

## ABSTRAK

Ikan gelodok (*Boleophthalmus boddarti*) adalah salah satu jenis ikan yang hidup pada ekosistem mangrove yang pemanfaatannya belum banyak dilakukan. Ikan gelodok memiliki kandungan protein yang tinggi sehingga berpotensi sebagai agen antibakteri. Tujuan dari penelitian ini yaitu untuk mengetahui aktivitas antibakteri berdasarkan perbedaan perlakuan isolat protein ikan gelodok dan mengetahui aktivitas antibakteri berdasarkan perbedaan konsentrasi isolat protein ikan gelodok terhadap bakteri *Vibrio parahaemolyticus*. Uji aktivitas antibakteri dari isolat protein ikan gelodok terhadap bakteri *V. parahaemolyticus* dilakukan dengan metode sumuran agar. Aktivitas antibakteri diuji berdasarkan zona hambat yang terbentuk dengan konsentrasi isolat protein ikan gelodok yang berbeda. Terdapat 2 perlakuan isolat protein ikan gelodok yaitu tanpa perendaman dan dengan perendaman natrium bikarbonat serta terdapat 4 perlakuan konsentrasi isolat protein ikan gelodok yang diuji cobakan yaitu konsentrasi 100%, 75%, 50% dan 25%. Zona hambat tertinggi dihasilkan dari isolat protein ikan gelodok tanpa perendaman terhadap bakteri *V. parahaemolyticus* yaitu  $56,5 \pm 14,42$  mm dan terendah yaitu  $38,4 \pm 1,10$  mm, zona hambat yang dihasilkan tergolong dalam kategori sangat kuat. Zona hambat tertinggi yang dihasilkan dari isolat protein ikan gelodok dengan perendaman natrium bikarbonat terhadap bakteri *V. parahaemolyticus* yaitu  $48,4 \pm 12,85$  mm yang tergolong dalam kategori sangat kuat dan terendah yaitu  $18,5 \pm 4,58$  mm yang tergolong dalam kategori kuat. Hasil penelitian menunjukkan bahwa isolat protein ikan gelodok berpotensi sebagai agen antibakteri terhadap bakteri *V. parahaemolyticus*.

**Kata kunci:** Antibakteri; *Boleophthalmus boddarti*; isolat protein; *Vibrio parahaemolyticus*.

## ABSTRACT

Mudskipper (*Boleophthalmus boddarti*) is one of the fish species that lives in the mangrove ecosystem with limited utilization. Mudskipper have high protein content, which makes it a potential antibacterial agent. The purpose of this research was to determine the antibacterial activity based on different treatments of mudskipper's protein isolates and to determine the antibacterial activity based on different concentrations of mudskipper's protein isolates against *Vibrio parahaemolyticus* bacteria. The antibacterial activity test of mudskipper's protein isolates against *V. parahaemolyticus* bacteria was conducted using the agar well diffusion method. The antibacterial activity was tested based on the inhibition zones formed with different concentrations of mudskipper's protein isolates. There were two treatments of mudskipper's protein isolates, namely with and without soaking in sodium bicarbonate, and there were four concentration treatments of mudskipper's protein isolates tested, which were 100%, 75%, 50%, and 25%. The highest inhibition zone produced by the mudskipper's protein isolate without soaking against *V. parahaemolyticus* bacteria was  $56,5 \pm 14,42$  mm, and the lowest was  $38,4 \pm 1,10$  mm. The inhibition zones classified as very strong category. The highest inhibition zone produced by the mudskipper's protein isolate with sodium bicarbonate soaking against *V. parahaemolyticus* bacteria was  $48,4 \pm 12,85$  mm, classified as very strong category and the lowest was  $18,5 \pm 4,58$  mm, classified as strong category. The research results indicate that the mudskipper's protein isolate had the potential to act as an antibacterial agent against *V. parahaemolyticus* bacteria.

**Keywords:** Antibacterial; *Boleophthalmus boddarti*; protein isolates; *Vibrio parahaemolyticus*.