

ENVIRONMENTAL RISK MANAGEMENT AUTHORITY
 NGĀ KAIWHAKATŪPATO WHAKARARU TĀIAO



FORM NO2N

Application for approval to

IMPORT INTO CONTAINMENT ANY NEW ORGANISM THAT IS NOT GENETICALLY MODIFIED

**under section 40 of the
 Hazardous Substances and New Organisms Act 1996**

Application Title: Addition to the existing list of approved species of tropical butterfly to be imported into New Zealand

Applicant Organisation:

ERMA Office use only

Application Code: NOC03002

Formally received: ___/___/___

ERMA NZ Contact: __

Initial Fee Paid: \$

Application Status:

20 Customhouse Quay,
 Cnr Waring Taylor & Customhouse Quay
 PO Box 131, Wellington
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IMPORTANT

1. An associated User Guide is available for this form. You should read the User Guide before completing this form. If you need further guidance in completing this form please contact ERMA New Zealand.
2. This application form covers importation into containment of any new organism that is not genetically modified, under section 40 of the Act.
3. If you are making an application to import into containment a **genetically modified organism** you should complete **Form NO2G**, instead of this form (Form NO2N).
4. This form, together with form NO2G, replaces all previous versions of Form 2. Older versions should not now be used. You should periodically check with ERMA New Zealand or on the ERMA New Zealand web site for new versions of this form.
5. You can talk to an Applications Advisor at ERMA New Zealand who can help you scope and prepare your application. We need all relevant information early on in the application process. Quality information up front will speed up the process and help reduce costs.
6. This application form may be used to seek approvals for importing more than one new (non-genetically modified) organism into containment where the organisms are of a similar nature.
7. Any extra material that does not fit in the application form must be clearly labelled, cross-referenced, and included as appendices to the application form.
8. Commercially sensitive information must be collated in a separate appendix. You need to justify why you consider the material commercially sensitive, and make sure it is clearly labelled as such.
9. Applicants must sign the form and enclose the correct application fee (plus GST). The initial application fee can be found in our published Schedule of Fees and Charges. Please check with ERMA New Zealand staff or the ERMA New Zealand website for the latest schedule of fees. We are unable to process applications that do not contain the correct initial application fee.
10. Unless otherwise indicated, all sections of this form must be completed for the application to be progressed.
11. Please provide an electronic version of the completed application form, as well as sending a signed hard copy.

You can get more information by contacting us. One of our staff members will be able to help you.

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Section One – Applicant Details

1.1 Name and postal address in New Zealand of the organisation or individual making the application:

Name > Roger and Sabine Gass

Postal Address > 103 Block Rd
Hikutaia
RD 4
Paeroa

Physical Address > Butterfly and Orchid Garden
Dickson Holiday Park
Tararu
Thames

Phone > 07 868 8080

Fax >

E-mail > gass.r@xtra.co.nz

1.2 If application is made by an organisation, provide name and contact details of a key contact person at that organisation

This person should have sufficient knowledge to respond to queries and have the authority to make decisions that relate to processing of the application.

Name >

Position >

Address >

Phone >

Fax >

E-mail >

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1.3 If the applicant is an organisation or individual situated overseas, provide name and contact details of the agent authorised to transact the applicant's affairs in relation to the application

This person should have sufficient knowledge to respond to queries and have the authority to make decisions that relate to processing of the application.

Name >

Position >

Address >

Phone >

Fax >

E-mail >

Section Two – Purpose of the Application

This form is to be used for an application to import into containment any new organism that is not genetically modified. For an application to import into containment a **genetically modified organism**, use **Form NO2G**.

2.1 Give a short summary statement of the purpose of this application to be used on ERMA New Zealand's public register. (Maximum of 255 characters).

Briefly describe the organism(s) to be imported into containment, and the purpose(s) for which you wish to import the organism(s).

> To import into containment 199 species of tropical butterfly for public display and breeding.

2.2 Provide a short description of the background and aims of the project suitable for lay readers.

Describe the purpose of the importation and rationale for the overall project these organisms are to be used in so that people not directly connected with the research can understand why these organisms are required.

> We would like to apply for an addition to the existing list of approved species of tropical butterfly to be imported into New Zealand.

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We intend to add tropical species only.

The Butterfly and Orchid Garden is open since 6 years. In these years we have imported butterfly chrysalises from all over the world. We have a successful breeding program. We have gained experience in these fields as well as in the display of the adult stage. We have learned that the tight borders of the current list of approved butterfly species for importation into NZ have limitations (see attached ERMA NZ Decision NOC 98008; attachment 2).

Often species that are on the current list are not available from the breeders.

Often the species that are available are not on our current list and we can't import them as well.

Only a part of the species on our list performs well under the restricted circumstances of a life butterfly exhibition. This means that they will not fly well, when we have reduced light days, such as on a rainy or cloudy day which is very common in NZ. The consequence of this is that 1st the show is not as good 2nd, butterflies will not live as long as they could because they don't feed enough and 3rd, they will not breed as well as they could because of their restricted flight behaviour.

We feel restricted by the existing list of approved species.

We think that we could increase the quality of exhibition by importing a wider range of butterfly species. Breeding would be simplified and encouraged and therefore importing could be reduced.

The butterflies will be imported in the same safe manner and following the same import procedures as the already approved species (see MAF Import Health Standard attachment 3).

The butterfly house, a containment facility and the quarantine facility will insure further safety for the imported species as well as for New Zealand natural surrounding. Safety features include supervision at the entry-exit of the butterfly house, double doors with dark inner (where butterflies are not likely to be attracted to), double skin and mesh covered ventilation system. Visitors are supervised and informed of rules.

As explained in our first application (attachment 1), tropical butterflies are not able to survive in temperatures below 10 degrees Celsius. New Zealand with its strong winds, heavy rainfalls and non-tropical temperatures will reduce flight behavior of a tropical butterfly to a minimum. Therefore the butterfly will eventually starve or be prey for predators. There will be no change with the importation of other tropical butterfly species.

NZ has only a very small number of native butterfly species. Only some species from overseas have established here. All of the established species come from temperate climates. There are regular butterfly visitors to NZ that are blown over from subtropical parts of Australia, their food plant is often available and they are still not able to establish and build a population. (New Zealand butterflies and moths, page 76, Gerard Hudging, attachment 9 references)

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In the unlikely event of an escape of tropical butterflies out of the containment facility, there is still only a negligible chance for them to survive in NZ natural surrounding even on a warm summer day. In addition it is not possible for a tropical butterfly at any stage, chrysalis, caterpillar or adult, to survive in NZ winter (see first application attachment 1 and ERMA approval attachment 2). There will be no change to these facts by importing other tropical butterfly species.

All of the selected species feed on other than native plants. Some feed on citrus or passion fruit wines. In the unlikely event of an escape, there is no risk of destruction or harm to native fauna and flora.

We are generally concerned with conservation of existing New Zealand fauna and flora as well as the conservation of all butterfly species in the world. It is not in our intention to abuse existing resources.

Section Three – Information on the Organism(s) to be imported

If the application is for importation of more than one organism, this section must be completed separately for each organism. If there are commercial reasons for not providing full information here, alternative approaches must be discussed with and agreed by ERMA New Zealand.

3.1 Give the unequivocal identification of the organism(s) to be imported

These names will be on the public register and should clearly identify the organisms. Please provide details of the following:

We are applying for permit for importation of the following tropical butterfly species, see attached list of 199 butterflies, attachment 4.

Latin binomial, including full taxonomic authority:

>

Common name(s), if any:

>

Type of organism (eg bacterium, virus, fungus, plant, animal, animal cell):

>

Taxonomic class, order and family:

>

Strain(s) if relevant:

>

Other information, including presence of any inseparable or associated organisms:

>

3.2 Characteristics of the organism(s) to be imported

Provide information on the biology, ecology and the main features or essential characteristics of each organism(s) to be imported. For example, note production of spores/seeds/pollen, conditions for growth and reproduction. Also provide information on affinities of the organism(s) with other organism(s) in New Zealand. This information should be relevant to the identification of the risks of the organism (section 5).

>All of the species to be imported are tropical. This is the main similarity and most important.

(References: Letter of Brian Patrick, Curator Entomologist Otago Museum attachment 6. Letter of NZ Entomological Society John Early, Curator Auckland Museum, attachment 7. Letter George Gibbs, Entomologist, attachment 8. I have added some letters of members of the ICBES (International Congress of Butterfly Breeders and Exhibitors) attachment 9.)

There are some general differences between tropical and non-tropical species. Tropical butterflies are not able to hibernate and their bodies are unlikely to resist strong winds and cold rainfalls, which are very common here in New Zealand. In our butterfly house we have experienced that at temperatures lower than 25 degrees Celsius, tropical butterflies are likely to settle and wait for the temperature to rise again. In the meantime they are easy prey for predators or will eventually starve.

Temperature: As discussed in our previous application and approved by ERMA in 1999, tropical butterflies are not able to survive in New Zealand natural surrounding. Therefore they are not able to have any effect on the environment, even in the unlikely case of an escape. NZ cooler temperatures are a most important.

None of the chosen butterflies to be imported is a close relative to the native butterflies in New Zealand. Crossbreeding is only possible within close family membership therefore crossbreeding with NZ butterflies is not possible, even in the unlikely event of an escape.

Please see previous application for the importation of tropical butterflies into NZ, attachment 1, chapter 5 and ERMA approval attachment 2.

Section Four – The Proposed Containment System and its Effectiveness

4.1 Describe the proposed containment system (physical and operational) and the ability of the organism(s) to escape from this system. The adequacy of the containment regime is a principal consideration so you need to provide comprehensive information on the containment system. Containment facilities must be registered by MAF, and you should provide documentary evidence of this. Refer to relevant containment manuals as

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appropriate. Please also ensure that ERMA New Zealand has an up-to-date copy of the containment manual relating to this facility. Identify possible pathways of escape of the organism(s) from containment, including through lapses of security or sabotage. Describe the biological features of the organism(s) that might affect its ability to escape from containment.

> With the importation of other tropical species, there will be no changes to the existing containment facility. Please refer to our previous application (attachment 1) for more details about the butterfly house.

A tropical butterfly house is an approved containment facility, which is kept at temperatures between 20 and 30 degrees Celsius.

Pupae are transported in a sealed container into the country. The container according to world standard butterfly packaging consists of either polystyrol or a double walled cardboard box. Each pupa is packed in cotton wool in order to protect the vulnerable content.
The container is checked by MAF, DOC and Customs at boarder control.

Quarantine; the imported butterfly pupae go directly into a Level II Quarantine. There they will stay until emergence. Then they are transported into the butterfly house.

Breeding is done in a separate containment facility not open to the public adjacent to the butterfly house.

Risk Situation 1

Escape of adult butterflies through a hole in the building.

Prevention:

Building is inspected and approved by MAF and ERMA

Double doors, dark entry/exit

Mesh covered louvers

Double skin roof

Sheltered location

Daily safety and security checks of surrounding and surrounding food plants

These methods have been proven to be highly successful in the prevention of escape of butterflies out of the containment facility. There will be no change in these procedures.

Cost:

As a consequence, the only cost involved to destroy escaped butterflies will be the spraying of the surrounding, which will be undertaken by the butterfly garden.

Risk Situation 2

Visitor removes butterflies from the butterfly garden.

Prevention:

Rules of butterfly garden are displayed in and outside the building

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Entrance/exit supervised by staff
Bags are left at entrance
Clear walking tracks
Breeding under separate conditions

In the very unlikely event of removal by a visitor, a large amount of the same species of butterfly (which is even less likely to happen) would have to be removed to be able to build a population. Please refer to section 5.1.

These prevention methods have proven to be successful in the last 5 years. There will be no change in these procedures.

Section Five - Identification and Assessment of Risks, Costs, and Benefits

This section must include information on the beneficial and adverse effects referred to in the HSNO Act. It is easier to regard risks and costs as being adverse (or negative) and benefits as being positive. You should consider costs and benefits with respect to both non-monetary and monetary (dollar) terms and also consider the distribution of this incidence. Provide a brief description of where the information in the application has been sourced from, e.g. from in-house research, independent research, technical literature, community or other consultation.

5.1 Ability of organism(s) to establish a self-sustaining population.

Discuss the ability of the organism(s) to establish an undesirable self-sustaining population, should an escape from containment occur, and the ease with which such a population could be eradicated. You should consider the ability of the organism(s) to survive and reproduce if it did escape from containment.

>We gained experience in the last years breeding butterflies here in NZ and before this in Switzerland. We evaluated that signs of inbreeding show after 2-3 months already, when no “fresh” butterflies were imported. We can also say, that we were unable to maintain a healthy population even under ideal circumstances in the butterfly house when we started with only a few individuals. We conclude that it needs a large number of butterflies to be able to build a population. In the unlikely event of an escape a therefore large number of butterflies (which is even less likely to happen) would have to escape repeatedly and survive to be able to build a population.

In the unlikely event of an escape of tropical butterflies out of the containment facility, there is still only a negligible chance for them to survive in NZ natural surrounding even on a warm summer day. In addition it is not possible for a tropical butterfly at any stage, chrysalis, caterpillar or adult, to survive in NZ winter as approved by ERMA in 1999 (see first application attachment 1 and ERMA approval attachment 2).

5.2 Identify all potential adverse effects of the organism(s). Identify potential adverse effects associated with the organism(s) and with any inseparable organisms, both within

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containment, and outside of containment (should an escape occur). Consider effects on the environment, and human health and safety (e.g. of workers in the containment facility), and any ethical and cultural effects. It is important to think about the source of the risk, i.e. the way in which the risk is created (the exposure pathway), and then the consequences of exposure. Adverse effects should be identified for the following categories:

A. Potential adverse effects on the environment, in particular on ecosystems and their constituent parts (e.g. adverse effects on: life supporting capacity of air, water, soil and ecosystems; native and valued introduced flora and fauna; natural habitats and the intrinsic value of ecosystems; New Zealand's inherent genetic diversity; animal or plant health)

Effect on natural surrounding: All the chosen species are not aggressive individuals. Under the best circumstances in their natural habitat, they do not overpopulate. Butterflies don't have any effect on life supporting capacities of our ecosystem either negative nor positive.

Effect on native butterfly species: None of the butterfly species chosen for importation shows a similar behavior, food plant or family relationship with the native species. Crossbreeding is not possible between unrelated species (please refer to our first application attachment 1). There is no danger, that the imported species could feed on food plants of the native species (see next chapter).

Effect on native plants: Even in the unlikely case of an escape and the establishment of a population, none of the butterflies to be imported feeds on a native plant. Therefore no native plant could be harmed. Many of the NZ native plants are endemic to New Zealand. An adaptation of tropical butterflies to these plants is most unlikely. Most of the butterflies are not able to feed on a plant other than one on which they are specialised, even within plant species (observed in our own butterfly house).

The main food plants –which are the plants, where the caterpillars feed on- for the chosen butterflies are citrus, banana and ornamental passionflowers. These plants are either available in New Zealand and we can breed the butterflies or they are unavailable and we will have to import the chrysalis to be able to show the butterfly in the adult stage.

Breeding will be done under the same circumstances as with the already approved butterflies.

Information on any likely inseparable organisms: After ERMA approval of 70 tropical species of butterfly for importation into NZ, we have established a Disease Risk Management in co-operation with MAF. This document has been used for an Import Health Standard (attachment 3). The MAF standard is held for tropical butterfly in general and doesn't make a difference between the different tropical species. There is no change to the health standard with the importation of other tropical butterfly species. They undergo exactly the same criteria import procedures as the approved tropical butterfly species.

More basic information regarding inseparable organism is in our first application chapter 9, attachment 1.

Within the last 6 years we have proven, that the protective procedures for the importation of tropical butterfly chrysalis into quarantine, display of the adult butterfly in the containment facility and breeding of the butterfly in our breeding facility are sufficient.

B. Potential adverse effects on public health (including occupational exposure)

> As discussed in our first application, there are no effects on public health known. All of the butterflies to be imported are displayed in butterfly houses worldwide. There is no accident known of this kind.

C. Potential adverse effects on the relationship of Maori 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). For example, you should consider whether the organism(s) would have an effect on specific native flora or fauna if they escaped from containment.

> All the butterflies to be imported are kept in containment and therefore pose no direct or indirect threat to Maori culture.

D. Other potential adverse effects (such as New Zealand's international obligations, social or economic adverse effects, ethical issues)

> There will be no adverse effects with the importation of more tropical butterfly species into containment.

5.3 Provide an assessment of the adverse effects identified in Sections 5.2.

The assessment should include the nature, likelihood or probability of occurrence, and magnitude of each adverse effect (i.e. **the risk**), and the value (in monetary or non-monetary terms) of a particular adverse effect (i.e. **the cost**). The uncertainty bounds of the information contained in the assessment should also be discussed.

Adverse effects should be assessed in relationship to:

A. Potential adverse effects on the environment, in particular on ecosystems and their constituent parts (e.g. adverse effects on: life supporting capacity of air, water, soil and ecosystems; native and valued introduced flora and fauna; natural habitats and the intrinsic value of ecosystems; New Zealand's inherent genetic diversity; animal or plant health)

>It is a very unlikely event that a large number of butterflies would escape out of the containment facility. The probability of finding the right food plants and surviving long enough to build a population is remote. The likely hood of survival of this population is negligible. Therefore there will be no adverse effects on the environment or ecosystem.

B. Potential adverse effects on public health (including occupational exposure)

>As discussed in chapter 5.2.B there is no adverse effect known which could have an effect on public health.

C. Potential adverse effects on the relationship of Maori 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). For example, you should consider whether the organism(s) would have an effect on specific native flora or fauna if they escaped from containment. If consultation with Maori has been undertaken, provide details of the process used and the outcome.

>None of the butterflies to be imported feed on New Zealand native plants. Adaptation of food for caterpillars is a very slow process and will not occur within one generation. It is unlikely for them to escape, furthermore even more unlikely to live long enough to find the right food plant and with the remote chance to build a population, their ability of adaptation to another food plant is impossible.

D. Other potential adverse effects (such as New Zealand's international obligations, social or economic adverse effects, ethical issues)

>The registration of breeders and importers within New Zealand and internationally provides guidelines against abuse of natural resources.
There are no social or economic adverse effects with the importation and display of more tropical species of butterfly.
Ethical issues: There are no concerns of ethical issues with the importation and display of more tropical butterflies. If they are not kept under ideal circumstances and in tropical facilities, their survival is minimal which is not in the interest of exhibitors. Breeding can only be done successfully under ideal (ethical and natural) circumstances.

5.4 Identification of beneficial effects (benefits)

Identify and describe monetary and non-monetary benefits associated with importing the organism(s) into containment. Outline and discuss the purpose(s) for the importation and the potential use of the organism(s). Focus on the immediate benefits, as well as longer-term benefits. For example, "increase in scientific knowledge", "increased production of agricultural produce". Substantiate claims by reference to sources of information. Specify whether the benefits identified are environmental, public health or economic benefits; and/or are specific benefits to Maori.

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> The Butterfly and Orchid Garden is New Zealand's first tropical butterfly house. The combination of butterflies and orchids in our display is unique in the world and shows a high quality standard. Our visitor numbers are the highest here in Thames and surrounding and are still rising. We have made a name New Zealand wide.

The butterfly house is a fully sheltered and heated attraction and an ideal experience for sunny and rainy days in summer and winter. Visitors can follow a windy garden path and discover our ponds with water lilies and a waterfall. They can observe our birds and enjoy peace in a little wonder world. We want visitors to have an interactive experience, to be able to get touched by something that is normally out of reach.

We have started a butterfly boom in New Zealand. Many investors have contacted us with the idea of building a butterfly house. We are working as consultants with garden, orchid and butterfly lovers all over New Zealand. We are offering our quarantine knowledge and facility to other nurseries.

We support and endorse New Zealand cultural diversity by giving artists the opportunity to display and sell their products in our shop. A good example is an artist from Hamilton who includes Maori and local art in a butterfly magnet, one of our best sellers.

Opportunities and workplaces are created for gardeners, butterfly breeders, sales people, artists, hot house specialists, heat specialists, pump gear and many more.

The butterfly business is booming. Butterfly houses will have an attractive effect on overseas visitors. They provide a place to go. A place, where visitors can indulge in nature's wonders and learn about butterflies, their life cycle and the natural surrounding.

The butterfly life cycle is part of the school curriculum. We have elaborated worksheets in accordance with the curriculum. Schoolteachers are using the opportunity to teach curriculum -based education. The interactive experience increases interest and knowledge of butterflies in young and old.

We are able to increase sensibility of New Zealanders towards native species in order to protect them better against the reduction of their natural resources such as food plants. Our butterflies are flying messengers for the constant threat on natural resources and rainforests all over the world.

Ethical issues:

The butterflies to be imported come from approved breeding facilities and are not removed from the wild. The butterfly business is a non- invasive form of support of low- income countries such as the Philippines, Thailand and Ecuador. We import from registered breeders who buy their stock from registered farmers. These butterfly farmers are generally families who live close to native bush with a good population of butterflies. They will grow food plants for the caterpillars. The butterflies will lay their eggs on them. The farmers will breed these and collect the chrysalis. These are sent overseas. The farmers will always miss out on some chrysalis, which will hatch and "restock" their populations. In addition, the farmers will protect their bit of forest because they earn some extra dollars with it.

We are generally concerned with conservation of existing New Zealand fauna and flora as well as the conservation of all butterfly species in the world. It is not in our intention to abuse existing resources. Our

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speech to groups includes information about New Zealand native butterflies and how to support their population.

By adding more tropical species to the list of butterflies to be imported, the butterfly houses in NZ will be able to have a more constant display. A higher quality will be reached. It will have a positive effect on each of the above mentioned issues.

5.5 Provide an assessment of the benefits identified in Section 5.4.

Estimate the likelihood that the benefits will be realised, the magnitude of benefits associated with importing the organism(s) into containment, and any uncertainties associated with this assessment. You should also indicate who would receive the benefits and the expected time-course of delivery of the benefits.

>

Financial benefit: The region does and will benefit through work opportunities, the increased attraction and satisfaction of visitors.

Scientific benefits: Schools and visitors are able to learn and get in contact with something that is normally out of reach. There is an increase of knowledge not only about tropical butterflies but NZ butterflies as well as an increase of knowledge about New Zealand natural environment.

Ethical benefits: Support of population of low- income countries.

5.6 Overall evaluation of risks, costs, and benefits

This overall evaluation is the main task of the Authority. The Authority has to decide whether the beneficial effects of having the organism in containment outweigh the adverse effects of the organism and any associated inseparable organisms. The Authority must also be satisfied that the organism can be safely contained. You may wish to express a view on the relative importance of the different risks, costs and benefits and how they should be brought together in making a decision.

>

Comparison:

No financial adverse effects versus financial benefits for the whole region.

No scientific adverse effects versus benefits by increased knowledge and awareness of natural surrounding.

No ethical adverse effects versus benefits of supportive actions within the healthy conservative self help program.

Section Six – Additional Information

6.1 Do any of the organism(s) need approvals under any other New Zealand legislation or are affected by international obligations? For example, indicate whether the organism is subject to other New Zealand legislation, e.g. the Biosecurity Act 1993, or Animal Welfare Act 1999; or if the organism(s) are listed in CITES, then approval is required from both the importing and exporting countries.

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> **New Zealand's international obligations:**

The new species of tropical butterfly to be imported will have to undergo exactly the same controls as the previous species. Butterfly species mentioned in the CITES list need CITES documents accompanying the shipment.

Other relevant legislation:

After the ERMA approval in 1999, we created in cooperation with MAF a Health Standard (attachment 3) for the importation of tropical butterfly into New Zealand. This health standard was used to generate regulations of procedures of importing tropical butterfly chrysalis into quarantine, displaying the adult tropical butterfly in a containment facility and breeding tropical butterflies (attachment 3). It is held for tropical butterflies in general and will not change with the extension of the list of approved species by ERMA.

6.2 Have any of the new organism(s) in this application previously been considered in New Zealand or elsewhere? For example, has the organism(s) been previously considered for import (e.g. under the Plants Act)?

> **International and related matters:**

Canada has one of the biggest butterfly houses in the world at the Niagara Falls. The Canadian regulations to import tropical butterfly chrysalis are kept very general. Some genus or families of tropical butterfly of which all individual species are clearly defined as tropical are listed under the one genus or family name. For example the genus of the Heliconius butterfly. All members of this genus are located in the tropical regions of Central and South America and can't be found anywhere else in the world. They are highly tropical. They have very similar names as well.

Please see attachment 5, list of approved butterfly species for importation into Canada, CFIA/ACIA List of insects for approved facilities.

6 years ago ERMA approved a list of 70 different species of tropical butterfly for importation into New Zealand (attachment 2). We would like to add more tropical species to this list. The reasons for this are explained in this application. All species of butterfly to be added to the existing list are tropical as well.

6.3 Is there any additional information that you consider relevant to this application that has not already been included?

> **Other relevant information:**

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ENVIRONMENTAL RISK MANAGEMENT AUTHORITY
NGĀ KAIWHAKATŪPATO WHAKARARU TAIAO



**Application for approval to import into
containment any new organism that is not
genetically modified, under Section 40 of the
Hazardous Substances and New Organisms Act
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Within the last 5 years we have imported tropical butterfly chrysalises into quarantine, displayed the adult stage in the containment facility and increased our breeding to about 70% of our needs.

We have constantly worked on the increase of visitor numbers and their satisfaction as well as the quality of display. We have extended our educational program.

In addition we have tried to simplify the background work as much as possible. We have built a new special quarantine for the chrysalis only.

The increase of species numbers to the existing list will be the next step of user friendly changes we have tried to apply.

We would like to start a breeding facility. Breeding will be done in an approved facility as before. With the increase of butterfly breeding on a larger scale we will be able to decrease the number of import of butterfly chrysalises and the risk involved with this.

6.4 Provide a glossary of scientific and technical terms used in the application.

> Please refer to the glossary in our previous application (attachment 1, chapter 19).

6.5 List of appendices. List any appendices included with this application. Any information that is commercially sensitive, or additional material included with the application (such as details of consultations, referenced articles) should be contained in appendices. The main application should refer to the relevant appendices but be able to be read as a stand-alone document.

> - Attachments as listed:

- 1 Copy of first ERMA application
- 2 ERMA decision
- 3 MAF Import Health Standard
- 4 List of butterflies to be approved
- 5 CANADA list of approved butterflies for importation into approved facilities
- 6 Letter of Brian Patrick, Entomologist, Otago Museum
- 7 Letter of John Early, Entomologist, Auckland Museum
- 8 Letter of George Gibbs
- 9 References and letters of members of ICBES

Section Seven – Application Summary

Summarise the application in clear, simple language that can be understood by the general public. Include a description of the organism(s) to be imported into containment, and any risks and benefits associated with their importation. This summary will be used to provide information for those people and agencies

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who will be notified of the application (e.g Ministry of Agriculture and Forestry, Department of Conservation, Crown Research Institutes) and for members of the public who request information. Do not include any commercially sensitive information in this summary.

> We would like to apply for an addition to the existing list of approved species of butterfly to be imported into New Zealand.

We intend to add tropical species only.

The Butterfly and Orchid Garden is open since 6 years. In these years we have imported butterfly chrysalises from all over the world. We have a successful breeding program. We have gained experience in these fields as well as in the display of the adult stage. We have learned the tight borders of our current list of approved butterfly species for importation into NZ.

Often species that are on the current list are not available from the breeders.

Often the species that are available are not on the current list and we can't import them as well.

Only a part of the species on our list performs well under the restricted circumstances of a life butterfly exhibition. This means that they will not fly well, when we have reduced light days, such as on a rainy or cloudy day which is very common in NZ. The consequence of this is that 1st the show is not as good 2nd, butterflies will not live as long as they could because they don't feed enough and 3rd, they will not breed as well as they could because of their restricted flight behaviour.

We feel restricted by the existing list of approved species.

We think that we could increase the quality of exhibition by importing a wider range of butterfly species. Breeding would be simplified and encouraged and therefore importing could be reduced.

The butterflies will be imported in the same safe manner and following the same import procedures as the already approved species (see MAF Import Health Standard attachment 3).

As explained in our first application (attachment 1), tropical butterflies are not able to survive in temperatures below 10 degrees Celsius. New Zealand with its strong winds, heavy rainfalls and non-tropical temperatures will reduce flight behavior of a tropical butterfly to a minimum. Therefore the butterfly will eventually starve or be prey for predators. There will be no change with the importation of other tropical butterfly species.

NZ has only a very small number of native butterfly species. Only some species from overseas have established here. All of the established species come from temperate climates. There are regular butterfly visitors to NZ that are blown over from subtropical parts of Australia, their food plant is often available and they are still not able to establish and build a population. (New Zealand butterflies and moths, page 76, Gerard Hudging, attachment 7 references)

In the unlikely event of an escape of tropical butterflies out of the containment facility, there is still only a negligible chance for them to survive in NZ natural surrounding even on a warm summer day. In addition

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it is not possible for a tropical butterfly at any stage, chrysalis, caterpillar or adult, to survive in NZ winter (see first application attachment 1 and ERMA approval attachment 2).

All of the selected species feed on other than native plants. Some feed on citrus or passion fruit vines. In the unlikely event of an escape, there is no risk of destruction or harm to native fauna and flora.

We are generally concerned with conservation of existing New Zealand fauna and flora as well as the conservation of all butterfly species in the world. It is not in our intention to abuse existing resources.

Checklist

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 additional references attached	Yes/NA
Cheque for initial fee (incl. GST) enclosed	Yes/No
If "yes", state amount:	\$.....
Direct credit made to ERMA bank account:	Yes/No
If "yes" give date of direct credit .../.../... and amount deposited:	\$.....
Application signed and dated	Yes
Electronic copy of application e-mailed to ERMA New Zealand	Yes

*NA – not applicable

Signed:

Date: