

PEST RISK ASSESSMENT

Ring-tailed lemur

Lemur catta



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About this Pest Risk Assessment

This pest risk assessment is developed in accordance with the *Policy and Procedures for the Import, Movement and Keeping of Vertebrate Wildlife in Tasmania* (DPIPWE 2011). The policy and procedures set out conditions and restrictions for the importation of controlled animals pursuant to S32 of the *Nature Conservation Act 2002*. This pest risk assessment is prepared by DPIPWE for the use within the Department.

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I. Summary

Ring-tailed lemurs (*Lemur catta*) are found only in the southern and south-western region of Madagascar. This species is not noted for establishing feral (non-naturally occurring) populations outside its native range, although a free-ranging food-provisioned population exists as part of a conservation project in Georgia, USA.

Ring-tailed lemurs are listed as 'Near Threatened' under the IUCN Red List and are listed under Appendices I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The species is classed as a 'serious' threat under the Vertebrate Pest Committee's list of exotic animals. Under the *Environment Protection and Biodiversity Conservation Act 1999*, Ring-tailed lemurs are listed as 'specimens taken to be suitable for live import' and require a permit to import issued under this Act. Eligible imports are for non-commercial purposes only (i.e. zoos) and exclude household pets.

In Tasmania, Ring-tailed lemurs are 'controlled animals' under the *Tasmanian Nature Conservation Act 2002*.

The likelihood of this species establishing in Tasmania is low. Modelling indicates that Tasmania has a very dissimilar climate to the species' distribution in Madagascar.

This risk assessment concludes that Ring-tailed lemurs are a moderate threat to Tasmania and recommends that imports are restricted to those license holders approved for keeping moderate threat species.

2. Introduction

2.1 NAME AND TAXONOMY

Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Primates
Family:	Lemuridae
Genus:	<i>Lemur</i>
Species:	<i>L. catta</i>



Photo: Rvb. Image from Wikimedia Commons (Public Domain).

Sub-species or variety (if applicable): None known.

Common names (including any industry or trade names): Ring-tailed lemur.

Known hybrids: None known.

Close relatives: The Ring-tailed lemur is the only species in the Genus *Lemur* (Mittermeier *et al.* 1992). Other close relatives in the *Lemuridae* Family include true lemurs (Genus *Eulemur*), ruffed lemurs (Genus *Varecia*) and bamboo lemurs (Genus *Haplemur*).

2.2 DESCRIPTION

The body of Ring-tailed lemurs is slightly built, with the hindlimbs much longer than the forelimbs. The muzzle is narrow and pointed, and is slightly fox-like in appearance (Wilson and Hanlon, 2010).

The fur is dense and coloured grey or grey-brown on the body and pale off-white on the face, ears, throat and underside. The eyes have black triangular rings which are surrounded by an area of white fur. The ears are covered with fur, but are not tufted (Wilson and Hanlon, 2010). Dark black skin is present on the nose, hands, feet, genitals, lips and eyelids (Wilson and Hanlon, 2010). The fingers are long and slender, with a short thumb that is well-separated from the other digits (Wilson and Hanlon, 2010).

The tail helps to distinguish this species. It is approximately 56-62cm long, has a black tip, and is sharply ringed with 12 or 13 white rings alternating with 13 or 14 black rings. The tail is non-prehensile and is longer than the head and body (Wilson and Hanlon, 2010).

Males and females are not strongly dimorphic (although males have larger upper canines) and there is no obvious colour difference between the sexes. The typical body mass, measured from 11 individuals, is approximately 3.0-3.5kg (Tattersal 1982, cited in Wilson and Hanlon, 2010). Head and body length is 38.5-45.5cm (Wilson and Hanlon, 2010).

Juveniles have a similar appearance to adults (Wilson and Hanlon, 2010).

This species is not similar to any native Australian species. Seasonal variation in appearance has not been noted.

2.3 CONSERVATION AND LEGAL STATUS

CONSERVATION STATUS

Ring-tailed lemurs are listed as 'Near Threatened' under the IUCN Red List. The species is thought to have reduced by 20-25% during the past 24 years due to habitat clearing, overgrazing by livestock, fires and hunting (Mittermeier *et al.* 1992; Andrainarivo *et al.* 2008).

LEGAL STATUS

Ring-tailed lemurs are listed under Appendices I and II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (UNEP-WCMC, 2011), and are commonly seen in zoos (Mittermeier *et al.* 1992).

The species is classed as a 'serious' threat under the Vertebrate Pest Committee's list of exotic animals (Vertebrate Pest Committee, 2007).

Under the *Environment Protection and Biodiversity Conservation Act 1999*, Ring-tailed lemurs are listed as 'specimens taken to be suitable for live import' and require a permit to import issued under this Act. Eligible imports are for non-commercial purposes only (i.e. zoos) and exclude household pets.

In Tasmania, Ring-tailed lemurs are 'controlled animals' under the *Tasmanian Nature Conservation Act 2002*.

Ring-tailed lemurs are listed on Appendix II of CITES.

3. Biology and Ecology

3.1 LIFE HISTORY

Ring-tailed lemurs are seasonal breeders, and the season varies with geographic location. Females have two oestrus periods in April and May/June. Gestation lasts for 4.5 months, with peak births occurring in September before the beginning of summer (Koyama *et al.* 2001 cited in Wilson and Hanlon, 2010).

Females have between 4 to 24 hrs during their reproductive cycle when they are sexually receptive (Koyama 1988 and Jolly, 1967 cited in Wilson and Hanlon, 2010). During this period of receptivity, females will copulate frequently with multiple males, and may mate up to 33 times in a four-hour period (Wilson and Hanlon, 2010). Females in a group have synchronised oestrus and usually reach oestrus within two weeks of each other, however females are not normally in oestrus on the same day (Pereira 1991 cited in Wilson and Hanlon, 2010).

A single young is usually born (multiple births are rare but have been recorded). Neonates are approximately 10cm long at birth and weigh between 50-70g (Benirschke and Miller, 1981 cited in Wilson and Hanlon, 2010). Infants are physically active within days following birth, climb branches within two weeks, and eat solid food at two months of age (Jolly, 1966 cited in Wilson and Hanlon, 2010). Infants are carried by their mothers nearly continuously in the early stages of development (Wilson and Hanlon, 2010).

Sub-adults reach adult size when they are 1.5 years old but reach sexual maturity at approximately 2.5 years (Jolly, 1966 cited in Wilson and Hanlon, 2010). Sexual maturity is often at 3 years of age in captive populations (Wilson and Hanlon, 2010).

Little is known about the lifespan of males, but females rarely live past 16 years. The maximum lifespan of a captive Ring-tailed lemur was 27 years (Jolly, 2003 cited in Wilson and Hanlon, 2010).

Sperm storage is not noted in this species.

3.2 HABITAT REQUIREMENTS AND PREFERENCES

The Ring-tailed lemur occupies a variety of habitats in southern Madagascar. Suitable habitat includes dry bush, spiny forests, savannas, dry deciduous forest, rock canyons, scrub and closed canopy forests (Mittermeier *et al.* 1992; Andrainarivo *et al.* 2008).

The species is semi-arboreal, and alternates between the ground and trees. Ring-tailed lemurs move among branches and are able to leap from tree to tree. Trees are used for food resources, protection from predators, and resting and sleeping (Wilson and Hanlon, 2010). This species is not noted for using tree hollows.

Water is an important habitat requirement. Ring-tailed lemurs drink daily from springs and rivers within the home range (Rand 1935 cited in Wilson and Hanlon, 2010). Droughts are detrimental to survival and dramatically increase mortality. During a 2-year drought period, the Madagascan adult

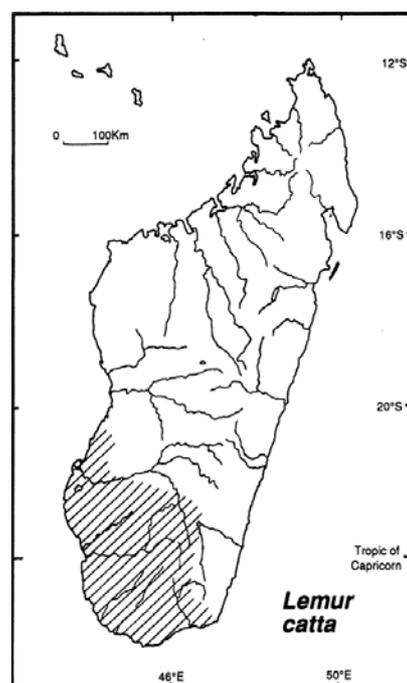
population dropped by 27%, and infant mortality increased to 80% (Gould *et al.* 1999 cited in Wilson and Hanlon, 2010). During droughts, groups gain moisture from dew and small bushes and vines with succulent leaves. Groups will also drink from water tanks that are within their home range (Jolly 1972 cited in Wilson and Hanlon, 2010).

The species is able to survive a range of temperatures, from -7°C to temperatures exceeding 30°C (Goodman and Langrand, 1996 and Jury, 2003 cited in Cawthon Lang, 2005). Populations occur from sea level to altitudes of 2,600m (Andrainarivo *et al.* 2008).

3.3 NATURAL GEOGRAPHIC RANGE

Ring-tailed lemurs are found only in the southern and south-western region of Madagascar (see Figure 1). The northern limit of the species' distribution is near the town of Belo sur Mer on the western coast and Ambalavao in the central east (Goodman *et al.* 2006, cited in Wilson and Hanlon, 2010). The southeastern limit is the town of Tolagnaro on the southern coast (Wilson and Hanlon, 2010). The Ring-tailed lemur occupies an area of approximately 124,000km².

Figure 1. Distribution of Ring-tailed lemurs (*Lemur catta*) in Madagascar (Mittermeier *et al.* 1992).



3.4 INTRODUCED GEOGRAPHIC RANGE

This species is not noted for establishing feral (non-naturally occurring) populations. The Ring-tailed lemur is not listed on the Global Invasive Species Database (GISP 2011).

A free-ranging population has been introduced as part of a conservation project on Saint Catherine's Island in Georgia, USA. This breeding population is part of a project to supplement wild populations of Ring-tailed lemurs in Madagascar (Laderosa and Lessnau, 1995 cited in Wilson and Hanlon, 2010), and is provisioned with food (Parga and Lessnau, 2008).

3.5 POTENTIAL DISTRIBUTION IN TASMANIA

Using modelling applications by the Bureau of Rural Science (DAFF), climate is compared between the species' current distribution in Madagascar and its potential Australian distribution (shown in Figure 2). Modelling indicates that northern Australia has areas of highly similar climate which may support the establishment of introduced populations. Tasmania's climate is a very dissimilar climate (climate match score: 0).

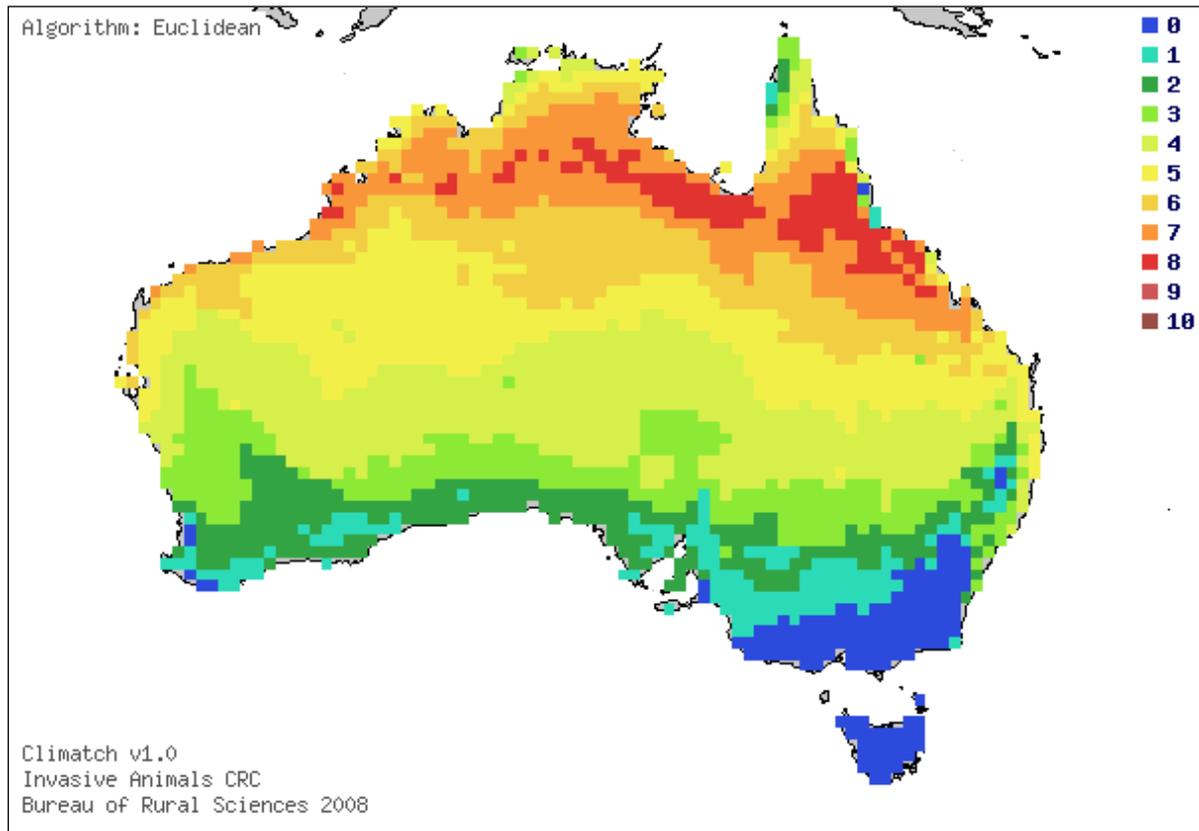


Figure 2. Climate comparison between the natural range of *L. catta* and Australia, where 10 is a 'perfect' match and 0 is having a very dissimilar climate. Tasmania has a climate match score of 0. (Distribution source: Mittermeier *et al.* 1992 and Andrainarivo *et al.* 2008).

3.6 DIET AND FEEDING BEHAVIOUR

Ring-tailed lemurs are omnivorous. They feed primarily on fruit, but may supplement their diet with leaves, leaf stems, flowers, arthropods, birds and small reptiles (Oda, 1996, Sauter *et al.* 1999 and Jolly, 2003 cited in Cawthon Lang, 2005). Many plant species may be utilised, and Ring-tailed lemurs particularly favour the tamarind tree (*Tamarindus indica*) which is important to their diet (Wilson and Hanlon, 2010). Soil is also important to the diet, which is thought to increase their sodium levels (Ganzhorn, 1987 cited in Wilson and Hanlon, 2010). In captivity, individuals may adapt to eat cooked rice, bananas and sweets (Wilson and Hanlon, 2010).

Diet varies seasonally with the availability of resources, but also varies geographically (Goodman *et al.* 2006 cited in Wilson and Hanlon, 2010).

Females are dominant over males, including during feeding interactions, and have a higher quality diet than males. In response, the feeding strategy of males focuses on maximising food consumption (Wilson and Hanlon, 2010).

Ring-tailed lemurs may range up to 1km a day, and have a total range of 0.1 - 0.35km² (Sussman, 2000 cited in Cawthon Lang, 2005). Groups often spend the greatest amount of time in areas where troop ranges overlap (Wilson and Hanlon, 2010).

There is potential for this species to feed on agricultural fruits and vegetables. Instances of crop-raiding have been noted in Madagascar, particularly when natural resources are depleted or during reproductive periods. Ring-tailed lemurs are noted for eating the leaves of cultivated sweet potatoes (*Lpomoea batatas*) and the leaves and stems of invasive weeds (LaFleur and Gould, 2009).

3.7 SOCIAL BEHAVIOUR AND GROUPINGS

Ring-tailed lemurs form groups of varying sizes. Groups of females may contain 6-10 individuals while a mixed group may contain 15-25 individuals (Wilson and Hanlon, 2010). Females are dominant to males and frequently show aggressive behaviour towards them. A group is generally made of three or four adult females with one dominant female, and males migrate between groups. Females rarely leave their natal group (Wilson and Hanlon, 2010).

Individual home ranges overlap extensively, and the extent of overlap varies with season and habitat (Sauther and Sussman, 1993 cited in Wilson and Hanlon, 2010). Territorial boundaries are relatively stable, and Ring-tailed lemurs have a strong territorial defence. Individuals face each other over territorial boundaries and will lunge and vocalise at the rival group. Physical contact is rarely reported (Wilson and Hanlon, 2010).

Males 'stink fight' with rival males. Males rub their tails over sebaceous glands on the arms and shoulders, and hold them almost vertically. Facing each other, males rapidly flick their tails down over their backs in unison (Budnitz and Dainis, 1975, Evans and Goy, 1968, Jolly 1966 cited in Wilson and Hanlon, 2010). This behaviour is demonstrated during territorial disputes but also during the mating season. Other male-male conflict behaviour involves scent-marking, chasing, cuffing and occasional biting (Wilson and Hanlon, 2010).

Individuals of a group care for offspring which are not their own. All age classes play, groom and carry infants, and females may assist in rearing another female's offspring, including lactation (Wilson and Hanlon, 2010).

Infanticide is rare but is occasionally conducted by males who are new to a group. This practice is thought to increase the new male's chance of fathering the female's next offspring and eliminates the offspring from the previous male (Wilson and Hanlon, 2010).

3.8 NATURAL PREDATORS AND DISEASE

In Madagascar, predators of Ring-tailed lemurs include the fosa (*Cryptoprocta ferox*), spotted fanaloka (*Fossa fossana*), and the ring-tailed vontsira (*Galidia elegans*). Other predators include raptors, owls, crocodiles, snakes and other lemurs, (Goodman, 2003 cited in Wilson and Hanlon, 2010).

In Tasmania, potential predators include the Tasmanian devil (*Sarcophilus harrissii*), spotted-tailed quoll (*Dasyurus maculatus*), large raptors such as wedge-tailed eagles (*Aquila audax fleayi*) and, should it become established, the introduced European red fox (*Vulpes vulpes*).

Ring-tailed lemurs are susceptible to ectoparasites such as mites and ticks, and are vulnerable to tick-borne bacterial diseases (Varela-Stokes, 2007). The species is also prone to many captivity-related diseases, including toxoplasmosis, hemosiderosis, and coccidioidomycosis, and is also susceptible to a variety of intestinal pathogens (Dutton *et al.* 2003).

3.9 THREAT TO HUMAN SAFETY

Ring-tailed lemurs are not considered a direct threat to human safety and the species is not noted for attacking humans. Ring-tailed lemurs have the potential to cause moderate injury with their teeth which may require medical attention, but serious injury is unlikely.

Diseases carried by Ring-tailed lemurs can be transferred to humans. *Ehrlichia chaffeensis*, a tick-borne bacteria, can be transferred to humans via Ring-tailed lemurs, and can result in monocytic ehrlichiosis (Varela-Stokes, 2007). This disease is rare in humans but can be fatal in severe cases (Yabsley, 2010).

3.10 HISTORY AS A PEST

Although Ring-tailed lemurs have not established feral populations, there is evidence of this species being a pest in Madagascar. Ring-tailed lemurs are noted for crop-raiding, particularly when natural resources are depleted or during the reproductive period. Following a cyclone which disrupted their natural food source, Ring-tailed lemurs were noted for eating the leaves of cultivated sweet potato (*Ipomoea batatas*) and also consuming the leaves and stems of the invasive weed, Mexican prickly poppy (*Argemone mexicana*) (LaFleur and Gould, 2009). There is potential for this species to translocate the seeds of weed species in its fur.

3.11 POTENTIAL IMPACT IN TASMANIA

The Ring-tailed lemur is likely to compete directly with Tasmanian possum species for leaves and shoots, fruits, insects and flowers. Possums which would compete for these resources include the common brushtail possum (*Trichosurus vulpecula*), common ringtail possum (*Pseudocheirus peregrinus*), eastern pygmy possum (*Cercartetus nanus*) and little pygmy possum (*Cercartetus lepidus*) (Strahan, 1995).

Other species which may experience some competition with the Ring-tailed lemur include the eastern quoll (*Dasyurus viverrinus*), southern brown bandicoot (*Isodon obesulus*) and eastern barred bandicoot (*Perameles gunnii*). These three species are largely insectivorous, but the eastern quoll also opportunistically eats fruit and small vertebrates (Bryant & Squires, 2009; Menkhorst & Knight,

2001). Macropods such as Bennetts wallaby (*Macropus rufogriseus*) and Tasmanian pademelon (*Thylogale billardierii*) could also experience competition.

Although climate modelling shows Tasmania's climate to be highly unsuitable for the Ring-tailed lemur, should populations establish in Tasmania, several agricultural industries could be affected. Agricultural industries in Tasmania that could be affected include those producing vegetables, fruit, cereal, other crops and horticulture, oil seeds and grain legumes.

4. Risk Assessment

4.1 PREVIOUS RISK ASSESSMENTS

The Ring-tailed lemur has been assessed as a 'serious' threat by the Vertebrate Pest Committee (VPC, 2007).

No other formal risk assessments for this species have been noted.

4.2 RISK ASSESSMENT

The following risk assessment determines the risk of Ring-tailed lemur (*Lemur catta*) to Tasmania using the Bomford model (2008) and proposes assigned threat categories and import classifications for the species.

Species:	Ring-tailed lemur (<i>Lemur catta</i>)	
Date of Assessment:	May 2011	
Literature search type and date:	See references	
Factor	Score	
A1. Risk posed from individual escapees (0-2)	1	Animal that can make unprovoked attacks causing moderate injury (requiring medical attention) or severe discomfort but is highly unlikely (few if any records) to cause serious injury (requiring hospitalisation) if unprovoked. Ring-tailed lemurs may cause injury by biting but usually only if provoked.
A2. Risk to public safety from individual captive animals (0-2)	0	Nil or low risk (highly unlikely or not possible). Risk arising from irresponsible use of product is low.
Stage A. Risk posed by individual animals (risk that a captive or escape animal would harm people)	Public Safety Risk Score = A1 + A2 = 1	Public Safety Risk Ranking A ≥ 2, Highly Dangerous A = 1, Moderately Dangerous A = 0, Not Dangerous = Moderately Dangerous
B1. Climate match score (1-6)	1	Very low. No climate match.
B2. Exotic population established overseas score (0-4)	0	No exotic populations have been established. The population on Saint Catherine's Island, Georgia is provisioned with food daily and is not classed as an exotic

		population under this model.
B3. Overseas range size score (0-2)	0	Overseas range < 1 million km ² .
B4. Taxonomic class score (0-1)	1	Mammal.
Stage B. Likelihood of establishment (risk that a particular species will establish a wild population in Tasmania)	Establishment Risk Score = B1 + B2 + B3 + B4 = 2	Establishment Risk Ranking B = 11-13, Extreme B = 9-10, High B = 6-8, Moderate B ≤ 5, Low = Low
C1. Taxonomic group (0-4)	0	No taxonomic matches.
C2. Overseas range size (0-2)	0	Range less than 10 million km ² .
C3. Diet and feeding (0-3)	3	Animal that is primarily a browser.
C4. Competition for native fauna for tree hollows (0-2)	0	Does not use tree hollows.
C5. Overseas environmental pest status (0-3)	0	Never reported as an environmental pest in any country or region.
C6. Climate match to areas with susceptible native species or communities (0-5)	0	No climate match with susceptible native species or communities.
C7. Overseas primary production (0-3)	1	Minor pest of primary production. This species is noted for crop-raiding when natural resources are scarce.
C8. Climate match to susceptible primary production (0-5)	0	No climate match with susceptible primary production.
C9. Spread disease (1-2)	2	Mammal.
C10. Harm to property (0-3)	0	<\$100,000 per year.
C11. Harm to people (0-5)	2	Injuries or harm or annoyance likely to be minor and few people exposed.
Stage C. Consequence of Establishment (risk that an established population would cause harm)	Consequence Risk Score = sum of C1 to C11 = 8	Consequence Risk Ranking C > 19, Extreme C = 15-19, High C = 9-14, Moderate C < 9, Low = Low
ASSIGNED THREAT CATEGORY:	MODERATE	
PROPOSED IMPORT CLASSIFICATION:	IMPORT RESTRICTED TO THOSE LICENSE HOLDERS APPROVED FOR KEEPING MODERATE THREAT SPECIES	

5. Risk Management

This risk assessment concludes that Ring-tailed lemurs (*Lemur catta*) are a moderate threat to Tasmania and that imports be restricted to those license holders approved for keeping moderate threat species. On the basis of this risk assessment, it is recommended that Ring-tailed lemurs be placed on the list of imports permitted with conditions.

As defined under the *Policy and Procedures for the Import, Movement and Keeping of Vertebrate Wildlife in Tasmania* (DPIPWE 2011), the following mandatory conditions will apply to the import and keeping of this species. Additional conditions may be required.

1. The animal must not be released, or be allowed to escape from effective control.
2. Specimens seized or forfeited as a result of illegal or accidental introductions, where rehoming is not available, will be humanely euthanized.
3. Animal welfare requirements under the *Animal Welfare Act 1993* and any approved Code of Practice or Management Plan must be met.
4. Import only permitted by holders approved to keep the species under a wildlife exhibition licence. The licence will specify a number of conditions.
5. Individuals to be micro-chipped or otherwise identified, or treated to allow identification.
6. Facility must meet minimum standards for welfare and security.
7. Facility must be available for inspection at any reasonable time.
8. Audits of facilities and collections.
9. The maximum number of individuals of a species held at the facility to be stipulated on the licence, taking into account relevant factors. Gender may also be stipulated.
10. Written approval prior to movement of animals between facilities and trade of species under licence.
11. Record keeping and reporting to DPIPWE as required by DPIPWE.
12. Collections containing species subject to approval by DPIPWE as meeting best practice for keeping the species concerned.

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7. Appendices

APPENDIX A: CALCULATING TOTAL COMMODITY DAMAGE SCORE

Column 1	Column 2	Column 3	Column 4	Column 5
Industry	Commodity Value Index (CVI)	Potential Commodity Impact Score (PCIS, 0-3)	Climate Match to Commodity Score (CMCS, 0-5)	Commodity Damage Score (CDS columns 2 x 3 x 4)
Cattle (includes dairy and beef)	11	N/A		
Timber (includes native and plantation forests)	10	N/A		
Aquaculture	6	N/A		
Sheep (includes wool and meat)	5	N/A		
Vegetables	5	2	0	0
Fruit (includes wine grapes)	5	2	0	0
Poultry (including eggs)	1.5	N/A		
Cereal grain (includes wheat, barley, sorghum etc)	1	1	0	0
Other crops and horticulture (includes nuts and flowers)	1	2	0	0
Pigs	1	N/A		
Bees (includes honey, beeswax, and pollination)	0.5	N/A		
Oilseeds (includes canola, sunflower etc)	0.5	2	0	0
Grain legumes (includes soybeans)	0.3	1	0	0
Other livestock (includes goats and deer)	0.3	N/A		
Total Commodity Damage Score (TCDS)				0

APPENDIX B: ASSIGNING SPECIES TO THREAT CATEGORIES

A: Danger posed by individual animals (risk a captive or escaped individual would harm people)	B: Likelihood of establishment (risk that a particular species will establish a wild population in Tasmania)	C: Consequence of establishment (risk that an established population would cause harm)	Threat category	Implications for any proposed import into Tasmania
Highly, Moderately or Not Dangerous	Extreme	Extreme	Extreme	Prohibited
Highly, Moderately or Not Dangerous	Extreme	High		
Highly, Moderately or Not Dangerous	Extreme	Moderate		
Highly, Moderately or Not Dangerous	Extreme	Low		
Highly, Moderately or Not Dangerous	High	Extreme		
Highly, Moderately or Not Dangerous	High	High		
Highly, Moderately or Not Dangerous	Moderate	Extreme		
Highly, Moderately or Not Dangerous	High	Moderate	Serious	Import restricted to those license holders approved for keeping serious threat species
Highly, Moderately or Not Dangerous	High	Low		
Highly, Moderately or Not Dangerous	Moderate	High		
Highly Dangerous	Moderate	Moderate		
Highly Dangerous	Moderate	Low		
Highly, Moderately or Not Dangerous	Low	Extreme		
Highly, Moderately or Not Dangerous	Low	High		
Highly Dangerous	Low	Moderate		
Highly Dangerous	Low	Low		
Moderately or Not Dangerous	Moderate	Moderate		
Moderately or Not Dangerous	Moderate	Low		
Moderately or Not Dangerous	Low	Moderate		
Moderately Dangerous	Low	Low		
Not Dangerous	Low	Low	Low	Import permitted
Unknown	Any value	Any value	Extreme until proven otherwise	Prohibited
Any Value	Unknown	Any value		
Any Value	Any value	Unknown		
Unassessed	Unassessed	Unassessed		



Tasmania
Explore the possibilities

**RESOURCE MANAGEMENT AND
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