

**This is an example application based on an application from Wellington Zoo for the  
import of Emperor tamarin**

**Application title:**

Importation of Emperor tamarin *Saguinus imperator* (Goeldi, 1907) (Family: Callitrichidae) into containment at Wellington Zoo to aid conservation through display and captive breeding.

**Applicant organisation:**

Wellington Zoo Trust, Wellington

**Please provide a brief summary of the purpose of the application** (255 characters or less, including spaces)

To import into containment Emperor tamarin, *Saguinus imperator* for public display, captive breeding, educational presentations and to contribute to conservation by attracting visitors to the zoo, who are then exposed to conservation issues.

**PLEASE CONTACT ERMA NEW ZEALAND BEFORE SUBMITTING YOUR  
APPLICATION**

**Please clearly identify any confidential information and attach as a separate appendix.**

**Please check and complete the following before submitting your application:**

All sections completed	Yes
Appendices enclosed	Yes/NA
Confidential information identified and enclosed separately	Yes/NA
Copies of references attached	Yes/NA
Application signed and dated	Yes
Electronic copy of application e-mailed to ERMA New Zealand	Yes

**Signed:**

**Date:**

## Section One – Applicant details

<b>Name and details of the organisation making the application:</b>	
Name:	Wellington Zoo Trust
Postal Address:	200 Daniell Street, Newtown, Wellington
Physical Address:	200 Daniell Street, Newtown, Wellington
Phone:	
Fax:	
Email:	
<b>Name and details of the key contact person:</b>	
Name:	S Nicholson
Postal Address:	As above
Physical Address:	As above
Phone:	04 123 4567
Fax:	
Email:	jbloggs@email.com
<b>Name and details of a contact person in New Zealand, if the applicant is overseas:</b>	
Name:	Not Applicable
Postal Address:	
Physical Address:	
Phone:	
Fax:	
Email:	

Note: The key contact person should have sufficient knowledge of the application to respond to queries from ERMA New Zealand staff.

## **Section 2: Purpose of the application**

### **Lay summary of the application (approximately 200 words)**

Note: This summary should include a description of the organism(s), the purpose of the application or what you want to do with the organisms(s).

Use simple non-technical language

Wellington Zoo wishes to import Emperor tamarins from Melbourne Zoo in Australia, for public exhibition, conservation and education. Zoo staff will benefit from the import through perfecting husbandry techniques for Emperor tamarins.

Emperor tamarins are an endangered species and the development of a self-sustaining captive population has many benefits for the conservation effort including the transfer of genetic material between captive populations and the potential transfer of animals back into their native habitat in South America.

The revenue generated through the public display of these animals will be used to aid the conservation of a number of species in the wild and in Zoos.

The Emperor tamarins will be housed in a containment facility to prevent escape.

### **Describe the background and aims of the project**

Note: This section is intended to put the organism(s) in perspective of the wider project(s) that they will be used in. You may use more technical language but make sure that any technical works are included in the Glossary.

Wellington Zoo wishes to import Emperor tamarins from Melbourne Zoo in Australia, for public exhibition, conservation and education. Zoo staff will benefit from the import through perfecting husbandry techniques for Emperor tamarins.

Emperor tamarins are classified under the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) under Appendix II, which includes species not necessarily threatened with extinction, but in which trade must be controlled to aid their survival. Emperor tamarins are found in the mainly tropical climates of southeastern Peru, northwestern Bolivia and southwestern Brazil (Nowak, 1991) where they live in lowland, evergreen and broadleaf forest (Rowe, 1996).

The revenue generated through the public display of these animals will be used to aid the conservation of a number of species in the wild and in Zoos.

### Section Three – Identification of the organism(s) to be imported

Complete this section separately for **each new organism** to be imported.

#### Identification of the organism to be imported

<b>Latin binomial, including full taxonomic authority:</b>	<i>Saguinus imperator</i> (Goeldi, 1907).
<b>Common name(s), if any:</b>	Emperor tamarin
<b>Type of organism</b> (eg bacterium, virus, fungus, plant, animal, animal cell):	Animal
<b>Taxonomic class, order and family:</b>	Mammalia, Primate, Platyrrhini (new world monkeys), Callitrichidae (marmosets/ tamarins)
<b>Strain(s) if relevant:</b>	
<b>Other information</b> , including presence of any inseparable or associated organisms and any related animals present in New Zealand:	No parasitic species will survive the pre-export isolation (in Australia), or the post-arrival quarantine process imposed by the MAF Import Health Standard.

## Section Four – The proposed containment system

### Describe the containment facility and the proposed containment system (physical and operational)

Question	Answer
Which MAF/ERMA Standard is this containment facility approved under?	MAF Biosecurity Authority/ERMA New Zealand Standard 154.03.04: <i>Containment Facilities for Zoo Animals</i> (Standard 154.03.04).
What physical containment level (AS/NZS 2243: 2002) is this containment facility registered to (where relevant)?	Not relevant
What other physical measures do you propose to use to contain this organism?	Upon arrival from Australia, the Emperor tamarins will be quarantined for 30 days in a transitional facility at Wellington Zoo. They will then be moved to a display area compliant with Standard 154.03.04, section on Primates P2 (other than apes and baboons). It will be fully enclosed with 25mm square chain-link mesh and ply. The enclosure will have a concrete footing which will prevent animals digging under the perimeter. There will be a barrier 800mm back from the enclosure's perimeter to prevent public contact with the animals.
What procedural or operational measures do you propose to use to contain this organism?	<p>A double door trap shall be provided for keeper access. The keeper will enter the trap closing the door behind them before entering the main exhibit.</p> <p>Only authorised Wellington Zoo employees will have access to the enclosure.</p> <p>Manual restraint will involve the use of nets and leather gloves.</p> <p>The animals will not be removed from their enclosure except for husbandry purposes. The public will not have contact with these animals.</p>
Any other information relevant to the containment of the organism.	<p>Wellington Zoo currently holds three groups of tamarins, Cotton-Top tamarins (9) and Golden Lion tamarins (2), in similar enclosures with no breaches of containment to date.</p> <p>Emperor tamarins have been maintained in containment in overseas zoos, including in Australia.</p>

**Describe the characteristics of the organism to be imported that may influence its ability; to escape from containment, to form a self sustaining population, or to cause adverse effects. Refer to sample applications for guidance on how to answer these questions.**

Question	Answer <i>attach copies of the references used in an appendix</i>
<p>What are the characteristics of the organism that may prevent/enable it to escape from containment? <i>eg size, spore production, infectivity, seed/pollen characteristics etc.</i></p>	<p>Emperor tamarins are arboreal (adapted to living in the trees) animals and primarily live in lowland, evergreen and broadleaf forest (Rowe, 1996).</p> <p>They are quadrupedal (walking on all four limbs), with some vertical clinging and leaping ability (Rowe, 1996).</p> <p>Emperor tamarins are highly territorial and will stay in close contact with other members of their group. Emperor tamarins live in family groups usually consisting of an, adult male and an adult female, their offspring, and also sub-adults that have joined from other group (Durrell Wildlife Conservation Trust, no date). Females give birth to two offspring, after a gestation of 140-145 days (Rowe, 1996). They become sexually mature at about 18 months (Durrell Wildlife Conservation Trust, no date).</p> <p>Subsequent to an escape, recapture of one Emperor tamarin would enable control and recapture of the entire group due to the strong family bond (Carroll, 2002).</p> <p>Emperor tamarins are a diurnal species, becoming immobile at night.</p> <p>Emperor tamarins live for around 17 years and have a head and body length of 230-255mm, a tail length of 390-415mm and a weight of 450 grams (Rowe, 1996).</p>
<p>How could this organism escape from containment? <i>ie what are the possible pathways for escape?</i> <i>How does the proposed containment regime address these pathways?</i></p>	<p>Possible pathways of escape are:</p> <ul style="list-style-type: none"> <li>• Escape during transport to containment facilities,</li> <li>• accidental or deliberate escape from enclosure,</li> <li>• escape due to accidental/unintentional or deliberate removal by people, and</li> <li>• escape from containment following natural</li> </ul>

	<p>disaster (flood, earthquake etc.) or fire.</p> <p>The containment standard 154.03.04 requires measures be taken to prevent escape by any of these pathways.</p>
<p>If it were to escape, could this organism establish a population outside of containment in New Zealand? <i>ie what conditions are required for growth and reproduction? And are those conditions present in New Zealand? What factors might prevent this from occurring?</i></p>	<p>For Emperor tamarins to establish a self-sustaining population in the wild, a male and female would need to escape, evade capture, breed and produce offspring. Alternatively, a pregnant female could escape from containment. The offspring would then need to survive and breed themselves.</p> <p>Wellington’s temperate climate is not conducive to the long term survival of this species in the wild as Emperor tamarins are adapted to living in the tropical rainforests of Peru, Brazil and Bolivia.</p>
<p>If a population did establish could it be eradicated? How? Would it be noticed immediately? How would such a population be identified?</p>	<p>An escape of Emperor tamarins would be noted very rapidly.</p> <p>They also have strong ties to their family groups, sleeping together and staying in close contact in dense bush by shrill chirruping calls.</p> <p>The Emperor tamarins will be conditioned to approach keepers for food; so in the unlikely event of an escape, they will be recaptured with a net or lured back into their enclosure with food.</p> <p>Furthermore, escapees would only survive for a limited time in the New Zealand forest because of lower temperatures, compared to their natural tropical habitat.</p>
<p>Additional information</p>	

## Section Five – Identification and assessment of effects

*Identify and assess the effects of the organism. Look primarily at the effects if the organism remains in containment, but also consider what might happen if the organism were to escape. If the organism were to escape think about what additional things would need to occur for these effects to be realised.*

<p><b>What are the beneficial effects of the organism(s) and the application?</b> <i>These benefits must be relevant to the purpose and scope of the application</i></p>
<p>The importation of Emperor tamarins is very likely to allow Zoo staff to perfect husbandry techniques of this CITES Appendix II species of which trade must be controlled and will allow for the development of a self-sustaining captive population in order to maintain this species. These benefits would be of minor to moderate value.</p> <p>The importation of Emperor tamarins is very likely to increase the numbers of visitors to zoos, resulting in education of the public and the generation of revenue for conservation efforts. This benefit would be of moderate values to Wellington Zoo.</p>
<p><b>What adverse effects could this organism have on the environment?</b> <i>For all stages of the life cycle</i></p>
<p>Emperor tamarins diet consists mainly of fruit (97%), nectar, sap and fungi and to a lesser extent invertebrates and small animal prey (Rowe, 1996).. Therefore, if the emperor tamarins were to escape from containment and form a self-sustaining population, they could have local adverse effects on New Zealand biota. However, due to the ease of recapture of these animals any effect is likely to be of short term duration. Therefore the magnitude of this effect would be minor in the highly improbable event that an escape occurred.</p>
<p><b>What adverse effects could this organism have on public health?</b> <i>For all stages of the life cycle</i></p>
<p>Emperor tamarins could have an impact on public health if they were to escape and inflict bites on members of the public. However, the magnitude of this effect would be minor given the low likelihood of an encounter with a member of the public.</p>
<p><b>What adverse effects could this organism have on the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, valued flora and fauna and other taonga (taking into account the principles of the Treaty of Waitangi)?</b></p>
<p>The Emperor tamarins would first need to escape from containment and then successfully establish a self-sustaining population, before any negative impacts upon the native arboreal ecosystem could occur. If this chain of events did eventuate then Emperor tamarins could have adverse effects on the mauri of native forest ecosystems. However, as previously concluded, it is <b>highly improbable</b> that Emperor tamarins will escape containment and/or establish a population without detection. In the short time that escaped Emperor tamarins remain at large the magnitude of any impact on mauri is considered to be minimal.</p>

<b>Are there any other potential adverse effects</b> (including effects on New Zealand's international obligations, society and community or the market economy)?
None identified
<b>Are there any ethical considerations associated with the organism or the proposed research?</b>
None identified

### Section Six – Additional Information

<b>Additional Information</b>	<b>Y/N</b>	<b>If yes, explain</b>
Do any of the organism(s) need approvals under any other New Zealand legislation?	Y	Import approval under the Biosecurity Act will be required.
Does New Zealand have any international obligations relating to (any of) the organism(s)?	Y	As Emperor tamarins are classified in CITES under Appendix II. , a permit from the country of export is required.
Have any of the new organism(s) in this application previously been considered in New Zealand or elsewhere? What was the outcome	N	Emperor tamarins have not previously been considered in New Zealand. Emperor tamarins are on display in zoos around the world.
Is there any additional information that you consider relevant to this application that has not already been included?		

<b>Provide a glossary of scientific and technical terms used in the application:</b>
N/A
<b>List of appendices:</b>
N/A
<b>List of references:</b>
Nowak RM, ed. 1991. Primates. In <i>Walker's Mammals of the World</i> 5th ed, vol 1, 437-439. John Hopkins Univ Press, Baltimore.
Carroll, J. B. 2002. <i>EAZA Husbandry Guidelines For the Callitrichidae</i> Pg 7, Section 1.1.6. Bristol Zoo Gardens.
Rowe, N. 1996. <i>The Pictorial Guide to the Living Primates</i> Pg 70-71. Pogonias Press, New York.

Durrell Wildlife Conservation Trust (n.d.) retrieved from:  
<http://www.durrellwildlife.org/upload/MainSite/Documents/pdfs/Factsheet%20Emperor%20Tamarin.pdf> on 15 August 2006