

## ABSTRAK

Penelitian ini bertujuan untuk menganalisis kandungan logam berat Hg pada media air, sedimen, akar, batang, dan daun mangrove serta menganalisis kemampuan *Avicennia marina* dan *Rhizophora apiculata* dalam mengakumulasi dan mentranslokasi logam berat Hg tersebut. Penelitian dilakukan di Sungai Donan, Cilacap. Teknik pengambilan sampel dilakukan secara *cluster dengan Purposive Sampling* pada 4 stasiun dengan 3 kali ulangan. Hasil analisa kandungan logam berat Hg di media air berkisar antara 0,007 - 0,026 mg/L, di sedimen berkisar antara 0,114 - 0,161 mg/Kg, pada mangrove *Avicennia marina* bagian akar berkisar antara 0,025 - 0,071 mg/Kg, batang berkisar 0,020 - 0,056 mg/Kg, daun berkisar 0,012 - 0,019 mg/Kg dan pada mangrove *Rhizophora apiculata* bagian akar berkisar antara 0,026 - 0,060 mg/Kg, batang berkisar 0,015 - 0,026 mg/Kg dan daun berkisar 0,010 - 0,021 mg/Kg. Menurut perhitungan BAF (*Bioaccumulation Factor*) dan TF (*Translocation Factor*), kedua jenis mangrove (*Avicennia marina* dan *Rhizophora apiculata*) relatif tidak mampu dalam mengakumulasi dan mentranslokasi logam berat Hg di tubuhnya, nilai BAF berkisar antara 0,343 - 1,055 dan nilai TF berkisar antara 0,597 - 1,333.

**Kata Kunci :** Logam berat , Hg, *Rhizophora apiculata*, *Avicennia marina*, Sungai Donan

## ABSTRACT

This research aimed to analysis accumulation Hg in water, sediment, roots, stems, and leaves mangroves and to analysis the ability of *Avicennia marina* and *Rhizophora apiculata* to accumulate and translocate heavy metal Hg. The sampling technique used cluster with purposive sampling at 4 stations with 3 replications. The results showed that the concentration of Hg in water had ranges 0.007 - 0.026 mg / L, Hg in sediments ranged 0.114 - 0.161 mg / Kg. The potential accumulation of mangrove vegetation showed that the *Avicennia marina* roots had range 0.025 - 0.071 mg / Kg, stems ranged 0.020 - 0.056 mg / Kg, leaves ranged 0.012 - 0.019 mg / Kg. However *Rhizophora apiculata* roots had Hg accumulation between 0.026 - 0.060 mg / Kg, stems ranged from 0.015 - 0.026 mg / Kg and leaves ranged from 0.010 - 0.021 mg / Kg. Based on value of BAF (Bioaccumulation Factor) and TF (Translocation Factor) showed that *Avicennia marina* and *Rhizophora apiculata* had ability to accumulate and translocate heavy metal Hg in their bodies with scores were BAF values ranged 0.343 - 1.055 and TF values ranged 0.597 - 1,333.

**Keywords :** *Heavy metal, Hg, Rhizophora apiculata, Avicennia marina, Segara Anakan*

