## Title Phytoplankton Community Structure in Banjaran River, Banyumas Regency 2 of 3 **Author Order** 2 Accreditation Banjaran River is a river that is widely used by local people for their daily needs, including for bathing, drinking water, washing, and irrigation of agricultural land. These activities will cause changes in the quality of the waters of the Banjaran River so that it will cause water pollution, especially pollution from organic materials. This pollution will cause changes in the structure of the biota community, one of which is the phytoplankton in the Banjaran River. Phytoplankton are organisms that play a role in providing nutrients and maintaining the balance of aquatic ecosystems. The purpose of this study was to determine the structure of the phytoplankton community in the Banjaran River, Banyumas Regency. The method used in this research is Abstract purposive sampling, with 4 sampling points and 3 repetitions. Sampling was carried out in April-May 2021 with an interval of 2 weeks. Data analysis in this study includes the calculation of abundance, diversity index, and phytoplankton dominance index. The results showed that the abundance of phytoplankton in the Baniaran River was 453-720 individuals.L-1. the diversity index was 1.97-2.25, and the dominance index was 0.13-0.18. These results indicate that the structure of the phytoplankton community in the Banjaran River is in moderate diversity and there is no particular species that dominates in these rivers.Keywords: Phytoplankton, Banjaran River, Aquatic Ecosystem. Publisher Name Fisheries and Marine Science Faculty - Jenderal Soedirman University Publish Date 2022-04-18 **Publish Year** 2022 Doi DOI: 10.20884/1.oa.2022.18.S1.976 Citation Journal Omni-Akuatika Source Source Issue Vol 18 (2022): Omni-Akuatika Special Issue 4th Kripik SCiFiMaS Source Page 31-36 Url http://ojs.omniakuatika.net/index.php/joa/article/view/976/374 Author SESILIA RANI SAMUDRA, S.Pi, M.Si

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