Ethnobotanical Leaflets 12: 487-489. 2008.

Report of Resprouting

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Issued 13 July 2008

ABSTRACT:

The resprouting of the species may be useful for the humankind. The species which are meeting heavy disturbances in their seedling stage must resprout otherwise they will lose their diversity in the community. *Prosopis* and *Morinda* are showing the great resprouting after fire incidences, but not other species.

Key Words: damage, multishoot, resprouting.

INTRODUCTION:

The death of the whole tree affects nutrient cycling, regeneration, and species richness in the particular area. Tree falls are determined by local climatic factors, physical characteristics of the substrate, and biological attributes of trees. According Del Tredici, (2001), the production of new shoot after damage to thee original shoot arising from seed is known as seedling resprouting. Fenner & Thompson (2005), observed that most tree species are having poor seed dormancy. Due to this, their seed banks are not maintained well. Seedling banks in the undisturbed forest may be maintained by seedling resprouting (Grime, 1979).While many damaged trees die, some continue to live by producing new shoots from above or below ground parts. Most of the research has centered on regeneration from seeds, seedlings, or clonal growth. Resprouting from standing broken stems might replace the lost canopy and affect the form and duration of gap regeneration faster than regeneration from seedlings. This paper deals with the resprouting of eleven dominant species of Madurai Kamaraj University Campus.

MATERIALS AND METHODS:

Study site:

Our study site is lies in 9° 55' 48″ N, 78° 7' 12″ E, Madurai, Madurai District, Tamil Nadu, India. The climate is dry and hot, with rains during October-December. Temperatures during summer reach a maximum of 40°C and a minimum of 26.3°C. Winter temperatures range between 29.6 °C and 18 °C. The average annual rainfall is 85 cm (850mm).

We noted the resprouting of 11 dominant species in the University surroundings after damages. We also screened the multishoot formation.

RESULT AND DISCUSSION:

The resprouting is seen in the following eleven species;

1. *Albizia lebbeck* (L.) Benth.
2. *Azadirachta indica* A. Juss.
3. *Crataeva religiosa* Forst
4. *Delonix regia* Reaf.
5. *Ficus religiosa* L.
6. *Hardwickia binata* Roxb.
7. *Morinda tinctoria* Roxb.
8. *Pongamia pinnata* (L.) Pierre.
9. *Sterculia foetida* Linn.
10. *Santalum album* L.
11. *Prosopis julifera*

Among the above species *Pongamia pinnata, Crataeva religiosa* and *Delonix regia* are resprouted even they met damage after high girth formation. *Azadirachta indica, Ficus religiosa, Sterculia foetida* are resprouted only when the damage is in their juvenile period. *Prosopis julifera* and *Morinda tinctoria* are having capacity to resprout even after fire incidences.

All eleven species produced multishoots. The production of multishoot promotes the species to maintain its diversity and fills in the gaps very quickly. The resprouting is a nuisance in the case of *Prosopis julifera*, because it is an invasive species. But in the case of other species it is very useful.

Acknowledgement:

We are grateful to University Grant Commission for their financial support.
We thank Mr. I. Selvam for his assistance in the field work.

References

Del Tredici, P. (2001) Sprouting in temperate trees: a morphological and ecological review. Bot. Rev. **67,** 121-140.
Fenner, M. & Thompson, K. (2005) The Ecology of Seeds. Cambridge University Press, Cambridge.
Grime, J.P. (1979) Plant and Strategies and Vegetation Processes. John Wiley and Sons, Chichester.

Plate 1. Photographs showing resprouting of the studied species.