ISSN 0970-9274
JOURNAL OF HUMAN ECOLOGY
International Interdisciplinary Journal of Man-Environment Relationship

PRINT: ISSN 0970-9274 ONLINE: 2456-6608
J Hum Ecol, 11(6): 457-461 (2000)
DOI: 10.31901/24566608.2000/11.06.04

Grasses as Bio-indicators of Air Pollution in Coal Mines of Yellandu, Khammam District, Andhra Pradesh

K. Prameela and M.A. Singara Charya

[1]Department of Botany, Government College for Women, Khammam 507 003, Andhra Pradesh, India
[2]Department of Botany, Kakatiya University, Warangal 506 009, Andhra Pradesh, India

KEYWORDS Phyto-sociological Studies. Grass Species. Bio-indicators. Air Pollution. Jawahar Khani -5 Incline. Yellandu Coal Mines

ABSTRACT The frequency, abundance and density of certain grasses were studies in three seasons in the grasslands of Yellandu coal belt regions during 1991-94. A direct impact of summer, winter and rainy seasons and air pollution due to coal dust were observed on the growth and development of grass species. *Bulbostylis barbate* and *Fimbrystylis tetragona* were recorded only in polluted sites. *Cyperus rotundus, C. castaneus* and *Dactyloctenium aegyptium* were considered to be resistant plants against coal dust emissions. *Setaria galuca* which was noticed in rainy and winter months with frequency range of forty-eighty percent was considered to be significant plant for establishing the air pollution levels in this coal belt region. Inspite of the adaptability of grasses to the changed seasons, they proved to be efficient bio-indicators of air pollution in density and abundance of these grass species also indicated certain relevant points in the estimation of pollution and subsequent use of grasses as bio-indicators.