

# PEST RISK ASSESSMENT

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## Rainbow Lorikeet

*Trichoglossus haematodus*



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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*.

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# I. Summary

The rainbow lorikeet (*Trichoglossus haematodus*) has a native range that includes south and east Indonesia, east through New Guinea, the Solomon Islands, Vanuatu, New Caledonia and the north and east of Australia (Chapman, 2005). In Australia, the rainbow lorikeet occurs from northern Queensland and along the east coast to the Eyre Peninsula in South Australia. Feral populations occur in New Zealand and Perth (Western Australia).

The rainbow lorikeet is considered a vagrant to Tasmania and has been recorded as single sightings in the north of the State, all thought to have arrived naturally. Other records in the south, in areas around Hobart, are probably all aviary escapes (Higgins 1999). The natural distribution of the rainbow lorikeet includes areas similar in climate to Tasmania and there is therefore potential for this species to establish in Tasmania.

If the rainbow lorikeet established in Tasmania it is likely to compete with the musk lorikeet, swift parrot and green rosella for food and other resources. They also pose a potential disease risk to wild and captive parrots because they are carriers of Psittacine beak and feather disease. Rainbow lorikeets are a serious pest of cherries, apples, pears, stone fruit and grapes and the establishment of this species in Tasmania has the potential for high impact on these agricultural industries.

In Tasmania the rainbow lorikeet is currently listed as a controlled animal under the *Nature Conservation Act 2002*.

## 2. Introduction

### 2.1 NAME AND TAXONOMY

<b>Kingdom:</b>	Animalia
<b>Phylum:</b>	Chordata
<b>Class:</b>	Aves
<b>Order:</b>	Psittaciformes
<b>Family:</b>	Psittacidae
<b>Subfamily:</b>	Loriinae
<b>Genus:</b>	<i>Trichoglossus</i>
<b>Species:</b>	<i>Trichoglossus haematodus</i>



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**Sub-species or variety:** Two subspecies are known to occur in Australia: *moluccanus* and *rubritorquis*; a third subspecies, *caeruleiceps*, may occur on islands of Torres Strait (Higgins 1999). In total there are 20 sub-species, some of which are currently under debate and may change in future. These include: *T.h. haematodus*, *T.h. mitchellii*, *T.h. forsteni*, *T.h. septentrionalis*, *T.h. djampeanus*, *T.h. stresemanni*, *T.h. fortis*, *T.h. weberi*, *T.h. capistratus*, *T.h. flavotectus*, *T.h. rosenbergii*, *T.h. nigrogularis*, *T.h. intermedius*, *T.h. micropteryx*, *T.h. caeruleiceps*, *T.h. flavicans*, *T.h. nesophilus*, *T.h. massena*, *T.h. deplanchii*, and *T.h. moluccanus*.

*T. haematodus* forms a super-species with ornate lorikeet (*T.h. ornatus*) of Sulawesi and Pohnpei lorikeet (*T.h. rubiginosus*) of Ponape in the Caroline Is. There are 20 subspecies outside Australia, distributed from Bali through the Lesser Sunda Islands, New Guinea and the surrounding islands, the Solomon Islands and Vanuatu to New Caledonia. Subspecies differ considerably in coloration, varying from mostly green in subspecies (e.g. *T.h. weberi*) to multicoloured (*T.h. moluccanus*) and (*T.h. rubritorquis*); head, neck and underparts show greatest variation in coloration; subspecies also differ slightly in size.

**Common names:** Blue-bellied, Blue Mountain, orange-naped, red-collared or Swainson's lorikeet; coconut or rainbow lory; Blue Mountain parrot; bluey; blue bonnet (Harris 1999).

**Known hybrids:** Can hybridize with scaly-breasted lorikeet (Harris 1999).

**Close relatives:** Scaly-breasted lorikeet (*Trichoglossus chlorolepidorus*).

## 2.2 DESCRIPTION

Adult rainbow lorikeets are approximately 30 cm in length, with a wingspan of 46 cm, and weigh between 120 and 130 grams. This makes them the largest Australian lorikeet; about one-third bigger than the scaly-breasted lorikeet *Trichoglossus chlorolepidorus*, with a much longer tail.

Both males and females look alike, with a blue (mauve) head and belly, green wings, tail and back, and an orange/yellow breast. Juveniles are very similar to adults but generally duller, with a much duller brownish-orange bill and dark-brown iris. There is no seasonal variation in appearance, however, there is some geographical variation in the colour of the collar, breast and belly throughout Australia.

Rainbow lorikeets are often seen in loud and fast-moving flocks, or in communal roosts at dusk. In flight, they appear slim, with angular backswept and finely pointed wings combining with a long tail (held tightly folded and tapering to a fine point) to give a distinctive rakish silhouette. Flying birds seen in silhouette might be confused with scaly-breasted lorikeet. All other lorikeets are much smaller, with shorter tails, much more compact silhouette in flight, and different calls. The swift parrot (*Lathamus discolor*) also has red underwing coverts and a long, finely pointed tail, but the rainbow lorikeet is easily distinguished in flight by an even longer-tailed, more rakish silhouette, prominent yellow band through centre of underwing, dark-blue head, red-and-yellow breast, a dark patch on the belly and a yellowish undertail, and distinctive loud screeching flight call. The swift parrot is smaller and more compact, with a red face, mostly green underbody with a red vent and undertail-coverts and it utters a very different metallic *clink-clink* in flight (Higgins 1999).

## 2.3 CONSERVATION AND LEGAL STATUS

### CONSERVATION STATUS

The rainbow lorikeet is not globally threatened and is listed as least concern by the IUCN. Despite the fact that the population trend appears to be decreasing, the decline is not believed to be sufficiently rapid to approach the thresholds for Vulnerable. The species has an extremely large range and is described as common to abundant on New Guinea and surrounding islands, abundant in northern Australia, common on Timor and Flores and rare on Bali, Sumbawa and Tasmania (Birdlife International 2011).

### LEGAL STATUS AUSTRALIA

The rainbow lorikeet is not listed under the Commonwealth *Environment Protection and Biodiversity Act 1999*. In Tasmania the rainbow lorikeet is currently listed as a controlled animal under the *Nature Conservation Act 2002*.

# 3. Biology and Ecology

## 3.1 LIFE HISTORY

A pair of rainbow lorikeets can produce up to three broods of 2 eggs in a season and individual birds can live for over 20 years in the wild (Higgins 1999). The breeding season varies widely between regions, depending on climate and resource availability, but generally occurs from August to January in southern Australia. Australia-wide, rainbow lorikeets have been recorded breeding in every month except March (Higgins 1999).

The female incubates eggs for 23 days and is fed by the male in the morning and evening. Fledglings leave the nest at around 45 days and the parents continue to feed the young for a period of two to three weeks after fledging. After breeding, rainbow lorikeets congregate in large flocks (Higgins 1999).

Rainbow lorikeets reach sexual maturity after two years and pairs probably form a lifetime bond (Higgins 1999). Although it is known to hybridise with scaly-breasted lorikeet, there is no available information as to whether the progeny are fertile.

## 3.2 HABITAT REQUIREMENTS AND PREFERENCES

Globally, the rainbow lorikeet inhabits a wide range of wooded habitats including tropical rainforest, monsoon forest, open and closed sclerophyll forest, woodland, heathland and the street trees of suburban parks and gardens (Higgins 1999).

Rainbow lorikeets are highly mobile, have generalised feeding and breeding requirements and can quickly adapt to exploit new feeding and breeding resources. They have taken advantage of the year-round supply of native and exotic food plants available in Australia's major cities and are expanding in number and distribution in Brisbane, Sydney, Melbourne, Canberra, Adelaide and Perth (Chapman 2005).

## 3.3 NATURAL GEOGRAPHIC RANGE

The rainbow lorikeet has a native range of approximately 3,350,000 km<sup>2</sup> (Birdlife International 2011) that includes south and east Indonesia, east through New Guinea, the Solomon Islands, Vanuatu, New Caledonia and the north and east of Australia (Chapman, 2005). In Australia, the rainbow lorikeet occurs from northern Queensland and along the east coast to Eyre Peninsula in South Australia.

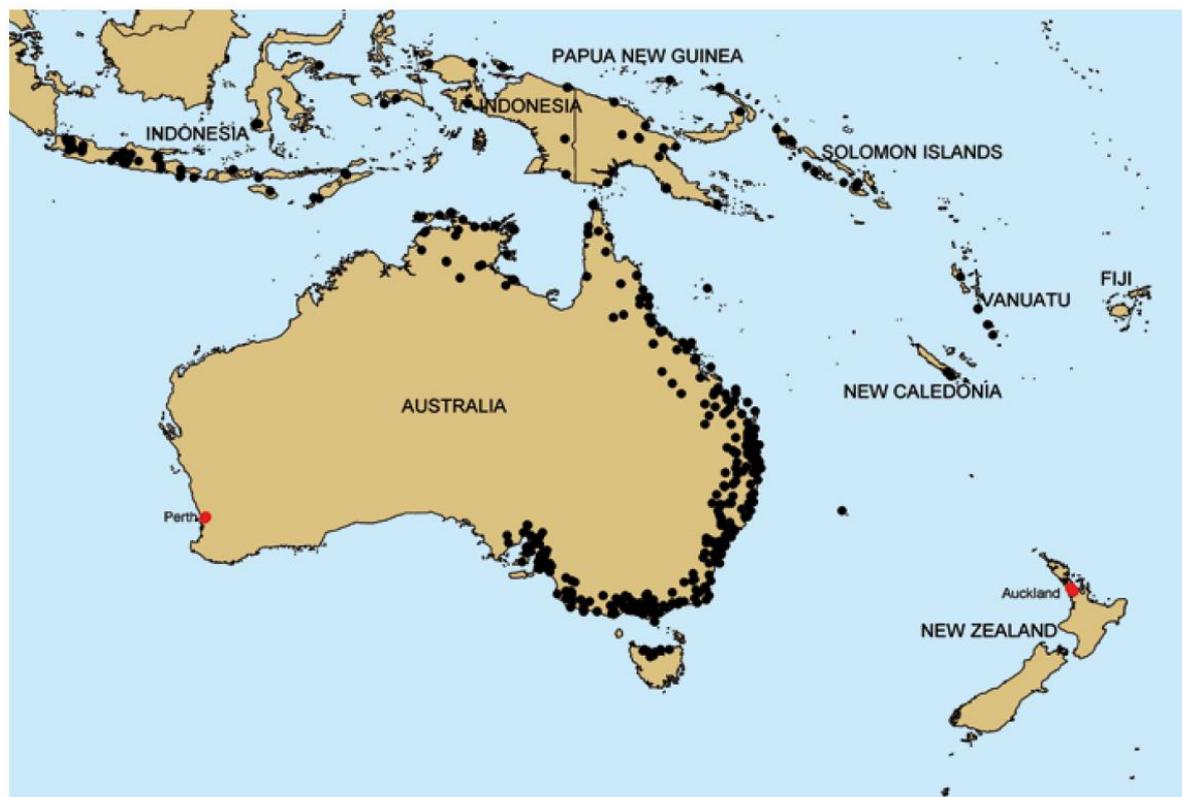


Figure 2. Natural (black) and introduced (red) distribution of the rainbow lorikeet (generated by W. Kirkpatrick using CLIMATE software).

Figure 1: Distribution of the rainbow lorikeet. Red dots indicate introduced populations (Source: Chapman 2005).

### 3.4 INTRODUCED GEOGRAPHIC RANGE

Feral populations occur in New Zealand, Perth (Western Australia) and Tasmania (Higgins 1999).

#### New Zealand

Rainbow lorikeets were introduced to New Zealand from Australia as cage birds. They are kept as pets in cages and aviaries throughout the country. Significant numbers of captive-reared birds were illegally and deliberately released in the Auckland area in the 1990s and started breeding in the wild. By 1999 a feral population of 150–200 birds had established in the Auckland region, proving that they can survive and adapt to the New Zealand environment (Chapman 2005).

The Department of Conservation began eradicating the feral population in 2000, concerned about competition with endemic honeyeaters and the possible threat to pristine island habitats such as Little Barrier Island (refer Section 3.10).

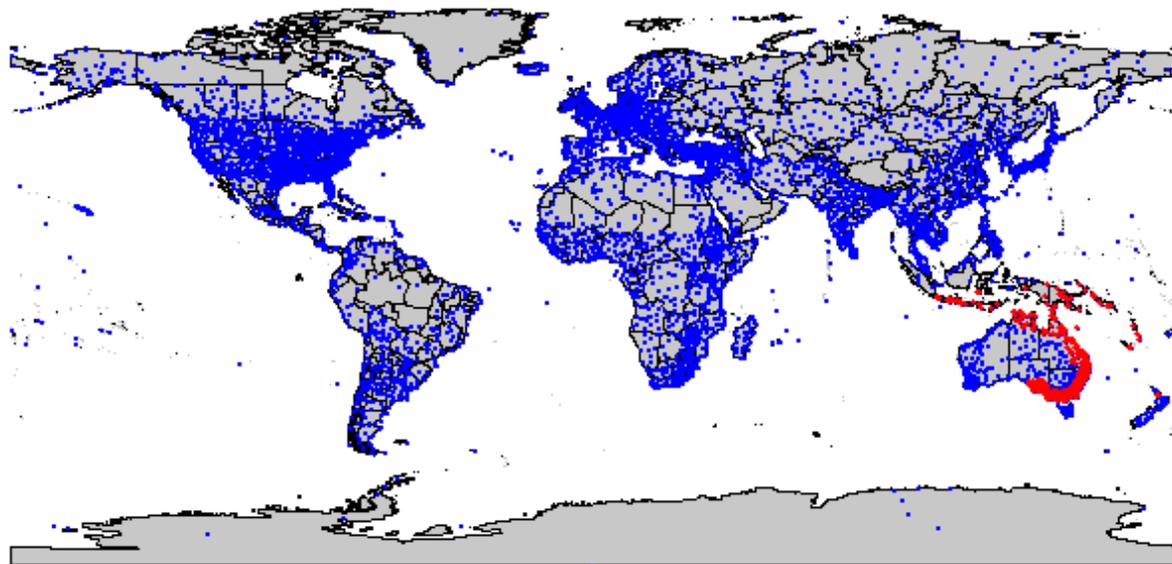
#### Perth

The rainbow lorikeet was first recorded in Perth in 1968, probably originating from fewer than 10 birds that were either deliberately released or had escaped from aviaries. Initially, they spread slowly but by 2006 they occupied an area of approximately 174km<sup>2</sup> and were spreading at a rate of

around 0.7km/year. In 2006 the population was estimated at 15,000-20,000 (Massam and Mawson 2009).

### Tasmania

In Tasmania the rainbow lorikeet is considered a vagrant to Tasmania and has been recorded as single sightings at Swanport, New Norfolk, King Island, Flinders Island, Launceston, Musselroe Bay and Mt William, all thought to have arrived naturally. Other records in the south of the State in areas such as Campania, Mt Nelson, Tarooma and Mt Stuart are considered aviary escapes (Higgins 1999).



Climatch v1.0  
Invasive Animals CRC  
Bureau of Rural Sciences 2008

Figure 2: Global distribution of the rainbow lorikeet (*Trichoglossus haematodus*) as selected for climate matching during risk assessment process. (Source: CLIMATCH – <http://adl.brs.gov.au:8080/Climatch/> )

### **3.5 POTENTIAL DISTRIBUTION IN TASMANIA**

Using modelling applications by the Bureau of Rural Science (DAFF), climate is compared between the species' current distribution and potential Australian distribution (shown in Figure 4). Tasmania has areas where the climate is highly similar (highest climate match score: 8).

The natural distribution of the rainbow lorikeet includes most of eastern Australia which has similar climate attributes to Tasmania. Rainbow lorikeets are very adaptable, and there is potential for this species to establish in Tasmania.



Figure 3: Tasmanian observations of rainbow lorikeets recorded in Birds Australia Atlas Database. (Source: <http://www.birdata.com.au/maps.vm> ).

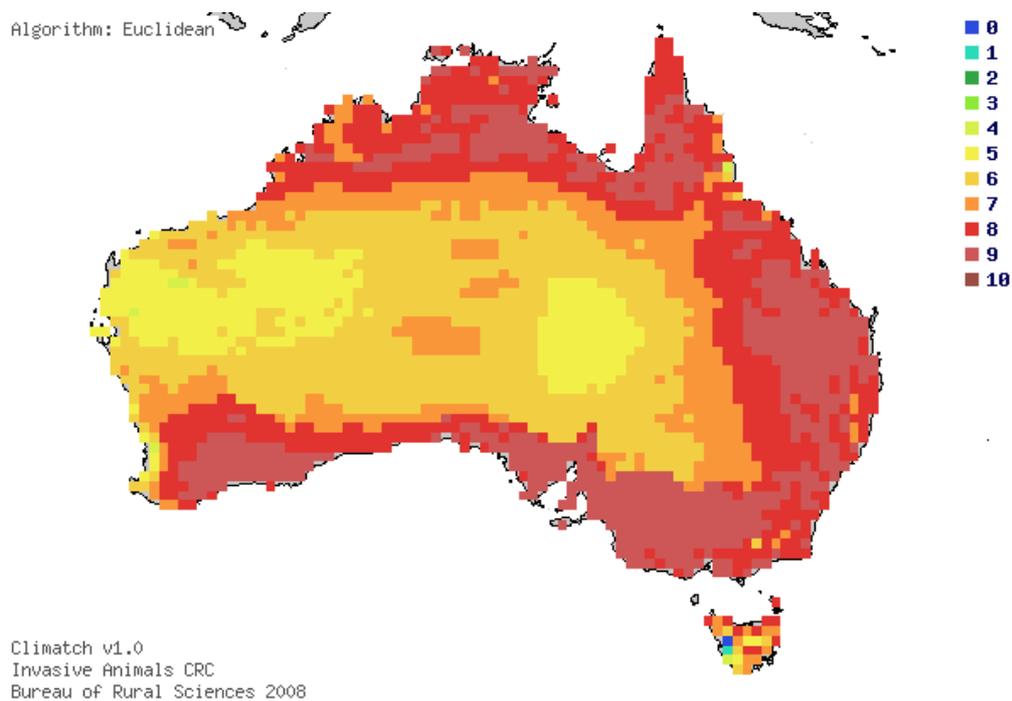


Figure 4: Climate match results showing the potential geographic distribution of the rainbow lorikeet (*Trichoglossus haematodus*) in Australia. (Source: CLIMATCH – <http://adl.brs.gov.au:8080/Climatch/> )

### 3.6 DIET AND FEEDING BEHAVIOUR

The rainbow lorikeet feeds on a large variety of plants. For example, in the Queensland-New South Wales border region the lorikeets fed on 43 different plant species (Cannon 1984) and on the coastal fringe of Darwin they fed on 37 different plant species. They also feed on the commercial crops of flowering coconuts, ripening sorghum, corn and fruit trees in orchards and gardens (Higgins 1999).

In temperate regions of Australia, most of the diet of the rainbow lorikeet (87 per cent) is made up of flowers of the Myrtaceae, Proteaceae and Xanthoroaceae families (Cannon 1984). They commonly feed in the outer foliage of flowering trees such as *Eucalyptus* spp., *Banksia* spp., *Melaleuca* spp., *Callistemon* spp. and *Grevillia* spp. (Higgins 1999). The lorikeets feed on flowers, fruits, leaf buds, berries, seeds, insects (including beetles, wasps, thrips, ants and weevils) and the larvae of flies, weevils and moths (Chapman 2005).

Rainbow lorikeets are aggressive toward other birds using the same food sources and can be dominant over miners (*Manorina* spp.), red wattlebirds (*Anthochaera carunculata*), little wattlebirds (*A. Chrysoptera*), friarbirds (*Philemon* spp.), New Holland honeyeaters (*Phylidonyris novaehollandiae*) and scaly-breasted lorikeets, but red wattlebirds can also be dominant over rainbow lorikeets (Higgins 1999). For instance, records show that when feeding in the same eucalypt in Linfield NSW, red wattlebirds fed throughout the canopy while rainbow lorikeets were relegated to the outer parts of the canopy (Chapman 2005).

Studies have shown that rainbow lorikeets are more common in modified areas than in bushland. For example, of 1517 observations of rainbow lorikeets during a survey in the Queensland - New South Wales border region, 420 were in urban areas, 944 were in open agricultural areas and 153 were in forested areas (Cannon 1984), demonstrating that nearly 90 per cent of sightings were in modified habitats.

### 3.7 SOCIAL BEHAVIOUR AND GROUPINGS

During the breeding season rainbow lorikeets are generally seen in pairs. After breeding has finished they roost in large, noisy groups (from several hundred to several thousand) which leave the roost at dawn, breaking up into foraging flocks of 10 to 50 birds that can travel more than 50 km to feeding sites. (Higgins 1999).

Lorikeets fly high and rarely go to ground, spending most of their time in the outer foliage of tall trees (Chapman and Massam, 2007). They aggressively protect feeding and nesting resources.

In eastern Australia, rainbow lorikeets are frequently seen with scaly-breasted lorikeets and may also flock with musk lorikeets (*Glossopsitta concinna*) and little lorikeets (*Glossopsitta pusilla*) (Higgins 1999).

### 3.8 NATURAL PREDATORS AND DISEASE

Records of the predation of rainbow lorikeets are scarce but the lorikeets use 'sentries' when feeding in flocks, indicating that they are predated by raptors. Birds fall silent, freeze and 'crane-

peer' when threatened and react to raptors with flight and alarm calls (Higgins 1999). Potential predators of the rainbow lorikeet in Tasmania include brown goshawk, harrier and peregrine falcon.

Rainbow lorikeets and scaly-breasted lorikeets can carry Psittacine beak and feather disease in the liver. The escape of captive birds, including the release of rescued rainbow lorikeets, therefore poses a threat of spreading the disease to wild lorikeet and parrot populations (Chapman 2005).

### **3.9 THREAT TO HUMAN SAFETY**

There are no known adverse affects from rainbow lorikeet on humans.

### **3.10 HISTORY AS A PEST**

The rainbow lorikeet is regarded as either a pest of agriculture or an unwanted organism in New Zealand, Western Australia, Northern Territory, Queensland, the Australian Capital Territory, Victoria, Tasmania and South Australia (Chapman 2005).

Assessing the impact of the rainbow lorikeet on commercial crops is difficult because the damage caused by birds in orchards is rarely quantified. However, lorikeets are a serious pest of cherries, apples, pears and stone fruit and a very serious pest of grapes in Australia (Chapman 2005).

There are feral populations in Western Australia and New Zealand that have been subject to eradication programs which are discussed below.

#### Western Australia

Rainbow lorikeets were first recorded in the wild in Perth in the late 1960s, when they established in central Perth and the western suburbs. Initially, they spread slowly but by 2006 they occupied an area of approximately 174km<sup>2</sup> and were spreading at a rate of around 0.7km/year. In 2006 the population was estimated at 15,000-20,000 (Massam and Mawson 2009).

In response to concern from community conservation groups and the general public, the Rainbow Lorikeet Working Group WA was established in February 2004 by the Agriculture Protection Board. The Working Group consists of both government and non-government representatives with a purpose to formulate aims and objectives to manage the rainbow lorikeet population in south-west Western Australia.

Since July 2007, more than 20,000 lorikeets in Perth have been removed from the wild by DEC staff, commercial grape growers in the Swan Valley and Perth Hills, and volunteer shooters. This number is well above the target figure predicted to downsize the population. Outside the city, many single and small groups of lorikeets have been removed by DAFWA staff and landholders. These birds seem to have originated both from extensions of the Perth population and, more commonly, the release or escape of pet birds (Massam and Mawson 2009).

## New Zealand

The rainbow lorikeet is defined as an unwanted organism under the *Biosecurity Act 1993*. The Department of Conservation began eradicating the feral population in 2000, concerned about competition with endemic honeyeaters and the possible threat to pristine island habitats. Escaped birds are caught using a range of methods including trapping and netting with the aim of preventing rainbow lorikeets from establishing in the wild. The captured birds are returned to their owners where they can be identified or sent to commercial aviculturists with secure captive facilities. Birds may still be kept as pets in secure aviaries and cages but it is illegal to release a rainbow lorikeet into the wild. People releasing them into the wild may face heavy penalties (Chapman 2005)

### **3.11 POTENTIAL IMPACT IN TASMANIA**

If the rainbow lorikeet established in Tasmania it is likely to compete with the musk lorikeet, the EPBC-listed swift parrot and the endemic green rosella for food and other resources. The rainbow lorikeet has a high climate match with Tasmania (score of 24) and a high percentage of the range of the musk lorikeet, swift parrot and green rosella overlaps with areas with which there is a high climate match with the rainbow lorikeet (grids with climate match scores 7 & 8).

The establishment of rainbow lorikeets in Tasmania has the potential for a high impact on agricultural industries as the species is known to be capable of damaging commodities such as cereal grains, oilseeds, grain legumes, fruit and vegetables. Agricultural areas in Tasmania overlap with areas with which there is a high climate match with the rainbow lorikeet (grids with climate match scores 6, 7 & 8). This means that the rainbow lorikeet, if established, is likely to come into contact with these commodities.

# 4. Risk Assessment

## 4.1 PREVIOUS RISK ASSESSMENTS

A scientific risk assessment conducted by the Western Australian Department of Agriculture and Food concluded that the rainbow lorikeet poses an extreme threat (the highest of four categories) to Western Australia, and is highly likely to establish further, more widespread free-living populations and become a significant pest.

Modelling was carried out by the WA Department of Environment and Conservation in 2008 using the VORTEX model. Based on an estimated starting population of 15 000 birds, the model suggests that if 4000 to 5000 lorikeets were removed from the Perth population each year for the next 5 to 7 years, with follow-up maintenance of 500 - 1,000 birds per annum after that period, the population could be kept at a low level of less than 1,000 birds.

The New Zealand Department of Conservation assessed the potential biodiversity, primary production and disease risk posed by rainbow lorikeets in New Zealand (Greene 1998). The Department of Conservation had mostly circumstantial evidence of the impacts of rainbow lorikeets in New Zealand from case studies in Australia so they adopted a precautionary approach and concluded that the risk of establishment was high and that the potential to damage crops was significant (Polkanov and Keeling 2001). As a result of the assessment, the rainbow lorikeet was declared an 'Unwanted Organism' under the *Biosecurity Act 1993* (Polkanov and Greene 2000). The rainbow lorikeet was also added to the fifth schedule of the *New Zealand Wildlife Act 1953* which resulted in the removal of protection by default (Polkanov and Keeling 2001).

## 4.2 RISK ASSESSMENT

The following risk assessment determines the risk of rainbow lorikeet to Tasmania using the Bomford model (2008) and proposes assigned threat categories and import classifications for the species.

Species:	Rainbow lorikeet ( <i>Trichoglossus haematodus</i> )	
Date of Assessment:	19-April-11	
Literature search type and date:	See references listed below	
Factor	Score	Comments
A1. Risk posed from individual escapees (0-2)	0	Low Risk
A2. Risk to public safety from individual captive animals (0-2)	0	Low Risk
Stage A. Risk posed by individual animals (risk that a captive or escape animal would harm people)	Public Safety Risk Score = A1 + A2 = 0	Public Safety Risk Ranking NOT DANGEROUS
B1. Climate match score (1-6)	5	Climatch Output = 24
B2. Exotic population established overseas score (0-4)	4	Established in New Zealand and Western Australia. Small vagrant populations elsewhere (Tasmania).

B3. Overseas range size score (0-2)	1	Range = 2,484,229 km <sup>2</sup>
B4. Taxonomic class score (0-1)	0	Bird = 0
Stage B. Likelihood of establishment (risk that a particular species will establish a wild population in Tasmania)	Establishment Risk Score = B1 + B2 + B3 + B4 = 10	Establishment Risk Ranking B = 9-10, SERIOUS
C1. Taxonomic group (0-4)	3	Is in Order Psittaciformes, Family Psittacidae. Hybrids have been recorded with the Scaly-breasted and musk lorikeets (Birdworld).
C2. Overseas range size (0-2)	0	Range = 2,484,229 km <sup>2</sup>
C3. Diet and feeding (0-3)	0	Bird = 0
C4. Competition for native fauna for tree hollows (0-2)	2	Is known to nest in tree hollows
C5. Overseas environmental pest status (0-3)	3	The rainbow lorikeet is regarded as either a pest of agriculture or an unwanted organism in New Zealand, Western Australia, Northern Territory, Queensland, the Australian Capital Territory, Victoria, and South Australia (Chapman 2005).
C6. Climate match to areas with susceptible native species or communities (0-5)	5	Rainbow lorikeets are likely to compete with swift parrots (nectar feeder) for food and with musk lorikeets & green rosellas for nesting hollows.
C7. Overseas primary production (0-5)	3	Though legally protected, many shot under permit by orchardists. In QLD flocks of thousands, usually mixed with scaly-breasted and musk lorikeets, feed on sorghum crops in autumn. Large flocks also reported to feed on sweet sorghum in NSW. Also feed on crops of ripening corn. In Western Australia and South Australia they are considered a major threat to the wine industry because of damage to grape crops.
C8. Climate match to susceptible primary production (0-5)	3	More than 20% of the range of susceptible commodities (cereal grain, oilseeds, grain legumes, fruit, vegetables) is covered by grid squares with climate match score 8.
C9. Spread disease (1-2)	2	Bird
C10. Harm to property (0-3)	1	Low risk
C11. Harm to people (0-5)	3	Noisy, defecate on cars, large flock at Perth Airport.
Stage C. Consequence of Establishment (risk that an established population would cause harm)	Consequence Risk Score = sum of C1 to C11 = 24	Consequence Risk Ranking C > 19 = EXTREME
<b>ASSIGNED THREAT CATEGORY:</b>	<b>EXTREME</b>	
<b>PROPOSED IMPORT CLASSIFICATION:</b>	<b>PROHIBITED</b>	

## 5. References

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## 6. Appendices

### APPENDIX A: CALCULATING TOTAL COMMODITY DAMAGE SCORE

Column 1	Column 2	Column 3	Column 4	Column 5
<b>Industry</b>	<b>Commodity Value Index (CVI)</b>	<b>Potential Commodity Impact Score (PCIS, 0-3)</b>	<b>Climate Match to Commodity Score (CMCS, 0-5)</b>	<b>Commodity Damage Score (CDS columns 2 x 3 x 4)</b>
Cattle (includes dairy and beef)	11	0		0
Timber (includes native and plantation forests)	10	0		0
Aquaculture	6	0		0
Sheep (includes wool and meat)	5	0		0
Vegetables	5	1	5	25
Fruit (includes wine grapes)	5	2	5	50
Poultry (including eggs)	1.5	0		0
Cereal grain (includes wheat, barley, sorghum etc)	1	2	5	10
Other crops and horticulture (includes nuts and flowers)	1	1	5	5
Pigs	1	0		0
Bees (includes honey, beeswax, and pollination)	0.5	0		0
Oilseeds (includes canola, sunflower etc)	0.5	2	5	5
Grain legumes (includes soybeans)	0.3	2	5	3
Other livestock (includes goats and deer)	0.3	0		0
<b>Total Commodity Damage Score (TCDS)</b>				<b>98</b>

## APPENDIX B: ASSIGNING SPECIES TO THREAT CATEGORIES

<b>A: Danger posed by individual animals</b> (risk a captive or escaped individual would harm people)	<b>B: Likelihood of establishment</b> (risk that a particular species will establish a wild population in Tasmania)	<b>C: Consequence of establishment</b> (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	Serious	Extreme		
Highly, Moderately or Not Dangerous	Serious	High		
Highly, Moderately or Not Dangerous	Moderate	Extreme		
Highly, Moderately or Not Dangerous	Serious	Moderate	Serious	Import restricted to those licence holders approved for keeping serious threat species
Highly, Moderately or Not Dangerous	Serious	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		

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