

Concept note- How spider museum progress?

Spiders control much dangerous disease like Malaria and Dengue. Through this museum, the women's and stakeholders will aware of the role of spiders in the house because it feeds on Mosquitoes in your house and treats you and you're with malaria and dengue illness. Spider also a very close friend of farmers because they play a very important role in the agriculture i.e pest control- they spin its web in between two crops at evening and capture the pest insect in the night and continuously feed on it.

Spider also help in the water percolation in the forest and agriculture, for ex. The spider *Geolycosa* prepare is U shape nest in the soil in the summer and escape from its nest in June when Monsoon starts. The rainwater logging in its nest and help for the water percolation. Its main property is, they secrets silk. The Spider *Nephila pilipes* commonly called as Giant wood spider secrete golden colour silk. It has more than 3 times strength as compare to Steel and Iron. Because of its many application, we are interested in developing first "National Museum of Spider" at the premises of Forest Training Institute, Chikhaldara, Vairat Road, Chikhaldara, Dist. Amravati (MS) for to creating awareness of spider in stakeholders and molecular systematic research.

As per the above importance we are targeted- Farmers, Women's, Students, officials of forest department, industrialist and Journalist..

Applications of spider

[a] Bullet-proof clothing

[b] Wear-resistant lightweight clothing

[c] Spider silk used as artificial muscle (Some spider silk contracts dramatically, up to 50 per cent, when it gets wet. Researchers are applying this mechanism to create artificial muscles).

[d] Ropes, nets, seat belts, parachutes

[e] Rust-free panels on motor vehicles or boats

[f] Biodegradable bottles

[g] Bandages, surgical thread

[h] Artificial tendons or ligaments, supports for weak blood vessels.

[i] Biological pest controlling agent

[j] Maintaining forest ecosystem and help in the Tiger conservation

[k] Indicator for forest degradation

[l] By its venom insecticide and pesticides has been prepared

[m] Chaff prepared by the silk and use it in fighter planes

[n] Drugs are prepared by the spider venom for the treatment on Alzheimer

[o] Artificial skin prepares by the silk

[p] Cured paralysis by using spider silk threads

Museum Progress strategies

- a. Through Model / Exhibits- We are prepare exhibits of....

- Spider history and evolution
- spider behaviour,
- web structures
- life cycle,
- morphology,
- systematic classification,
- rearing for farmers,
- its health applications,
- agricultural applications,
- its silk application,
- venom applications and
- Spider phobia etc.
- We also spread awareness of the importance of spiders through playing short movie and documentary through the proposed auditorium.
- How it relates to forest and agricultural ecosystems

Through Research Activities

- In the proposed plan of the museum we want to establish two research wing i.e. one for spider taxonomy and behaviour and second for spider evolution and DNA barcode.

- We are appointed 02 JRF initially for the 3-year duration on 15,000/- fix pay per month
- We also plan to organize various programs like training workshop for forest guards, RFOs and other officers
- Similarly, we also plan to organize some training workshop for health officers.
- We organized National and International conferences through this museum.
- Preparation of 6-month report through the leaflet
- Yearly, we prepare magazine, name as “Koli”- in which we are inviting some articles from spider experts, forest officials, forest guards, from farmers and from students, we also incorporate best photographs; best field observations in this magazine.

Governing body

- For the smooth working of the museum, we are planning to form a governing body for the better decision for further progress of the museum.

Yours faithfully

Dr. Atul Bodkhe
Assistant Professor,
Department of Zoology
J. D. Patil Sangludkar Mahavidyalaya Daryapur
Dist. Amravati (MS)- 444803
Email: atuleco@gmail.com
Mob. 9860432858