INTISARI

DETEKSI MOLEKULER *CERCARIA* BERDASARKAN GEN ITS2

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Parasit famili Trematoda spesies *Fasciola gigantica* dapat menyerang ternak melalui siput dari famili *Lymnaeidae*. Namun, didalam siput lymnaeidae itu sendiri tidak hanya terdapat cercaria dari cacing *Fasciola gigantica*. Penelitian ini bertujuan untuk mendeteksi spesies *cercaria* yang berada di dalam siput *Lymnaeidae* dengan metode *polymerase chain reaction* (PCR) berdasarkan gen ITS2. Sampel DNA total yang diisolasi dari siput *Lymnaeidae* diperiksa di Laboratorium Parasit, Fakultas Kedokteran Hewan Universitas Gadjah Mada. Amplifiksi gen menggunakan metode PCR dengan Primer yang diambil dari daerah gen ITS2. dan dielektroforesis dengan agarose 1,5%, hasil elektroforesis divisualisasikan di bawah UV Transluminator menghasilkan amplikon dengan panjang sekitar 450bp yang menunjukkan gen *Fasciola gigantica*. Hasil elektroforesis dari lima sampel yang digunakan, diperoleh empat sampel merupakan *cercaria Fasciola gigantica*.

Kata Kunci: *Fasciola gigantica, cercaria, polymerase chain reaction (PCR), gen ITS2*

ABSTRACT

CERCARIA MOLECULAR DETECTION BASED ON ITS2 GENE

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The parasitic family Trematoda, species Fasciola gigantica usually attack the cattle, they comefrom many ways, one of their way is from the snail of the Lymnaeidae family. However, in the lymnaeidae snail itself is not only cercaria from fasciola gigantica worms. This study purpose is to identified cercaria species in the Lymnaeidae snail by the polymerase chain reaction (PCR) method based on the ITS2 gene. Total DNA samples isolated from the Lymnaeidae snail were examined at the Parasite Laboratory, Faculty of Veterinary Medicine, Universitas Gadjah Mada. Gene amplification using PCR method with Primary taken from the ITS2 gene region. and electrophoresed with 1.5% agarose, the electrophoresis visualized under UV Transluminator produced an amplicon of about 450bp which showed the *Fasciola gigantica* gene. Electrophoresis results from the five samples used, obtained four samples are cercaria *Fasciola gigantica*.

Key Word: *Fasciola gigantica, cercaria, polymerase chain reaction (PCR), ITS2 gene*