American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

Journal Website: https://theusajournals.com/index.php/ajbspi

Research Article

GENERAL UNDERSTANDING OF THE ENVIRONMENT WHERE INSECTS LIVE

Submission Date: April 20, 2024, Accepted Date: April 25, 2024,
Published Date: April 30, 2024
Crossref doi: https://doi.org/10.37547/ajbspi/Volume04Issue04-05

E.K. Zoldasbaeva
2nd year student of biology education, Nukus State Pedagogical Institute named after Ajiniyaz, Uzbekistan

ABSTRACT

This article describes the diversity of insects and their world, the practical use of insects and the use of pest control methods in agriculture, the life functions of insects, their behavior, and population dynamics.

KEYWORDS

Entomology, soil-dwelling insects, soil-borne insects, parasitic insects, beneficial insects.

INTRODUCTION

Insects are diverse and important in nature. They are whole dryness possessed; especially my name subtropical in the lands a lot spread Most of them here, line types in the water lives, some of them life soil with depends Insects different products with feeding in nature in the metabolism of substances participation is enough of insects very a lot types plants pests; animals and to people harm brings The animal also plays an important role in plant pollination, pest and weed control (see Entomophages); bees, silkworms, lacquer chervets provide valuable products from beneficial insects; some are food sources for hunting animals. The diversity of insects and their world is studied by the science of entomology, the practical use of beneficial insects and the methods of combating harmful insects are studied by the science of agricultural entomology. Ambient temperature. Climatic factors - heat, light, moisture and air movement play an important role in the creation of living environment among abiotic factors, especially for insects, the heat thermal factor plays a big role. Because insects cold-blooded - poikilotherm organism, that is constant to the

American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

temperature have it's not. That's why for of insects life function, their character growth rate, population dynamics external environment temperature with is determined. Insects are usually mobile at temperatures between 10-40C, when the temperature drops, insects stop moving after feeding and die. An increase in temperature above the norm also has a negative effect on insects. Temperature also affects the maturation of the sexual product of insects. After hatching, the Swedish oat fly lays eggs after 10 days at 22C, and 50 days at 7C-14, 14C-36 and 4C.

Aquatic insects. Many different insects live in clean waters. Some of them spend their whole lives on the ground, others only in the larval stage, and as they develop, they move to the air environment. Water insects are protected from moisture: their bodies are covered with a thick pile layer, a waterproof shell or a layer of fat. But this does not prevent some from flying beautifully. Water insects need to store oxygen to live underwater. Breathing patterns vary by species. Most aquatic larvae breathe through their gills, which are small "pouches" under the skin. They absorb oxygen from the water through the surface of the body. Thus, this method of breathing is characteristic of dragonflies and mayfly larvae. Mosquito larvae hang on the surface of the water and take oxygen from the air with the help of special respiratory tubes. and stores them under the elytra or in the villi covering the body. One of the brightest representatives of aquatic insects. The dragonfly has a wingspan of 3 cm and can be found along rivers and near fresh water. Dragonfly larvae, unlike adults, live in water and feed on small aquatic insects. She is a monster like her older sister. Aquatic insects They are a group of organisms belonging to the class phyllum arthropoda and class insecta that exhibit morphological adaptations for living in an aquatic environment. These adaptations can be in the aquatic environment only in the first stages of life or in its entire cycle. Insects are the most diverse group of animals in terms of the number of species, morphological, ethological (behavioral) and physiological diversity. More than 1 million described species are able to eat a wide variety of foods and feed on a wide variety of organisms. Evolutionarily, insects are thought to have moved from terrestrial to aquatic environments. These organisms (about 30,000 species) were found in freshwater basins, rivers and lakes in potentially exploitable environments and almost without competition, which was not the case in the marine environment. In this latter environment, they had to compete with groups such as crustaceans. Therefore, they did not thrive in the sea. Now the adaptations that allow insects to be successful in aquatic environments are:

Swimming for changed legs (for example, oars to hear forms).

- on the legs swimming mushrooms (to hair similar structures).
- to swim facilitating belly flattened.

American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

- Foot or belly space substrates holding stand up for changed.
- them to the substrate to stick possibility giving pacifiers.
- Hydrodynamic the body forms.
- water under shelters to build for of silk use
- Complex vital cycles, that is on the ground never when not larva stage in the water develops.
- Some in types blood rotation oxygen in the system (hemolymph). to keep possibility giving hemoglobin there is.
- In some clay such as high level developed breath get structures there is.
- Some organisms dive to do for the air bubbles they use Water insects basically lakes, rivers, small temporary water basins and phytotelmata (plant water containers, for example, a tree body and leaves) as sweet water in the basins spreads; very little part the sea and estuary in the environment success won. They in oxygen- rich waters, mainly a pollutant in substances wide spread They are different various pH changes with in the water to live patience they do They are at temperatures below 40 ° C to live can Some stream, stream or the river such as in streams, others while steady or slowly movable in the waters they live Pelagic, benthic and neuron types there is : others while to snorkel similar to structure have Aquatic insects are distributed mainly in freshwater bodies such as lakes, ponds, rivers, small temporary ponds, and phytotelmata (plant water vessels, such as tree trunks and leaves); very few have succeeded in marine and estuarine environments. They are different various pH changes with in the water to live patience they do They are at temperatures below 40°C to live can Some stream, stream or the river such as in streams, others while steady or slowly movable in the waters they live Pelagic, benthic and neuron types there is. Pelagics water column planktonic organisms (some Diptera larvae if) or nektonic organisms as they live, that is they are active swimming and currents overcame to pass able They are with the fund depends has been are organisms. Benthic water insects muddy, stony and sandy bottoms with connected lives They are most of the time substrate digging, stones under refuge to find or water of plants stems and roots with lived and fed. Dry insects like, in water living insects are also herbivores (plant and vegetables) and carnivore (other animals) with is fed. From this and ecological point of view from the point of view eating types very is different, therefore for water insects with plankton (planktophages), detritus (detritivores). edible representatives has been say organisms need predators and parasites.

Soil in the environment occurring insects. Useful nematodes in the soil living harmful of insects all stages looks for and kills They are in the soil living insects of life wide scope control to do for use can 100 insects 200 from the family more than insects pests this hashUlar chemical to pesticides natural and efficient alternative be, ladybugs, soil worms and another beneficial garden

American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

insects such as aimless to species never how harmful effect does not show. Finally, the parasite nematodes or their symbiotic bacteria vertebrate in animals development possible about never how evidence no. This makes it safe and environmentally friendly to use nematodes in insect pest control. The United States Environmental Protection Agency (EPA) has ruled that nematodes are exempt from registration because they occur naturally and do not require human genetic modification. Beneficial nematodes are soil-dwelling insects that are present at any time of the year. can be applied when soil temperatures are above 52-°C during the day. Target pests include: Cucumber beetles, grubs, weevils, strawberry rootworms, may beetles, masked beetles, cranberry rootworms, flea beetles, weevils, and Japanese beetles. weevils, strawberry root and black vine borers, chafer, squash bugs, leaf beetles, cucumber beetles,, white grubs, algal midges, black flies, potato tubeworms, mealworms, scab i beetle, corn root weevil, fire ant, sting bugs, pine beetle, grubs, gypsy moth, corn rootworm, billbug, Colorado beets, ants and termites (applied directly to mounds and nest sites) and many other deep soil insects. They are very effective when the pest is widespread in the soil, because they break through the insect's skin and kill adult fleas in the yard, pet areas, and soil. It is most effective against flea larvae and caterpillars in lawns, garden soil, and under trees where the larvae pupate. They wait to ambush pests that live on the surface. Steinernema is the most studied species for insect control. The insect has a "tooth" to penetrate the body wall and pores. Many species of fly larvae are important soil pollinators. They are restricted to moist conditions rich in organic matter. Some larvae are carnivorous and have adaptations to reduce moisture loss that occurs in drier conditions (Teskey, 1990). Mosquito larvae greatly affect the rate of carcass decomposition. Various types of worms in combination with certain types of beetles significantly accelerate the rate of decomposition. When Payne (1965) used a window screen to exclude insects from decaying carcasses of piglets, the carcasses were mummified and decomposed more slowly than those exposed to insect attack. Fly larvae court It is also important in entomology on the ground their identification a person of corpses scientist the time in determining help will give. Arthropods can be divided into groups of shredders, carnivores, herbivores and fungi feeders according to their functions in the soil. Most soil-dwelling arthropods feed on fungi, worms, or other arthropods. Fewer root feeders and shredders of dead plants. As arthropods feed, they aerate and mix the soil, regulate populations of other soil organisms, and break down organic matter. Many large arthropods commonly found on the soil surface are shredders. Shredders chew up dead plant matter while eating bacteria and fungi on the surface of the plant matter. Most a lot shredders are millipedes and sowbugs, as well as termites, some ticks and roaches. Village economy in the soil, grinders

American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

enough level dead plant article don't be The abundance and diversity of soil fauna decreases significantly with soil depth. All soil of types big part the most high three inches with limited. of these creatures most of them limited to mobility have and probably "cryptobiosis," "discontinued animation "state" to them temperature, humidity or from land safe to stay help gives, etc without fatal will be or, alive roots with feeding on pests rotation General the rule as, greater species soil on the surface active be, plants, plant scraps, wood or stones under temporary shelter looks for This of arthropods most of them each day above grass plants inside or even of trees on top food get for goes

A parasite insects. Malaria mosquitoes - malaria of triggers carriers. Malaria and common mosquitoes are bloodsuckers, and their larvae, which develop in water, feed on microorganisms and suspended organic debris. Larvae breathe atmospheric air with a breathing tube. The malaria mosquito can be distinguished from the common mosquito by its landing position: the common mosquito holds its body parallel to the surface on which it sits, while the malaria mosquito holds its body at an angle. Their larvae are also different. Larvae of malaria flies rise to the surface, holding the body parallel to the surface film of water, and normal mosquito larvae - at an angle to it. To reduce the number of malaria mosquitoes, swamps are drained, and fish are raised that feed on mosquito larvae and pupae. They play an important role in reducing the number of mosquitoes. Natural enemies are insectivorous birds (swallows, swifts) and the female louse lays up to 300 eggs in her life and attaches them to her hair or clothes threads. Lice elongated oval white-yellow eggs called nits. Fleas are a plague of pathogens carriers. Cholera microbes flea to the body rats, land squirrels and the plague with sick another rodents as well as humans blood to ask through enters U y mosquitoes people in their houses, garbage dumps, houses animals with on farms habit of living. They are soldier eggs, typhus fever, dysentery, cholera pathogens take they walk The fall of Zhigalka appears in residential buildings from the end of summer, and painful bites are familiar to many. It can carry the pathogens of a dangerous disease such as anthrax. African tsetse flies carry trypanosomes - the causative agent of sleeping sickness, which is fatal to humans.

REFERENCES

1. Кимсанбоев Х.Х. ва бошқалар. «Умумий ва қишлоқ хўжалик энтомологияси» «Ўқитувчи» Т. 2002.
2. Bekbergenova Z.O., Jumanov M.A. Entomologiya, Toshkent: Noshir nashriyoti, 2018
3. 3. S. Dadaev «Entomologiya» Oliy o'quv yurtlari biologiya yo'nalishi talabalari uchun o'quv-uslubiy qo'llanma. Guliston-2015
4. Бей-Биенко Г. Я., Общая энтомология. 3 изд. - М.,- 1980 г., 432 с.
5. Захваткин Ю. А., Курс общей энтомологии. 2 изд - М., -2001 г.,360 с.

American Journal Of Biomedical Science & Pharmaceutical Innovation
(ISSN – 2771-2753)
VOLUME 04 ISSUE 04 PAGES: 28-33
SJIF IMPACT FACTOR (2022: 5. 705) (2023: 6.534) (2024: 7.7)
OCLC – 1121105677
Publisher: Oscar Publishing Services

6. Муродов С.А. Умумий энтомология курси. - Тошкент,- 1986 й., 286 б.
7. Росс Г., Росс Ч., Росс. Д. Энтомология. - М.: Мир, 1985 г., 448 с.
8. B.A.Sulaymonov, A.R.Anorbayev, Sh.A. Maxmudova, M.M.Ablazova «Umumiy entomologiya va zoologiya» «Fan va texnologiya» nashriyoti 2019