for female common wallaroos are influenced by the very low number of harvested animals (54 across all 3 zones) Figure 15.

Figure 16 – Average carcass weight for female macropods harvested in 2012



4. Special quotas

A special quota can only be considered once the commercial 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 affect on macropod health. No special quotas were set in 2012.

5. The extent of non-commercial harvest mortality

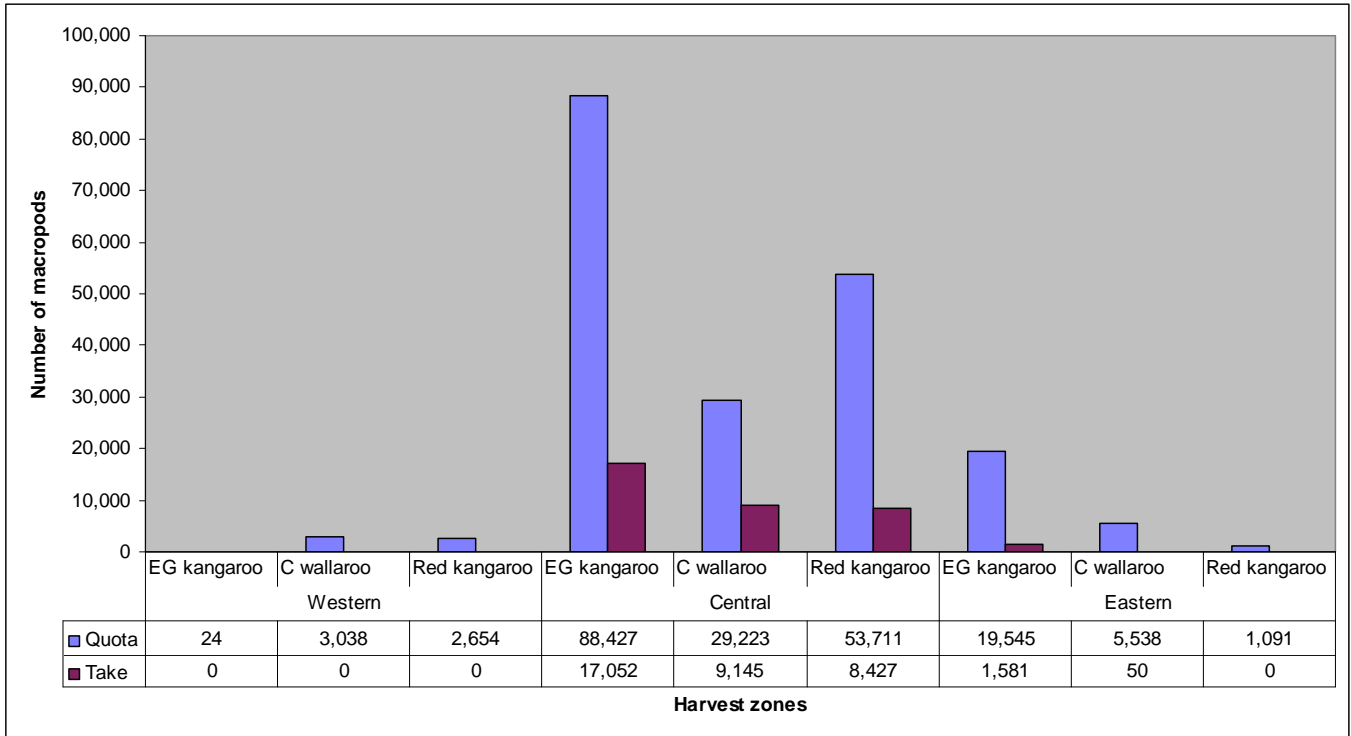
There are many forms of macropod mortality outside of the commercial harvest. It is possible for the department to collect and report data on 3 forms of non-commercial harvest mortality which can be considered when determining commercial quotas. These are damage mitigation permits (DMPs), licensed recreational harvest and disease outbreak mortality.

6. Damage mitigation permits

DMPs are issued by the department where macropods are causing demonstrable damage to primary production. The issuing of these permits is limited to a maximum of 1% of the population estimate for each species. It is a condition of the permit that macropods are taken in accordance with the requirements of the National Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Non-commercial Purposes.

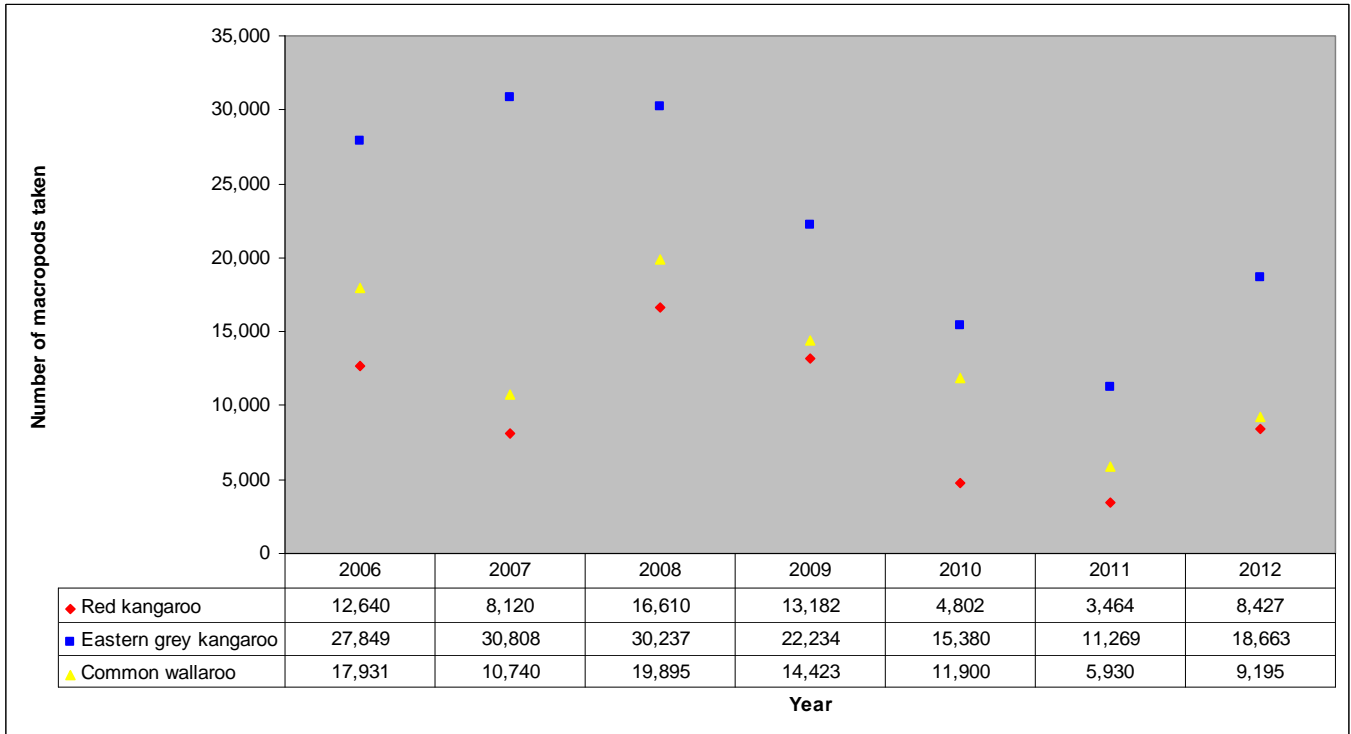
A total of 79 DMPs were issued for macropods in Queensland in 2012. The number of animals taken for each harvest zone and species was below the quota. The highest percentage of quota used was for the common wallaroos in the central zone at 31.3%. A summary of the macropods taken under DMPs in 2012 compared to the DMP quota is given in Figure 17.

Figure 17 – Macropod quota and take for damage mitigation permits in 2012



For comparative purposes, a summary of the macropods taken under DMPs for each species for 2006–2012 is outlined in Figure 18.

Figure 18 – Macropods taken under damage mitigation permits 2006–2012



7. Disease outbreak mortality

There has been no incidence of significant mortalities related to disease outbreaks recorded in macropod populations in Queensland during the 2012 harvest period.

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 3 macropod species covered by the Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012. These surveys occur over 22 representative monitor blocks across the state and are utilised to obtain population estimates that inform the quota.

2011 marked the first year that 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. None of the 3 commercially harvested species has shown a consistent decline in abundance since 1992 (Figure 19) 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 even after the new correction factor was introduced in 2011. All 3 species occur in numbers of over 1,000,000 across the harvest zones.

Figures 20–22 below outline data on the 3 commercially harvested macropod species pertaining to population, quota and harvest for the years 1992–2012. Harvest data in these graphs is the combined commercial harvest and damage mitigation take. 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 19 – Estimated macropod populations in the Queensland commercial harvest zones 1992–2012

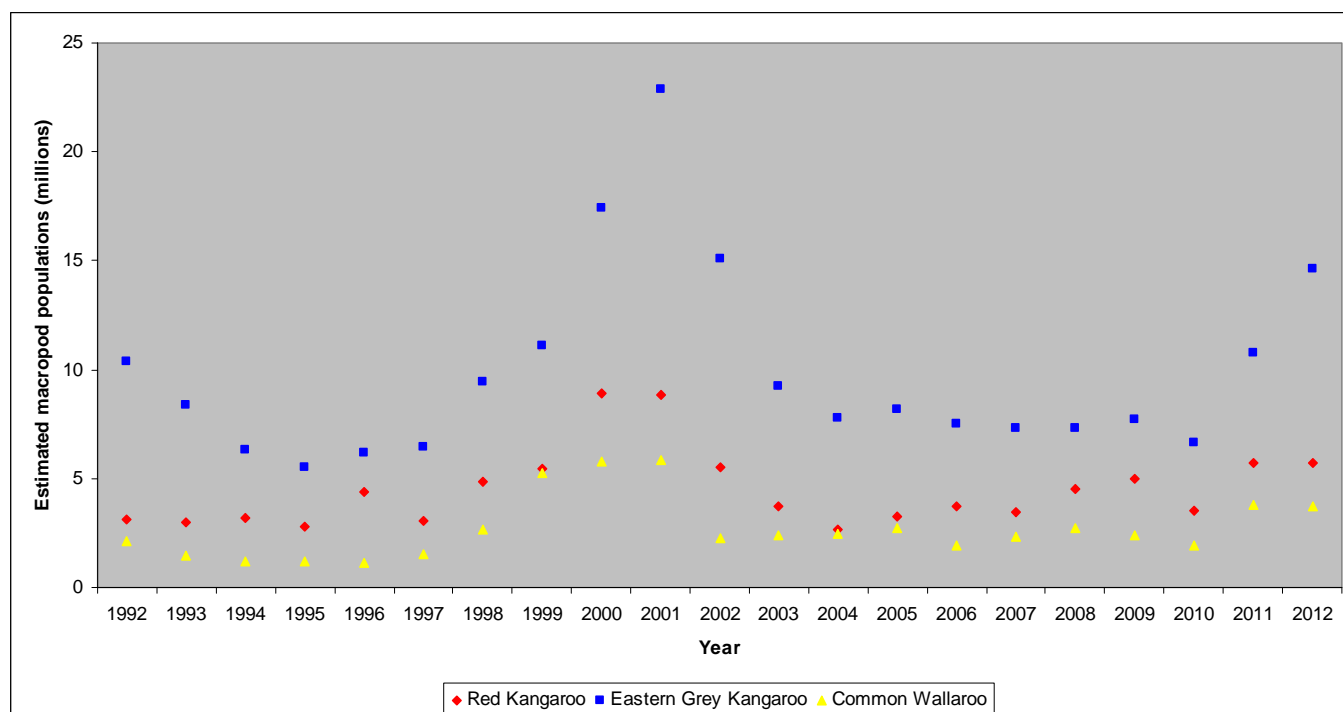


Figure 20 – Long-term population, quota and combined harvest data (commercial harvest + DMPs) for the red kangaroo. Note: Commercial harvest quotas are based on survey estimates from the previous year

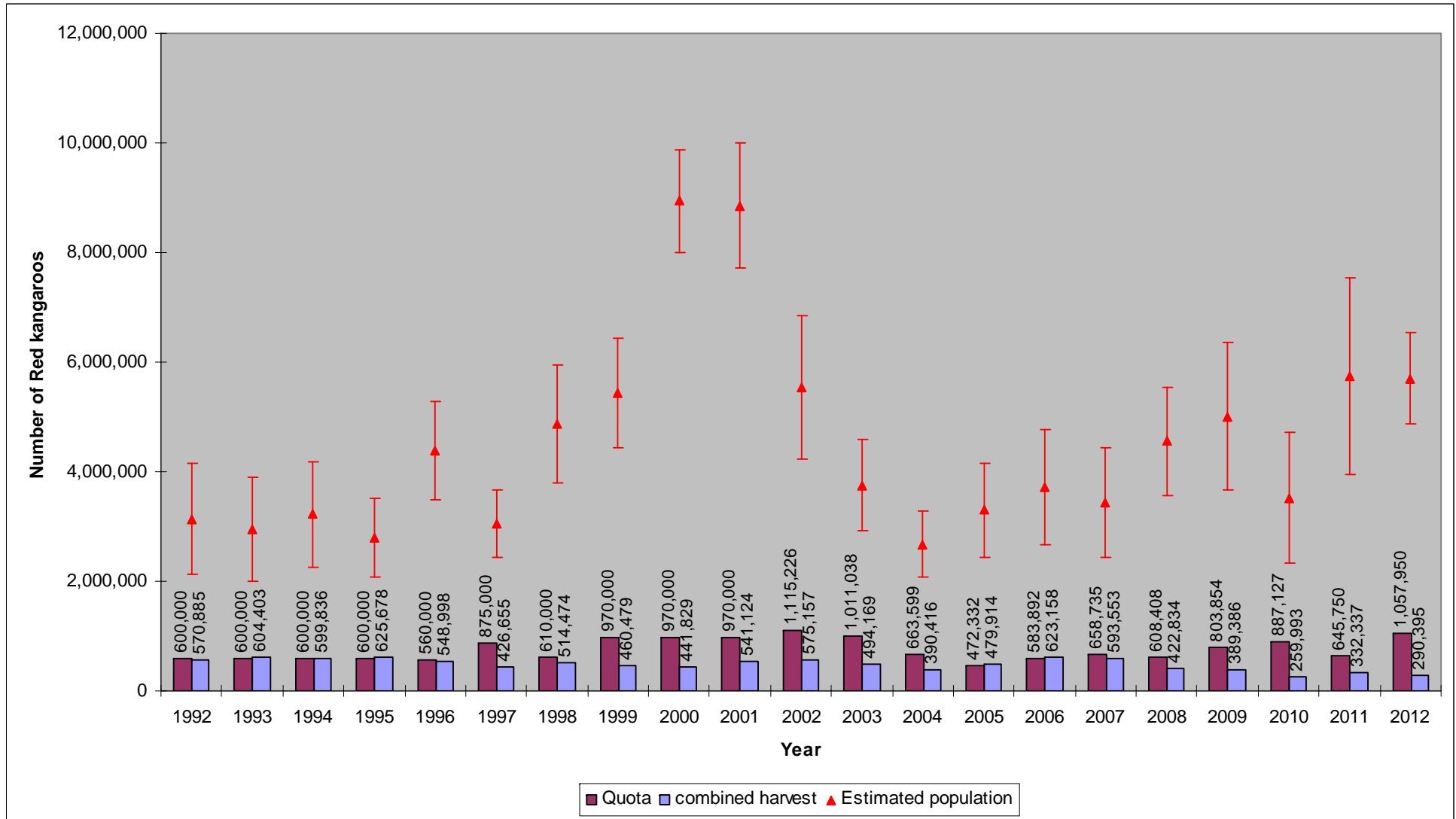


Figure 21 – Long-term population, quota and combined harvest data (commercial harvest + DMPs) for the eastern grey kangaroo. Note: Commercial harvest quotas are based on survey estimates from the previous year

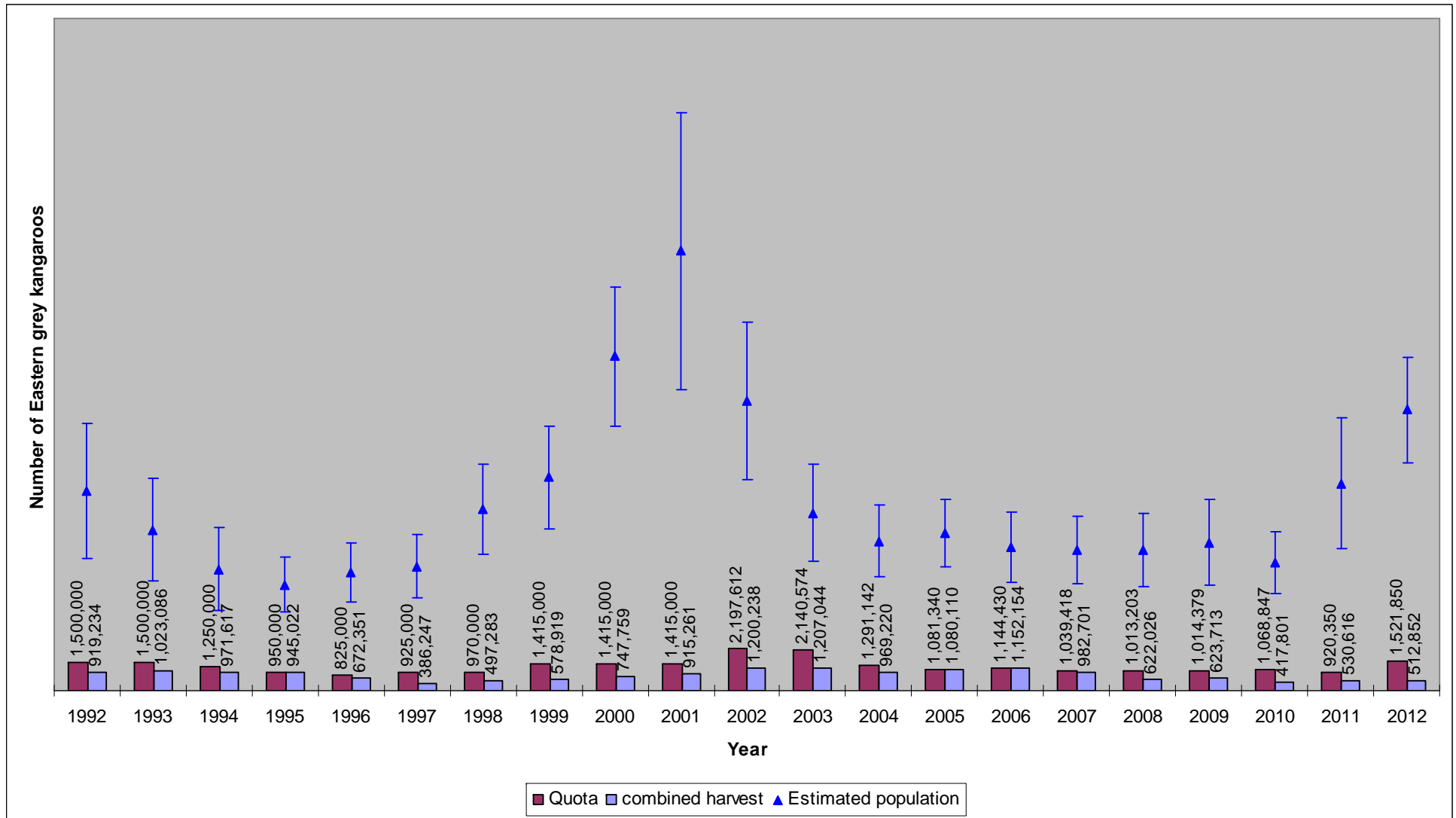
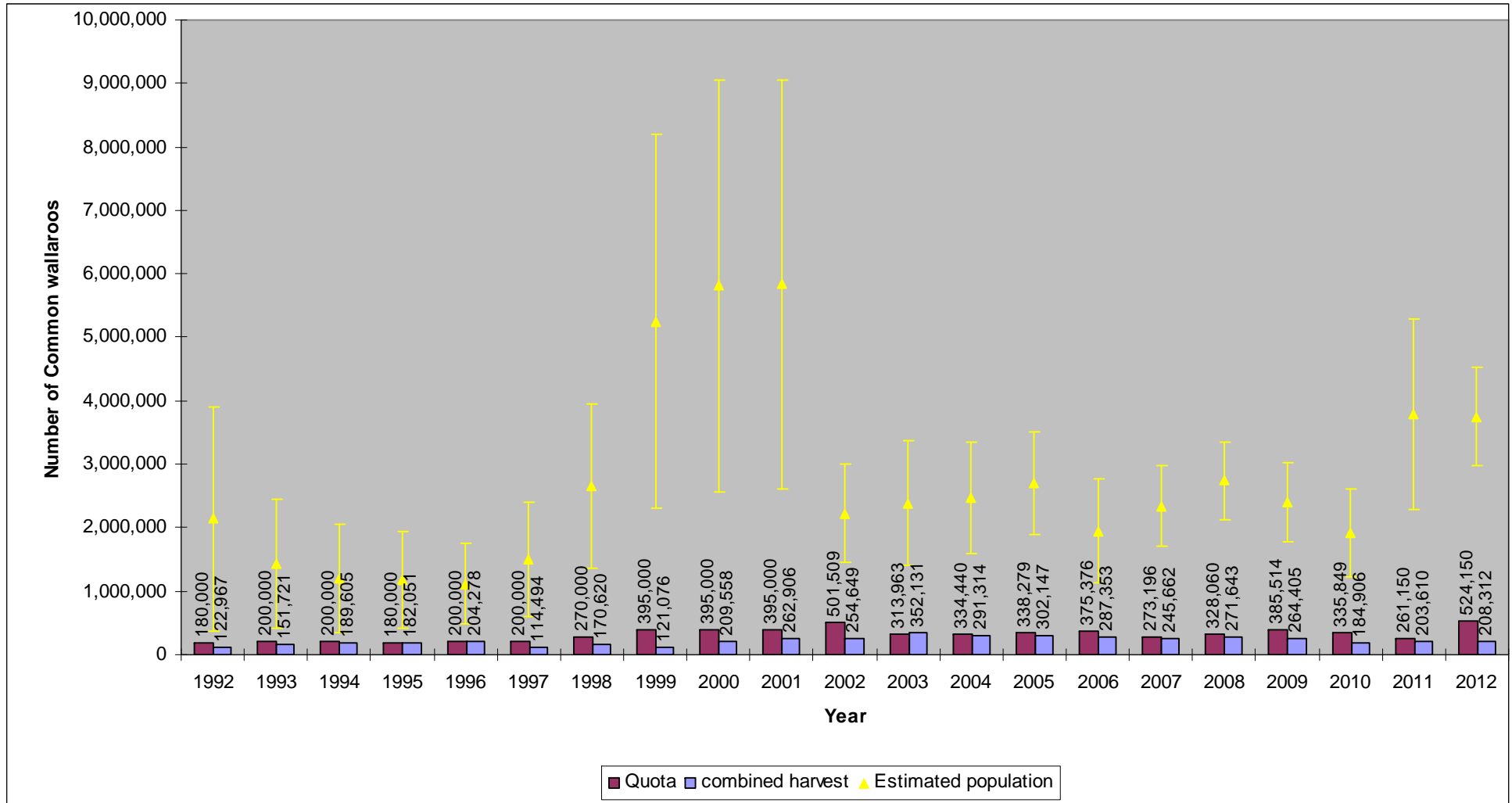


Figure 22 – Long-term population, quota and combined harvest data (commercial harvest + DMPs) for the common wallaroo. Note: Commercial harvest quotas are based on survey estimates from the previous year



9. Compliance

The commercial harvest of macropods in Queensland requires compliance, investigation and enforcement resources. There are 2 conservation officers authorised under the *Nature Conservation Act 1992* within the Macropod Management Unit. The majority of commercial macropod harvest compliance activities are undertaken by the conservation officers, however the department undertakes collaborative compliance work with national park rangers, the Queensland Police Service, and Safe Food Production Queensland (SFPQ).

Compliance priorities for the 2012 harvest period were:

- Macropods are correctly tagged with 2012 harvest period tag.
- Macropods are tagged with the correct species tag.
- Macropods are tagged with the correct zone tag.
- Ensure 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 2008.
- Harvesters produce/carry valid written landholder consent as per licence conditions.
- Ensure timely, complete and accurate harvest returns from dealers.

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.

Desktop audits and administration checks form part of routine compliance activities. Weapons licence audits are conducted throughout the year, as well as licence application checks and regular investigation of return irregularities.

9.1 Inspections

The department conducted both programmed and unannounced inspections of harvesters, dealers and processors. 86 licensed dealer sites were inspected along with 13 licensed processor sites and 1 tanning facility during the 2012 harvest period. Other complaints and evidence of non-compliance were also investigated.

A total of 7 joint/interagency inspection operations were conducted throughout the 2012 harvest period. Conservation officers also conducted 7 training activities with the Queensland Police Service during the same period.

Throughout the harvest period, inspection targets were a minimum of 1% of the harvest being visually inspected and of this sample a further 10% being inspected in detail. The inspection targets of 1% and 10% were met, with 2.2% of the harvest visually inspected and 20.5% of the sample target inspected in detail.

Table 6 – Inspection targets

	Inspection target	Inspections conducted
Visual inspection—1% of overall harvest	9,753 – (1%)	21,337 (2.2% of harvest)
Detailed inspection of 10% of sample	975 – (10%)	1,997 (20.5% of target sample)

9.2 Compliance and enforcement measures

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

During the 2012, harvest period a total of 31 infringement notices and 19 warning notices were issued. A total of 40 enforcement letters were sent to dealers. No licences were cancelled for breaches of legislation during the 2012 harvest period.

The department prosecuted 1 harvester during the 2012 harvest period and had a number of ongoing formal investigations.

Table 7 – Enforcement measures used

Compliance letter		Warning notice		Infringement notice		Prosecution	
Harvester	Dealer	Harvester	Dealer	Harvester	Dealer	Harvester	Dealer
0	40	4	15	21	10	1	0

Warning notices

Dealer

- 4 * Failure to have record complete, accurate, legible and in ink.
- 11 * Fail to give return for each period/by prescribed time.

Harvester

- 2 * Fail to give return of operations for each month of the harvest period/by prescribed time.
- 2 * Fail to comply with conditions of authority (fail to carry landholder consent).

Penalty infringement notices

Harvester

- 5 * Fail to comply with conditions of harvest period notice (Sale of carcass with body shot wound).
- 3 * Fail to properly attach a tag immediately after macropod is dressed.
- 6 * Fail to give return for each period/by prescribed time.
- 1 * Fail to comply with conditions of authority (harvester not in position of valid tag).
- 1 * Attach a tag to wildlife of a species other than the species for which the tag is supplied or approved.
- 1 * Attached used tag to a harvested macropod.
- 1 * Failure to produce identification or authority without reasonable excuse.

Dealer

- 1 * Keep/use lawfully taken protected wildlife without lawful authority.
- 4 * Buy or accept macropods tagged in contravention of Act.
- 4 * Failure to have record complete and accurate.
- 1 * Fail to give return for each period/by prescribed time.

Prosecutions

One harvester was charged and pleaded guilty to 18 offences detailed below and fined \$5000.

- 1 * Attaching a tag to wildlife of a species other than the species for which the tag is supplied or approved.
- 1 * Failing to attach a macropod tag to a macropod in the authorised way.
- 1 * Failing to comply with the conditions of a commercial wildlife harvesting licence.
- 9 * Failing to include information in a record within the stated time.
- 6 * Failing to provide a return of operations within the prescribed period.

10. Unusual circumstances

Although the 2011–12 summer was wetter than average across Queensland there was not the widespread flooding across the state that occurred in 2011. Areas of the west and south-west of the state were very dry in 2012 with little if any rain but were not drought declared. There were no reported disease outbreaks or widespread mortalities attributed to drought.

11. Research and experiments

The Macropod Management Program did not undertake any new research programs or experiments during 2012. The department continues to respond to requests for data from researchers and other stakeholders as they arise.

12. Program improvements

This 2012 annual report will be the last submitted to the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities under the Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012. The Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2013–2017 was developed and approved in 2012. Under the new plan, the Queensland Macropod Management Program will respond to trigger points which identify populations of macropods which are below set levels.

The population estimates based on aerial surveys conducted in 2012 identified common wallaroos in the Western Harvest Zone as being sufficiently low to not warrant a harvest quota in 2013.

13. References

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Appendix 1

Wildlife Trade Management Plan for Export – Commercially Harvested Macropods – 2008–2012, performance indicators

Aim	Action	Performance indicator	Progress in 2012
Aim 1. Manage and administer commercial operators via licensing.	Action 1. All relevant activities are licensed in accordance with the applicable Queensland legislation and department policy.	1.1 All licences across Queensland are assessed, processed and issued in accordance with Queensland legislation and department policy.	Achieved. 1432 licences were issued in accordance with the Queensland legislation. An audit of licences was conducted during the 2012 harvest period.
Aim 2. Ensure humane treatment of kangaroos.	Action 2. The department will work with the Queensland Institute of TAFE or other accredited provider to ensure that all harvesters are competent to achieve the standards set out in the Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes.	2.1 All successful applicants for harvester's licences have completed the approved accreditation and their accreditation is current.	Achieved. All successful applicants had completed the approved course of training through TAFE. Proof of accreditation is part of the licence assessment process. All new applicants or those who have not held a harvesting licence for greater than 12 months are required to provide firearms competency certification, which is designed to ensure that all harvesters are capable of shooting humanely, in accordance with this code.
	Action 3. Departmental staff will monitor compliance with the Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes by commercial macropod industry operators.	3.1 All licensees who are found to have breached licence conditions in relation to animal welfare are issued with, warning notices, penalty infringement notices or are prosecuted as appropriate.	Achieved.
	Action 4. The department will contribute to nationally focused research in improving animal welfare outcomes.	Not applicable.	No proposals received in 2012.

Aim	Action	Performance indicator	Progress in 2012
<p>Aim 3. Monitor industry compliance.</p>	<p>Action 5. The department and Safe Food Production Qld (SFPQ) staff will undertake both regular and opportunistic monitoring of compliance by commercial kangaroo industry operators.</p>	<p>5.1 On receipt of harvesters licence applications, the authorised department officer assessing the applications will ensure that applicants have both a valid and current Queensland accreditation and a current firearms licence.</p>	<p>Accreditation checks conducted for processing licences at time of application through SFPQ. Firearms licence checks conducted at time of application and throughout the year in 2012 with the Queensland Police Service. Partnership between SFPQ and the department continues as licensing information and compliance intelligence is shared across agencies.</p>
		<p>5.2 All chiller premises are inspected, on average, every 3 months during the life of this plan by department staff and/or staff of the SFPQ to ensure compliance with Queensland legislation and licence conditions.</p>	<p>Focus of the compliance strategy has changed to a volume of harvest performance indicator (1%). This was achieved. Any evident issues of a food safety nature are brought to SFPQ attention.</p>
		<p>5.3 All macropod processing works in Queensland are inspected by department staff and/or staff of SFPQ to ensure compliance with Queensland legislation and licence conditions. This will be contingent on the memorandum of understanding being signed and agreed to by both parties.</p>	<p>Thirteen processing plants were inspected in 2012. Partnership between SFPQ and the department continues as licensing information and compliance intelligence is shared across agencies.</p>
		<p>5.4 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.</p>	<p>Achieved. Harvester inspections are conducted in collaboration with the Queensland Police Service at roadblocks throughout the state. Other harvester inspections are conducted routinely during dealer site inspections.</p>

Aim	Action	Performance indicator	Progress in 2012
	Action 6. Activities not in accordance with the Queensland legislation and the management plan will be investigated and where an offence has been committed, and it is appropriate, prosecute.	6.1 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, penalty infringement notices or prosecuted as appropriate.	Achieved. Refer to compliance section of annual report for details.
	Action 7. The accuracy of industry returns will be continually monitored during the life of the management plan.	7.1 During the life of the management plan, incoming industry returns are scrutinised and discrepancies are investigated and resolved.	Achieved. System development to identify return errors and return validation improves identification of return discrepancies.
	Action 8. A compliance database will be maintained to support investigations, inspections and audits.	8.1 A compliance database is maintained.	Achieved. Compliance database is maintained and incidents recorded in the licensing system.
Aim 4. Monitor macropod populations.	Action 9. Population surveys will be conducted for each of the zones using the transect survey method.	9.1 Macropod population estimates are obtained using standard transect survey method throughout the life of this plan.	Achieved.
	Action 10. Commercial macropod harvest quotas will be set in accordance with the provisions of the management plan.	10.1 All commercial macropod harvest quotas are set in accordance with the provisions of the management plan throughout the life of the plan.	Achieved.
		10.2 The Commonwealth Government is advised of commercial harvest quotas for the following calendar year by 31 October.	Achieved.
	10.3 If Commonwealth approval is required for quotas, the rates specified in the plan as part of an adaptive management experiment, such approval is obtained before the additional quota is implemented.	Not required.	

Aim	Action	Performance indicator	Progress in 2012
		10.4 The quota report is made available to the public via the department's website.	Achieved.
	Action 11. Special kangaroo harvest quotas will be set in accordance with the provisions of the management plan.	11.1 Special macropod harvest quotas are set and utilised in accordance with the provisions of the management plan.	Not required.
	Action 12. Macropod populations will continually be monitored indirectly throughout the life of the management plan.	12.1 Where a region showed greater than 40% female take, and then it was investigated through the analysing and monitoring of returns, then appropriate action would be taken.	Not required.
Aim 5. Facilitate adaptive management and research.	Action 13. Historical data relating to the commercial macropod harvest in Queensland will be analysed during the life of the management plan to identify trends; this analysis will be considered in future macropod management programs.	13.1 Analysis of historical macropod harvest and management data is undertaken during the life of the management plan.	Achieved.
		13.2 The results of analysis and research using historical macropod harvest and management data are published in an appropriate forum.	Achieved.
	Action 14, Where practicable, experiments will be performed to test deliberate management interventions during the life of this plan.	14.1 All proposals to undertake active adaptive management experiments are reviewed and assessed by the department in accordance with the criteria outlined in this plan.	None received.
		14.2 All necessary approvals are obtained prior to experiments testing deliberate management interventions commence.	Not required.
		14.3 All adaptive management experiments are continuously monitored and conducted according to approval conditions.	Not required.

Aim	Action	Performance indicator	Progress in 2012
		14.4 Results of all experiments testing deliberate management interventions are published in an appropriate forum.	Not required.
	Action 15. The department will facilitate research into the ecology and harvest management of kangaroos and wallaroos.	15.1 Issues associated with the ecology of harvested species and the management of the commercial harvest are identified and a research prospectus is prepared and distributed to universities and other research institutions during the life of this plan.	Focus of the department's current research strategy has changed to a facilitative role. All requests for data on the commercial harvest of macropods in Queensland were assessed and facilitated during 2012.
Aim 6. Undertake program reporting and review.	Action 16. An annual report on the management plan will be prepared and submitted to the Commonwealth.	16.1 An annual report on the operation of the management plan for the previous calendar year is submitted to the Commonwealth by the end of March of the following year.	Achieved.
		16.2 All annual reports prepared during the life of this plan are on the department's website.	Achieved Annual reports from 2008–2011 are available on the department's website.
	Action 17. The review of the management plan will commence no later than 12 months prior to the expiry of this plan.	17.1 The schedule of the management plan review activities initiated no later than 12 months prior to the expiry date of this plan.	Achieved.
		17.2 The success of the current plan in achieving its goal is assessed by measuring performance indicators.	Achieved.
		17.3 The results of the plan review are presented to the Commonwealth and available on Macropod Management Program web page.	Achieved.

Aim	Action	Performance indicator	Progress in 2012
<p>Aim 7. Promote community awareness and participation.</p>	<p>Action 18. Relevant public documents will be made available on the department's website.</p>	<p>18.1 Throughout the life of the management plan information is available on the department's website.</p>	<p>Achieved.</p>
	<p>Action 19. Publicly available information will be provided to interested parties on request.</p>	<p>19.1 Publicly available macropod management information is distributed to interested parties as soon as practicable after such a request.</p>	<p>Achieved.</p>
	<p>Action 20. Where appropriate relevant department Macropod Management Program staff will participate in media interviews and prepare media releases.</p>	<p>20.1 Department staff participate in interviews with the media where appropriate.</p>	<p>Achieved.</p>
		<p>20.2 Media releases are prepared when appropriate for community issues of interest, such as population surveys and the release of quota for the next calendar year.</p>	<p>Achieved.</p>
	<p>Action 21. Relevant information regarding licensing arrangements will be developed as required and distributed to all licensees.</p>	<p>21.1 A copy of the current Harvest Period Notice and current Code of Practice for the Humane Shooting of Kangaroos and Wallabies for Commercial Purposes is issued with every harvesters and dealers licence throughout the life of this plan to ensure that licensees are apprised of relevant licensing requirements and responsibilities.</p>	<p>The current harvest period notice and code of practice are available on the department's website, and the code of practice is issued to all new licence holders. The current Harvest Period Notice and Code of Practice are provided to all people who complete the approved training course through TAFE.</p>