

# **Wildlife Trade Operation Proposal – Queen of Ants**

## **1. Title and Introduction**

### **1.1/1.2 Scientific and Common Names**

Please refer to Attachment A, outlining the ant species subject to harvest and the expected annual harvest quota, which will not be exceeded.

### **1.3 Location of harvest**

Harvest will be conducted on privately owned land, non-protected public spaces such as footpaths, roads and parks in Victoria and from other approved Wildlife Trade Operations. Taxa not found in Victoria will be legally sourced from other approved WTOs or collected by Queen of Ants' representatives from unprotected areas. This may include public spaces such as roadsides and unprotected council parks, and other property privately owned by the representatives.

### **1.4 Description of what is being harvested**

Please refer to Attachment A for an outline of the taxa to be harvested. The harvest is of live adult queen ants which are newly mated.

### **1.5 Is the species protected under State or Federal legislation**

Ants are non-listed invertebrates and are as such unprotected in Victoria, except for the subspecies *Myrmecia sp.17* which is threatened and therefore protected under Victorian legislation. Under Federal legislation the only protection to these species relates to the export of native wildlife, which this application seeks to satisfy.

No species listed under the EPBC Act as threatened (excluding the conservation dependent category) or listed as endangered, vulnerable or least concern under Victorian legislation will be harvested.

## **2. Statement of general goal/aims**

The applicant has recently begun trading queen ants throughout Victoria as a personal hobby and has received strong overseas interest for the species of ants found. A current WTO is in place and the goal of this application is to seek approval for renewal of the WTO.

## **3. Harvest Details**

### **3.1 Details of the area where harvesting is to take place**

The area where harvesting will take place is as follows:

- 24 acres of heathy woodland type bush near Somerville, Victoria. (Refer to photograph in Attachment B)
- Non-protected public land such as footpaths, roads and parks in Victoria and other states or territories.

### **3.2 Details of land ownership**

The applicant privately owns the property in Victoria. All other collection areas are non-protected public spaces or land privately owned by stake holders.

### **3.3 Quantity intended to be harvested**

Please refer to Attachment A which outlines the expected annual quota, per harvest area. This quota will not be exceeded; however, the actual harvest amount will vary depending on demand for queens. Actual harvest numbers will be monitored by the applicant to ensure ongoing sustainability. Because of the extreme unpredictability of nuptial flight times and places, the list has been constructed to cover potential possibilities for each species.

### **3.4 Methods of harvesting and equipment to be used**

All ants are harvested by hand by the applicant and their approved stake holders. This means that the harvesting is completely selective and only species outlined in

Attachment A will be collected.

Queen ants are either simply located visually and carefully collected or are attracted towards a light source during the night and selectively collected. Neither collection method has any impact on undesired species.

### **3.5 Timing and duration of harvesting period**

Queen ants generally emerge for nuptial flights throughout the warmer months of the year, ranging through September – April. This is not limiting however, and queen ants may be located throughout the year depending on conditions.

## **4. Impact of Harvest on the Taxa and the Relevant Ecosystem**

During harvesting, the applicant will only access a relatively small portion of the property. The applicant and stake holders will also only harvest from areas already cleared and will not disturb any bushland area not accessible via an established track or clear area. This means that the surrounding ecosystem will not be disturbed or impacted at all.

Given that all harvesting will be done by hand and is completely selective, it will have little to no impact on any species not listed in Attachment A.

The harvest quotas given in Attachment A are relatively small compared to the estimated number of queen ants emerging for nuptial flights for the given taxa. This means that the harvest will have little to no impact on the sustainability of each species. The aim of the applicant is to increase awareness of ants and ant keeping and aims to have a positive impact on ant colonies by educating the public and possibly preventing the removal of natural ant colonies treated as pests and destroyed.

Additionally, any known established colonies/nests on the property will be protected to ensure sustainability. It is in the applicant's best interest to preserve the status of the ants for ongoing viability of trade

## **5. Monitoring and Assessment**

### **5.1 Has there been a resource assessment of distribution and abundance for the harvest area**

No official resource assessment of distribution and abundance for the harvest areas has been conducted. The applicant, however, monitors the property closely and has not seen any significant decrease in populations or abundance since beginning an interest in ants. Recently, several new ant colonies have been discovered which will be protected as best as practicable.

### **5.2 Will there be independent supervision of the harvesting**

No independent monitoring or State/territory control is proposed at this stage. The applicant will monitor the abundance of queens during harvest and will amend/suspend harvesting quotas if any significant decrease is recorded for any species in an area, however given the relatively small expected quotas any significant overall decrease is unlikely.

### **5.3 Outline the methods to be employed to monitor the harvesting of the specimens to identify whether the species or other species in the ecosystem are affected by the harvesting**

Given that all specimens will be collected by hand, the applicant will accurately record all queens harvested and note any significant changes in abundance for harvest areas. Records of collection will include the details of the collector, collection area, time of collection, species collected and numbers to ensure that only specimens obtained from legal sources will be exported. These records will allow the applicant to monitor any changes in abundance and to ensure all collection criteria and harvest quotas are being complied with. Actual harvest areas may vary over time depending on availability of collectors, stakeholders and demand for certain species. This will all be included in recording to ensure the ongoing sustainability of harvest.

General changes may be due to factors such as climate and weather variations, however the applicant will monitor changes and adjust collection numbers in accordance if any significant changes are noted compared to the previous years' data.

#### **5.4 Describe any other biological and environmental monitoring proposed for the harvesting area.**

Any known established ant nests/colonies in the catchment areas will be monitored and protected as is reasonably practical. This will ensure sustainability of the ant species to be collected. As stated above, the applicant and stake holders will only harvest in accessible areas, therefore protecting the bush areas and ecosystems.

### **6. Management Strategies**

As outlined above, given the relatively small harvest quotas, collection is unlikely to create any significant population change. Population changes may occur for other reasons such as weather conditions and seasonal variations. If a decline for any harvested species in a particular area is detected for any reason, collection will be revised to ensure ongoing sustainability.

### **7. Compliance**

All ants are harvested by hand and are generally housed individually. This means that every ant can be correctly identified before entering trade. Methods of identification include general knowledge of the applicant and online resources such as antweb.com. If for any reason identification cannot be achieved through these methods, the specimen will not be exported until a positive identification is achieved. Only ants collected under the authority of the WTO will be exported.

### **8. Reports**

Required periodic reporting to the Department as specified in the declaration approving the operation will be provided to the department by the applicant. This will include

records of all transactions between the applicant and approved suppliers.

## **9. Background Information**

Ants have been around for millions of years and it is thought that ants evolved from wasp-like ancestors. They are said to form 15-20% of the terrestrial animal biomass in ecosystems globally. Ant species are incredibly diverse, and their behaviour is quite unique, which is what makes ant keeping a popular and rewarding hobby.

Ants belong to a family of insects called Formicidae, within a greater order of insects known as Hymenoptera (which also include bees and wasps). Ants don't have a true brain like vertebrates but rather have brain-like groupings of nervous tissue called ganglia.

Ants have various stages of their life cycle. They begin life as an egg, hatch into a larva which moults and becomes a pupa. They have a system of different specialized forms that take on various unique functions within the ant society. There are worker ants who handle the bulk of the colony's duties. There are also female alates which are young virgin queens born in the nest and have wings. These become the new founding queens of their own colonies after they mate during a nuptial flight. The male ants also have wings and their only job is to mate with the female alates during nuptial flight, after which they die.

During a nuptial flight hundreds of female alates fly and mate with males in the air. After mating, the female alates drop to the ground, break off their wings and search for a suitable location to start her new colony. It is during this time that the applicant and stake holders will be searching for these newly mated queens. After mating, a queen ant can continue to lay fertilized eggs for the rest of her life, up to 30 years!

The earliest known record of the ant keeping hobby can be traced back to 1956 and

continues to grow today. Australia is home to many unique and highly regarded native ant species, resulting in high international demand for Australian ants within the ant keeping community. This application aims to expand the knowledge and interest of ant keeping by providing an ethical, sustainable and legal way for international enthusiasts to be able to keep and learn about our incredible native ants.

### **References:**

AntsCanada- The Ultimate Ant Keeping Handbook

<https://www.nationalgeographic.com/animals/invertebrates/group/ants/>

Identification Guide to the Ant Genera of the World- Barry BOLTON (1994)

## Attachment A

### Proposed taxa for harvest and export

Note: The applicant can harvest or acquire any species included in the taxa listed except for species listed under the EPBC Act as threatened (excluding the conservation dependent category) or listed as endangered or vulnerable.

<b>TAXA COVERED</b>	<b>FAMILY: Formicidae</b>
GENUS:	<b>ANNUAL QUOTA (per harvest area or stake holder)</b>
Amblyopone	1000
Anonychomyrma	1000
Aphaenogaster	1000
Brachyponera	1000
Camponotus	1000
Calomyrmex	1000
Crematogaster	1000
Dolichoderus	1000
Iridomyrmex	1000
Leptomyrmex	1000
Lioponera	1000
Mayriella	1000
Melophorus	1000
Meranoplus	1000
Monomorium	1000
Myrmecia*	1000
Notoncus	1000
Nylanderia	1000
Oecophylla	1000
Opisthopsis	1000
Orectognathus	1000



Pheidole	1000
Podomyrma	1000
Polyrhachis	1000
Pseudoneoponera	50
Pseudonotoncus	50
Pseudoponera	50
Rhopalomastix	50
Rhopalothrix	50
Romblonella	50
Rhytidoponera	1000
Solenopsis	1000
Stereomyrmex	50
Stigmacros	1000
Strumigenys	50
Tapinoma	50
Technomyrmex	1000
Teratomyrmex	50
Tetramorium	1000
Tetraoponera	50
Turneria	50

**\*The subspecies *Myrmecia sp. 17* is excluded from this proposal.**

## **Attachment B**

### **Harvest Property**

