



International Conference on **Biodiversity**

Abs Soc Indon Biodiv vol. 4 | no. 7 |pp. 187-224 | October 2017 ISSN: 2407-8069





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ABSTRACT



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INTERNATIONAL CONFERENCE ON BIODIVERSITY

SOCIETY FOR INDONESIAN BIODIVERSITY

Pontianak, 14-15 October 2017

THEME:

Tropical Peatland Biodiversity: Enhancing Conservation, Restoration, and Responsible Use Sustainable Development

SECRETARIAT ADDRESS

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BIODIVERSITAS NUSANTARA BIOSCIENCE

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Note: A. Genetic Diversity, B. Diversity of Species, C. Diversity of Ecosystem, D. Ethnobiology and Socioeconomics, E. Bioscience (Life Science and Technology); O. Oral, P. Poster

would play significant role in soybean yield stability. Soybean breeding program for the common cutworm resistance has selected 17 resistant lines. Those resistant lines including two check cultivars, Ijen and G100H, were tested for their agronomic traits in three sites, i.e., Banyuwangi, Probolinggo, and Malang of East Java, Indonesia. The experiment was arranged in a randomized block design, repeated three times. Each genotype was planted in a plot of 2.4 m x 5 m; plant spacing was 40 cm x 10 cm, one plant per hill. Fertilizers of Phonska 250 kg + 100 kg SP36/ha, applied entirely at planting time. The same genotypes were planted in green house for resistant confirmation trial using no-choice-test method. Research result showed that the lines were significantly different for yield and yield-contributing traits, and there were no G x E interactions among the three locations. Six out of the 17 lines were consistently resistant to the pest. Those six lines matured in 79-80 days, seed size was in the range of 13.1-14.7 g/100 seeds, 30-38 pods/plant, and seed yield range was 2.55-3.16 t/ha. Seed yield of the resistant check was 2.70 t/ha, among the six resistant lines, three lines were

Glycine max, resistant, Spodoptera litura

outyielded the resistant's seed yield

EP-02

Chemical composition species of *Channa striata* and *Channa micropeltes* from West Kalimantan, Indonesia

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Channa striata (Bloch, 1793) and Channa micropeltes (Cuvier, 1831) are species of fish that lives in West Kalimantan's freshwater, Indonesia. This fish is native from Asia commonly known as snakehead because its head is similar to a snake's head that distinguishes this fish from other fish species. The species of C. striata and C. micropeltes belong to one of the species of consumption fish favored by the people of West Kalimantan. However, there is no information on the nutritional content of the genus channa from West Kalimantan so it is necessary to conduct further research aimed at identifying Species of C. striata and C. micropeltes composition from West Kalimantan waters including proximate composition, albumin, calcium (Ca), iron (Fe), phosphorus (P), amino acid profile and fatty acid profile. The results of the study indicate that C. striata and C. micropeltes from West Kalimantan waters has potential as a source of albumin and has a high amino acid content. This is seen from the analysis of albumin content of C. micropeltes about 3.6147 gr/dl and C. striata about 3.3076 g/dl. It is also supported by analysis of nutritional content of C. micropeltes and C. striata consists of moisture content of about 72.16% and 77.84%, protein content of about 24.75% and 20.21%, ash content of about 1.65% and 1,13%, fat content of about 0.89% and 0.20%, carbohydrates of about 0.55% and 0.62%, calcium (Ca) of about 69.0 mg/kg and 11.04 mg/kg, phosphorus (F) of about 0.457% and 0.532% and iron (Fe) of about 0.17 mg/kg and 3.40 mg/kg. In addition, the highest saturated fatty acids found in C. micropeltes and C. striata are palmitic acid (C16: 0), Stearic acid (C18: 0) and myristic acid (C14: 0) and the highest unsaturated fatty acids in the species C. micropeltes are Cis-4,7,10,13,16,19docosahexaenoic acid (C22: 6n3)/(DHA), Oleic Acid (C18: 1n9c), palmitoleic acid (C16: 1) whereas Fatty acids are not Saturated the highest at the species C. striata are oleic acid (C18: 1n9c), linoleic acid (C18: 2n6c) and palmitoleic acid (C16: 1). The amino acid composition of the species from C. striata and C. micropeltes is known to exist 16 types of amino acids namely C. micropeltes about 18.17% and C. striata about 16.03% including glutamic acid, aspartic acid, and lysine

Channa micropeltes, Channa striata, chemical composition, West Kalimantan freshwater

EP-03

Characteristics of collagen nanoparticles from skin of belida fish (*Chilata lopis*) with desolvation method

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Belida fish (Chitala lopis Bleeker, 1851) is one of the local fish species in Borneo which is quite popular and quite potential developed as a kind of fish cultivation. This fish is widely used as a raw material for the manufacture of diversified products such as meatballs and crackers. Skin waste resulting from the processed fish production process is often a problem if it is not handled properly. One effort to increase the added value of fish skin waste is to process the skin into collagen nanoparticle products that can be used as cosmetic raw materials. The aim of this research is to get desolvation method in making collagen nanoparticles from leather fish with two variation of factors that is desolvating agent and desolvating agent/collagen solution ratio. The optimum method of desolvation in the manufacture of collagen nanoparticles from the skin of fish is by using ethanol as desolvating agent with ethanol/ collagen solution 1: 3. Characteristics of collagen nanoparticles from the skin of fish were not as follows: yield of 10.64%, particle size ranged from 140.34-206.88 nm, FTIR spectra showed absorption peaks in the amide uptake region including amide A, amide I, amide II, and amide III which are typical functional groups in collagen, the structure of collagen nanoparticles shows a fine aggregate structure.