

## Struktur Komunitas Fitoplankton di Perairan Danau Sunter Selatan, Jakarta Utara = Community Structure of Phytoplankton in the waters of Danau Sunter Selatan North Jakarta

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### Abstrak

Penelitian mengenai struktur komunitas fitoplankton di perairan Danau Sunter Selatan, Jakarta Utara telah dilakukan pada bulan April – Mei 2019. Penelitian bertujuan untuk mengetahui struktur komunitas fitoplankton seperti menghitung indeks kelimpahan, keanekaragaman, pemerataan, dominansi, dan saprobik (pencemaraan air). Metode penelitian yang digunakan yaitu dengan mengambil sampel secara horizontal dan vertikal pada bagian permukaan tiga stasiun (inlet, midlet, dan outlet), selama dua kali pada tanggal 3 dan 21 April 2019. Struktur komunitas fitoplankton di analisis berdasarkan kelimpahan, indeks keanekaragaman, pemerataan, dominansi dan saprobik (pencemaraan air). Keanekaragaman fitoplankton di perairan Danau Sunter Selatan, Jakarta Utara ditemukan 4 kelas dari 12 marga fitoplankton. Fitoplankton terdiri dari Bacillariophyceae (*Chaetoceros*, *Pinnularia*, *Synedra*), Chlorophyceae (*Closterium*, *Cosmarium*, *Staurastrum*, *Oocytis*, *Scenedesmus*, *Pediastrum*) Cyanophyceae (*Microcystis*, *Tetraedron*), dan Euglenophyceae (*Euglena*). Berdasarkan nilai indeks keanekaragaman fitoplankton secara horizontal dan vertikal berkisar 1,494 - 1,717 dikategorikan tingkat keanekaragaman sedang, indeks pemerataan berkisar 0,701 – 0,764 dikategorikan cukup sampai hampir merata, dan indeks dominansi berkisar 0,238 – 0,283 dikategorikan tidak adanya dominansi marga tertentu di perairan Danau Sunter Selatan, Jakarta Utara. Indeks saprobik atau pencemaran air pada setiap stasiun berkisar 0,066 – 0,366 hal tersebut menunjukkan perairan Danau Sunter Selatan, Jakarta Utara tercemar sedang, dimungkinkan karena pembuangan sampah dari kegiatan di area danau.

Research on community structure of phytoplankton in Danau Sunter Selatan, North Jakarta was conducted in April - May 2019. The purpose of this research was to specify the community structure of phytoplankton such as abundance, diversity index, equitability, dominance, and saprobic index (water pollution). The research method used was taking samples horizontally and vertically on the surface of three stations (inlet, midlet, and outlet), for two times on 3<sup>rd</sup> and 21<sup>st</sup> of April 2019. The community structure of phytoplankton was analyzed based on abundance, diversity index, equitability, dominance, and saprobic index (water pollution). For the diversity of phytoplankton in Danau Sunter Selatan, 4 classes of 12 phytoplankton genera were found. Phytoplankton consists of Bacillariophyceae (*Chaetoceros*, *Pinnularia*, *Synedra*), Chlorophyceae (*Closterium*, *Cosmarium*, *Staurastrum*, *Oocytis*, *Scenedesmus*, *Pediastrum*), Cyanophyceae (*Microcystis*, *Tetraedron*), and Euglenophyceae (*Euglena*). The phytoplankton diversity index by horizontal and vertical method, ranged from 1,494 - 1,717 categorized as moderate diversity index, equitability index ranged from 0.701 - 0.764 categorized as sufficient to almost even, and dominance index ranged from 0,238 – 0,283, categorized as no predominance of certain genera in Danau Sunter Selatan. The saprobic index or water pollution at each station ranged from 0,066 – 0,336, indicated that the waters of Danau Sunter Selatan, North Jakarta, are moderately polluted, which may be caused by garbage disposal from activities in the lake

area.</p><p> </p>