

## WILDLIFE TRADE OPERATION – PROPOSAL FOR PUBLIC COMMENT

### **1. Title and Introduction**

**Wildlife Trade Operation Proposal - Queen Ant Harvesting Canberra Australian Capital Territory.**

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

Please refer to Attachment A, outlining the ant species subject to harvest, including common and scientific names, and the expected annual harvest quota which will not be exceeded but in most probability will be a lot less than requested.

#### **1.3 Location of harvest**

Harvest will be conducted on privately owned land in Kaleen ACT 2617 and public carparks, roads and footpaths in the same area where Ant Queen survival rate is highly unlikely. Taxa not found in the ACT will be legally sourced from other approved Wildlife Trade Operations.

Not all of these areas are harvested in the same year as capture zones are rotated. Nuptial flights occur at the same time and only one area can be harvested at a time.

The harvesting areas are on the roadside of boundary fences to bushland where marked (map not provided here due to privacy reasons). Some of these areas have not been harvested for a number of years as the species are not required due to our large captive breeding programs.

The zones are characterised as open woodland and grassland (all public non-protected bushland), public carparks, roads and footpaths in the capture zones. The full size of the zone walks would be estimated at approximately 3 to 5 kilometres in a straight line; the exact amount in acres cannot be calculated as it is a narrow line over a long distance.

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

Please refer to Attachment A for an outline of the species to be harvested. The harvest is of live adult queen ants which are newly mated and at risk of death through vehicle and pedestrian movement and wildlife consumption.

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

Ants are non-listed invertebrates and are as such unprotected under Australian Capital Territory 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 Australian Capital Territory legislation will be harvested.

### **2. Statement of general purpose goals and**

The applicant has been trading queen ants throughout Australia for some years as a personal hobby and Business model, we have received strong overseas interest for the species of ants found. The goal of this application is to seek approval for a WTO to export queen ants internationally through either our Business or a Similar Approved Business that has the same aims and goals as us, but does not have access to the local species that we can supply for export and Australian sales.

### **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:

Private property at [REDACTED] and surrounding public paths and roads where insect death is more likely.

Non-protected public land such as footpaths, roads and parks in the ACT.

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

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

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

Please refer to Attachment A which outlines the expected annual quota. This quota will not be exceeded; however, the actual harvest amount will vary depending on demand for queens.

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

All ants are harvested by hand by the applicant and supervised stakeholders. 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, rescued from water features such as pools and puddles 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 and rescue of endangered Queens is our priority.

### **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 Harvesting on the Local Ecosystem**

During harvesting, the applicant will only access a relatively small portion of Ant Queens from the catchment area, others will be sold from our ongoing Captive breeding programs. The applicant will also only harvest from areas already cleared. 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 species. This means that the harvest will have little to no impact on the sustainability of the species. 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 area had been conducted. The applicant, however, monitors the catchment area closely and has not seen any significant decrease in populations or abundance since beginning to harvest Queen ants.

## **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, 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. 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 year's data.

Ant populations are monitored on a constant basis and no decline in any of the populations in the capture zones in the past years has been noticed. Some years the nuptial flights are larger but this depends on climatic conditions and available food sources.

The local bird population has a large effect on the queens' survival rates and most queens are captured before they can be consumed by the birds.

Any nests that have disappeared in the capture Zones have been observed to be old nests where the queens have died from old age, or wildlife such as spiny ant eaters have destroyed the nest as part of their diet.

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

Any known established ant nests/colonies in the area 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 will only harvest in accessible areas of the stated catchment areas, therefore protecting native parks and surrounding bushland. The applicant and stake holders will only harvest in accessible non protected areas, therefore protecting the bushland and ecosystems.

Protection of local nests is made by not disclosing the location of the local colonies. All nuptial flights over the past 5 years have been recorded and this information is also kept as non-public knowledge as more protection for the Ants.

All queens are harvested after mating on the nuptial flight. They are carefully collected on the ground prior to digging their nesting chambers. Ants are not harvested from existing colonies or nests.

## **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, predatory animals, species competition and seasonal variations. If a decline for any harvested species is detected for any reason, collection will be revised to ensure ongoing sustainability.

## **7. Compliance**

All ants are harvested by hand and are housed individually. This means that every ant can be correctly identified. Methods of identification include general knowledge of the applicant and online resources such as [antweb.com](http://antweb.com) and Canberra Nature Map (ACT Government) Ant Identification.

Ant species are identified from the applicant's own experience and knowledge on the species combined with Ant Wiki and other google Ant sites. If a species is found that cannot be identified the CSIRO ANIC at Black Mountain ACT will be contacted. (In the past, enquiries have not elicited a response and the species has only been kept for local sales, as they are not rare but quite abundant.)

For any reason if 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 and approved Captive Breeding Programs will be exported.

Ants are generally not released after capture unless the quota numbers have been breached, if so they will be released where they were captured at a time of day that will give them a larger chance of survival.

If an Ant is deemed unsuitable or not approved for export, it may be sold to a local collector or kept by the applicant to introduce to the Captive breeding programs.

## **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.

## **9. Background Information**

Ants have been around for many years. 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 specialised 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 Alatees 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 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!

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.

## **10. Existing Stocks and Operation**

The applicant seeks to have these numbers in attachment B included in the Application.

## Attachment A

### Proposed taxa for harvest and export

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

Note: Some of the species listed below that have a larger Annual Quota are the most common in the area.

Species are listed at genus level, and at species level where possible. Some of these Genus have so many species it is difficult to identify them to species level from dead ant photos on Ant wiki.

TAXA COVERED		ANNUAL QUOTA
FAMILY:	FORMICIDAE	
GENUS	Amblyopone, including: - <i>A. australis</i>	50
GENUS:	Aphaenogaster, including: - <i>A. longiceps</i>	300
GENUS:	Camponotus, including: - <i>C. aeneopilosus</i> - <i>C. consobrinus</i> - <i>C. intrepidus</i> - <i>C. nigriceps</i> - <i>C. suffuses</i>	1000
GENUS:	Iridomyrex, including: - <i>I. bicknelli</i> - <i>I. purpureus</i>	1000
GENUS:	Myrmecia, including: - <i>M. brevinoda</i> - <i>M. forficata</i> - <i>M. fulviculus</i> - <i>M. fulvipes</i> - <i>M. mandibularis</i> - <i>M. nigriceps</i> - <i>M. nigrocincta</i> - <i>M. piliventris</i> - <i>M. pilosula</i> - <i>M. simillima</i> - <i>M. tarsata</i>	1000

**Attachment B**

Current stocks held.

<b>TAXA COVERED</b>		<b>IN STOCK</b>
FAMILY:	FORMICIDAE	
GENUS	Amblyopone	2
GENUS:	Aphaenogaster	30
GENUS:	Camponotus	500
GENUS:	Iridomyrex	70
GENUS:	Myrmecia	400