Uji aktivitas antifouling metabolit sekunder tumbuhan isachne globose terhadap penempelan fitoepifiton di Situ Lab. Alam, FMIPA UI, Depok, Jawa Barat = Activity secondary metabolite of isachne globose as antifouling againts phytoepiphyton in Situ Lab. Alam FMIPA UI, Depok, West Java

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Abstrak

Tumbuhan Isachne globose merupakan salah satu tumbuhan emergent yang hidup di Situ Lab. Alam , FMIPA UI. Isachne globose mampu berfungsi sebagai substrat bagi fitoepifiton, namun keberadaan fitoepifiton yang menempel pada tumbuhan I. globose mampu menghambat cahaya matahari yang mendukung pertumbuhan dan perkembangan tumbuhan tersebut. Telah dilakukan analisis pengaruh metabolit sekunder pada tumbuhan I. globose sebagai antifouling yang mampu menahan penempelan fitoepifiton. Penelitian dilakukan menggunakan batang I. globose perlakuan yang telah dihilangkan metabolit sekundernya dan batang kontrol yang keduanya direndam selama 7 hari di Situ Lab. Alam. Metabolit sekunder batang I. globose dianalisa dengan HPLC untuk mengetahui profil kromatografinya. Data penelitian menunjukkan terdapat kelimpahan fitoepifiton pada batang kontrol sebesar 219 individu/sel 2 dari 22 genera, sedangkan pada batang perlakuan sebesar 444 individu/cm 2 dari 27 genera. Berdasarkan uji t, nilai indeks keanekaragaman dan kelimpahan pada batang I. globose kontrol dan perlakuan berbeda nyata. Profil kromatogram ekstrak batang I. globose pada panjang gelombang 285 nm menunjukkan adanya 4 metabolit sekunder paling dominan (RT 7,50; 8,89; 9,99 dan 15,10). Diduga metabolit sekunder dominan tersebut berperan antifouling terhadap penempelan fitoepifiton di Situ Lab. Alam.
.....I. globose is one of the emergent plants that live in the Situ Lab. Alam, FMIPA UI. Isachne globose is able to function as a substrate for phytoepiphyton, but the presence of phytoepiphyton that attaches to plants I globose is able to inhibit sunlight which supports the growth and development of these plants. An analysis of the effects of secondary metabolites on plants has been carried out I. globose as an antifouling that is able to with stand the attachment of phytoepiphyton. The study was conducted using stem I. globose treatment which had been removed by secondary metabolites and control, both of them were soaked for 7 days. Secondary metabolites in I. globose were analyzed by HPLC to determine the profile chromatographic. The results data shows the abundance of phytophthiton in I. globose control was 219 individuals/cm 2 from 22 genera, while in the treatment stem was 444 individual/cm 2 from 27 genera. Based on the t test, the value of index diversity and abundance in stem I. globose control and treatment were significantly different. Profile chromatogram extract I. globose at 285 nm wavelength showed 4 of the most dominant secondary metabolites (Real Time 7,50; 8,89; 9,99 and 15,10). It is suspected that the dominant secondary metabolites play role as antifouling for attaching phytoepiphyton at Isachne globose stem in Situ Lab. Alam.