

Intisari

PREVALENSI DAN INTENSITAS EKTOPARASIT PADA BERBAGAI STRAIN IKAN PLATY DAN MOLLY DI POKDAKAN BUANA MINA KALURAHAN GILANGHARJO KABUPATEN BANTUL

Penelitian ini bertujuan untuk mengetahui jenis-jenis ektoparasit yang menginfeksi berbagai strain ikan platy dan molly berdasarkan karakter morfologi dan molekuler, mengetahui tingkat prevalensi dan intensitas ektoparasit di pokdakan Buana Mina Kalurahan Gilangharjo Kabupaten Bantul. Sampel diambil secara *random* dengan minimal 36 ekor dari setiap populasi berbagai strain ikan platy dan molly. Ektoparasit diamati menggunakan preparat segar dengan mikroskop kemudian dicatat jumlah dan jenisnya. Identifikasi ektoparasit dilakukan secara morfologi dengan melihat ciri-ciri tubuh parasit dan secara molekuler dengan *Polymerase Chain Reaction*. Sampel ektoparasit difiksasi menggunakan etanol 70% untuk identifikasi secara molekuler. Ekstraksi DNA menggunakan FavorPrepTM Tissue Genomic DNA Extraction Mini Kit. Identifikasi parasit secara molekuler dengan menggunakan primer COX1 (*Cytochrome Oxidase Subunit I*) dan monogenea dilanjutkan dengan *sequencing* DNA. Penentuan spesies parasit dilakukan dengan analisis *BLAST* dari website NCBI. Jenis ektoparasit yang menginfeksi ikan platy dan molly di pokdakan Buana Mina adalah *Trichodina* sp., *Ichthyophthirius multifiliis*, *Dactylogyrus* sp., *Gyrodactylus* sp., *Argulus* sp., dan *Lernaea* sp. Kisaran prevalensi dan intensitas sebesar *Trichodina* sp. 5,41-97,30% (2,70-62,77 individu/ekor), *Ichthyophthirius multifiliis* 0-32,56% (0-49,29 individu/ekor), *Dactylogyrus* sp. 0-8,33% (0-1,00 individu/ekor), *Gyrodactylus* sp. 0-8,11% (0-1,67 individu/ekor), *Argulus* sp. 0-16,22% (0-1,60 individu/ekor) dan *Lernaea* sp. 0-7,69% (0-1,00 individu/ekor). *Argulus coregoni* berhasil diidentifikasi berdasarkan karakterisasi morfologi dan molekuler, sedangkan parasit *Argulus foliaceus* dan *Argulus japonicus* berhasil diidentifikasi berdasarkan karakter morfologi.

Kata kunci: ektoparasit, intensitas, molly, platy, prevalensi

Abstract

PREVALENCE AND INTENSITY OF ECTOPARASITES IN VARIOUS PLATY AND MOLLY FISH STRAINS IN POKDAKAN BUANA MINA GILANGHARJO VILLAGE BANTUL REGENCY

This study aims to determine the types of ectoparasites that infect various strains of platy and molly fish based on the morphological and molecular characteristics, to determine the prevalence and intensity levels of ectoparasites in the Buana Mina farmer group, Gilangharjo Village, Bantul Regency. Samples were taken randomly with a minimum of 36 individuals from each population of various strains of platy and molly fish. The ectoparasites were observed using fresh preparations with a microscope that recorded the number and type. Identification of ectoparasites was carried out morphologically by observation of the characteristics of the parasite's body and molecularly by Polymerase Chain Reaction. Ectoparasite samples were fixed using 70% ethanol for molecular identification. DNA extraction was conducted using the FavorPrep™ Tissue Genomic DNA Extraction Mini Kit. Molecular identification of parasites using COX1 (Cytochrome Oxidase Subunit I) primers and monogenea followed by DNA sequencing. Determination of parasite species was carried out using BLAST analysis from the NCBI website. The types of ectoparasites that infect platy and molly fish in Buana Mina farmer group are *Trichodina* sp., *Ichthyophthirius multifiliis*, *Dactylogyrus* sp., *Gyrodactylus* sp., *Argulus* sp., and *Lernaea* sp. The prevalence and intensity range of *Trichodina* sp. 5.41-97.30% (2.70-62.77 individuals/head), *Ichthyophthirius multifiliis* 0-32.56% (0-49.29 individuals/head), *Dactylogyrus* sp. 0-8.33% (0-1.00 individuals/head), *Gyrodactylus* sp. 0-8.11% (0-1.67 individuals/head), *Argulus* sp. 0-16.22% (0-1.60 individuals/head) and *Lernaea* sp. 0-7.69% (0-1.00 individuals/head). The *Argulus coregoni* has been identified based on the morphological and molecular characters, while *Argulus foliaceus* and *Argulus japonicus* has been identified based on the morphological characters.

Key words: ectoparasites, intensity, molly, platy, prevalence