

Investigatory project about spiders microhabitat essay sample

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Spiders are air-breathing arthropods that have eight legs and chelicerae with fangs that inject venom. They are the largest order of arachnids and rank seventh in total species diversity among all other orders of organisms. an eight-legged predatory arachnid with an unsegmented body consisting of a fused head and thorax and a rounded abdomen. Spiders have fangs that inject poison into their prey, and most kinds spin webs in which to capture insects (Wikipedia, 2015).

Anatomically, spiders differ from other arthropods in that the usual body segments are fused into two tagmata, the cephalothorax and abdomen, and joined by a small, cylindrical pedicel. Unlike insects, spiders do not have antennae. In all except the most primitive group, the Mesothelae, spiders have the most centralized nervous systems of all arthropods, as all their ganglia are fused into one mass in the cephalothorax. Unlike most arthropods, spiders have no extensor muscles in their limbs and instead extend them by hydraulic pressure (Wikipedia, 2015).

Spiders are practically everywhere. They live on nearly every continent and are part of every common ecosystem imaginable. Spiders may look small and insignificant — OK, and kinda creepy — but they're important predators and prey for a multitude of other animals. As any horticulturalist can tell you, they're great garden allies, too (Wikipedia, 2015).

Objectives of the Study

The study generally aims to determine the microhabitat of spider found in Inawaan, Batangan, Valencia City, Bukidnon. Specially, it aims to:

1. describe the microhabitat of spiders found in Inawaan, Batangan, Valencia City
2. identify the spiders found in the area
3. determine the conservation status of the spiders
4. find out the abundance, distribution and richness

Significance of the Study

The result of the study is to know about microhabitat-utilization and web-construction behaviors of these spiders, first objective was to characterize patterns in microhabitat utilization and web construction by these spiders in the field. Analyzed through quantification of microhabitat. Therefore sought to understand the potential impacts of microhabitat selection.

Scope and Delimitation of the Study

There are many organisms living there mostly spiders. The microhabitat which are among diverse for spider. Their potential usefulness in 23 biological control highlights the need to quantify and understand their behavior. It was necessary to combine field collections and measurements with molecular gut-content analysis. Which allows insights into the importance of specific spider.

REVIEW OF RELATED LITERATURE

Microhabitat Selection in Small-bodied Arachnids

Global climate change is impacting ecosystem dynamics planet wide and has the potential to impact crucial behavioral patterns of animals. Wolf spiders

are small-bodied, cold-blooded predators with behavioral performance tied to body temperature, which in turn depends on air and substrate temperature. Spiders have been observed to behaviorally regulate their body temperature, but this is largely unexplored in wolf spiders (Roberts, 2009). Our aim is to study behavioral thermoregulation and microhabitat choice in wolf spiders. Our methodology uses an integrative approach to discover if there is an optimal temperature preferred by these organisms, or if there is tradeoff in time spent on multiple temperature zones. The methods and materials developed in this project will be useful to researchers for further analysis of temperature-dependent behavior of small-bodied organisms. The data collected will provide information relevant to microhabitat selection in nature and the potential effects of a changing climate (Roberts, 2009) .

Venomous (or Poisonous?) Spiders

Almost all spiders are venomous. That's how they hunt. Most spiders are too small, or their venom too weak, to be dangerous to humans. Some spiders are pretty well known and seem to get blamed for most of the spider bites out there. In the United States, black widow spiders are often considered the most venomous. Other countries have a widow spider called the red-back spider. It's a good idea to consider any shiny black spider with a red mark to be in the widow family (Brouhard, 2014). Another type of widow spider, the brown widow, generally has a weaker toxin and can be found worldwide. Brown recluse spiders have garnered plenty of attention in the last several years. Despite the large wounds often associated with brown recluse (Brouhard, 2014). The Body of a Spider

Spiders have two body segments. The front segment is called the Cephalothorax. The spider's eyes, mouth fangs, stomach, brain and the glands that make the poison are on this part of the body. The legs are connected to this part, as well. Most spiders have eight eyes, but some have less. Spiders also have these tiny little leg-ish things called 'pedipalps' that are beside the fangs. They help to hold prey while the spider bites it. The second part of the body is called the Abdomen. The back end of the abdomen is where the spinnerets, the silk producing glands, are. The spider's body has an oil on it to keep the spider from sticking to its own web. Spider's legs are covered with many hairs. The hairs pick up vibrations and smells from the air. At the end of the legs are, at least, two small claws. Spiders have 48 knees. Yup, count them...eight legs with six joints on each (Resua, 2000).

Spiders do not have a skeleton inside their bodies. They have a hard outer shell called an 'exoskeleton'. Because it is hard, it can't grow with the spider. So young spiders need to molt, or shed their exoskeleton. The spider must climb out of the old shell through the cephalothorax. You can imagine how hard it must be to pull all those legs out! They are pretty helpless at this point. Once they are out they must stretch themselves out before the new exoskeleton hardens. This gives them a bit of growing room. As adults, they stop growing and do not need to molt. Male spiders are usually smaller than females (Resua, 2000).

METHODOLOGY

The following methods were done to differentiate the morphology of spiders order in Inawaan, Batangan, Valencia City Bukidnon.

Research Design

The study will employ a purposive sampling in order to document the species variety, environmental prestige of the spider and most of all their microhabitat

Entry Protocol

A formal letter will be used to the in-charge of the forest.

Place and Duration of the Study

The study will be held in Valencia City specifically at Inawaan, Batangan, Valencia City launching 3 sampling plots. In classifying different type of Spiders and describing their microhabitat there will be more study stations and these station are all located at Inawaan, Batangan, Valencia City Bukidnon. In every station there will be specific distance cover. From every station there will be specific meter apart. The sampling of spiders will start at a specific day. Since spiders are available every time it will be conducted from a specific time. We also investigate the specific abundance, distribution and richness

Establishment of the Study

There will be a total of specific sampling stations establishing. Each study will be specific m away from each other. Calibrated Map is used for indication.

Habitat Determination

The sampling will be conducted at Inawaan, Batangan, Valencia City Bukidnon. Since spiders are available every time they are capable of living in a forest.

Sampling and Collection of Spiders

Sampling of spiders consists of specific stations. Collecting of spiders probably use specific object for trapping and direct capture.

Identification and Classification of Spiders

Captured spiders will identified by the use of taxonomy a study of classification in grouping organism based on shared features. Likewise nomenclature it is the assigning of names to organism in scientific classification system taxonomy. Websites and Books will also be used in identification and classification spiders. Those specific numbers will serve as our reference in order to achieve objective number one classifying and describing species of spiders in Inawaan, Batangan, Valencia City Bukidnon. Spiders will be measured according to the length of their legs, body length and arm length.

Documentation of Spiders Abundance, Distribution and Richness

The documentation in each area will be asses by the total number of species caught. The total number of spiders captured in every stations will added and the average results will be the basis of documenting the abundance, distribution and richness of the spiders inhabiting the cave.

Assessment on the Ecological Status of Spider

Sampling methods and the evaluation of spider also data gathered in the cave will serve as reference of our study in order to assess the ecological status of spider in Inawaan, Batangan, Valencia City Bukidnon if there are threatened spiders, endangered bats in the said forest.

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