A new record for the freshwater algae of Turkey

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Abstract- Volvox spermatoshaera **Powers (Chlorophyta) was recorded for the first time in the freshwater algal flora of Turkey**

***Index Terms*— Volvox spermatoshaera, new record, Turkey**

I. INTRODUCTION

Turkey is one of the most important areas with inland water resources and paleogeographic and hydrogeographic features of these resources [3]. Lake Kovada is localated in 37° , 40' North and 30° , 52' East coordinates that is in the most important karstic area of Turkey. Lake which is tectonic origin is accepted as a important wetland and among national parks in Turkey [12,1].

Algae is the most important groups in the bionta as a primer produces. Turkey build the first stair of food chain and ecological balance. Also they are important indicators in the determination of water pollution.

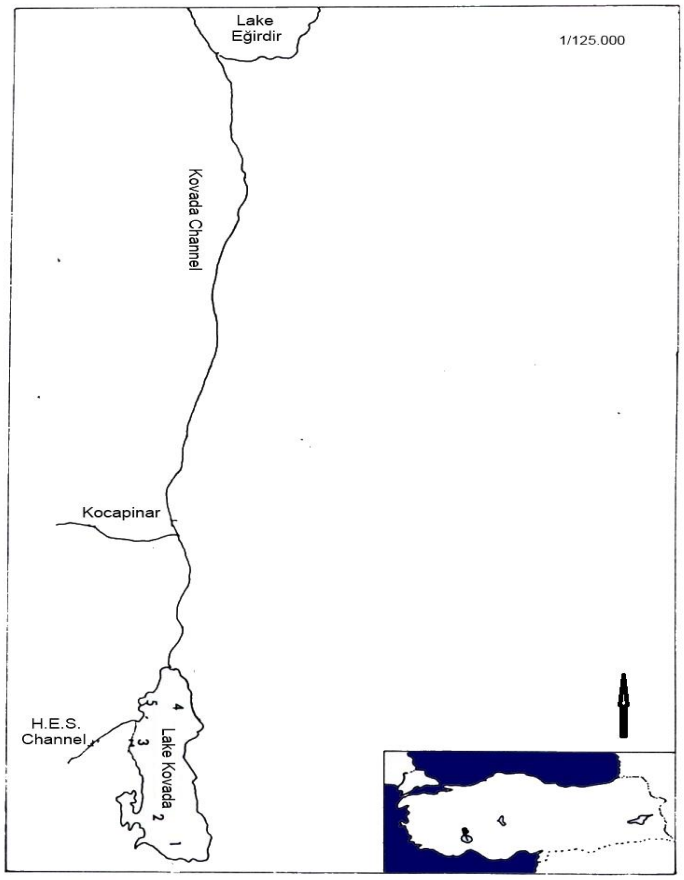

Fig. 1. Research Area and Research Stations

II. MATERIALS AND METHODS

Lake Kovada is localated in 37° , 40' North and 30° , 52' East coordinates that is in the most important karstic area of Turkey. Its surface area is approximately 900 hectare and the elevations of the lake is 904 m a.s.l. Isparta province in the mediterranean region of Turkey (Figure 1.).

Five stations were chosen in different area of the Lake Kovada. Samples were taken from these stations every month from December 1996 to November 1997 with plankton net with a pore diameter of 55µm. Samples preserved in 4% formaldehyde were deposited at the Biology Laboratory of

Eğirdir Fisheries Faculty of Süleyman Demirel University, Isparta. Identification of algae was carried out according to Prescott and Huber-Pestallozi [11,5-8]. Also the figure were taken on the collected original materials (Figure 2). Photograph was taken with an Olympus microscope. İdentified taxa were cheked with the cheklist of Gönülol [4] and Aysel [2]. The scientific names of diatoms were checked with the AlgaeBase website and determined as new taxa for Turkish algal flora[9].

III. RESULTS

A new record for freshwater algae is Chlorophyta

Chlorophyta
Volvocales
Volvocaceae
Volvox Linnaeus, 1758
***Volvox spermatosphaera* Powers 1908**

***Volvox spermatosphaera* Powers**

Sphaerial or ovate, gelatinous colonies containg as many as 1100-2600 ellipsoidal cells. Breadth of colonies : 340 µm, Cells :2,5 µm (Figure 2).

Habitat: Planctonic
Lake: Kovada Lake.
General environment: This is the freshwater species.

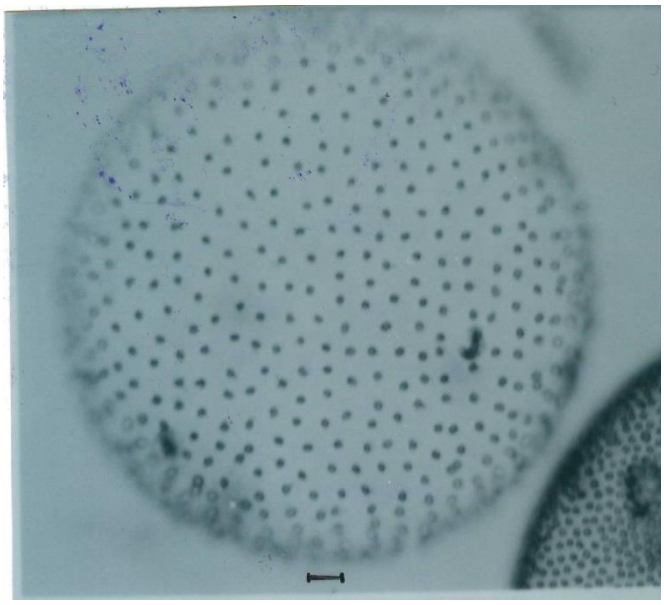

Fig. 2. Volvox spermatosphaera Powers

Volvox spermatosphaera has been found in the phytoplankton of lake. Other *Volvox* taxons (*V.aureus* Ehr.,*V. glabator* Linnaeus, *V. tertius* A. Mayer) has been told from Gediz river-basin and North Aegean river –basin and Susurluk river-basin and Bandırma/Kuşgölü- Akıntıdere and Konya closed river basin [2,4].

Algal flora studies require rigorous and long-term effort. Long-term monitoring and measuring of new records will prevent mistakes. Furthermore, for accuracy, experts need constantly updated databases [10].

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