Keanekaragaman Jenis Udang Air Tawar (*Macrobrachium* spp.) di Sungai Tambakbayan Yogyakarta dan Potensi Pemanfaatannya

Oleh
Briskha Lejar Novitria
13/346933/BI/8997

INTISARI

Crustacea merupakan kelas dari filum Arthropoda yang memiliki keanekaragaman tinggi yaitu mencapai 40-60 ribu spesies. Hingga saat ini, perhatian dan budidaya udang air tawar khususnya di daerah Yogyakarta, masih terbatas pada *Macrobrachium rosenbergii* (udang galah). Penelitan ini bertujuan untuk mempelajari keanekaragaman Crustacea (udang) yang ditemukan di Sungai Tambakbayan dan mempelajari potensi pemanfaatannya berdasarkan profil hemosit dan kandungan gizi. Penelitian ini menggunakan metode *road sampling* pada 2 periode yaitu pagi dan malam hari. Lokasi pengambilan sampel terbagi menjadi 3 stasiun dengan total 9 titik sampling (TS). Selain itu, dilakukan pengukuran terhadap parameter fisikokimia di setiap lokasi pengambilan sampel. Sampel yang telah didapatkan kemudian diidentifikasi berdasarkan karakter morfologi, morfometri, dan meristik. Identifikasi hemosit pada spesies yang paling melimpah kemudian dilakukan dengan mengacu penelitian oleh Braak (2002). Analisis proksimat dilakukan dengan metode oven, metode soxhlet, metoda hidrolisa asam basa dan metode mikro Kjeldahl. Dari hasil penelitian di dapatkan 3 jenis udang dari genus *Macrobrachium* di Sungai Tambakbayan DIY, yaitu *M. pilimanus* 52,08%, *M. sintangense* 41,67% dan *M. lanchesteri* 6,25%. Hasil analisis proksimat menunjukkan bahwa kandungan protein *M. pilimanus* dan *M. sintangense* lebih besar 3 kali lipat dibandingkan *M. rosenbergii*, yakni *M. pilimanus* dan *M. sintangense* sebesar 41,48% dan 43,09% sementara *M. rosenbergii* sebesar 13,69%. Dari hasil identifikasi profil hemosit didapatkan 3 jenis sel pada *M. pilimanus* dan *M. sintangense* yaitu sel hyalin, sel semi granular dan sel granular. Mengacu pada keanekaragaman, kandungan protein, serta profil hemositnya dapat disimpulkan bahwa *M. pilimanus* dan *M. sintangense* berpotensi menjadi udang budidaya.

Kata Kunci : *Macrobrachium*, Sungai Tambakbayan, Hemosit, Analisis Proksimat, Budidaya

Species Diversity of Freshwater Shrimp (*Macrobrachium* spp.) in Tambakbayan River Yogyakarta and Its Potential Benefits

By
Briskha Lejar Novitria
13/346933/BI/8997

ABSTRACT

Crustacea is a class of Arthropod phylum that has a high species diversity of 40.000-60.000 species. Until now, interest and cultivation of freshwater shrimps are still limited to *Macrobrachium rosenbergii* (udang galah/ giant freshwater shrimp). The aim of this research is to study species diversity of Crustacea (freshwater shrimp) in Tambakbayan River and their potential benefits based on hemocyte profiles and nutritional contents. This research used Road Sampling method in 2 Periods; in the morning and in the evening. Three stations with a total of nine sampling points were determined to gather research samples. In addition, measurements on physicochemical parameters at each sampling location were also carried out. The samples were then identified based on morphological characters, morphometric, and meristic. Hemocyte identification on the most abundant species was done by referring to the previous research that has been done before by Braak (2002) while proximate analysis was conducted using Oven method, Soxhlet method, Acid and Base Hydrolysis method and Micro Kjeldahl method. The result shows that there are 3 species from genus *Macrobrachium* in Tambakbayan River, they are *M. pilimanus* 52,08%, *M. sintangense* 41,67% and *M. lanchesteri* 6,25%. The proximate analysis shows that the protein content in *M. pilimanus* and *M. sintangense* is 3 times of that in *M. rosenbergii*, namely *M. pilimanus* and *M. sintangense* have protein content of 41,48% and 43,09% respectively while *M. rosenbergii has only* 13,69%. From the hemocyte identification it can be inferred that there are 3 types of cells in *M. pilimanus* and *M. sintangense*, they are hyalin cells, cell semi-granular and granular cells. Refers to diversity, protein contents and hemocyte profiles, Therefore it can be concluded that *M. sintangense* and *M. pilimanus* are very potential to become aquaculture freshwater shrimp.

Keywords: *Macrobrachium*, Tambakbayan River, Hemocytes, Proximate Analysis, Aquaculture