



ACT Government

Attitudes and Opinions of ACT Residents Regarding Kangaroos and their Management

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Methodology & Sample



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Background & Methodology

Objectives (Why?)

- Determine the community's level of satisfaction with the ACT Government's current management of kangaroos
- Understand the community's awareness of kangaroos in the ACT and the importance of having them in the Canberra Nature Park
- Identify the community's level of agreement and support for culling of kangaroos
- Identify and assess motor vehicle and kangaroo collisions in the ACT

Sample (How?)

- Telephone survey (landline and mobile) to N = 605 residents
- 19 acquired through number harvesting (previously collected numbers from past research)
- We use a 5 point scale (e.g. 1 = very dissatisfied, 5 = very satisfied)
- Greatest margin of error +/- 4.0%

Timing (When?)

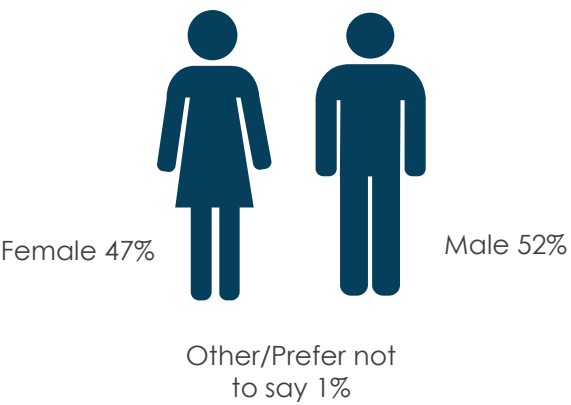
- Implementation 5th – 12th December 2022

Please see Appendix B for detailed background & methodology

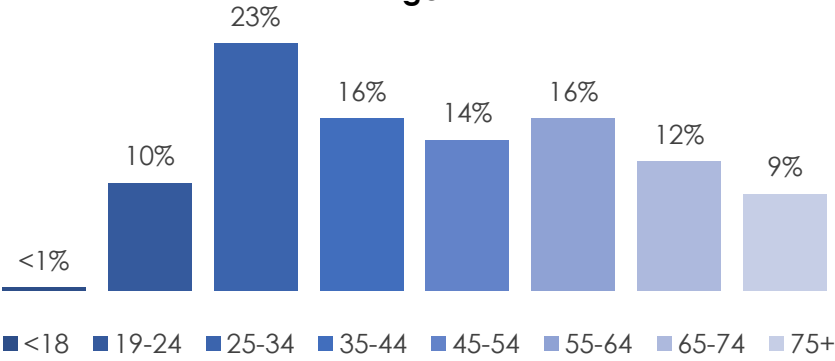


Sample Profile

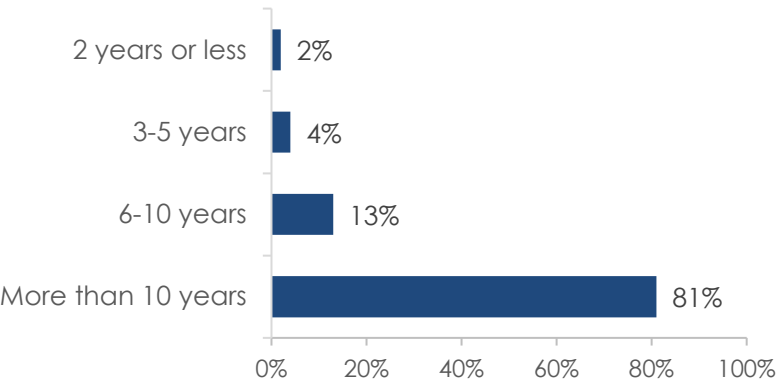
Gender



Age



Time lived in the area



Suburb	%
Inner South, Inner North, and City	26%
Belconnen	22%
Tuggeranong	19%
Gungahlin	17%
Woden, Weston Creek, and Molonglo Valley	15%
Other	1%

Summary Results



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Summary of Results

- **54%** satisfied/very satisfied with ACT Government's current management of kangaroos
- **68%** believe it is important/very important to have kangaroos in the Canberra Nature Park
- **76%** believe the culling of kangaroos is appropriate under certain circumstances
- **60%** believe the culling of kangaroos is humane/very humane compared to other methods
- **66%** are supportive of kangaroo culling for the conservation of grassland and woodland animals
- **71%** believe it is important/very important to develop and apply fertility control methods to control the breeding of kangaroos in Canberra
- **14%** have experienced a collision with a kangaroo when driving in the last 3 years

There has been a discernable softening in certainty around the community's attitude towards aspects pertaining to the current program. Suggesting there is an opportunity to re-communicate the purpose and goals of The ACT governments policy towards kangaroo management.



Detailed Results



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1. Kangaroos in the ACT



Methodology & Sample

Summary Results

Detailed Results

1. Kangaroos in the ACT

2. Kangaroo Culling

3. Motor Vehicle Collisions with Kangaroos

Appendix A: Further Analysis

Appendix B: Detailed Background & Methodology

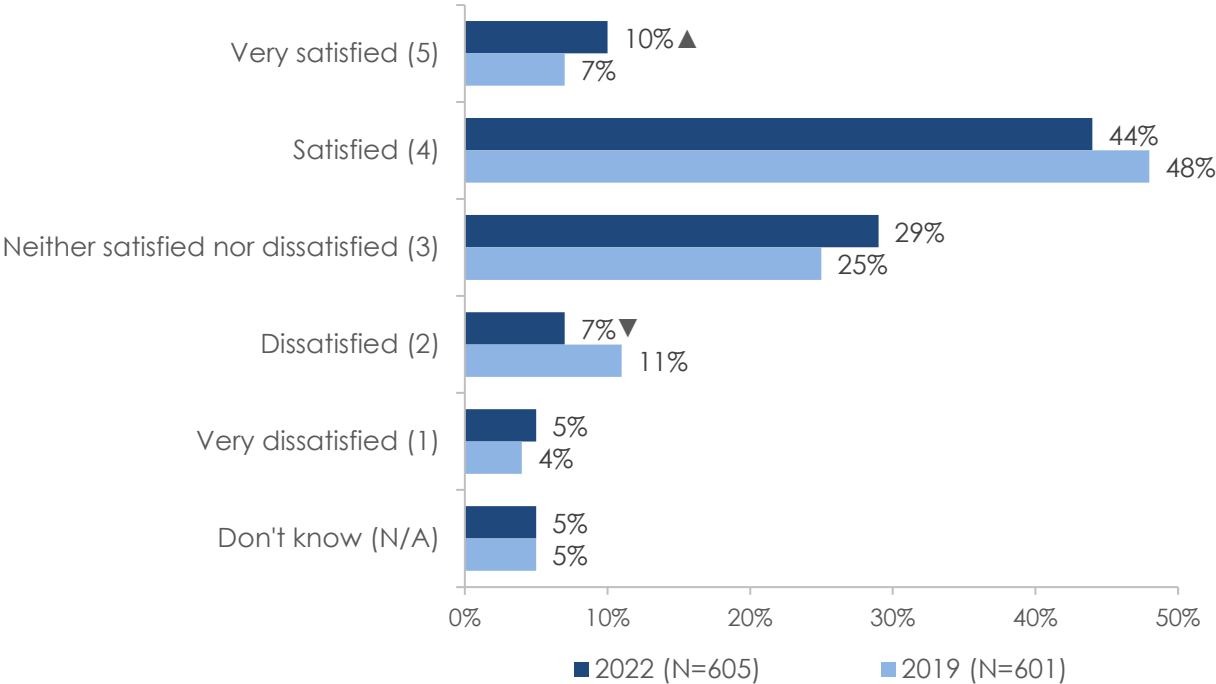
Appendix C: Questionnaire

Satisfaction with the ACT Government's Current Management of Kangaroos

Q13. How satisfied are you with the ACT Government's current management of kangaroos?

	2022 (N=572)	2019 (N=568)	2015 (N=593)	2012 (N=580)
Mean rating	3.49	3.45	3.68	3.43

'Don't know' responses have not been included in the mean



Scale: 1 = very dissatisfied, 5 = very satisfied
 ▲ ▼ = A significantly higher/lower level of satisfaction (by year)

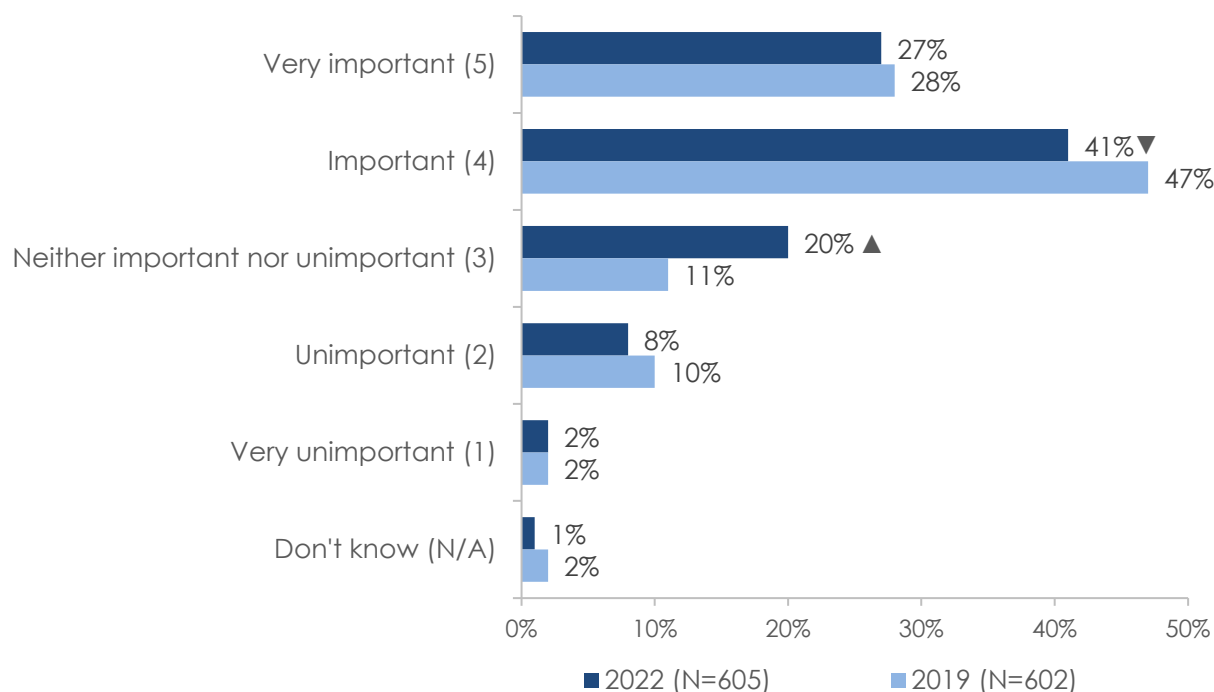
54% of residents are satisfied/very satisfied with the ACT Government's current management of kangaroos, with a significant increase in the proportion stating they are 'very satisfied' compared to 2019.

Importance of Having Kangaroos in Canberra Nature Park

Q2. Canberra Nature Park is made up of the bush and grassland nature reserves at the edges of our suburbs. How important is it to have kangaroos in Canberra Nature Park?

	2022 (N=596)	2019 (N=589)	2015 (N=599)
Mean rating	3.84	3.90	3.87

'Don't know' responses have not been included in the mean

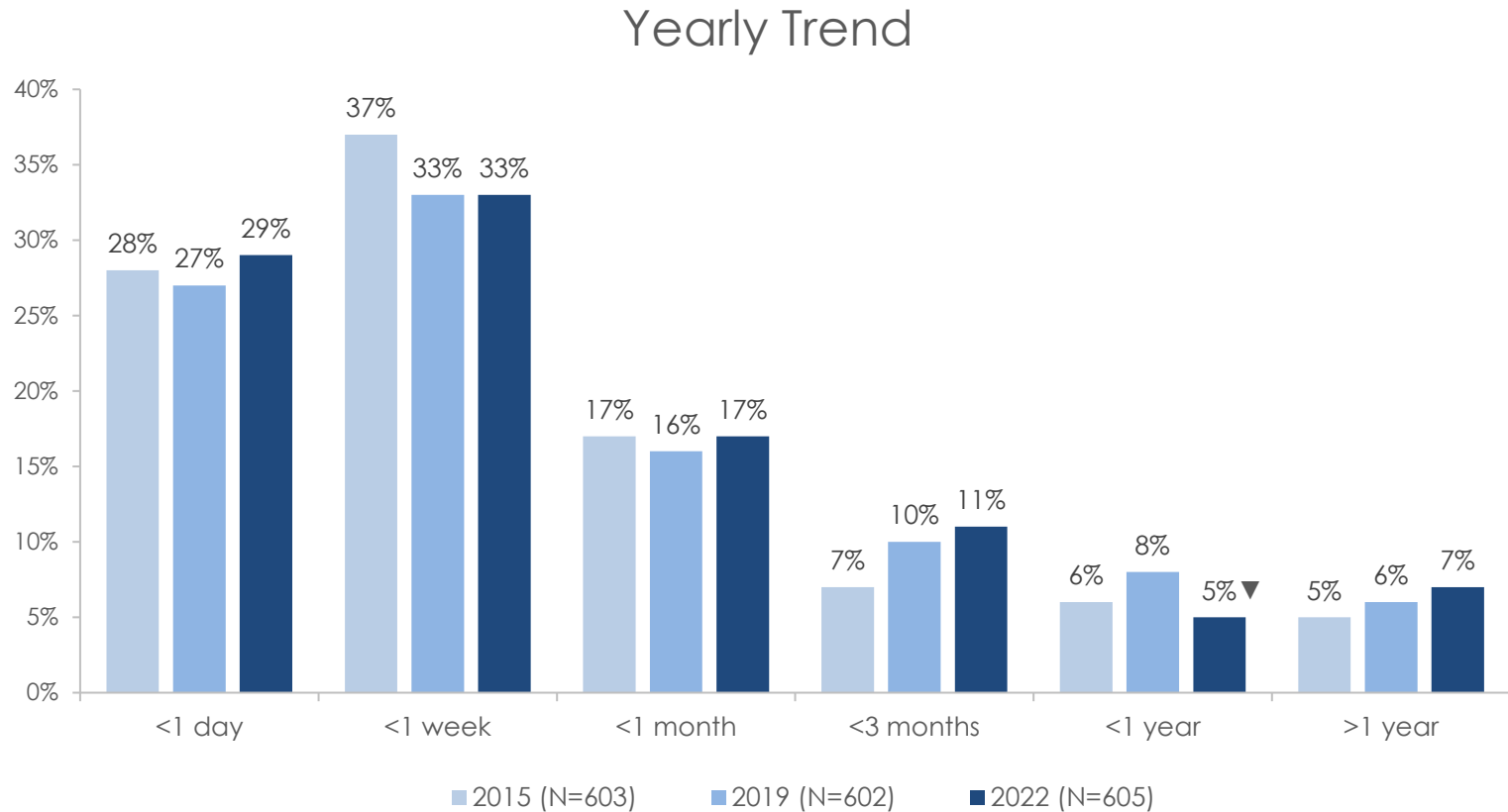


Scale: 1 = very unimportant, 5 = very important
▲ ▼ = A significantly higher/lower level of importance (by year)

68% of residents believe it is important/very important to have kangaroos in Canberra Nature Park.

Last Sighting of a Kangaroo in the ACT

Q1. How long is it since you last saw a kangaroo in the ACT?



▲ ▼ = A significantly higher/lower percentage (compared to 2019)

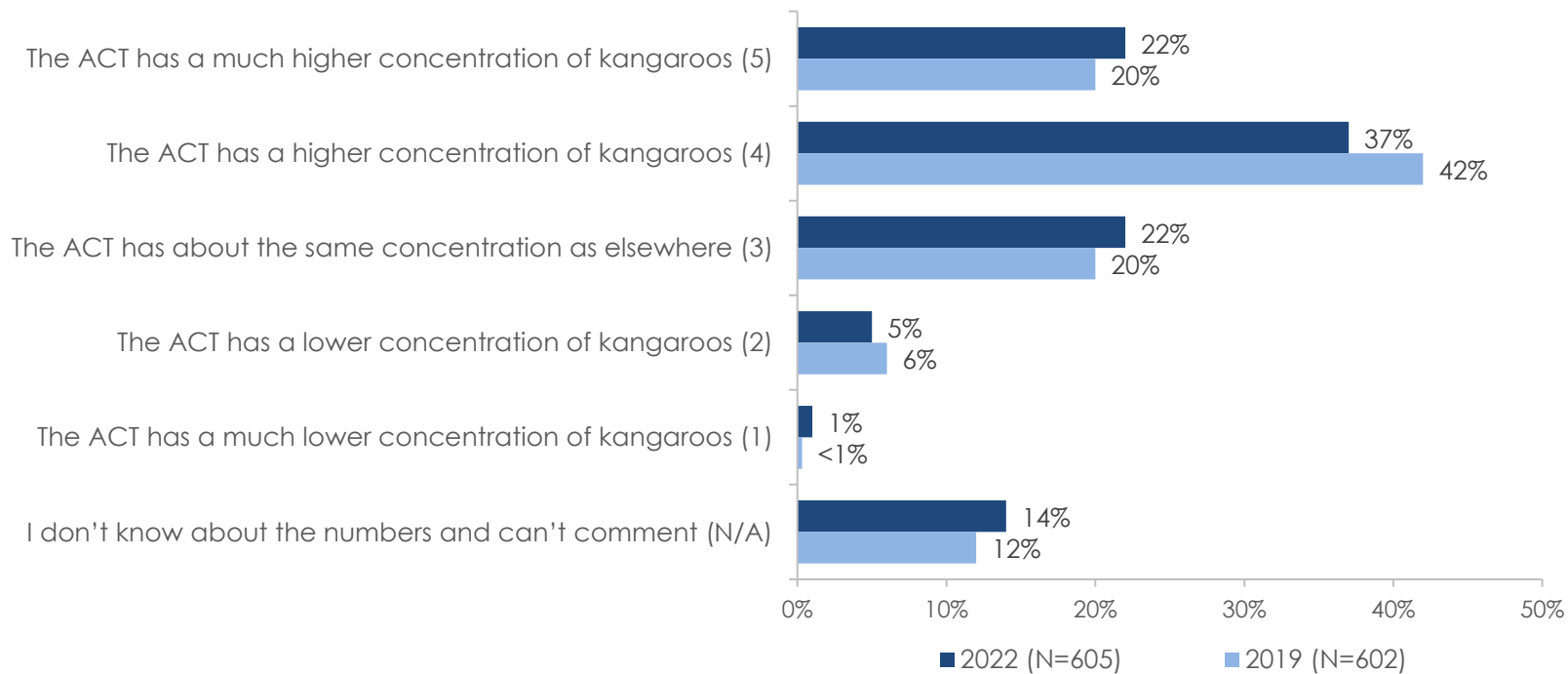
Almost two thirds of residents have seen a kangaroo in the ACT within the week (29% within the day).

Concentration of Kangaroos in the ACT

Q3. Compared to Australia generally, which of the following would best describe the concentration of kangaroos in the ACT?

	2022 (N=521)	2019 (N=531)	2015 (N=565)	2012 (N=503)
Mean rating	3.86	3.86	3.94	3.38

'Don't know' responses have not been included in the mean



Scale: 1 = much lower concentration, 5 = much higher concentration

Similar to previous years, the majority (59%) of residents believe the ACT has a higher/much higher concentration of kangaroos compared to Australia, generally.

2. Kangaroo Culling



Methodology & Sample

Summary Results

Detailed Results

1. Kangaroos in the ACT

2. Kangaroo Culling

3. Motor Vehicle Collisions with Kangaroos

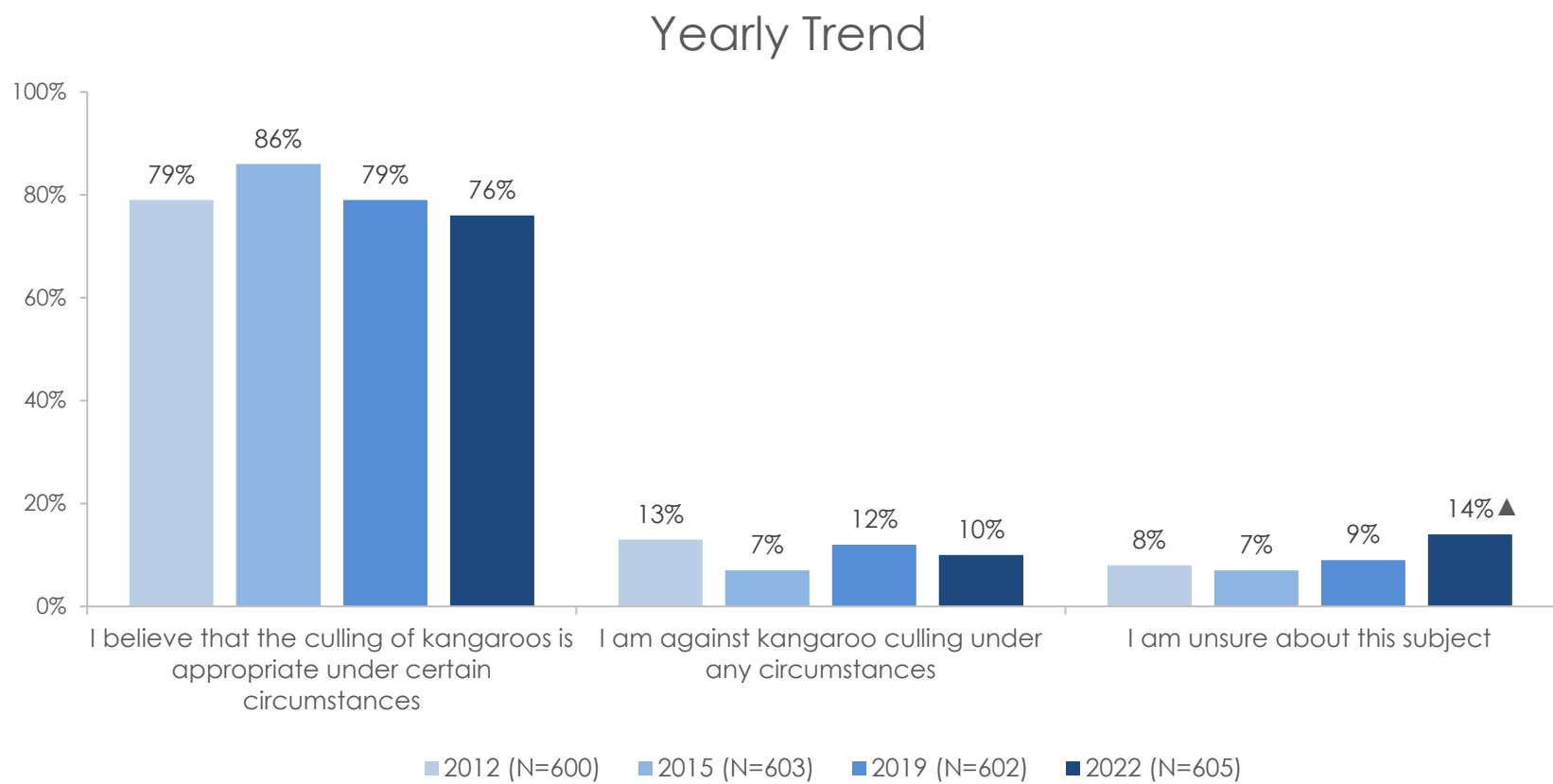
Appendix A: Further Analysis

Appendix B: Detailed Background & Methodology

Appendix C: Questionnaire

Opinion on Kangaroo Culling

Q4. Which of the following statements best describes your opinion with regards to kangaroo culling?

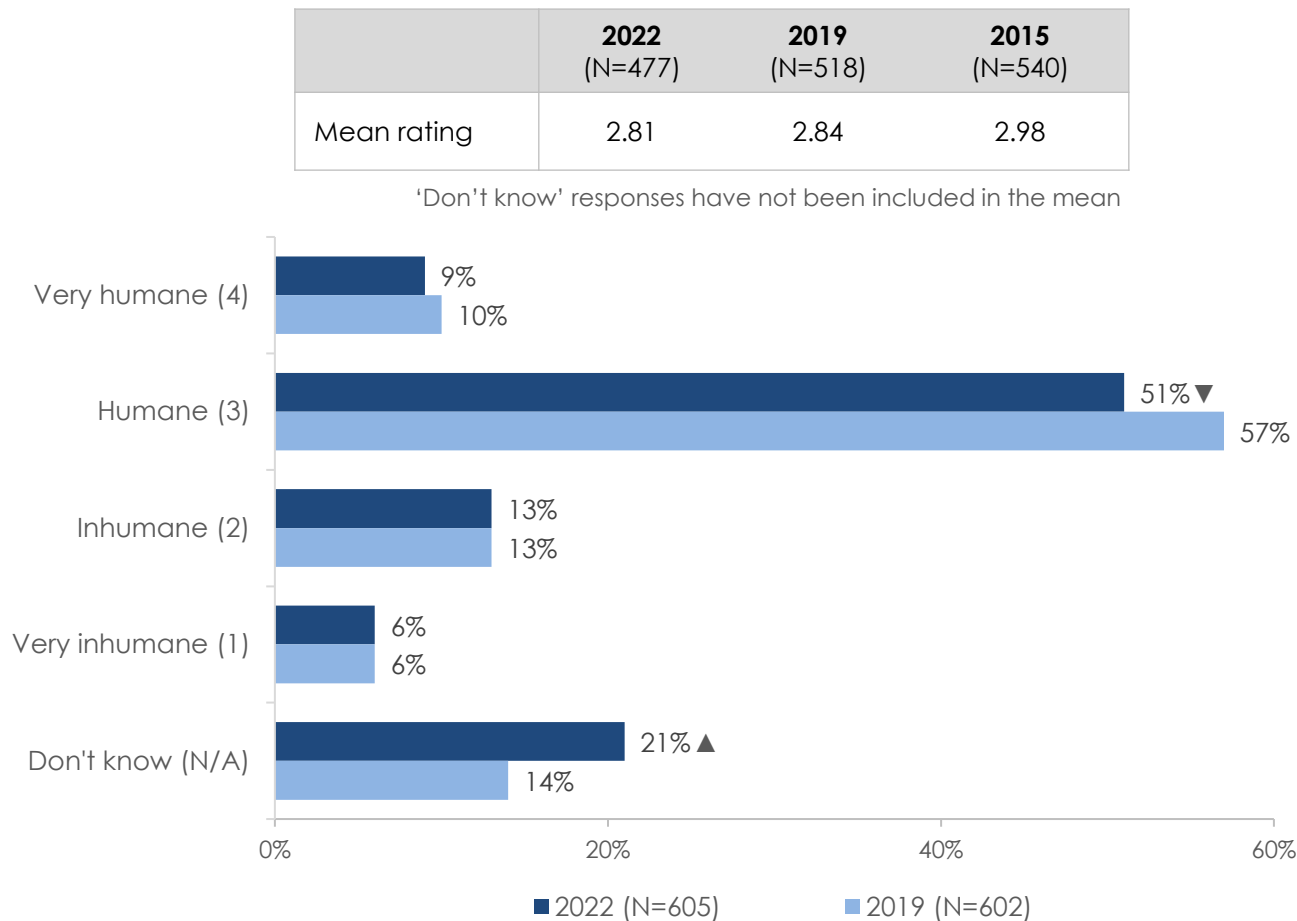


▲ ▼ = A significantly higher/lower percentage (compared to 2019)

An increase in uncertainty, however, the vast majority (76%) are in support of the culling (under certain circumstances).

Attitude towards Culling Kangaroos

Q5. In comparison to other methods by which humans control wild animals, how humane is the culling of kangaroos?



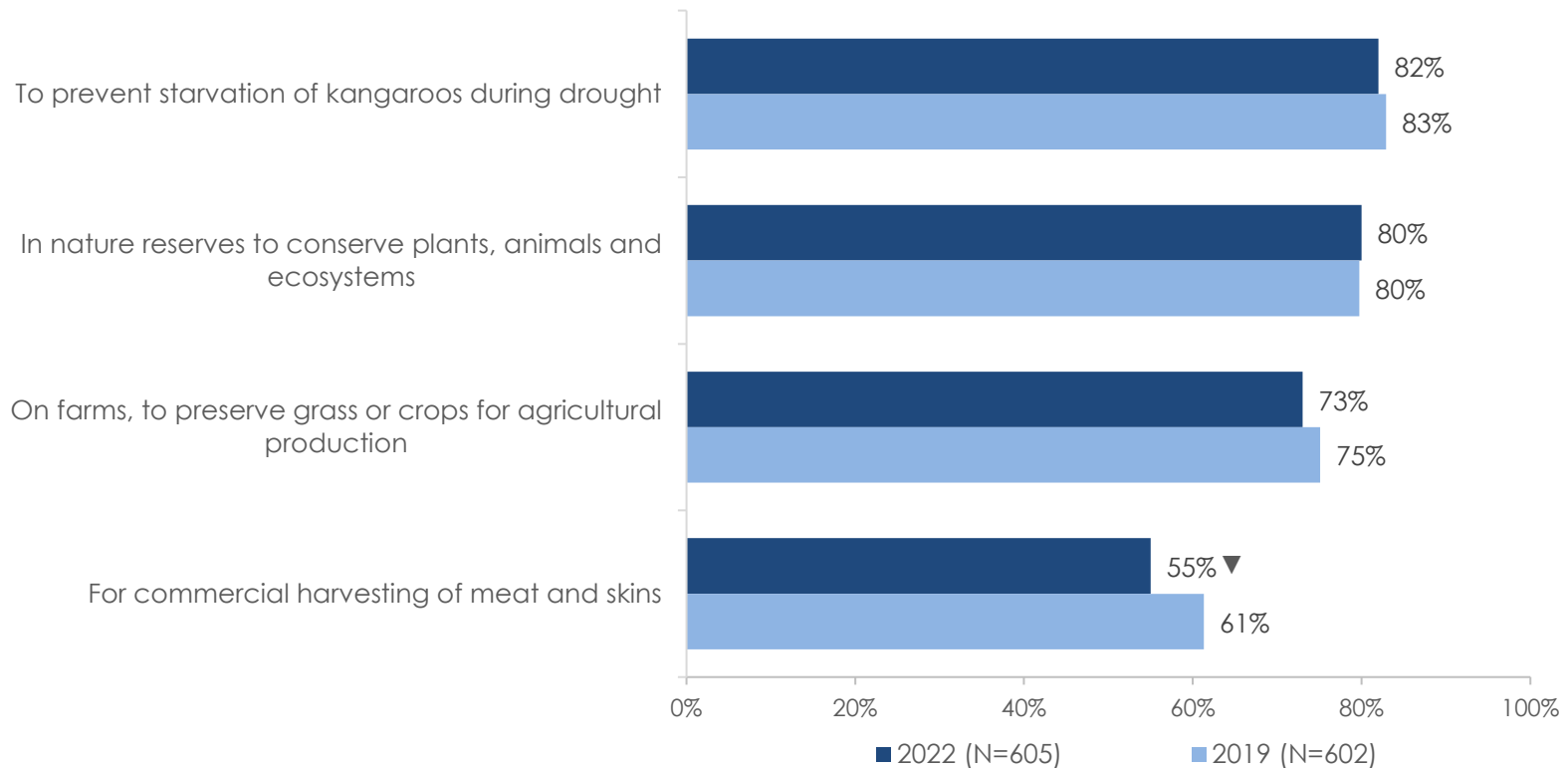
Scale: 1 = very inhumane, 4 = very humane
▲ ▼ = A significantly higher/lower percentage (by year)

Although results continue to decrease from 2015, 60% still stated that the culling of kangaroos is humane/very humane compared to other methods.

Agreement with Reasons for Culling Kangaroos

Q6. For which of the following reasons would you agree with the culling of kangaroos?

Results of those selecting 'yes' only



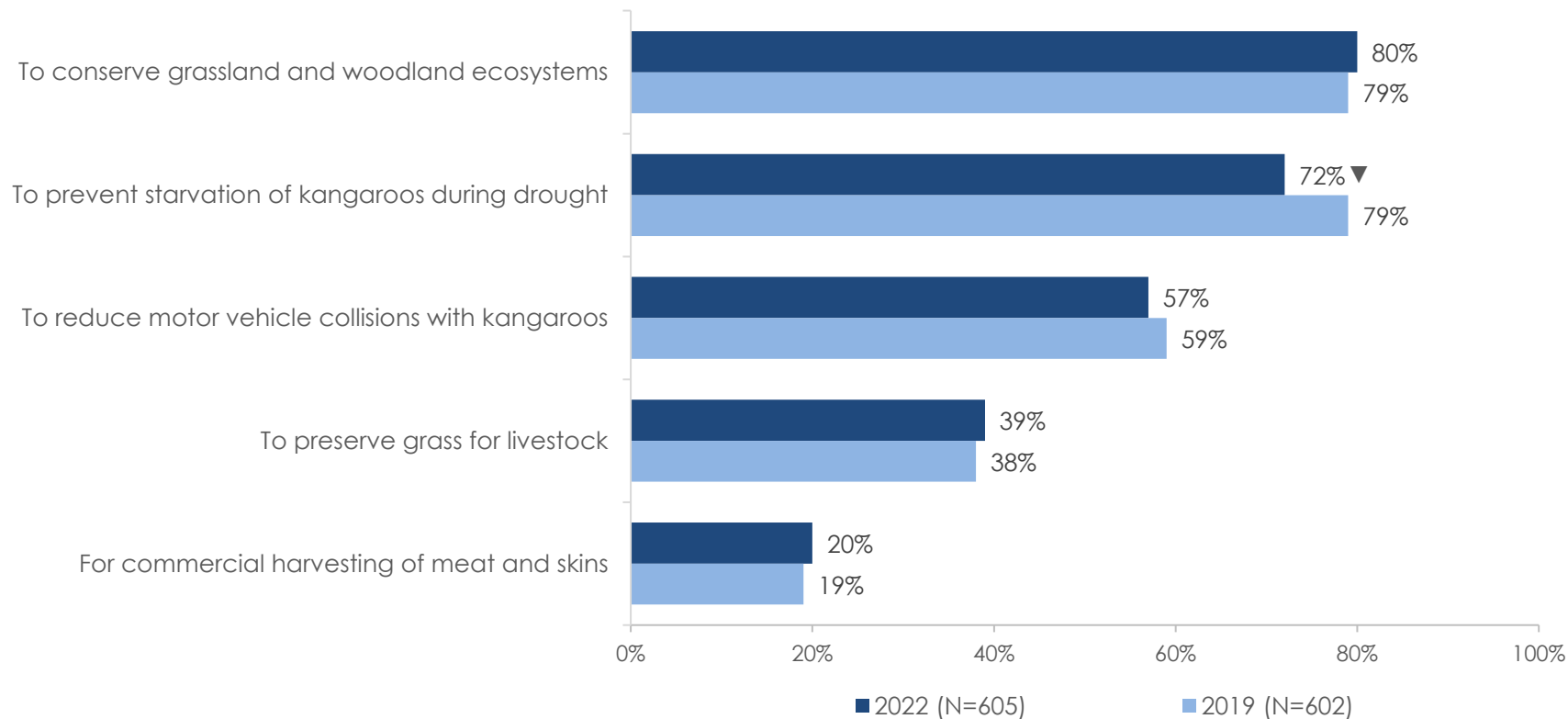
▲ ▼ = A significantly higher/lower percentage (by year)

Agreement continues to be greatest for culling for starvation prevention of kangaroos during drought, closely followed by the conservation of nature preserves.
Compared to 2019, agreement has significantly reduced for culling for commercial harvesting of meat and skins.

Reasons for Culling in Nature Reserves

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out?

Results of those selecting 'yes' only



▲ ▼ = A significantly higher/lower percentage (by year)

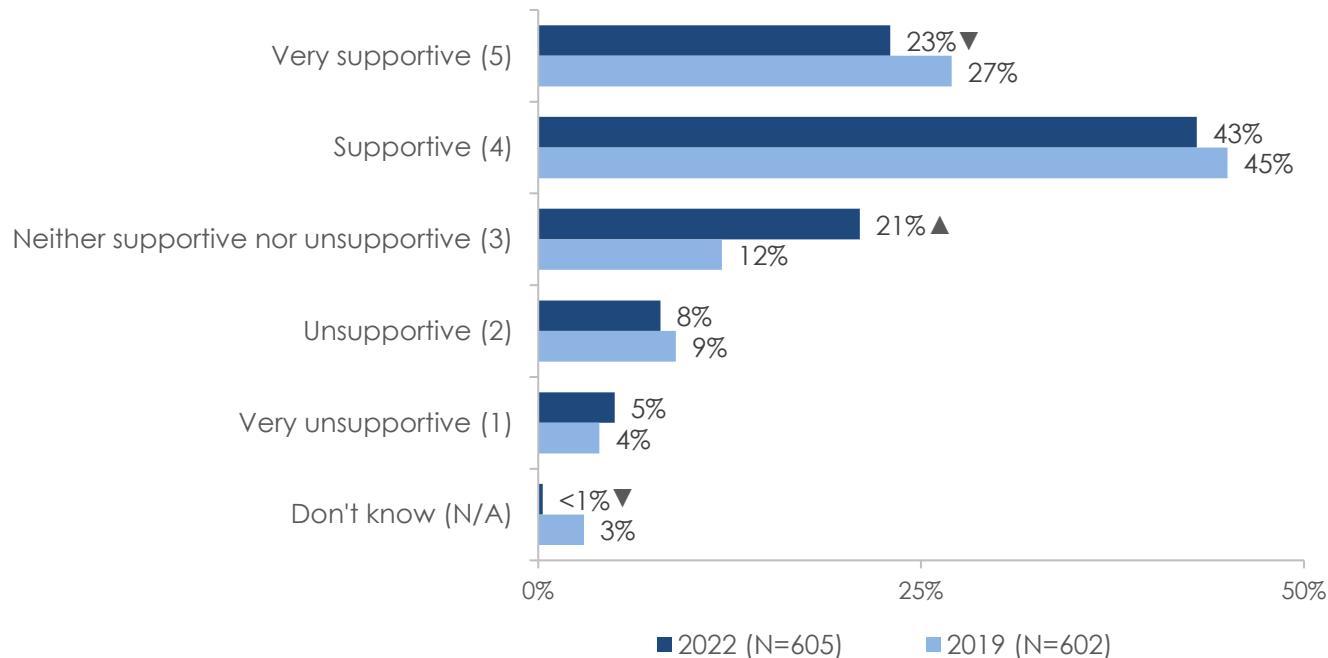
80% of residents state the reason for culling in ACT nature reserves is to 'conserve grassland and woodland ecosystems'.

Culling for Conservation of Grassland and Woodland Animals

Q8. For thirteen years, kangaroos have been culled in ACT nature reserves for the conservation of grassland and woodland animals. Can you please rate how supportive or unsupportive you are of kangaroo culling for conservation of these animals?

	2022 (N=603)	2019 (N=585)	2015 (N=597)	2012 (N=586)
Mean rating	3.71 ▼	3.85	3.96	3.74

'Don't know' responses have not been included in the mean



Scale: 1 = very unsupportive, 5 = very supportive
▲ ▼ = A significantly higher/lower percentage/rating (by year)

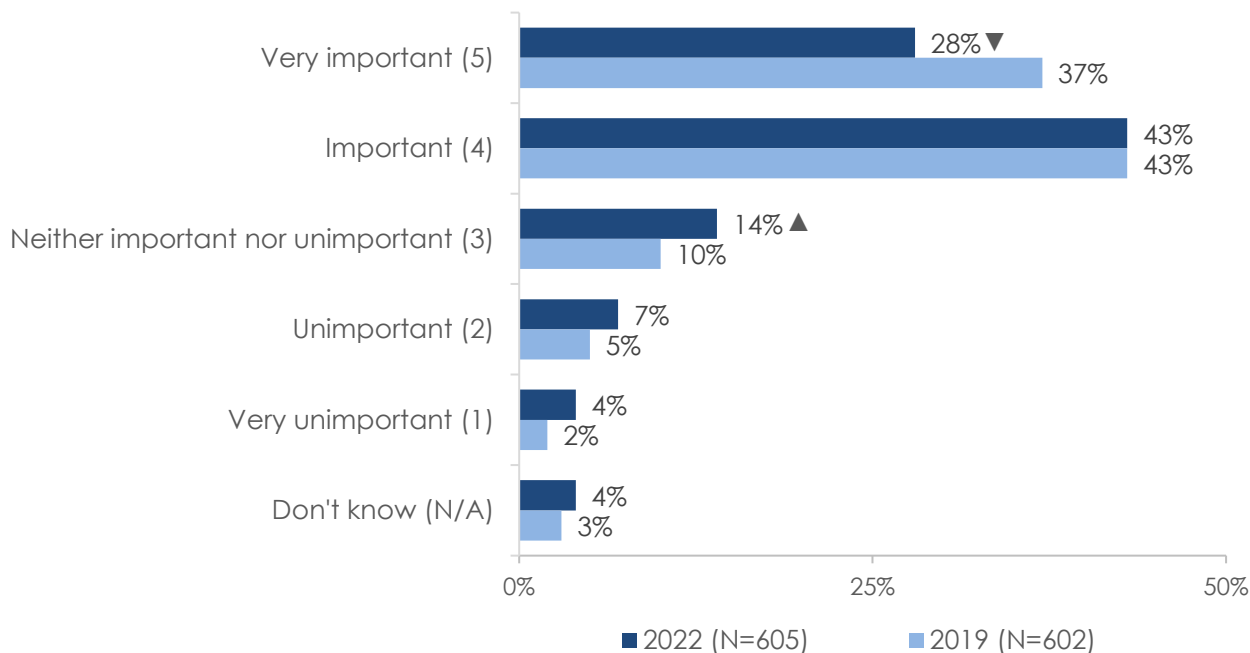
Support for the culling of kangaroos for the conservation of grassland and woodland animals has significantly decreased from 2019, continuing to reduce from 2015. However, two thirds remain supportive/very supportive.

Importance of Developing and Applying Fertility Controls to Control Breeding

Q9. How important is it to develop and apply fertility control methods to control the breeding of kangaroos in Canberra?

	2022 (N=585)	2019 (N=582)	2015 (N=593)
Mean rating	3.87▼	4.13	3.97

'Don't know' responses have not been included in the mean



Scale: 1 = very unimportant, 5 = very important
▲▼ = A significantly higher/lower level of importance (by year)

Compared to 2019, significantly fewer residents believe it is important to develop and apply fertility control methods, however, 71% still believe it is important/very important.

3. Motor Vehicle Collisions with Kangaroos



Methodology & Sample

Summary Results

Detailed Results

1. Kangaroos in the ACT

2. Kangaroo Culling

3. Motor Vehicle Collisions with Kangaroos

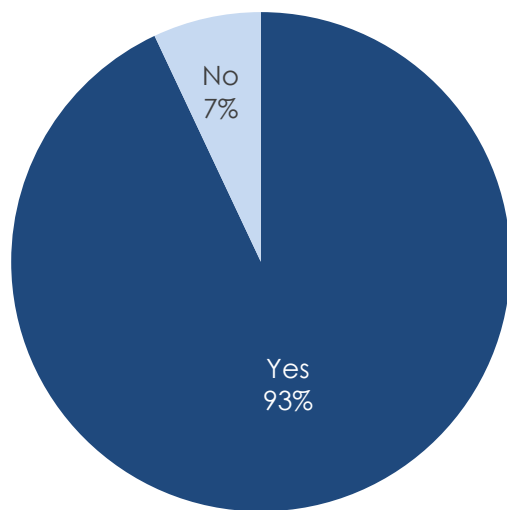
Appendix A: Further Analysis

Appendix B: Detailed Background & Methodology

Appendix C: Questionnaire

Collisions Involving Kangaroos on Roads in the ACT

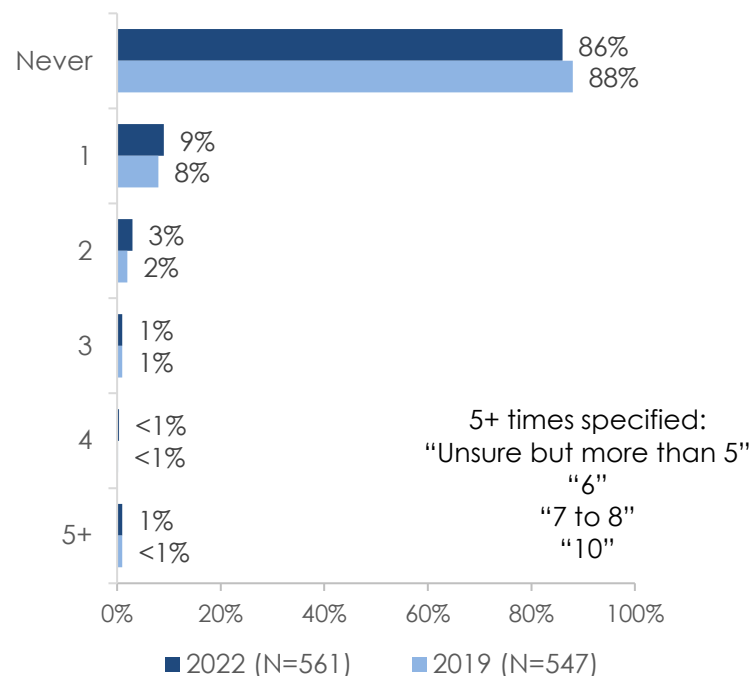
Q10. Have you held an ACT licence to drive a motor vehicle for the last three years?



	2019 (N=605)	2019 (N=602)	2015 (N=603)	2012 (N=600)
Yes	93%	91%	93%	95%
No	7%	9%	7%	5%

Q11. (If yes on Q10) In the last three years how many times were you driving a car in the ACT when it was in a motor vehicle collision involving a kangaroo?

	2022 (N=561)	2019 (N=547)	2015 (N=559)	2012 (N=571)
Have had a collision with a kangaroo in last 3 years	14%	12%	8%	6%



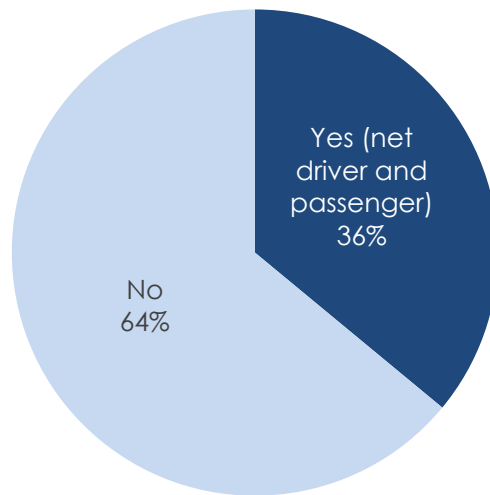
93% of residents interviewed have held an ACT motor vehicle licence for the last 3 years. Of those that have held a licence, 14% have experienced a collision at least once in the last three years – a continued increase from 2012.

Collisions Involving Kangaroos on Roads in the ACT

Q12a. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT?

Q12b. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following?

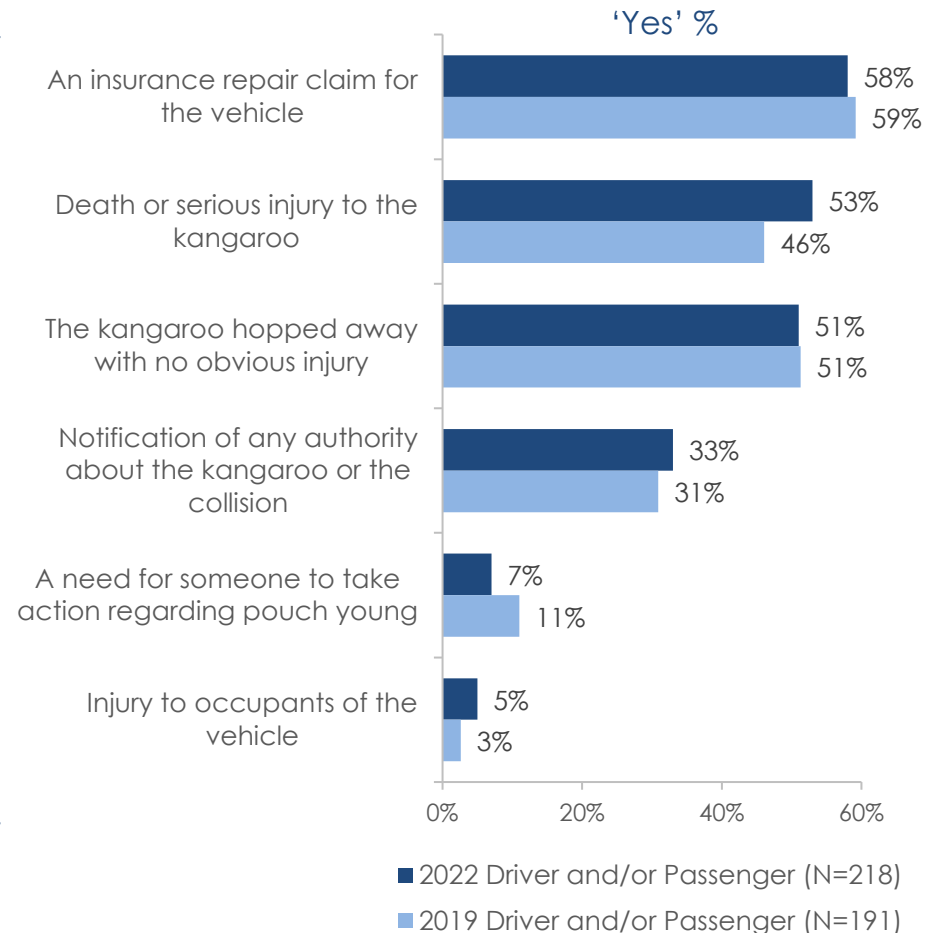
Both drivers and/or passengers 'ever' involved in a collision with a kangaroo



	2022 (N=605)	2019 (N=602)	2015 (N=603)
Yes – as a driver	28%	26%	21%
Yes – as a passenger	14%▲	9%	7%
No	64%	68%	73%

Results exceed 100% as respondents could select both driver and passenger

▲ ▼ = A significantly higher/lower percentage (compared to 2019)



36% indicated they have been a driver and/or a passenger of a vehicle that has had a collision with a kangaroo in the ACT.

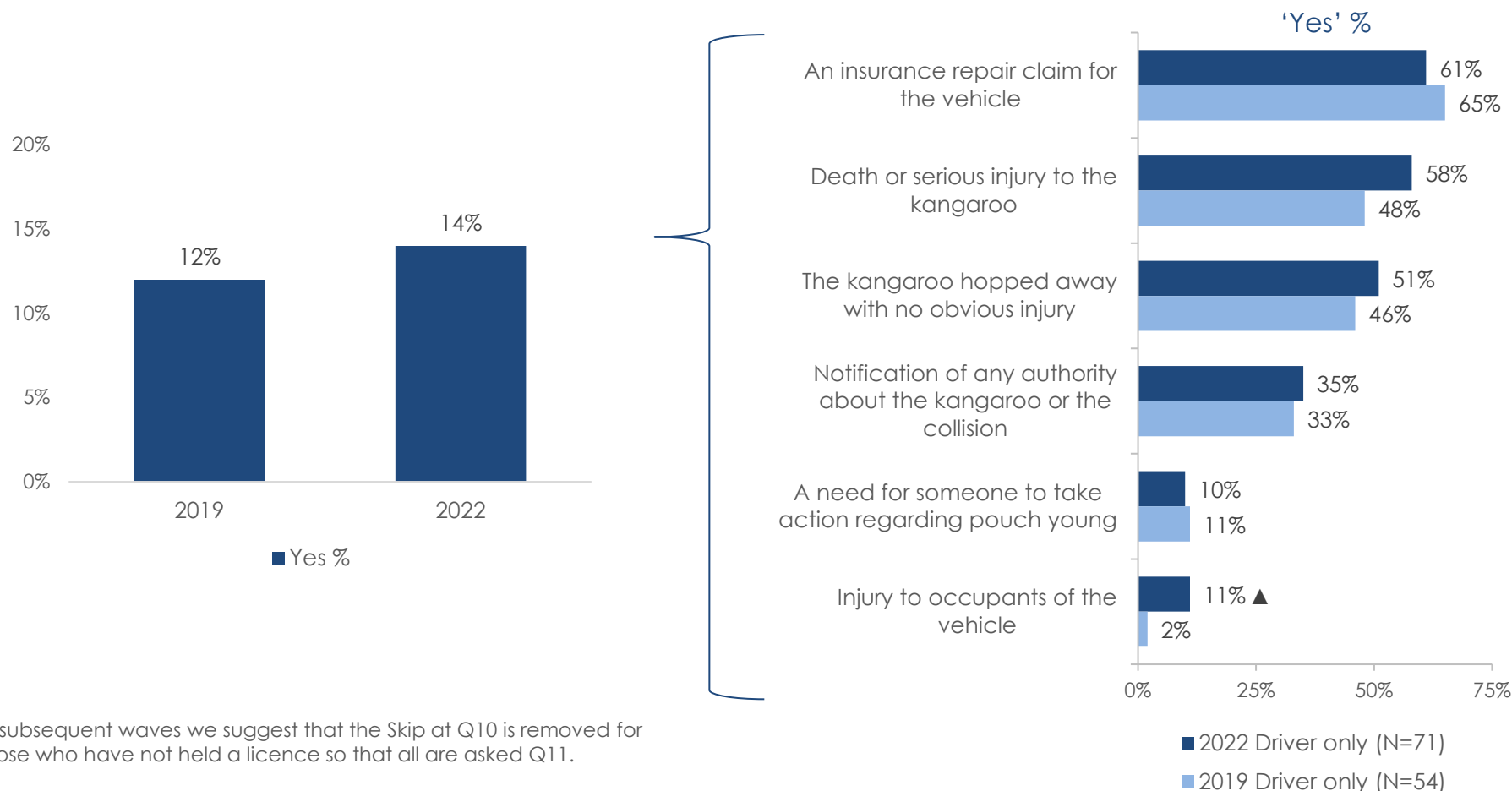
Of those that were both a driver and/or passenger, common results of the collision included an insurance claim and death/injury to the kangaroo.

Collisions Involving Kangaroos on Roads in the ACT

Q11. In the last three years how many times were you driving a car in the ACT when it was in a motor vehicle collision involving a kangaroo?

Q12b. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following?

Drivers Involved in a collision with a kangaroo in the last 3 years



In subsequent waves we suggest that the Skip at Q10 is removed for those who have not held a licence so that all are asked Q11.

▲ ▼ = A significantly higher/lower percentage (compared to 2019)

14% have had a collision with a kangaroo in the ACT in the last 3 years.
Compared to 2019 there was a significant increase in reports of injury to occupants of the vehicle as a result of the collision (11% compared to 2%).

Appendix A: Further Analysis



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Satisfaction with the ACT Government's Current Management of Kangaroos

Q13. How satisfied are you with the ACT Government's current management of kangaroos?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	3.49	3.56	3.43	3.13	3.48	3.56	3.48	3.47	3.47	3.63	3.46
Base	572	298	266	8*	52	134	95	173	118	110	462

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	3.49	3.55	3.56	3.52	3.34	3.44	3.75
Base	572	146	129	110	98	85	4*

*Caution low base size

'Don't know' responses have not been included in the mean

Scale: 1 = very dissatisfied, 5 = very satisfied



Satisfaction with the ACT Government's Current Management of Kangaroos

Q13. How satisfied are you with the ACT Government's current management of kangaroos?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	3.49	3.48	3.56	3.48	3.47	3.47	3.47	3.48
Base	572	52	134	95	81	92	66	52

'Don't know' responses have not been included in the mean

Scale: 1 = very dissatisfied, 5 = very satisfied



Importance of Having Kangaroos in Canberra Nature Park

Q2. Canberra Nature Park is made up of the bush and grassland nature reserves at the edges of our suburbs. How important is it to have kangaroos in Canberra Nature Park?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	3.84	3.77	3.93▲	3.50	3.74	3.84	3.92	3.81	3.86	3.93	3.81
Base	596	308	280	8*	58	139	95	180	124	115	481

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	3.84	3.87	3.87	3.82	3.84	3.75	3.80
Base	596	151	130	114	104	92	5*

*Caution low base size

Scale: 1 = very unimportant, 5 = very important

▲▼ = A significantly higher/lower level of importance (by group)

'Don't know' responses have not been included in the mean



Importance of Having Kangaroos in Canberra Nature Park

Q2. Canberra Nature Park is made up of the bush and grassland nature reserves at the edges of our suburbs. How important is it to have kangaroos in Canberra Nature Park?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	3.84	3.74	3.84	3.92	3.77	3.84	3.80	3.95
Base	596	58	139	95	87	93	69	55

'Don't know' responses have not been included in the mean

Scale: 1 = very unimportant, 5 = very important



Last Sighting of a Kangaroo in the ACT

Q1. How long is it since you last saw a kangaroo in the ACT?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
< 1 day	29%	35%▲	23%▼	13%	20%	28%	36%	36%▲	16%▼	22%	30%
< 1 week	33%	31%	35%	25%	42%	35%	32%	31%	29%	35%	32%
< 1 month	17%	16%	17%	13%	17%	17%	20%	14%	18%	17%	17%
< 3 months	11%	10%	11%	38%▲	15%	9%	7%	10%	14%	14%	10%
< 1 year	5%	3%▼	7%▲	0%	5%	4%	3%	3%	10%▲	5%	5%
> 1 year	7%	6%	7%	13%	2%	7%	2%▼	6%	13%▲	8%	6%
Base	605	313	284	8*	60	141	97	181	126	118	487

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Last Sighting of a Kangaroo in the ACT

Q1. How long is it since you last saw a kangaroo in the ACT?

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
< 1 day	29%	20%▼	29%	37%▲	32%	26%	60%
< 1 week	33%	37%	25%▼	28%	32%	42%▲	40%
< 1 month	17%	16%	23%▲	17%	15%	12%	0%
< 3 months	11%	12%	13%	11%	10%	8%	0%
< 1 year	5%	7%	7%	1%▼	3%	5%	0%
> 1 year	7%	8%	4%	6%	8%	8%	0%
Base	605	155	133	114	105	93	5*

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Last Sighting of a Kangaroo in the ACT

Q1. How long is it since you last saw a kangaroo in the ACT?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
< 1 day	29%	20%	28%	36%	37%	36%	20%	11%▼
< 1 week	33%	42%	35%	32%	31%	31%	36%	20%▼
< 1 month	17%	17%	17%	20%	15%	13%	16%	21%
< 3 months	11%	15%	9%	7%	6%	15%	10%	20%▲
< 1 year	5%	5%	4%	3%	5%	1%	9%	11%▲
> 1 year	7%	2%	7%	2%▼	7%	4%	10%	18%▲
Base	605	60	141	97	87	94	70	56

▲ ▼ = A significantly higher/lower percentage (by group)



Concentration of Kangaroos in the ACT

Q3. Compared to Australia generally, which of the following would best describe the concentration of kangaroos in the ACT?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	3.86	3.85	3.86	3.86	3.54▼	3.89	3.98	3.98▲	3.69▼	3.83	3.86
Base	521	280	234	7*	54	131	84	151	101	107	414

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	3.86	3.88	3.80	3.92	3.79	3.89	3.80
Base	521	125	116	105	90	80	5*

*Caution low base size

Scale: 1 = much lower concentration, 5 = much higher concentration

▲▼ = A significantly higher/lower rating (by group)

'Don't know' responses have not been included in the mean



Concentration of Kangaroos in the ACT

Q3. Compared to Australia generally, which of the following would best describe the concentration of kangaroos in the ACT?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	3.86	3.54▼	3.89	3.98	4.03	3.94	3.84	3.49▼
Base	521	54	131	84	73	78	58	43

Scale: 1 = much lower concentration, 5 = much higher concentration
▲▼ = A significantly higher/lower rating (by group)

'Don't know' responses have not been included in the mean



Opinion on Kangaroo Culling

Q4. Which of the following statements best describes your opinion with regards to kangaroo culling?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
I believe that the culling of kangaroos is appropriate under certain circumstances	76%	80%▲	71%▼	88%	62%▼	71%	69%	81%	87%▲	57%▼	81%▲
I am against kangaroo culling under any circumstances	10%	6%▼	14%▲	0%	18%▲	9%	9%	9%	8%	14%	9%
I am unsure about this subject	14%	14%	15%	13%	20%	20%▲	22%▲	10%	5%▼	30%▲	10%▼
Base	605	313	284	8*	60	141	97	181	126	118	487

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
I believe that the culling of kangaroos is appropriate under certain circumstances	76%	72%	81%	82%	63%▼	83%	80%
I am against kangaroo culling under any circumstances	10%	10%	8%	10%	14%	8%	0%
I am unsure about this subject	14%	19%	11%	8%▼	23%▲	10%	20%
Base	605	155	133	114	105	93	5*

*Caution low base size

▲▼ = A significantly higher/lower percentage (by group)



Opinion on Kangaroo Culling

Q4. Which of the following statements best describes your opinion with regards to kangaroo culling?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
I believe that the culling of kangaroos is appropriate under certain circumstances	76%	62%▼	71%	69%	79%	82%	90%▲	84%
I am against kangaroo culling under any circumstances	10%	18%▲	9%	9%	8%	10%	4%	13%
I am unsure about this subject	14%	20%	20%▲	22%▲	13%	9%	6%▼	4%▼
Base	605	60	141	97	87	94	70	56

*Caution low base size

▲▼ = A significantly higher/lower percentage (by group)



Attitude towards Culling Kangaroos

Q5. In comparison to other methods by which humans control wild animals, how humane is the culling of kangaroos?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	2.81	2.94▲	2.64▼	2.67	2.61	2.81	2.67	2.90	2.87	2.65	2.85▲
Base	477	264	207	6*	49	108	73	141	106	99	378

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	2.81	2.81	2.78	2.84	2.79	2.82	2.75
Base	477	118	110	90	87	68	4*

*Caution low base size

Scale: 1 = very inhumane, 4 = very humane

▲▼ = A significantly higher/lower rating (by group)

'Don't know' responses have not been included in the mean



Attitude towards Culling Kangaroos

Q5. In comparison to other methods by which humans control wild animals, how humane is the culling of kangaroos?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	2.81	2.61	2.81	2.67	2.87	2.92	2.92	2.80
Base	477	49	108	73	63	78	62	44

'Don't know' responses have not been included in the mean

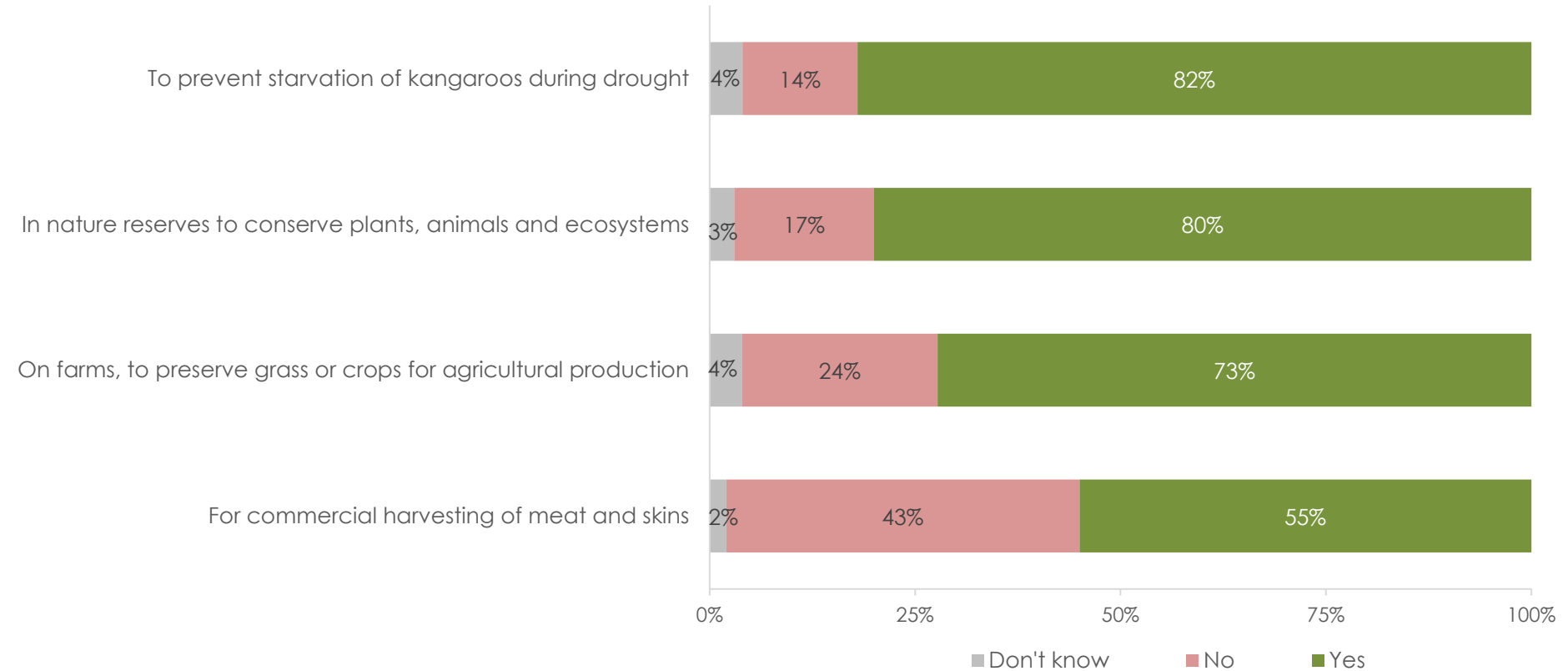
Scale: 1 = very inhumane, 4 = very humane



Agreement with Reasons for Culling Kangaroos

Q6. For which of the following reasons would you agree with the culling of kangaroos?

2022 detailed results



Base: N = 605



Agreement with Reasons for Culling Kangaroos

Q6. For which of the following reasons would you agree with the culling of kangaroos?

'Yes' %	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
To prevent starvation of kangaroos during drought	82%	83%	81%	88%	70%▼	82%	84%	83%	85%	77%	83%
In nature reserves to conserve plants, animals and ecosystems	80%	82%	76%▼	88%	78%	76%	85%	80%	79%	76%	80%
On farms, to preserve grass or crops for agricultural production	73%	75%	69%	75%	68%	72%	65%	77%	75%	67%	74%
For commercial harvesting of meat and skins	55%	63%▲	46%▼	50%	50%	53%	46%	63%▲	53%	43%	57%▲
Base	605	313	284	8*	60	141	97	181	126	118	487

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Agreement with Reasons for Culling Kangaroos

Q6. For which of the following reasons would you agree with the culling of kangaroos?

'Yes' %	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
To prevent starvation of kangaroos during drought	82%	77%	91%▲	82%	74%▼	86%	100%
In nature reserves to conserve plants, animals and ecosystems	80%	79%	77%	80%	77%	84%	100%
On farms, to preserve grass or crops for agricultural production	73%	74%	74%	75%	70%	67%	80%
For commercial harvesting of meat and skins	55%	57%	55%	61%	40%▼	58%	60%
Base	605	155	133	114	105	93	5*

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Agreement with Reasons for Culling Kangaroos

Q6. For which of the following reasons would you agree with the culling of kangaroos?

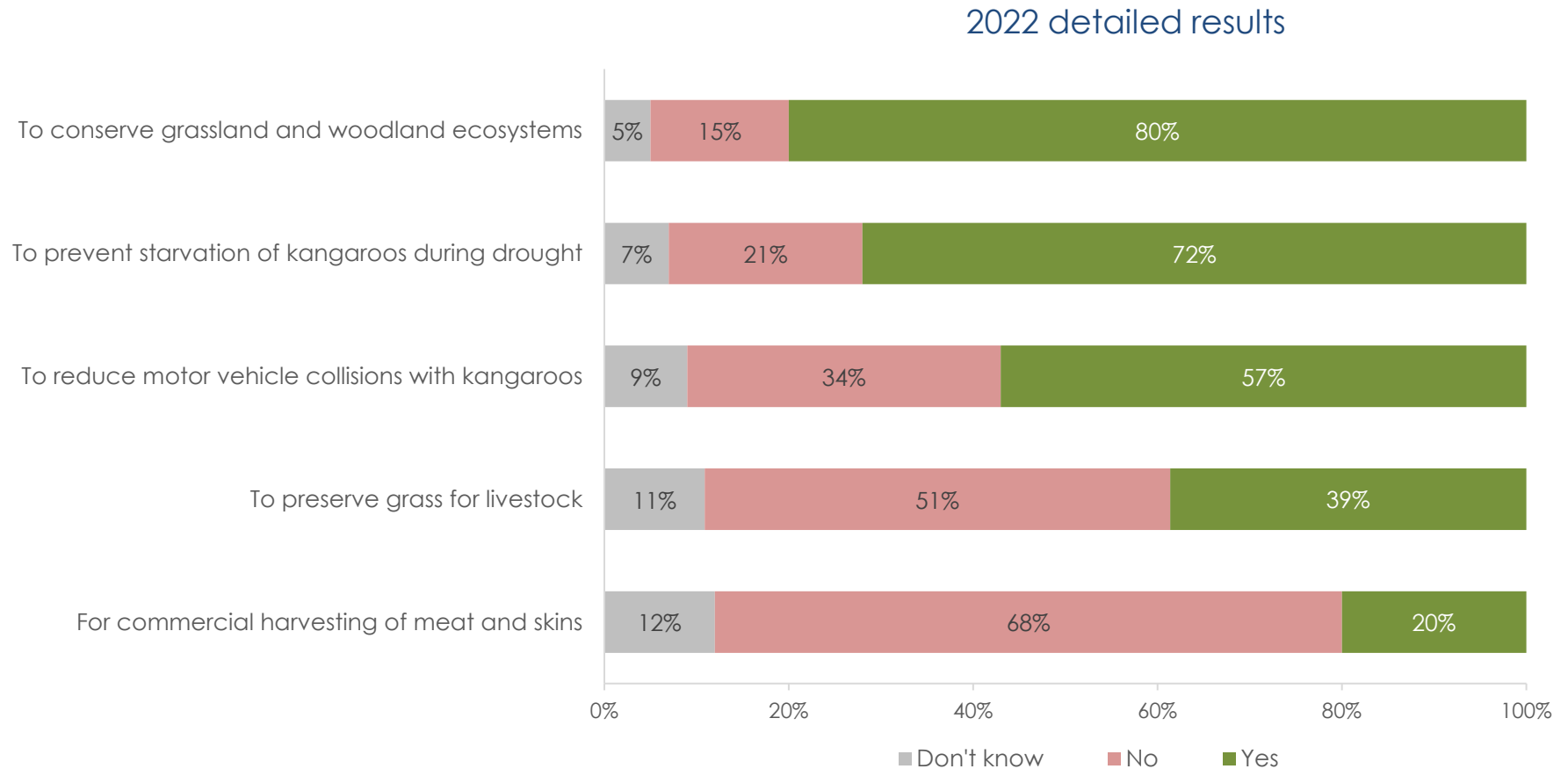
'Yes' %	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
To prevent starvation of kangaroos during drought	82%	70%▼	82%	84%	89%	79%	89%	80%
In nature reserves to conserve plants, animals and ecosystems	80%	78%	76%	85%	79%	81%	89%▲	68%▼
On farms, to preserve grass or crops for agricultural production	73%	68%	72%	65%	75%	79%	81%	68%
For commercial harvesting of meat and skins	55%	50%	53%	46%	54%	71%▲	59%	46%
Base	605	60	141	97	87	94	70	56

▲ ▼ = A significantly higher/lower percentage (by group)



Reasons for Culling in Nature Reserves

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out?



Base: N = 605



Reasons for Culling in Nature Reserves

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out?

'Yes' %	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
To conserve grassland and woodland ecosystems	80%	79%	81%	63%	82%	83%	86%	79%	71%▼	86%▲	78%
To prevent starvation of kangaroos during drought	72%	76%▲	68%▼	75%	60%▼	67%	82%▲	72%	75%	67%	74%
To reduce motor vehicle collisions with kangaroos	57%	57%	56%	75%	55%	65%▲	56%	53%	55%	58%	56%
To preserve grass for livestock	39%	37%	39%	63%	55%▲	42%	37%	34%	34%	44%	37%
For commercial harvesting of meat and skins	20%	21%	19%	38%	43%▲	26%	19%	16%	10%▼	26%	19%
Base	605	313	284	8*	60	141	97	181	126	118	487

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Reasons for Culling in Nature Reserves

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out?

'Yes' %	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
To conserve grassland and woodland ecosystems	80%	82%	79%	78%	81%	77%	80%
To prevent starvation of kangaroos during drought	72%	63%▼	78%	77%	68%	77%	80%
To reduce motor vehicle collisions with kangaroos	57%	53%	57%	56%	63%	57%	40%
To preserve grass for livestock	39%	34%	33%	44%	45%	41%	40%
For commercial harvesting of meat and skins	20%	20%	15%	18%	30%▲	19%	20%
Base	605	155	133	114	105	93	5*

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Reasons for Culling in Nature Reserves

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out?

'Yes' %	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
To conserve grassland and woodland ecosystems	80%	82%	83%	86%	78%	80%	74%	68%▼
To prevent starvation of kangaroos during drought	72%	60%▼	67%	82%▲	75%	70%	76%	75%
To reduce motor vehicle collisions with kangaroos	57%	55%	65%▲	56%	60%	47%▼	53%	57%
To preserve grass for livestock	39%	55%▲	42%	37%	34%	34%	33%	36%
For commercial harvesting of meat and skins	20%	43%▲	26%	19%	18%	14%	10%▼	11%
Base	605	60	141	97	87	94	70	56

*Caution low base size

▲ ▼ = A significantly higher/lower percentage (by group)



Culling for Conservation of Grassland and Woodland Animals

Q8. For thirteen years, kangaroos have been culled in ACT nature reserves for the conservation of grassland and woodland animals. Can you please rate how supportive or unsupportive you are of kangaroo culling for conservation of these animals?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	3.71	3.79	3.64	3.50	3.32▼	3.74	3.52	3.85▲	3.82	3.45	3.77▲
Base	603	312	283	8*	60	141	96	181	125	117	486

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	3.71	3.76	3.74	3.76	3.50▼	3.79	3.40
Base	603	155	133	113	105	92	5*

*Caution low base size

Scale: 1 = very unsupportive, 5 = very supportive

▲▼ = A significantly higher/lower rating (by group)

'Don't know' responses have not been included in the mean



Culling for Conservation of Grassland and Woodland Animals

Q8. For thirteen years, kangaroos have been culled in ACT nature reserves for the conservation of grassland and woodland animals. Can you please rate how supportive or unsupportive you are of kangaroo culling for conservation of these animals?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	3.71	3.32▼	3.74	3.52	3.90	3.81	4.00▲	3.58
Base	603	60	141	96	87	94	70	55

'Don't know' responses have not been included in the mean

Scale: 1 = very unsupportive, 5 = very supportive
▲▼ = A significantly higher/lower rating (by group)



Importance of Developing and Applying Fertility Controls to Control Breeding

Q9. How important is it to develop and apply fertility control methods to control the breeding of kangaroos in Canberra?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Mean rating	3.87	3.72▼	4.06▲	3.50	3.66	3.92	3.69	4.02▲	3.84	3.86	3.88
Base	585	305	272	8*	56	137	95	176	121	114	471

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Mean rating	3.87	3.76	3.88	3.93	3.98	3.91	3.00
Base	585	150	129	111	103	88	4*

*Caution low base size

Scale: 1 = very unimportant, 5 = very important

▲▼ = A significantly higher/lower level of importance (by group)

'Don't know' responses have not been included in the mean



Importance of Developing and Applying Fertility Controls to Control Breeding

Q9. How important is it to develop and apply fertility control methods to control the breeding of kangaroos in Canberra?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Mean rating	3.87	3.66	3.92	3.69	4.06	3.99	3.94	3.72
Base	585	56	137	95	84	92	68	53

Scale: 1 = very unimportant, 5 = very important

▲ ▼ = A significantly higher/lower level of importance (by group)

'Don't know' responses have not been included in the mean



Collisions Involving Kangaroos on Roads in the ACT

Q10. Have you held an ACT licence to drive a motor vehicle for the last three years?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Yes %	93%	94%	92%	75%	77%▼	90%	97%	96%	96%	81%	96%▲
Base	605	313	284	8*	60	141	97	181	126	118	487

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Yes %	93%	88%▼	92%	97%▲	96%	95%	60%▼
Base	605	155	133	114	105	93	5*

▲▼ = A significantly higher/lower percentage (by group) *Caution low base size



Collisions Involving Kangaroos on Roads in the ACT

Q10. Have you held an ACT licence to drive a motor vehicle for the last three years?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Yes %	93%	77%▼	90%	97%	94%	97%	96%	96%
Base	605	60	141	97	87	94	70	56

▲ ▼ = A significantly higher/lower percentage (by group)



Collisions Involving Kangaroos on Roads in the ACT

Q11. (If yes on Q10) In the last three years how many times were you driving a car in the ACT when it was in a motor vehicle collision involving a kangaroo?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Have had a collision with a kangaroo in last 3 years	14%	17%▲	10%▼	17%	15%	15%	20%	17%	3%▼	18%	13%
Base	561	293	262	6*	46	127	94	173	121	95	466

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Have had a collision with a kangaroo in last 3 years	14%	13%	11%	19%	16%	14%	0%
Base	561	136	122	111	101	88	3*

▲▼ = A significantly higher/lower percentage (by group) *Caution low base size



Collisions Involving Kangaroos on Roads in the ACT

Q11. (If yes on Q10) In the last three years how many times were you driving a car in the ACT when it was in a motor vehicle collision involving a kangaroo?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Have had a collision with a kangaroo in last 3 years	14%	15%	15%	20%	21%	14%	3%▼	4%▼
Base	561	46	127	94	82	91	67	54

▲▼ = A significantly higher/lower percentage (by group)



Collisions Involving Kangaroos on Roads in the ACT

Q12a. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
Yes - As a driver	28%	37%▲	19%▼	25%	17%▼	23%	40%▲	35%▲	19%▼	14%	32%▲
Yes - As a passenger	14%	14%	13%	25%	22%	16%	21%▲	11%	5%▼	11%	14%
No	64%	56%▼	73%▲	50%	68%	65%	51%▼	59%	78%▲	78%▲	61%
Base	605	313	284	8*	60	141	97	181	126	118	487

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
Yes - As a driver	28%	23%	27%	36%▲	30%	28%	0%
Yes - As a passenger	14%	8%▼	13%	16%	14%	20%▲	20%
No	64%	72%▲	65%	59%	61%	57%	80%
Base	605	155	133	114	105	93	5*

▲ ▼ = A significantly higher/lower percentage (by group)

*Caution low base size



Collisions Involving Kangaroos on Roads in the ACT

Q12a. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
Yes - As a driver	28%	17%▼	23%	40%▲	36%	35%	26%	11%▼
Yes - As a passenger	14%	22%	16%	21%▲	15%	7%	4%▼	5%
No	64%	68%	65%	51%▼	59%	60%	71%	86%▲
Base	605	60	141	97	87	94	70	56

▲ ▼ = A significantly higher/lower percentage (by group)



Collisions Involving Kangaroos on Roads in the ACT

Q12b. (If yes on Q12a) Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following?

	Overall 2022	Gender			Age					Time lived in ACT	
		Male	Female	Other/ Prefer not to say	18-24	25-34	35-44	45-64	65+	10 years or less	More than 10 years
An insurance repair claim for the vehicle	58%	58%	60%	25%	47%	53%	52%	58%	86%▲	38%	61%▲
Death or serious injury to the kangaroo	53%	61%▲	40%▼	50%	42%	59%	54%	54%	46%	46%	54%
The kangaroo hopped away with no obvious injury	51%	43%▼	65%▲	75%	53%	49%	50%	54%	50%	50%	52%
Notification of any authority about the kangaroo or the collision	33%	33%	32%	25%	32%	35%	35%	32%	25%	31%	33%
A need for someone to take action regarding pouch young	7%	6%	9%	0%	11%	10%	10%	4%	0%	8%	7%
Injury to occupants of the vehicle	5%	5%	5%	0%	5%	6%	4%	5%	4%	12%	4%
Base	218	137	77	4*	19	49	48	74	28	26	192

▲ ▼ = A significantly higher/lower percentage (by group) *Caution low base size



Collisions Involving Kangaroos on Roads in the ACT

Q12b. (If yes on Q12a) Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following?

	Overall 2022	Location					
		Inner South, Inner North, and City	Belconnen	Tuggeranong	Gungahlin	Woden, Weston Creek, and Molonglo Valley	Other
An insurance repair claim for the vehicle	58%	56%	61%	77%▲	49%	45%	100%
Death or serious injury to the kangaroo	53%	51%	50%	74%▲	39%▼	48%	100%
The kangaroo hopped away with no obvious injury	51%	44%	54%	43%	68%▲	50%	0%
Notification of any authority about the kangaroo or the collision	33%	21%	35%	38%	27%	40%	100%
A need for someone to take action regarding pouch young	7%	5%	7%	9%	5%	10%	0%
Injury to occupants of the vehicle	5%	5%	0%	2%	12%▲	8%	0%
Base	218	43	46	47	41	40	1*

▲▼ = A significantly higher/lower percentage (by group) *Caution low base size



Collisions Involving Kangaroos on Roads in the ACT

Q12b. (If yes on Q12a) Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following?

	Overall 2022	Detailed Age						
		<24	25-34	35-44	45-54	55-64	65-74	75+
An insurance repair claim for the vehicle	58%	47%	53%	52%	61%	55%	80%▲	100%▲
Death or serious injury to the kangaroo	53%	42%	59%	54%	50%	58%	65%	0%▼
The kangaroo hopped away with no obvious injury	51%	53%	49%	50%	58%	50%	40%	75%
Notification of any authority about the kangaroo or the collision	33%	32%	35%	35%	33%	32%	30%	13%
A need for someone to take action regarding pouch young	7%	11%	10%	10%	3%	5%	0%	0%
Injury to occupants of the vehicle	5%	5%	6%	4%	6%	5%	5%	0%
Base	218	19	49	48	36	38	20	8*

▲▼ = A significantly higher/lower percentage (by group) *Caution low base size



Appendix B: Detailed Background & Methodology



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Background & Methodology

Sample selection and error

A total of 605 resident interviews were completed. 586 of the 605 respondents were chosen by means of a computer based random selection process using the Australian marketing lists and SamplePages. The remaining 19 respondents were contacted using past 'number harvesting' collected numbers.

A sample size of 605 residents provides a maximum sampling error of plus or minus 4.0% at 95% confidence. This means that if the survey was replicated with a new universe of N=605 residents, 19 times out of 20 we would expect to see the same results, i.e. +/- 4.0%.

For the survey under discussion the greatest margin of error is 4.0%. This means, for example, that an answer such as 'yes' (50%) to a question could vary from 46% to 54%.

Interviewing

Interviewing was conducted in accordance with The Research Society Code of Professional Behaviour.

Prequalification

Participants in this survey were pre-qualified as being over the age of 18, and not working for, nor having an immediate family member working for, ACT Government.

Data analysis

The data within this report was analysed using Q Professional.

Within the report, ▲▼ are used to identify statistically significant differences between groups, i.e., year.

Significance difference testing is a statistical test performed to evaluate the difference between two measurements. To identify the statistically significant differences between the groups of means, 'One-Way Anova tests' and 'Independent Samples T-tests' were used. 'Z Tests' were also used to determine statistically significant differences between column percentages.

Percentages

All percentages are calculated to the nearest whole number and therefore the total may not exactly equal 100%.



Appendix C: Questionnaire



ACT Government
Attitudes and opinions of ACT residents regarding kangaroos and their management
November 2022

Q1. How long is it since you last saw a kangaroo in the ACT? Prompt

- ☐ < 1 day
- ☐ < 1 week
- ☐ < 1 month
- ☐ < 3 months
- ☐ < 1 year
- ☐ > 1 year

Q2. Canberra Nature Park is made up of the bush and grassland nature reserves at the edges of our suburbs. How important is it to have kangaroos in Canberra Nature Park? Prompt

- ☐ Very important
- ☐ Important
- ☐ Neither important nor unimportant
- ☐ Unimportant
- ☐ Very unimportant
- ☐ Don't know

Q3. Compared to Australia generally, which of the following would best describe the concentration of kangaroos in the ACT? Prompt

- ☐ The ACT has a much higher concentration of kangaroos
- ☐ The ACT has a higher concentration of kangaroos
- ☐ The ACT has about the same concentration as elsewhere
- ☐ The ACT has a lower concentration of kangaroos
- ☐ The ACT has a much lower concentration of kangaroos
- ☐ I don't know about the numbers and can't comment

Q4. Which of the following statements best describes your opinion with regards to kangaroo culling? Prompt

- ☐ I am against kangaroo culling under any circumstances
- ☐ I believe that the killing of kangaroos is appropriate under certain circumstances
- ☐ I am unsure about this subject

Q5. In comparison to other methods by which humans control wild animals, how humane is the culling of kangaroos? Prompt

- ☐ Very humane
- ☐ Humane
- ☐ Inhumane
- ☐ Very inhumane
- ☐ Don't know

Q6. For which of the following reasons would you agree with the culling of kangaroos? Prompt

- | | Yes | No | Don't know |
|--|-----------------------|-----------------------|-----------------------|
| On farms, to preserve grass or crops for agricultural production | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| For commercial harvesting of meat and skins | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| In nature reserves to conserve plants, animals and ecosystems | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To prevent starvation of kangaroos during drought | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Q7. Kangaroos have been culled in ACT nature reserves since 2009. For which of the following reasons is the culling in nature reserves carried out? Prompt

- | | Yes | No | Don't know |
|---|-----------------------|-----------------------|----------------------------------|
| To preserve grass for livestock | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To conserve grassland and woodland ecosystems | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| For commercial harvesting of meat and skins | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To prevent starvation of kangaroos during drought | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To reduce motor vehicle collisions with kangaroos | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |

Q8. For thirteen years, kangaroos have been culled in ACT nature reserves for the conservation of grassland and woodland animals. Can you please rate how supportive or unsupportive you are of kangaroo culling for this reason? Prompt

- ☐ Very supportive
- ☐ Supportive
- ☐ Neither supportive nor unsupportive
- ☐ Unsupportive
- ☐ Very unsupportive
- ☐ Don't know

Q9. How important is it to develop and apply fertility control methods to control the breeding of kangaroos in Canberra? Prompt

- ☐ Very important
- ☐ Important
- ☐ Neither important nor unimportant
- ☐ Unimportant
- ☐ Very unimportant
- ☐ Don't know

Q10. Have you held an ACT licence to drive a motor vehicle for the last three years?

- ☐ Yes
- ☐ No (Go to Q12a)

Q11. In the last three years how many times were you driving a car in the ACT when it was in a motor vehicle collision involving a kangaroo?
 Note: Respondent should answer based on the number of cars they themselves had been driving, and not include any collisions they have been involved in where they may have been a passenger.

- ☐ Never
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5+ (please specify)

Q12a. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT?

- ☐ Yes – As a driver
- ☐ Yes – As a passenger
- ☐ No (Go to Q13)

Q12b. Have you ever been involved in a motor vehicle collision with a kangaroo in the ACT that resulted in any of the following? Prompt

	Yes	No	Don't know
Injury to occupants of the vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An insurance repair claim for the vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The kangaroo hopped away with no obvious injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Death or serious injury to the kangaroo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A need for someone to take action regarding pouch young	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Notification of any authority about the kangaroo or the collision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13. How satisfied are you with the ACT Government's current management of kangaroos? Prompt

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied
- ☐ Very dissatisfied
- ☐ Don't know

Demographics

Q14. Please stop me when I read out your age group: Prompt

- ☐ 18 years and under
- ☐ 19-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75 and over

Q15. Which of the following best describes your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary
- ☐ Other
- ☐ Prefer not to say

Q16. Where do you live?

- ☐ Belconnen
- ☐ Inner South, Inner North, and City
- ☐ Gungahlin
- ☐ Tuggeranong
- ☐ Woden, Weston Creek, and Molonglo Valley
- ☐ Other (please specify)

Q17. How long have you lived in the ACT? Prompt

- ☐ Less than 12 months
- ☐ 1 to 2 years
- ☐ 3 - 5 years
- ☐ 6 - 10 years
- ☐ More than 10 years

The information contained herein is believed to be reliable and accurate, however, no guarantee is given as to its accuracy and reliability, and no responsibility or liability for any information, opinions or commentary contained herein, or for any consequences of its use, will be accepted by Micromex Research, or by any person involved in the preparation of this report.

A dirt road winds through a grassy field. In the distance, a kangaroo is visible on the road. The background is a dense forest of tall trees.

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