Your Name

Instructor Name

Course Number

Date

Title: A day in an Ant Colony

**Introduction**

The research paper follows the ant colony and depicts it from different aspects. The ant colony, functionality, and types of different ants, how these feed and gather food are all covered in the paper. The paper provides an overview of the living of the ants in their colonies and how each group serves a separate purpose, and new colonies come into existence. It elaborates how a simple tiny ant starts its journey and in the end able to form an entire colony with a potential of millions of ant under her.

**Discussion & Analysis**

An ant-colony is a name given to the way ants live their life on a set pattern which resembles a colony. The ant colony can be described as social because ants work in groups performing separate functions. A colony consists of multiple people living together and doing their tasks. The same is the case with ant-colonies where ants live together, and each kind of ant has its specified function. Each and every ant is appointed on a different task, and they continue to do so all their life. The colonies can either be confined in a small area where only a few dozen ants are present to a huge territory that may compose of millions of ants.

*Composition*

An ant colony is comprised of queen ants that are responsible for laying eggs. At any given time, there can be one or more queen ants in a colony. Other types of ants include worker ants as well as winged ants that can either be male or female. Reproductive ants are also available in the colony. An ant colony can be of any size. The size of the ant colony depends upon many factors e.g.; season is a major component that defines the size of the ant colony as there might be more ants in winter as compared to summer. The species of the ant also affects the colony size. The whole properties of the entire colony change according to its size e.g., the nests they build, how these defend themselves, etc.

*Location*

Ants build nests to start a colony. Ant colonies can be found at different places wherever the ants feel suitable. Ant colonies can be found in a small mound of sand, or the ants create holes in the soil and live there. Many ant colonies can be found in old rotting tree trunks, under the leaves, and even under the rocks. All of this solely depends upon the condition being favorable and species of ants. Normally looking from a human's perspective, the ants are might unorganized creatures, but in reality, ants are one of the most organized creatures out there.

*Task assignments*

Each individual and is responsible for selecting its own job. Queen does not assign jobs to the ants. One factor that sets the criteria for a job is the age of the ant. The younger ants work from within the center of the nest or from near the queen where they defend their leader. The older ants are responsible for other works that involve gathering food etc. (The Ant Colony: Structure And Roles).

*Scout/Worker ants*

Scout ants are responsible for leaving their colonies in search of food for the other ants of the colony. As the food is found, the scout ants return to the colony to get help to carry food and inform the other ants about the food search by tapping on their head (Gordon 11). The ants then combine and leave to get food for the entire colony. The scout ants are part of the worker ants, as mentioned above. To keep track of the trail of the food, the ants scent the area by rubbing their abdomen wherever they go along the path. This smell becomes a reason for the guide of other ants to the location of the food. Worker ants are female. Worker ants are responsible for creating nests, looking for food, and other tasks related to the nest like protecting it, providing warmth and moisture.

*Queen ant*

As described above, the main role of the queen ant is to reproduce and lay eggs. Queen ant is identified mainly by its size as it is always bigger than the normal and. Queens are responsible for starting a colony. Once the colony starts, queen seapartes itself from the colony to reproduce and lay eggs. Other than this, the queen ant is also responsible for looking after the colony and fulfilling the needs. Another characteristic of the queen ant is that it can live for many years as compared to the other ants. When the worker ants are unable to look after the nest, it is the queen’s duty to look after it and make sure she protects her eggs and territory. As soon as the worker ants mature, they take on other tasks while queens responsibilities reduce to just laying eggs.

*Shelter and defense*

Multiple ants are able to join their bodies and form different formations. Many times ants are able to form a living ant’s nest when they join each other through their feet and jaws. Also, another formation that the ants get into is that of a bridge-like structure that helps ants to cross puddles and other areas that might normally be inaccessible. All these show the highly developed intellect of the ants and how these adapt to different situations. Ants use different means by which the colony is protected. Such formations can also be used to scare the enemies that try to invade and destroy the ant colony. Furthermore, the worker ants are also responsible for protecting the queen ant while it lays eggs.

*The lifecycle of an ant colony*

As queen lays eggs, these eggs can be divided into male ants that are mainly responsible for mating, female ants that turn out to be worker ants, and finally, other queen ants. When the queen ant reaches a certain maturity level, it leaves the current colony through a process called nuptial flight. This flight is exclusively for the mating purpose. When the conditions are favorable, the queen ants abandon their colony and begin to mate and look after its eggs. After the nuptial flight, the ants settle at a bright place e.g a roof From there on the start of a new colony takes place, where the eggs that hatch and mature turn to worker ants and the cycle continues (The Lifecycle Of An Ant Colony).

It is not always necessary that the ant takes a nuptial flight. In some species of ant, the queen never leaves the current colony and begins searching for the male partner from top of the nest. This allows the queen ant to stay at her current location being in any danger. The queen ant stays protected due to the worker ants.

**Conclusion**

Ants are social creatures where each type of ant has a set function. Ants form their colonies, and each group of ants within the colony serve it according to their jobs. The ant colony is a complex system involving many different components. Every day the process of reproduction by the queen ant and other activities like finding food, protecting the nest, etc. are all done by the worker ants.

# **Works Cited**

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