



Fireflies are on the Verge of Extinction in Ambikapur district Surguja, Chhattisgarh, India

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ABSTRACT

Fireflies are disappearing all over the areas in current village-manikprakashpur, Ambikapur district surguja and its believed to be because of human encroachment on habitat and climatic change, exposure to pesticides ,poor water quality, habitat degradation, increased light pollution from development and traffic. But there are a few things you can do to help fireflies make a comeback in your area. Fireflies are some of our most beloved insect celebrated in art ,music and literature and contributing to numerous advances in medicine and our understanding of evolution, genetics & ecology for many people their incredible bioluminescent light show's bring up fond memories of childhood.

Keywords: Firefly, Extinction, Light Pollution , Climate Change , Pesticides , Loss Of Habitat , Conservation.

1. Introduction

Fireflies (family – Lampyridae) also called lightning bug found in most tropical and temperate regions love humid warm environments. Many species thrive in forests fields or the world and margins between them. Most firefly species have one thing in common standing water. They live near ponds, streams, marshes, rivers and lakes. But they don't need a lot of water to get by. There are many species of fireflies the most diversity in species is found in tropical Asia and south America and other are found all over the world from north and south America to Europe and Asia.

In India there are only about 7-8 species of fireflies left there are more than 2000 species across the world according to Smithsonian a US based magazine. They are soft bodied beetles that range from 5 to 25 mm(up to 1 Inch) in length. Its probable that fireflies larval feed on different prey from that of adult fireflies the larval are believed to be carnivorous, living off smaller insect, snails and slugs. Adult fireflies may also live on other insects, as well as pollen and plants, but it is possible that some species don't eat anything as their life span is only a few weeks long. Adults produce light and the location of the light organ varies among species and between sexes of the same species. Fireflies also love long grass at night they crawl to the tops of blades of grass and fly into tree branches to signal for mat.

Lies between 23°37' 25" to 24°6' 17" North latitude, and 81°34'40" to 84°4'40" East Longitude. In winter temperature dips to below 5°C(41°F) and in summers it rises above 46°C(115°F), 244.62 km long east to west and 67.37km broad north to south, this land has an area of about 5,732 square km (2,213square).

2. Materials Methods

Selection of site : village – manikprakashpur is 5km away from Ambikapur city it is situated on Raigah road. The atmosphere and environment of Surguja is very good for any research work we can easily observe and identify the fireflies for our project and do my work.

During my interaction with the local villagers of manikprakashpur ambikapur district Surguja. Who are staying there for more than 35-45 years. There were many fireflies in the area but there is a sudden decrease in the count of fireflies which has been noticed recently there are various reports which show that with the change in the global climatic conditions the ecological habitat and some reasons with habitat loss, light artificial, pesticides use, water pollution, light pollution, high temperature, artificial light at night, overharvest. These ecological changes might have triggered the ecological disturbance in that area.

There is evidence that fireflies have vanished from many places where they formerly were abundant due to urbanization, industrialization, agricultural intensification and other are causes of fireflies extinction. There are many efforts being carried out all over the world to protect and conserve the fireflies as well as their natural habitats.

3. Discussion

Protect, enhance or create habitat for fireflies – Avoid pesticide use, seek nonchemical pest management options. Minimize activities that could cause trampling of larvae and flightless females, which live underground and at ground level. Set aside natural areas of your yard that provide important habitat features, such as downed wood, leaf debris, and unmowed vegetation. Plant native grasses, shrubs and trees of varying heights. Enhance moisture availability and planting for shade or adding a water feature. Use path to avoid trampling fireflies. Eliminate unnecessary lighting that contributes to artificial light at night and reduce the effect of lights that must stay on.

4. Suggestion

Fireflies need in your community, work with your municipality to pass policies that promote firefly-friendly practices and local parks and natural areas to protect firefly habitat. Ensure firefly-watching sites are protected from artificial light at night, trampling and other negative impacts.

5. Conclusion

This study on the basis of our review of existing evidence taking action, we make the following recommendations for actions to conserve these charismatic insects.

REFERENCES

- [1] How stuff works ' "How do fireflies light up?" science how stuff works.com(19 January 2001).Retrieved on 22 Jun 2013.
- [2] Atkins v,et al.2017.The status of the glow-worm *Lampyrus noctiluca* L.(Coleoptera:Lampyridae) in England *Lampyrid* 4:20-35)
- [3] .Xerces society for Invertebrate conservation.
- [4] Jagran news Fri 15 July 2016 10:19 pm(IST)
- [5] Firefly.org Sigma Aldrich.
- [6] Newseu.cgtn.com Europe 2020 02.08 00:18GMT +8 ,Catherin newman by.
- [7] Firefly picture of google.
- [8] India,Chhattisgarh,district Surguja ,Ambikapur, MAP OF Google.