

Research report

subject

temperature and relative humidity affecting the laying of red ant eggs

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secondary grade 2/1

2nd semester 2563 academic year,

teachers, counselors

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Foreword

to research on Effect of temperature and relative humidity on egg laying of red ants Bueng Khong Longwitthayakhom School Bueng Khong Long District Bueng Khong Long Subdistrict Bueng Kan Province The result was to study the relationship between temperature and relative humidity on the egg laying of red ants. This research is a survey research. The survey was conducted from 3 red ants' nests and collected data and used the tabular record.

The organizers hope that this research will collect useful material for interested parties to analyze, process, reference and understand the effects of temperature and relative humidity. The laying of red ant eggs for further study and can be adapted to be useful in various fields to achieve the goal. If any faulty or defective Staff Mana sorry that this

Researcher

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Abstract

The purposes of this research were (1) to study a relationship of temperature and relative humidity that effected on the laying eggs of ants (2) to compare between temperature and relative humidity in and out an ant nest. This study was used Survey Research for recording the information by surveying 3 trees that the nests of red ants live. The tools were used in this research consisted of The Google Earth Program, Microscope camera, Stereo Camera, and Labquest. The results were as following: The 1st nest found that there are chrysalis of ants at 27 °C inside and 26.5 °C outside the nest. The temperature inside was higher than outside the nest (0.5 °C). There is about 65.06% of relative humidity inside and about 47.79% outside the nest. The 2nd nest found that there are a lot of big eggs at 21.2 °C inside the nest and 21 °C outside the nest. There is about 81.32% of relative humidity inside and about 60.87% outside the nest. The 3rd nest found that there are tiny eggs of red ants at 25.8 °C inside the nest and 26.2 °C outside the nest. There is about 70.81% of relative humidity inside and about 44.22% outside the nest. From results, it can be concluded that the temperature inside the nest is higher than the temperature outside the nest. But the temperature outside the nest can also be higher than the temperature inside the nest depending on the climate and the types of ants. The ants make the nest in a tree because there is many processes that affected on the laying eggs of red ants such as Photosynthesis and the process of dehydration and carbon dioxide. In addition, on a tree is suitable temperature for ants to make their nests. Therefore, this study depends on temperature and relative humidity inside and outside an ant nest.

Table of Contents

	Page
Introduction	
Abstract	
Chapter 1 Introduction	1-2
Background and Significance of the Problem	
Research objectives	
Research hypothesis (if any)	
Scope of research	
Definitions of jargon	
Benefits expected to be received	
Chapter 2 Relevant documents and research Related documents	3-4
Related research work	
Chapter 3 Research Methods	5-6

Research Plan	
Population / Sample	
Research instruments	
The procedure for creating tools	
Conducting research / data collection	
Statistics used in data analysis	
Chapter 4 Research Results	7-9

table of Contents (Continued)

Chapter 5 Summary and Recommendations	9
Research objectives	
Population / Sample	
Summary of research results	
Discussion of results	
Recommendations	
bibliography.....	
Appendix	

Chapter 1

introduction

1.1 Background and rationale

Bueng KongLong wittayakom school, , Bueng KongLong District, Meng District, Bueng KongLong District, bueng Kan Province, is located in Northeast Thailand. Thailand is a plateau area with rich mountains, rivers and forests. The habitat of big animals, because there are many trees, many animals need a habitat. In this regard, ants need to establish a tree for protection and proper temperature and humidity. Nestlike

Ants are natural trees that love trees. Trees are repeated processes of photosynthesis and carbon dioxide. Therefore, the increase in the number and number of nests is necessary. The function of the nest is to combine one original nest with another. However, low evolutionary ants will mate on the ground and live after mating. There is a suitable space to create, which is a different species of ants, and then begins rebuilding when looking for a place. The first spawning is a small group. The nest that spawns for the first time will provide food. This is an early embryo developed into a lactation period. When more ants work, banfepaya will spawn and control behavior in the nest. Air, temperature, humidity, and mating have more influence on mating. Male and female offspring prefer laying eggs in summer than in rainy season and winter. Therefore, the weather is unstable. This depends on the appropriate temperature and humidity, which may affect spawning spiders.

The results show that temperature and relative humidity

Purpose of this study

The aim of this study is to study the effects of temperature and relative humidity on the spawning of red ants.

Comparison of temperature and relative humidity

hypothesis

1、 Internal temperature. Low external temperature.

The relative humidity in the room is low.

Research scope

In the school of wittayakom, Bueng KongLong village, Meng District, Wengan Province

Content scope

The effect of temperature and relative humidity on spawning

The population of this study is Bueng KongLong, wittayakom school

definition

Temperature is the physical property of heat and cold.

Relative humidity is the ratio between the volume fraction of water in the air and saturated water. Percentage of average temperature.

All eggs have three characteristics: black ant eggs.

Expected benefits

You can create your own scene

Spawning can be done in other seasons.

Chapter 2

Literature research

The purpose of this study is to study the effects of temperature and relative humidity on egg yolk. Relevant studies are as follows

Related documents

Red ant

Red ant egg

Temperature and relative humidity

Red ant

Red ants are a small pollution in agriculture, but most people don't know its benefits. Red ants don't care. Red ants help to protect many pests, such as aphids, worms and other pests. The life style of red ants is to live in a colony.

Her majesty 41 holmium of the Mekong River has a bigger shape than red. Its body is green, brown and has wings. It has a similar oviposition function. When I see that the environment is not suitable for building an abandoned egg, I will give up the original nest. Eggs are completely water. Food is green, thick, opaque and safe.

Red ants can't make it clear that red ants are nurses or red ants, because red ants can work. The completion of these three cases: building a house, nurses, larvae and ants fighting. Hurt your body.

The breeding of red spider begins in the same nest of eggs. The number of eggs is not much, about 100-500. In all egg numbers, there are three characteristics.

A very large egg hatches into a mother

The egg is a very small, immature egg that hatches into an ordinary red spider when all the eggs hatch. More and more red ants will increase rapidly because of the support of their mothers.

Water and food

Black ant eggs, black little eggs

Temperature and relative humidity

Temperature: temperature 41 refers to the average measurement of kinetic energy, which is made by atoms or molecules of matter when we put energy. The heat-treated material moves faster, leading to higher temperatures, but when we reduce the heat, the material increases.

slow down

Humidity: humidity, that is humidity, refers to the amount of water vapor in the air. The moisture in the air is constantly changing, very or depends on the cow. The relationship between humidity and humidity“ The relative humidity ratio of "saturated air" or "actual vapor pressure to saturated vapor pressure" at the same temperature express in percent

Related research

Chapter 3

Research Methods

Subject research Temperature and relative humidity influencing red ant laying.

Researchers have conducted research. The steps are as follows:

1. Research plan.

This research is a survey research

purposes. The temperature and relative humidity affect the ant's eggs

2. The population / sample

population nests of red ants

sample. Species of red ant eggs in the area of Bueng Khong Long Witthayakhom School.

3. Research tools

- google earth program
- microscope attached to the phone
- stereo camera-
- labquest

4. Research / data collection.

- Measure outside temperature and humidity inside the nest
- Look at the characteristics of the red ant eggs and take pictures of the red ant eggs
- record the results

Data analysis

In this study to study the effect of temperature and relative humidity on the laying of red ants.

The researcher has performed various analyzes as follows.

- define tool
- Design a table to save results
- Study the types of red ant eggs.
- start to study
- analysis of ant eggs and found the outside temperature and the relative humidity inside the nest
- a record result.

Chapter 4

Findings

The researchers analyzed the following data (the relationship of temperature and relative humidity affecting the egg issuance of red ants).

Table 4.1 table shows the relationship of temperature and relative humidity that affects the issuance of eggs of red ants.

Red Ant Nest	Types of eggs found	Temperature inside the nest (DegreeCelsius)	Temperature outside the nest(DegreeCelsius)	Relative humidity inside the nest	Relative humidity outside the nest
Nest 1	Egg yolk pupa	27 degrees	26.5 degrees	65.06%	47.79%
Nest 2	Lots of eggs.	21.2 degrees	21 degrees	81.32%	60.87%
Nest 3	Egg Deposit	25.8 degrees	26.2 degrees	70.81%	44.22%

Objective 1 To study the relationship of temperature and relative humidity on the egg laying of red ants. From Table 4.1, it was found that the nest 1, the type of eggs found was the red ant egg chrysalis. The temperature inside the nest is 27 degrees, the temperature outside the nest is 26.5 degrees, the relative humidity inside the nest is 65.06%, the relative humidity outside the nest is 47.79%. 60.87% nest 3 types of eggs found are deposited eggs, the temperature inside the nest is 25.8 degrees, outside temperature 26.2 degrees, relative humidity inside the nest 70.81%, the relative humidity outside the nest 44.22%.

Objective 2 is to compare the outside temperature and relative humidity inside the nest.

From Table 4.1, it was found that from Table 1, the internal temperature of the nest was 27 degrees, the outside temperature was 26.5 degrees, the internal relative humidity 65.06%, the outside humidity of 47.79%, the internal temperature and relative humidity were higher than the outside temperature and relative humidity 2, the internal temperature of the nest. Is 21.2 degrees, the outside temperature is 21 degrees, the relative humidity inside the nest is 81.32%, the internal relative humidity is 60.87%,

the 3rd temperature inside the nest is 25.8 degrees, the outside temperature is 26.2 degrees, the relative humidity inside the nest 70.81%, the relative humidity outside is 44.22%, the temperature inside the nest is lower than the outside temperature. nest

But the relative humidity inside the nest is higher than the relative humidity outside the nest.

Chapter 5

Conclusion and Recommendation

Research findings

This research is to investigate the relationship between temperature and relative humidity on the egg laying of red ants. It is a survey research. From the survey results from 3 nests, it was found that nest 1 found Mae Peng (Nang Phaya) at the temperature inside the nest higher than the outside temperature. And the internal relative humidity was higher than the outside relative humidity of the second nest. Mae Peng eggs were found at higher internal temperature, higher internal temperature than outside temperature. The temperature inside the nest was lower than the relative humidity inside the nest. And the internal relative humidity is higher than the outside relative humidity. The egg laying of red ants must be subject to optimum temperature and relative humidity. In order to influence the laying of red ants,

Discuss the results

of the study on Temperature and relative humidity influencing red ant laying. An important issue that should be discussed is that the laying of red ants must have the appropriate temperature and relative humidity depending on the weather and season.

Suggestions

- In this research, the knowledge can be applied to further use in various fields. The experiment can be used in other areas
- knowledge can be used for comparative studies in different seasons.

Biography

<http://ird.skru.ac.th/RMS/file/5651.pdf>

Related Research

<https://www.hatyiaifocus.com/%E0%B8%9A%E0%B8%97%E0%B8%84%E0%B8%A7%E0%B8%B2%E0%B8%A1/430->

<https://www.hatyiaifocus.com/%E0%B8%9A%E0%B8%AD%E0%B8%81%E0%B9%80%E0%B8%A5%E0%B9%88%E0%B8%B2%E0%B9%80%E0%B8%A3%E0%B8%B7%E0%B9%88%E0%B8%AD%E0%B8%87%E0%B8%A3%E0%B8%B2%E0%B8%A7->

<https://www.hatyiaifocus.com/%E0%B8%97%E0%B8%B3%E0%B8%84%E0%B8%A7%E0%B8%B2%E0%B8%A1%E0%B8%A3%E0%B8%B9%E0%B9%89%E0%B8%88%E0%B8%B1%E0%B8%81%E0%B8%AD%E0%B8%B2%E0%B8%AB%E0%B8%B2%E0%B8%A3%E0%B8%8A%E0%B8%B1%E0%B9%89%E0%B8%99%E0%B8%AA%E0%B8%B9%E0%B8%87->

<https://www.hatyiaifocus.com/%E0%B9%84%E0%B8%82%E0%B9%88%E0%B8%A1%E0%B8%94%E0%B9%81%E0%B8%94%E0%B8%87/>

Red Ant Egg Information

<https://www.neonics.co.th/thermometers/temperature.html>

Temperature data

<http://www.lesa.biz/earth/atmosphere/humidity>

Relative humidity data

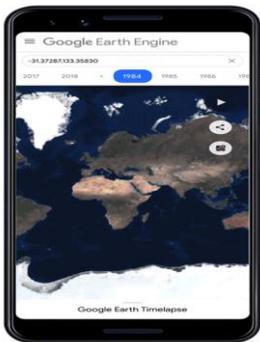
Append Image



Stereo camera



Phone microscope



Google earth program



labquest 2