

Short Note:

Occurrence of *Cyclopelta siccifolia* (West wood) on *Holigarna grahamii* (Wt.) Kurz. From (M.S.) IndiaD K Kulkarni¹, Rani B Bhagat², S M Punalekar³ and D S Nipunage⁴¹BAIF Development Research Foundation, Warje-Malwadi, Pune-411 058.²Arts, Commerce, Science College, Pirangut, Tal. Mulshi, Dist. Pune.³Genetic Department, Agharkar Research Institute, Pune-411004.⁴K.M.C. College, Khopoli, Dist- Raigad – 410 203.

Maharashtra state, India has rich biological diversity along the Western Ghats and number of forest pockets preserved on religious grounds known as sacred groves or 'Deo-Rai' or 'Deo-Rahati'. There are about 4000 groves preserved in Maharashtra State (Deshmukh, 1999). Special features of sacred groves were reported by Vartak and Kumbhojkar (1985) specially reported huge lianas. Kulkarni and Shindikar (2005) recorded plant diversity from Shirkai sacred grove. Kulkarni and Nipunage (2009) carried out floristic diversity and ecological evaluation of 'Dhup-rahath' sacred grove from Pune district. Nipunage et al. (2009) studied ecological of sacred grove from Malshej Ghat. Nipunage and Kulkarni (2011) recorded natural regeneration from sacred grove from Ambegaon Taluka, Pune District.

However, entomological study has rarely carried out from sacred patches. Present attempt is made to document floristic wealth of sacred grove near Koynanagar area of Patan Taluka, Satara district. This sacred grove is 'Ambaichirai' in Patan Taluka. The floristic appraisal of the area was done in March 2009. However, some ecologically significant observations were recorded simultaneously.

The dense green climax vegetation of grove can be easily distinguished from other scrubby, open degraded forest surrounding it. It inhabits huge trees, climbers, lianas, shrubs and moderate ground vegetation. Trees include *Holigarna grahamii* (Wt.) Kurz., *Lagestroemia parviflora* Roxb., *Macaranga peltata* (Roxb.) Muell.-Arg., *Mangifera indica* L., *Syzigium cumini* (L.) Skeels, *Memecylon umbellatum* Burm. f. var. *umbellatum*, shrubs like *Allophylus cobbe* (L.) Raeusch., *Casearia graveolens* Dalz., *Connarus monocarpus* L., *Grewia nervosa* (Lour.) Panigr., *Holarrhena pubescens* (Buch.-Ham.) Wall. Ex. G. Don., *Ixora nigricans* R. Br. Ex Wt. & Arn., *Jasminum malabaricum* Wt., *Leea indica* (Burm.f.) Merr., *Maytenus rothiana* (Walp.) L. Callen, *Nothopegia castaneifolia* (Roth) Ding Hou, *Olea dioica* Roxb., *Psychotria truncata* Wall. climbers are *Celastrus paniculata* Willd., *Gnetum ula* Borg,

Toddalia asiatica (L.) Lamk., *Hiptage benghalensis* (L.) Kurz., Herbs are *Clerodendrum serratum* (L.) Moon, *Dalbergia horrida* Mabb., *Zingiber zerumbet* (L.) Rosc. ex J.E. Sm., *Canarium strictum* Roxb. And *Reinwardtia indica* Dumort. One of the remarkable observation done was the occurrence of stink bug, *Cyclopelta siccifolia* (Order: Heteroptera, Family: Pentatomidae) on *Holigarna grahamii*. The adults of the bug are dirty brown in colour and oval in shape. They were found in aggregates of 10-15 on the dorsal side of leaf. The detailed entomological study of the insects have been done (Sinha, 1966).

The first report of *Cyclopelta siccifolia* on host *Pongamia glabra* was made by Mac Cann (1942). Mass incidence of this insect on host *Sesbania speciosa* was reported from Coimbatore area (David and Venugopal, 1961). Varshney (1967) made observation of stink bug *Cyclopelta siccifolia* as pest on *Butea monosperma* and reported biology of insect. *Cyclopelta siccifolia* has been included under the list of insects infesting pepper. Ranjith et al (1992) reported that the bugs are serious pests of *Erythrina indica* Lamk (a popular standard of pepper) in certain areas of Kannur district, they did not attack pepper. Varma et al (2005) recorded a pentatomid bug feeding on the exotic tree *Robinia pseudoacacia* in Solan district of Himachal Pradesh. Ecobiological investigation on different host of the bug was carried out from Shimoga area by Ujwal (2004). However, there are no records of occurrence of this insect on *Holigarna grahamii*. Hence, this is the first record ever which reports the tree *Holigarna grahamii* a host plant of *Cyclopelta siccifolia*. This tree belonging to family Anacardiace, bears a lush green loft broad leaves and black bark. It is a member of moist tropical forest. The trunk and fruit yield a black viscid juice containing oleoresin which is irritant and produce blisters. (Anonymous, 1949).

This observation is a significant indication to the still unrevealed ecological linkages in many sacred groves.

Trees in sacred groves provide habitat and food for many species of birds, insects, reptiles and mammals that help to control pest population in the agro-ecosystem, promote regeneration of tree species by dispersing seeds, facilitate cross pollination of many plant species. Thus, sacred groves play a dynamic role in balancing the ecosystem including the agro-ecosystem of the region. Sahyadrimountains are reported to be safe habitat of many endangered plant as well as medicinal plants. These include *Celastrus paniculata* Willd, *Canarium strictum* Roxb, *Reinwardtia indica* Dumort., *Embelia tsjariam cottam* A. DC., *Holarrhena pubescens* Wall ex G. Don. This conservation of wild trees can be attributed to the effective management and protection by local community as religious sites. This has resulted into conservation of rare-endemic and endangered plants, rare fauna, insects which are supporting part of ecosystem. Unfortunately, modernization is rapidly changing the culture of local and tribal societies. Due to westernized urban

cultures, the institution of sacred groves conservation is losing its cultural importance among the younger generations of local communities. Local people are custodians of these groves and their culture, ceremonies, festivals are closely associated with sacred groves. It is therefore essential to understand the cultural and ecological values of groves for management purpose (Bhagwat and Rutte, 2006).

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