

CHECKLIST OF THE GRASSES OF SUCHINDRUM WETLAND, KANNIYAKUMARI DISTRICT, TAMIL NADU, INDIA

D. Kiruba Christ Daslin¹, A. Ayun Vinuba², T.S. Shynin Brintha¹ and J. Lohidas^{1*}

¹*Department of Botany, Scott Christian College (Affiliated to Manonmaniam Sundaranar University, Tirunelveli – 627 012), Nagercoil, Tamil Nadu, India – 629 003.*

²*Department of Botany, Tirunelveli Dakshina Mara Nadar Sangam College (Affiliated to Manonmaniam Sundaranar University, Tirunelveli – 627 012), T. Kallikulam, Tamil Nadu, India – 627 113.*

*Author for Correspondence

Abstract

The Suchindrum wetland of Kanniyakumari district is very unique in floral diversity. It comprises of 30 species of grasses under 24 genera belonging to 8 tribes. This wetland is large source of important bioresources for local people. Therefore it is essential to protect these natural habitats.

Keywords

Grasses, Kanniyakumari District, Tamil Nadu, India, Wetlands

Introduction

Wetlands are the rich assemblage of a variety of floristic and faunistic elements contributing to the biodiversity of a region. Being a complex habitat influenced by a variety of physical, chemical and biological processes, wetlands are supporting the lives of different micro and macrophytes including phytoplanktons, algae, bryophytes, pteridophytes, gymnosperms and angiosperms and a variety of animals like fishes, amphibians, insects, reptiles, birds and mammals apart from acting as a reservoir of genetic material (Rasingam, 2009).

Many Indian wetlands provide significant contribution to the local people chiefly being the major source of water for irrigation, fish, livestock and human drink, and cleaning, as well as materials like grasses and fodders. Generally, they provide ecological, socio-economic and refreshment benefits to humans (Kiruba *et al.*, 2010; Sukumaran and Jeeva, 2011). The state of Tamil Nadu, although known for its rich biodiversity and existence of a diverse group of wetlands housing a wide range of floristic and faunistic elements, is very scantily represented by the works of taxonomic treatment of wetland plants (Sukumaran and Jeeva, 2012; Deletta *et al.*, 2018; Santhiya *et al.*, 2022) . Keeping this in view, a taxonomic survey of grasses was undertaken in Suchindrum wetland of Kanniyakumari district of Tamil Nadu.

Methodology

The study area viz. 'Suchindrum wetland' is located at Suchindrum village, Agastheeshwaram taluk, in Kanniyakumari district (Tamil Nadu). It covers an area of about 50 hectares. Extensive floristic surveys were carried out in the wetland. Specimens of grasses were collected and identified with the aid of different floras (Bor, 1960; Kabeer and Nair, 2009). The specimens were processed for herbarium. The botanical names are confirmed and upgraded according to current nomenclatural changes (TROPICOS; THE PLANT LIST).

Results and Discussion

An enumeration of plant species along with tribes and uses is given in Table 1. The analysis of floristic enumeration of grasses reveals a total of 30 species belonging to 24 genera under 8 tribes. The tribe Paniceae is dominant with 11 species followed by Andropogoneae 6 species, Cynodonteae 5 species and Eragrostideae 4 species. The family Poaceae and Asteraceae can be regarded as the most successful taxa in terms of constituent species in the wetlands. This finding corresponds to the findings proposed by previous workers (Shynin Brintha *et al.*, 2015). Of the 30 taxa of grasses recorded 27 were found to have utility value. Most of the plants were recorded to have medicinal value, with 10 species being used in traditional system of medicine to treat over 15 ailments. The findings of our study coincide with Lohidas *et al.* (2015) and they have reported that 25 different medicinal plants are used to cure the common diseases.

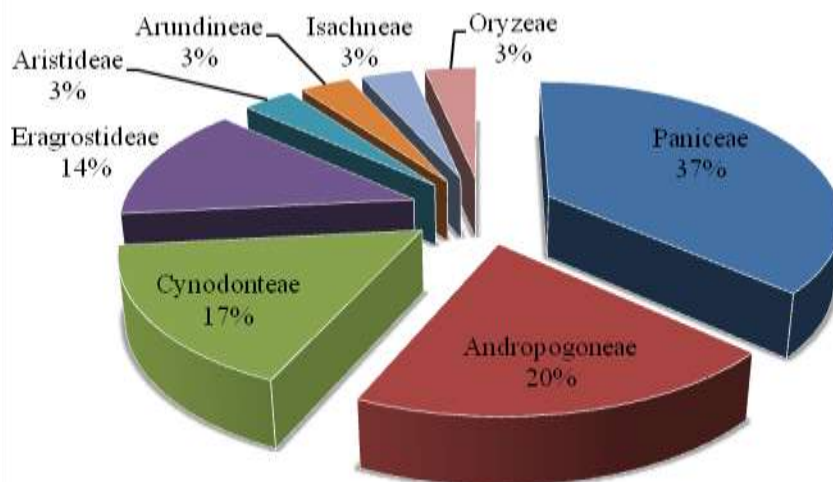


Figure 1. Tribe-wise distribution of grasses in the study area.

In the present study area, the extent and quality of water bodies are decreasing, accelerating the process of ecological succession, as the terrestrial ecosystem quickly 'invades' the wetland ecosystem. This is not an entirely natural process but anthropogenic factors play a major role. This anthropogenic 'intervention' in the natural scheme of things is wreaking havoc on the water security of the region in the longer term, as wetlands are custodians of this scarce resource.

Table 1. Enumeration of the grasses of Suchindrum wetland.

S.No	Botanical Name	Tribe	Uses
1	<i>Apluda mutica</i> L.	Andropogoneae	Forage
2	<i>Aristida adscensionis</i> L.	Aristideae	Fibre
3	<i>Arundo donax</i> L.	Arundineae	Ornamental
4	<i>Brachiaria distachya</i> (L.) Stapf	Paniceae	Forage
5	<i>Cenchrus ciliaris</i> L.	Paniceae	Forage
6	<i>Chloris barbata</i> Sw.	Cynodonteae	Medicine
7	<i>Chrysopogan fulvus</i> (Spr.) Chiov.	Andropogoneae	Forage
8	<i>Cynodon dactylon</i> (L.) Pers.	Cynodonteae	Medicine
9	<i>Dactyloctenium aegyptium</i> (L.) Willd.	Cynodonteae	Food and fodder
10	<i>Digitaria sanguinalis</i> Lam.	Paniceae	Food and fodder
11	<i>Echinochloa crus-galli</i> (L.) P. Beauv.	Paniceae	Fodder
12	<i>Echinochloa colona</i> (L.) Link	Paniceae	Food and fodder
13	<i>Eluesine indica</i> (L.) Gaertn.	Cynodonteae	Medicine and fibre yielding
14	<i>Eragrostis aspera</i> (Jacq.) Nees.	Eragrostideae	Forage and ornamental
15	<i>Eragrostis minor</i> Retz	Eragrostideae	Food
16	<i>Eragrostis tenella</i> (L.) Beauv.	Eragrostideae	Fodder
17	<i>Eragrostis viscosa</i> (Retz.) Trin.	Eragrostideae	Medicine
18	<i>Eriochloa procera</i> (Retz.) Hubb	Paniceae	Fodder and medicine
19	<i>Heteropogon contortus</i> (L.) Beauv. ex Roam. &Schult.	Andropogoneae	Medicine
20	<i>Imperata cylindrica</i> (L.) Raeusch.	Andropogoneae	Food and medicine
21	<i>Isachne miliacea</i> Roth.	Isachneae	Medicine
22	<i>Oryza sativa</i> L.	Oryzeae	Food
23	<i>Panicum repens</i> L.	Paniceae	Medicine and ornamental
24	<i>Paspalum scrobiculatum</i> L.	Paniceae	Ornamental
25	<i>Perotis indica</i> (L.) Kuntze.	Cynodonteae	Medicine and ornamental
26	<i>Saccharum spontaneum</i> L.	Andropogoneae	Medicine and thatching
27	<i>Setaria intermedia</i> Roam. &Schult.	Paniceae	Fodder
28	<i>Setaria verticillata</i> (L.) Beauv.	Paniceae	Food
29	<i>Setaria italica</i> (L.) P.Beauv.	Paniceae	Food
30	<i>Vetiveria zizanoides</i> (L.) Nash.	Andropogoneae	Medicine

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