

FRANDY RADIATMAN_210351100070 Struktur Komunitas Plankton Pada Area Penangkapan Ikan Sili (*Macrognathus* sp.) Di Aliran Sungai Bengawan Solo, Kabupaten Solo. **Dibawah bimbingan ibu Dr. Indah Wahyuni Abida, S.Pi., M.Si.**

ABSTRAK

Ikan Sili (*Macrognathus* sp) adalah ikan air tawar yang hidup di sungai dan mulai langka keberadaannya akibat perubahan kualitas air dan aktifitas penangkapan. Perubahan kualitas air ini akan direspon oleh organisme primer yaitu Plankton yang berada di kolom air. Penelitian ini bertujuan untuk mengkaji kualitas air dan kelimpahan plankton pada habitat ikan Sili di Sungai Bengawan Solo, Kabupaten Lamongan. Pengambilan sampel dilakukan dengan metode *purposive sampling* di tiga stasiun, masing-masing dengan tiga kali pengulangan pada bulan November–Desember 2024. Hasil pengukuran kualitas air secara *in-situ* menunjukkan nilai pH 7,59–8,9, DO 2,9–10,81 mg/L, suhu 29,8–36,2°C, salinitas 0 ppt, dan kecerahan 16,75–25 cm. Pengukuran *ex-situ* menunjukkan kandungan fosfat sebesar 0,548–1,640 mg/L dan nitrat 0,211–2,539 mg/L. Plankton yang dominan adalah *Chlorella* sp dari kelas Chlorophyceae dengan kelimpahan 100.000–185.000 ind/L.

Kata Kunci: *Macrognathus* sp, Plankton, Sungai Bengawan Solo, Kualitas air

FRANDY RADIATMAN_210351100070. Plankton Community Structure in the Fishing Area of Sili (*Macragnathus* sp.) in the Bengawan Solo River Flow, Solo Regency. **Under the supervision of Dr. Indah Wahyuni Abida, S.Pi., M.Si.**

ABSTRACT

Sili Fish (*Macragnathus* sp) is a freshwater fish that lives in rivers and has become increasingly rare due to changes in water quality and fishing activities. These changes in water quality are responded to by primary organisms, namely Plankton, that live in the water column. This study aims to assess the water quality and plankton abundance in the Sili fish habitat in the Bengawan Solo River, Lamongan Regency. Sampling was conducted using purposive sampling method at three stations, each with three repetitions, in November–December 2024. The results of in-situ water quality measurements showed pH values ranging from 7.59 to 8.9, DO from 2.9 to 10.81 mg/L, temperature from 29.8 to 36.2°C, salinity of 0 ppt, and transparency ranging from 16.75 to 25 cm. Ex-situ measurements showed phosphate levels ranging from 0.548 to 1.640 mg/L and nitrate levels from 0.211 to 2.539 mg/L. The dominant plankton species was *Chlorella* sp from the Chlorophyceae class, with an abundance of 100,000–185,000 individuals/L.

Keywords: *Macragnathus* sp, plankton, river Bengawan Solo, water quality.