

THREATENED SPECIES SCIENTIFIC COMMITTEE

Established under the *Environment Protection and Biodiversity Conservation Act 1999*

The Minister approved this conservation advice and included this species in the Vulnerable category, effective from 5 May 2016

Conservation Advice

Petrogale xanthopus celeris

yellow-footed rock-wallaby (central-western Queensland)

Note: The information contained in this Conservation Advice was primarily sourced from 'The Action Plan for Australian Mammals 2012' (Woinarski et al., 2014). Any substantive additions obtained during the consultation on the draft have been cited within the advice. Readers may note that Conservation Advices resulting from the Action Plan for Australian Mammals show minor differences in formatting relative to other Conservation Advices. These reflect the desire to efficiently prepare a large number of advices by adopting the presentation approach of the Action Plan for Australian Mammals, and do not reflect any difference in the evidence used to develop the recommendation.

Taxonomy

Conventionally accepted as *Petrogale xanthopus celeris* (Le Souef 1924).

Two subspecies are recognised. The other subspecies is *P. x. xanthopus* (yellow-footed rock-wallaby (South Australia, New South Wales)).

Pope et al. (1996) noted significant genetic differences in subpopulations of this subspecies separated by at least 70 km of unsuitable habitat, and advised that conservation management should treat each colony as an independent unit.

Summary of assessment

Conservation status

Vulnerable: Criterion 2 B1(a),(b)(ii,iii,v), B2(a),(b)(ii,iii,v) and Criterion 3 C2(a)(i).

Species can be listed as threatened under state and territory legislation. For information on the listing status of this species under relevant state or territory legislation, see <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>.

Reason for conservation assessment by the Threatened Species Scientific Committee

This advice follows assessment of new information provided to the Committee to list *Petrogale xanthopus celeris*.

Public Consultation

Notice of the proposed amendment and a consultation document was made available for public comment for 40 business days between 30 September 2015 and 25 November 2015. Any comments received that were relevant to the survival of the subspecies were considered by the Committee as part of the assessment process.

Species/Subspecies Information

Description

The yellow-footed rock-wallaby (central-western Queensland) is fawn-grey above and white below, with a black mid-dorsal stripe from the crown of its head to the centre of its back, and a buff-white side stripe. It has a distinct white cheek stripe, grey-brown ears, and light orange-brown above the eyes. Its forearms, hindlegs and base of its tail are a light orange-brown. It has a head and body length of 56–60 cm and a tail length of 56–67 cm. The tail is orange-brown with irregular dark brown annulations, with a dark-brown or white tip (Eldridge 2008).

Distribution

The yellow-footed rock-wallaby (central-western Queensland) has a restricted distribution in the rocky ranges of central-western Queensland, including the Gowan, Grey, Cheviot, Yangang, Macedon, Edinburgh and McGregor Ranges, and Mariala National Park (Roache 2011; Qld DEHP 2015b).

Gordon et al. (1993) surveyed this taxon across its range between 1984 and 1987, and reported it from 44 'sites' to the north and north-west of Adavale. Many of these sites were clumped, and the number of locations is considerably fewer. There has been no more recent published comprehensive sampling across its small range (L. Lim pers. comm., cited in Woinarski et al, 2014). Populations are quite fragmented, rendering them vulnerable to extirpation due to landscape modification between range habitats (Qld DEHP 2015b).

Relevant Biology/Ecology

The yellow-footed rock-wallaby (central-western Queensland) is mostly nocturnal, and shelters during the day in caves and rock crevices. It is closely associated with rugged rocky areas, along the edges of low sandstone tablelands and hills (Gordon et al., 1993), typically with low *Acacia* woodlands or shrublands (Maxwell et al., 1996).

It lives in colonies ranging in size from about 10 individuals to over 100 individuals (Sharp 1997), in which several groups may be present. Each group typically contains a single older male, several females and several younger males. Dispersal between colonies is very limited, especially where intervening habitat is unsuitable (Pope et al., 1996; Sharp 1997; Lapidge 2001). However, individuals have been reported to move regularly to water sources up to 1.5 km from core colony areas (Sharp 2009). At one site with high habitat quality, home ranges (determined using a 95% minimum convex polygon) were about 16 ha, with male home ranges larger than those of females (Lapidge 2001; Sharp 2009).

Generation length is assumed to be 5–6 years (Woinarski et al., 2014). The subspecies appears to be a semi-seasonal breeder, with significantly more births occurring in autumn and spring compared to summer and winter, possibly to avoid times of peak thermoregulatory demands (Lapidge 2001). Fecundity is directly related to vegetation abundance (Lapidge 2001).

Threats

Threats to the yellow-footed rock-wallaby (central-western Queensland) are outlined in the table below (Woinarski et al., 2014). Some of these threats may interact, e.g. increased access to artificial water sources may increase the density of cats and foxes.

Threat factor	Consequence rating	Extent over which threat may operate	Evidence base
Predation by foxes	Severe	Entire	There is some direct evidence of predation, with substantial circumstantial evidence of population-level impacts (Lapidge & Henshall 2001).

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Habitat change and resource depletion due to livestock and feral herbivores	Severe	Large	<p>Gordon et al. (1993) considered 'competition with other herbivores' to be a threat. Pople et al. (1998) considered feral goats to be a 'serious threat' to this taxon. Allen (2001) measured high dietary overlap with feral goats, which limited rock-wallabies' access to <i>Acacia</i> bushes which are an important sustaining food during dry periods.</p> <p>Many graziers are now grazing 'rangeland goats' in the Queensland mulga lands, increasing competition for food with rock-wallabies; threats from cattle are greater in the eastern part of the subspecies' range where cattle densities are higher (Qld DEHP 2015b). Livestock farming pushes wallaroos into rock-wallaby country, further increasing competition with rock-wallabies for food and space (Qld DEHP 2015b).</p>
Climate change	Moderate	Entire	Recruitment and population increase mainly occurs in good seasons; longer periods of low rainfall may substantially reduce population viability (A. Sharp pers. comm., cited in Woinarski et al., 2014).
Predation by feral cats	Minor	Entire	Possible, but there is little evidence of population-scale impact.
Reduced access to water sources	Moderate	Moderate	Sharp (2011) observed regular visitation by yellow-footed rock-wallabies to an earthen tank over a three-year period; visitation rate increased with increased temperatures and decreased rainfall. He concluded that populations in semi-arid Queensland may rely on free water, and the closing of artificial water sources could result in dramatic declines in numbers.
Habitat loss and fragmentation	Moderate	Minor	Gordon et al. (1993) considered 'property development' to be a threat; Maxwell et al. (1996) noted that 'clearing of mulga and other vegetation near cliff lines may threaten' the subspecies.
Too frequent, extensive or intense burning	Moderate	Minor	Extensive fires at particular times (e.g. at the beginning of long dry periods when regrowth is slow) could be detrimental to these refuge-dependent animals that can't travel far without risk of predation (Tuft et al., 2012).

How judged by the Committee in relation to the EPBC Act Criteria and Regulations

Criterion 1. Population size reduction (reduction in total numbers)			
Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered Very severe reduction	Endangered Severe reduction	Vulnerable Substantial reduction
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3, A4	≥ 80%	≥ 50%	≥ 30%
A1	<p>Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.</p> <p>(a) direct observation [except A3]</p>		
A2			
A3			
A4			
		<p>based on any of the following:</p> <p>(b) an index of abundance appropriate to the taxon</p> <p>(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat</p> <p>(d) actual or potential levels of exploitation</p> <p>(e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites</p>	

Evidence:

Insufficient data to determine eligibility

Trends in population size are not well defined. Clancy and Close (1997) considered the population of the yellow-footed rock-wallaby (central-western Queensland) to be 'stable'. Copley et al. (2008) noted that some subpopulations had been extirpated, others had declined, and that others under intensive management had increased. For at least two sites, reintroductions have restored formerly extirpated subpopulations (Lapidge 2001), with reintroduced individuals and their offspring successfully breeding in the wild.

There have been some medium- to long- term population studies on this subspecies at Idalia National Park, notably by Sharp between 1991 and 1994 (Sharp 1997; Sharp & McCallum 2010). Over this period the population size decreased by about 50 percent, probably due to adverse seasonal conditions.

Woinarski et al. (2014) suspect a continuing population decline, but consider the rate of population reduction unlikely to exceed 30 percent over a three generation period (15–18 years). However, there are little data available on population trends, and numbers may fluctuate depending on environmental conditions.

The Committee considers that there is insufficient information to determine the eligibility of the subspecies for listing in any category under this criterion.

Criterion 2. Geographic distribution as indicators for either extent of occurrence AND/OR area of occupancy			
	Critically Endangered Very restricted	Endangered Restricted	Vulnerable Limited
B1. Extent of occurrence (EOO)	< 100 km ²	< 5,000 km ²	< 20,000 km ²
B2. Area of occupancy (AOO)	< 10 km ²	< 500 km ²	< 2,000 km ²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	= 1	≤ 5	≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals			
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals			

Evidence:

Eligible under Criterion 2 B1(a),(b)(ii,iii,v) and B2(a),(b)(ii,iii,v) for listing as Vulnerable

The extent of occurrence is estimated at 11 912 km², and the area of occupancy estimated at 140 km². These figures are based on the mapping of point records from 1995 to 2015, obtained from state governments, museums and CSIRO. The EOO was calculated using a minimum convex hull, and the AOO calculated using a 2x2 km grid cell method, based on the IUCN Red List Guidelines 2014 (DotE 2015a). Mapped point records from 1965 to 1995, which give an EOO of 47 814 km² and an AOO of 808 km² (DotE 2015a), show that the historical distribution was much larger.

However, there has been no published comprehensive sampling of the yellow-footed rock-wallaby (central-western Queensland) across its range since the 1984–1987 surveys by Gorden et al. (1993) (L. Lim pers. comm., cited in Woinarski et al, 2014). Woinarski et al. (2014) estimate the extent of occurrence to be 14 800 km² and the area of occupancy to be less than 2000 km².

Considering the limited sampling since 1987, it is more likely than not that the AOO is greater than 500 km² but less than 2000 km², and could be substantially less than 2000 km². The subspecies occurs at six locations. Population densities have declined within its range (Qld DEHP 2015b), and there is an inferred continuing decline in the extent and quality of habitat, area of occupancy and population size (Woinarski et al., 2014).

The Committee considers that the subspecies' extent of occurrence and area of occupancy are limited, and the geographic distribution is precarious for its survival because it occurs at a limited number of locations and a continuing decline is inferred. Therefore, the subspecies has met the relevant elements of Criterion 2 to make it eligible for listing as Vulnerable.

Criterion 3. Population size and decline

	Critically Endangered Very low	Endangered Low	Vulnerable Limited
Estimated number of mature individuals	< 250	< 2,500	< 10,000
AND either (C1) or (C2) is true			
C1 An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future)	Very high rate 25% in 3 years or 1 generation (whichever is longer)	High rate 20% in 5 years or 2 generation (whichever is longer)	Substantial rate 10% in 10 years or 3 generations (whichever is longer)
C2 An observed, estimated, projected or inferred continuing decline AND its geographic distribution is precarious for its survival based on at least 1 of the following 3 conditions:			
(i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
(a) (ii) % of mature individuals in one subpopulation =	90 – 100%	95 – 100%	100%
(b) Extreme fluctuations in the number of mature individuals			

Evidence:

Eligible under Criterion 3 C2(a)(i) for listing as Vulnerable

Gordon et al. (1993) surveyed the subspecies across its range between 1984 and 1987, and noted that the population size 'could not be estimated with accuracy, but is considered to be of the order of 5000–10 000 animals'. Copley et al. (2008) considered the population size to be unknown, while Clancy and Close (1997) considered the subspecies to be 'common'. Population size varies somewhat with seasonal conditions (Sharp & McCallum 2010).

The largest subpopulation is likely to have fewer than 1000 mature individuals. Sharp (1997) estimated the population size of a 'large' colony (in about 20 ha of Idalia National Park), sampled during 1991–1994, to be about 100 individuals, but this declined by 54 percent over the course of that study. Sharp (1997) noted that this colony occurred in 'prime' habitat and had high population densities.

Woinarski et al. (2014) estimate the population size at 4000 mature individuals, with an inferred continuing decline. The largest subpopulation is inferred to have less than 1000 mature individuals. The Queensland government estimates the population size to be 4000–6000 mature individuals, with a general decline in numbers across the distribution due to the impact of goats, cattle and wallaroos (Qld DEHP 2015b).

The Committee considers that the estimated total number of mature individuals of this subspecies is limited, with an inferred continuing decline, and the geographic distribution is precarious for the survival of the subspecies because the largest subpopulation is estimated to have less than 1000 mature individuals. Therefore, the subspecies has met the relevant elements of Criterion 3 to make it eligible for listing as Vulnerable.

Criterion 4. Number of mature individuals			
	Critically Endangered Extremely low	Endangered Very Low	Vulnerable Low
Number of mature individuals	< 50	< 250	< 1,000

Evidence:

Not eligible

The population size is estimated at 4000 mature individuals (Woinarski et al., 2014).

The total number of mature individuals is not considered extremely low, very low or low. Therefore, the subspecies has not met this required element of this criterion.

Criterion 5. Quantitative Analysis			
	Critically Endangered Immediate future	Endangered Near future	Vulnerable Medium-term future
Indicating the probability of extinction in the wild to be:	≥ 50% in 10 years or 3 generations, whichever is longer (100 years max.)	≥ 20% in 20 years or 5 generations, whichever is longer (100 years max.)	≥ 10% in 100 years

Evidence:

Not eligible

Population viability analysis has not been undertaken.

Conservation Actions

Recovery Plan

The Committee recommends that there should not be a recovery plan for *Petrogale xanthopus celeris* (yellow-footed rock-wallaby (central-western Queensland)), as approved Conservation Advice provides sufficient direction to implement priority actions and mitigate against key threats.

Primary Conservation Actions

1. Manage threats to secure or increase overall population size.
2. Maintain viable subpopulations at all known localities.
3. Restore extirpated subpopulations (following reduction in threat pressures).

Conservation and Management Actions

The yellow-footed rock-wallaby (central-western Queensland) is present in some conservation reserves (notably Idalia and Welford National Parks: Clancy & Close 1997; and Hellhole and Mariala National Parks: Qld DEHP 2015b), where it is protected from some threats and has been subject to intensive research and control of predators and feral competitors (e.g. Pople et al., 1998). A captive population has been established, which from 1998 has been used to source animals for reintroductions (to Lambert Station and Mariala National Park) within its former range (Lapidge & Munn 2012).

The subspecies is identified as a high priority under Queensland's 'Back on Track' program. Some actions being undertaken to benefit it include the identification and protection of habitat, encouraging landholders to reduce stock grazing and control feral goats where the subspecies occurs, and restricting access to artificial watering points (whilst allowing access by the rock-wallabies) to minimise feral animal numbers and grazing impacts (Qld DEHP 2015a).

Other plans that will benefit the subspecies include:

- the Threat Abatement Plan and background document for predation by the European red fox (DEWHA 2008a,b)
- Threat abatement plan and background document for predation by feral cats (DotE 2015b,c)
- the Threat Abatement Plan and background document for competition and land degradation by unmanaged goats (DEWHA 2008c,d).

Recommended management actions are outlined in the table below (Woinarski et al., 2014).

Theme	Specific actions	Priority
Active mitigation of threats	Constrain grazing by livestock and feral herbivores to within acceptable limits in and around important subpopulations, particularly in the more intensive farming areas in the eastern part of the rock-wallaby's range.	High
	Protect important subpopulations, such as those in the Yanyang Ranges and Cheviot Range.	High
	Implement control measures for foxes and feral cats, that minimise adverse impacts on this subspecies.	High
	Undertake landscape-scale fire control or management, to maintain vegetation heterogeneity and decrease the incidence of frequent, extensive or intense fire.	Low-medium
	Preserve and manage natural water sources.	Medium
Captive breeding	N/a	
Quarantining isolated populations	N/a	
Translocation	Reintroduce to parts of its former range, once threat management is effective.	Medium
Community engagement	Seek conservation covenants on private land holding important subpopulations.	Medium-high

Survey and monitoring priorities

Theme	Specific actions	Priority
Survey to better define distribution	Undertake a targeted survey across all suitable habitat within the subspecies' range.	High
	Assess the population size of all subpopulations, and then prioritise subpopulations for management focus.	Medium-high
Establish or enhance monitoring program	Implement an integrated monitoring program across subpopulations, linked to the assessment of management effectiveness.	Medium-high
	Monitor the abundance of feral predators at key subpopulations, in response to management actions.	Medium
	Monitor the abundance of feral herbivores, and vegetation condition, at key subpopulations, in response to management actions.	Medium
	Monitor the incidence of fire, and vegetation response, at key subpopulations.	Low-medium

Information and research priorities

Theme	Specific actions	Priority
Assess relative impacts of threats	Assess the impacts of feral predators (including changes in the abundance and impacts of feral cats in response to fox control).	Medium-high
	Assess the impacts of livestock and feral herbivores, and define acceptable grazing limits.	Medium-high
	Assess the impacts of fire, and identify a fire regime consistent with population persistence.	Low-medium
Assess relative effectiveness of threat mitigation options	Assess the efficacy of a range of management regimes for non-native predators.	Medium
Resolve taxonomic uncertainties	N/a	
Assess habitat requirements	Assess options for the manipulation of water and food supplies to enhance habitat suitability.	Low-medium
Assess diet, life history	N/a	

Recommendations

- (i) The Committee recommends that the list referred to in section 178 of the EPBC Act be amended by **including** in the list in the Vulnerable category:

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- (ii) The Committee recommends that there not be a recovery plan for this subspecies.

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References cited in the advice

Allen, C. B. (2001). Analysis of dietary competition between three sympatric herbivores in semi-arid west Queensland. Ph.D. thesis. University of Sydney, Sydney.

Clancy, T. F., & Close, R. L. (1997). The Queensland rock-wallabies – an overview of their conservation status, threats and management. *Australian Mammalogy* 19, 169-174.

Copley, P., Ellis, M., & van Weenen, J. (2008). *Petrogale xanthopus*. In 'IUCN red list of threatened species.' Version 2012.1. Viewed 4 July 2012.
Available on the internet at: <http://www.iucnredlist.org>.

Department of the Environment (DotE) (2015a). Area of Occupancy and Extent of Occurrence for *Petrogale xanthopus celeris*. Unpublished report, Australian Government Department of the Environment, Canberra.

Department of the Environment (DotE) (2015b). Threat abatement plan for predation by feral cats. Canberra: DotE. Available on the Internet at:
<http://www.environment.gov.au/biodiversity/threatened/publications/tap/threat-abatement-plan-feral-cats>

Department of the Environment (DotE) (2015c). Background document for the threat abatement plan for predation by feral cats. Canberra: DotE. Available on the Internet at:

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<http://www.environment.gov.au/biodiversity/threatened/publications/tap/threat-abatement-plan-feral-cats>

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008a). Threat Abatement Plan for predation by the European red fox. Canberra: DEWHA. Available on the internet at:

<http://www.environment.gov.au/biodiversity/threatened/publications/tap/predation-european-red-fox>

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008b). Background document for the threat abatement plan for predation by the European red fox. Canberra: DEWHA. Available on the internet at:

<http://www.environment.gov.au/biodiversity/threatened/publications/tap/predation-european-red-fox>

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008c). Threat Abatement Plan for competition and land degradation by unmanaged goats. Canberra: DEWHA. Available on the internet at:

<http://www.environment.gov.au/biodiversity/threatened/publications/tap/competition-and-land-degradation-unmanaged-goats>

Department of the Environment, Water, Heritage and the Arts (DEWHA) (2008d). Background document for the threat abatement plan for competition and land degradation by unmanaged goats. Canberra: DEWHA. Available on the internet at:

<http://www.environment.gov.au/biodiversity/threatened/publications/tap/competition-and-land-degradation-unmanaged-goats>

Eldridge, M. D. B. (2008). Yellow-footed Rock-wallaby *Petrogale xanthopus*. In *The Mammals of Australia*. Third edition. (Eds S. Van Dyck & R. Strahan), pp. 392-394. Reed New Holland, Sydney.

Gordon, G., McRae, P., Lim, L., Reimer, D., & Porter, G. (1993). The conservation status of the yellow-footed rock-wallaby in Queensland. *Oryx* 27, 159-168.

Lapidge, S. J. (2001). Reintroduction biology of yellow-footed rock-wallabies (*Petrogale xanthopus celeris* and *P. x. xanthopus*). Ph.D. thesis, University of Sydney, Sydney.

Lapidge, S. J., & Henshel, S. (2001). Diet of foxes and cats, with evidence of predation on yellow-footed rock-wallabies (*Petrogale xanthopus celeris*) by foxes, in southwestern Queensland. *Australian Mammalogy* 23, 47-51.

Lapidge, S. J., & Munn, A. J. (2012). Seasonal field metabolic rate and water influx of captive-bred reintroduced yellow-footed rock-wallabies (*Petrogale xanthopus celeris*). *Australian Journal of Zoology* 59, 400-406.

Maxwell, S., Burbidge, A. A., & Morris, K. (1996). *The 1996 Action Plan for Australian Marsupials and Monotremes*. Wildlife Australia, Canberra.

Pope, L. C., Sharp, A., & Moritz, C. (1996). Population structure of the yellow-footed rock-wallaby *Petrogale xanthopus* (Gray, 1854) inferred from mtDNA sequences and microsatellite loci. *Molecular Ecology* 5, 629-640.

Pople, A. R., Clancy, T. F., Thompson, J. A., & Boyd-Law, S. (1998). Aerial survey methodology and the cost of control for feral goats in Western Queensland. *Wildlife Research* 25, 393-407.

Queensland Department of Environment and Heritage Protection (Qld DEHP) (2015a). Species Information for *Petrogale xanthopus celeris*. Viewed 4 January 2015. Available on the internet at:

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- Roache, M. (2011). *The Action Plan for Threatened Australian Macropods*. WWF-Australia: Sydney.
- Sharp, A. (1997). Insights into the dispersal patterns of yellow-footed rock-wallabies, *Petrogale xanthopus*. *Australian Mammalogy* 19, 229-238.
- Sharp, A. (2009). Home range dynamics of the yellow-footed rock-wallaby (*Petrogale xanthopus celeris*) in central-western Queensland. *Austral Ecology* 34, 55-68.
- Sharp, A. (2011). Drinking behaviour of yellow-footed rock-wallabies (*Petrogale xanthopus celeris*) in central-western Queensland. *Australian Mammalogy* 33, 189-194.
- Sharp, A., & McCallum, H. (2010). The decline of a large yellow-footed rock-wallaby (*Petrogale xanthopus*) colony following a pulse of resource abundance. *Australian Mammalogy* 32, 99-107.
- Tuft, K. D., Crowther, M. S., & McArthur, C. (2012). Fire and grazing influence food resources of an endangered rock-wallaby. *Wildlife Research* 39, 436-445.
- Woinarski, J. C. Z., Burbidge, A. A., & Harrison, P. L. (2014). *The Action Plan for Australian Mammals 2012*. CSIRO Publishing, Collingwood.

Other sources cited in the advice

- Queensland Department of Environment and Heritage Protection (Qld DEHP) (2015b). Submission on the yellow-footed rock-wallaby (*Petrogale xanthopus celeris*). Received 25 November 2015.