

Checklist of Mangrove Macroalgae from Southwest, Nigeria.

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Abstract. Macroalgae epiphyton attached onto stilt roots and pneumatophores of *Rhizophora racemosa* G.F.W. Mers, *R. Harisoni* Lectimar, *R. mangle* Linn and *Avicenia germinans* (Linn) Linn at different locations in Southwest Nigeria were documented over a period of 10 years. A total of 12 taxa comprising five species of chlorophyta, three phaeophyta and four rhodophyta. Habitat modification and pollution affected their occurrence and frequency over the years.

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1. Introduction

Reports from Ajao (1993), Nwankwo (1996) and Isebor (2003) show that mangroves in Nigeria have been under severe stress. Such stress arises from their exploitation for fish fences (Nwankwo, 1991), wood extraction for smoking of fish, fuel and timber by local communities, (Moses, 1953), land modification through sand mining and sand filling that change tidal dynamics and sediment budget which trigger off coastal erosion and cause loss of mangroves.

There is pressure on land due to need for new settlements and infrastructural development. Furthermore, there is the lack of political will to guard protected areas in Nigeria. Mangroves are vulnerable to anthropogenic impacts, Nowak et al., (1988) for instance, reported the disappearance of some mangrove algae notably *Bostrychid* and *Calaglossa* on mangrove roots due to influx of organic pollutants in mangrove forests in South west Nigeria. Nwankwo (2000) documented the algae of a crude oil impacted mangrove soil in the Niger Delta. The decimation of mangrove forest implies the disappearance of suitable loci for mangrove algae. The aim of this investigation was to document the algae attached on to stilt and breathing roots of the red and black mangrove plants in South west Nigeria.

2. Materials and Methods

During hydrological surveys of the South west Nigeria coastline, macro-algae species were collected from lower wetted parts of mangrove stems, stilt and breathing roots. On each occasion, small well labeled plastic containers and persevered in 4% buffered formalin. In the laboratory, specimens were rinse in marine water, sorted and identified using appropriate text (Lawson and John 1982).

3. Result and Discussion

Macro-algae specimens collected are presented in Table 1. A total of three divisions comprising 12 taxa were identified. Of these, five species belonged to the chlorophyta, three species belonged to the phaeophyceae and the Rhodophyta comprised four species. The listed macro-algae are in alphabetical order within three different divisions, chlorophyta, phaeophyta and Rhodophyta. Attempts were made to bring names up to date as far as possible and cross referenced with original published work. Three factors seem to affect the occurrence and frequency of macro-algae taxa in the mangrove areas. These include the availability of suitable foci for attachment, appropriate tidal water intrusion and absence of human interventions. Unfortunately, the clearing of mangroves for industrialization and urbanization, the effect of crowding of littoral settlements and cultural practice have continued to impose enormous stress on the mangrove biodiversity. Apart from contributing immensely in the primary trophic level in the swamps they assist in harvesting excess carbon dioxide in the atmosphere and provide refugium for a diversity of organisms. Their prevalence in the dry months may be attributed to increased tidal sea water incursion. According to Bird and McLachan (1986) freshwater incursion dilutes sea water of coastal.

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Table 1: Checklist of Macro-algae attached onto mangrove roots in South West Nigeria

Taxa	References
Division 1: Chlorophyta <i>Chaetomorpha anternima</i> (Bory) Kutzing	Fox (1957), Steentoft-Nielson (1958), Lawson (1966), Lawson & Price (1969), John (1977), Nwankwo (1984).
<i>Cladophora montageana</i> Kutzing	Hoek (1982), as <i>C. albida</i> Fox (1957), Lawson & Price (1969), John (1977), Nwankwo (1984).
<i>Enteromorpha clathrata</i> (Roth.) A. Anardh	Fox (1957), Steentoft (1958), Steentoft – Nielson (1969), Lawson & Price (1969), Nwankwo (1984).
<i>Enteromorpha</i> sp., <i>Rhizoclorium implexum</i> (Ditto) Kutzing.	Fox (1957), Steentoft (1967), Lawson & Price (1969).
Division 2: Phaeophyta <i>Bachelotia antillarun</i> (Grunow) Fenloff	Fox (1957), Steentoft – Nielson (1958), Lawson (1966), John (1977).
<i>Dictyota ciliolata</i> Souder ex kutzing	Fox (1957), John (1977), Price <i>et al.</i> , 1978) as <i>D. ciliata</i> J. Agarah.
<i>Ectocarpus breviaticulatus</i> Agardh	Fox (157), Steentoft – Nielson (1958), Price <i>et al.</i> , (1978), Nwankwo (1984).
Division 3: Rhodophyta <i>Bostrychia simplicuscula</i> Harvey	Fox (1957) as <i>E. radians</i> Montagne, Steentoft-Nielson (1958)
<i>Caloglossa lepreurii</i> (Montagne) J. Agardh	Post (1936, 1957), John (1977)
<i>C. lepreurii</i> var. <i>hooleri</i> Post (1963)	Post (1963), Lawson & John (1982)
<i>Polysiphonia ferulacea</i> Suhr ex J. Agardh	Fox (1957).

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