

## Checklist of the grasses of Suchindrum wetland, Kanniyakumari district, Tamil Nadu, India

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### 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.

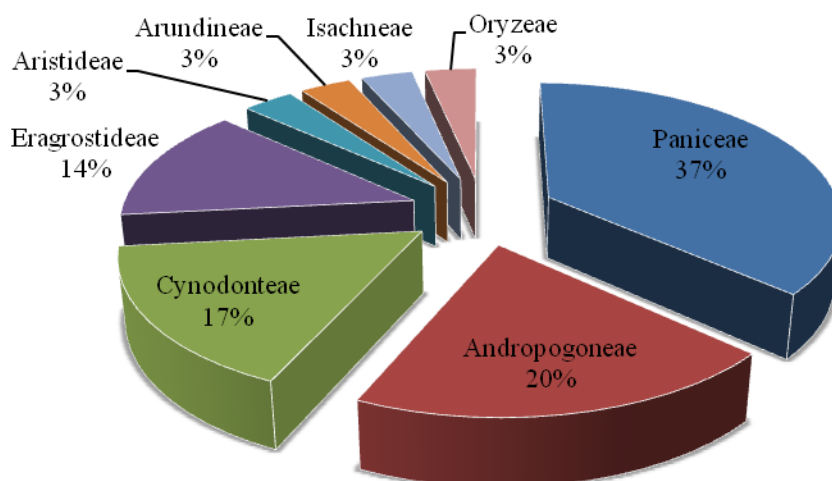
### Methodology

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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