

INTRODUCTION

While discussing the origin of land plants F.W. Bower opined that the green plants specially the lower cryptogams like algae are the probable ancestors of land plants. The problem of migration of aquatic plants to the terrestrial habitat was discussed and is being discussed by number of evolutionary biologists (Barnabus 1984). In her volume on "Origin of Land Plants" Graham Linda (1981), also gave the opinion regarding probable ancestry of land plants. Both of these authors in their studies have pointed out the probable candidate as a progenitor land plants towards macroscopic green algae like charophytes. Due to these possible reasons charophytes are in limelight since long time.

As a natural group charophytes have been recognized as an order of chlorophyceae showing all probable characters of chlorophyceae. The heterotrichous macroscopic organization makes them differentiated from rest of the green algae. In the beginning of twentieth century charophytes were being studied merely for their morphology and taxonomy. During the middle of twentieth century the charologists turned over the ecology and cytology of these macrophytes. By the end of the twentieth century experiments were designed to analyze the physiological and biochemical characters of the charophytes. Now a days these algae are being analyzed on the molecular basis to trace the phylogen with the other group of plants.

Charophytes are variously known as "Horsetails", "Stone warts", "Bass weed" or "Musk grass". Times are changing for charophytes and charophyte researchers. Many habitats are under threat, due to increasing demands for fresh water and the changing climate. The need to understand, manage and value elements of the natural environment is greater than ever. There is recognition that charophytes as the closest living relatives to the ancestors of land plants can inform us about that prehistoric step from water to land. The capacity for some species to tolerate fluctuating salinity can inform us about the cellular responses common to all plants. Ecological studies on extant species can inform paleontologists about past climates and climatic

fluctuations. Thus there is potential for comparative and collaborative studies that we cannot even imagine.

Twentieth century has observed a voluminous work on charophytes (Groves Webster, Zaneveld, Pal, Imahori Wood, Noor, and Subramaniam). Indian work on these macroscopic green algae has taken a step ahead. Many workers have explored the sub - continent for the charophytes. Never the less a survey of literature shows that two regions of Indian sub - continent have been extensively studied and these are the northern and southern parts of the country. The states like Madhya Pradesh, Andhra Pradesh, Maharashtra, Karnataka etc. are meagerly explored and studied for the charophytes. Few attempts have also been made to study the charophytes in Maharashtra. Still we have meager information regarding these plants from Maharashtra Hence, in order to update the knowledge of charophytes from Kolhapur district this work was taken up. The geography, climate and soil are seem to be favorable for these algae and hence extensive collections were made to understand the distribution of charophytes within the district.