Diversity and Economic Importance of Scarabaeid Beetles of Sindhudurg.

Sachin V. Chorge₁, Dr. Raghunandan P. Athalye₂ and Dr. Manasi S. Chorge₃ _{1 and 2} B.N. Bandodkar College, Thane, Maharashtra, Mumbai University. ₃ Eco-Echo Foundation, Meghwadi, Lalbaug, Mumbai.





Origin

- Insects such as Honey bees, Butterflies, moths and beetles are largely associated with agriculture. Beetles are less studied positively.
- The major issues of agricultural land degradation are associated over use of chemical pesticides and fertilizers resulting in loss of healthy microhabitat.
- The Australian Dung Beetle Project (1965–1985), conceived and led by Dr. George Bornemissza. Micro habitat restoration was the byproduct of the project.

Why Scarabaeids?

- They have potential to be treated as indicator species for habitat.
- Associated with soil and nutrient cycling therefore with agriculture.
- Many beetle species associated with higher animals of conservation interest.
- Get affected due to change in land use pattern and alternation in ecosystem.
- Easy to trap, identify and study.

Study Area



Objectives

To study the biodiversity of Scarabaeid beetles in the region.

 To find whether there is any relation between agricultural practices and scarabaeid beetle diversity.

To find the important species.

Methodology

Study of beetles by using light traps and pitfall traps.

Collection of agricultural data by interviewing farmer.

 Awareness program for people in study areas about "Ecosystem Services by Insects and Sustainable agriculture"

Results

- In total 25 species were identified, in Scarabaeinae 6 species of tribe Coprini & 6 species of Onthophogini, 4 species of Rutelinae, 4 species of Citoniinae, 3 species of Melolonthinae and 2 species of Dynastinae.
- Kudal region harbours 22 species.
- Sophros sp., Holotrichia seticolis and Anomala Comma show wide distribution and population. These species showed 18.74%,17.48% and 17.40% population composition. Oryctes rhinoceros had 10.50% composition.
- The agricultural practice study revealed that use of chemical insecticides is more in Vaibhavwadi and Devgad region in orchards and sugarcane farms.
- The public awareness programs were attended by 148 farmers and 381 students in 5 sessions.





Special findings about O. rhinoceros

Larvae produce compost like material if introduced in vermicompost unit.



Adult

Larvae

Compost

Thank You