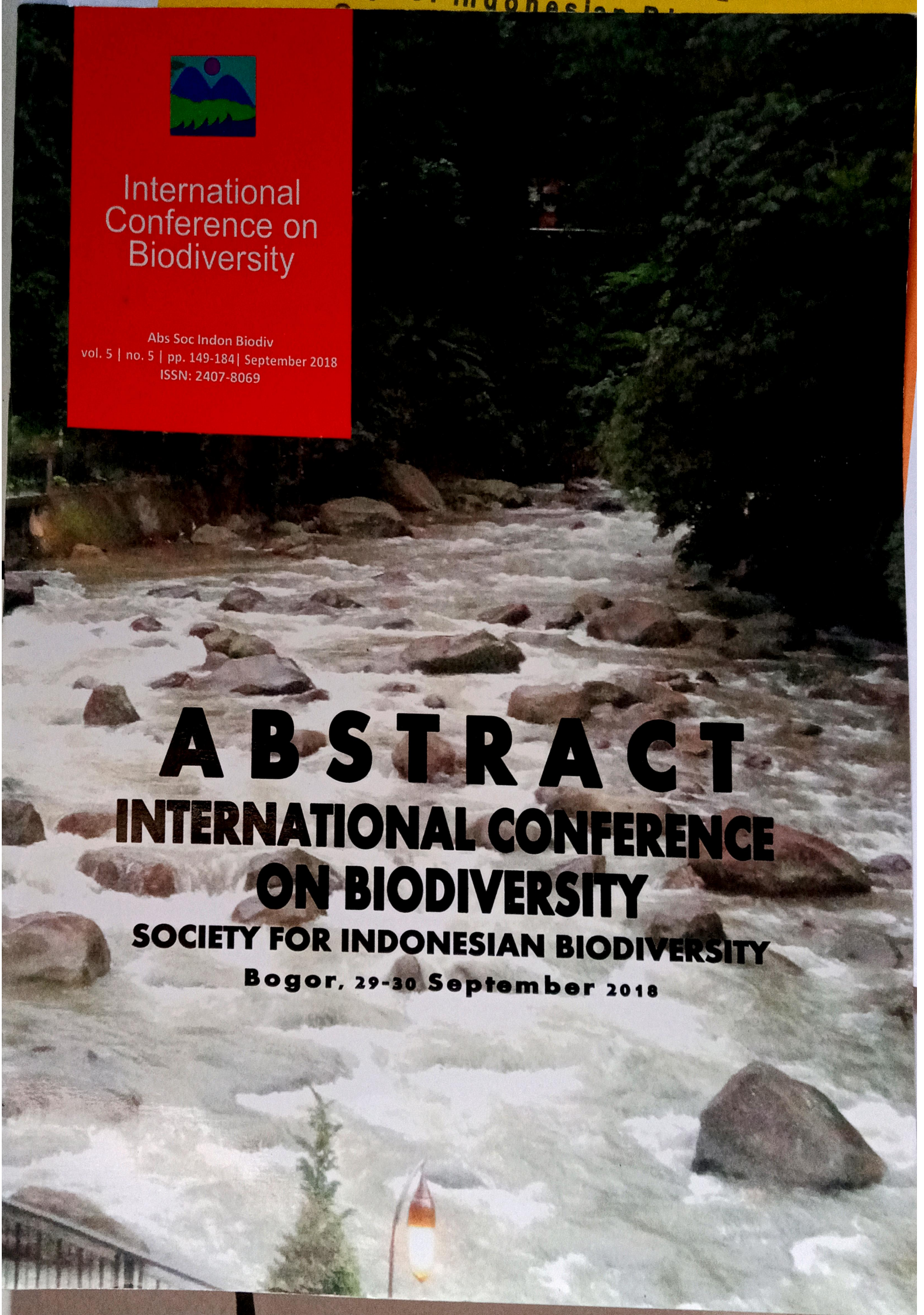

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ABSTRACT

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Bogor, 29-30 September 2018

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ABSTRACT

INTERNATIONAL CONFERENCE ON BIODIVERSITY

SOCIETY FOR INDONESIAN BIODIVERSITY

Bogor, 29-30 September 2018

THEME:

Biodiversity for Sustainable Development and Human Wellfare

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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; AA. Keynote speech

Madu parthenocarpic diploid banana (*Musa* AA) were treated with oryzalin at a concentration of 60 µM for 7 days in a liquid MS basal medium with addition of 2 mg/L BA. Ploidy identification of induced Pisang Madu was conducted by using Flow-cytometer. Morpho-agronomic characterization was conducted at Cibinong Science Center for 2 cycles of banana reproduction. 52 characters of quantitative and qualitative of banana plants were recorded based on UPOV for Banana. Compared with the original diploids, the Pisang Madu autotetraploids showed increases in pseudostem height and diameter, fruit size, and bunch weight. The autotetraploid Pisang Madu was successfully used as 2n gamete donors in generating secondary triploid hybrids.

Autotetraploid, *Musa*, oryzalin, pisang madu

EP-01

Antioxidant activity of extract green algae silpau *Dictyosphaeria versluysii*

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Silpau is a green alga that is widely available in Southwest Maluku District, Indonesia live on coral reefs and are not classified as seasonal plants. Silpau has long been used by local people, generally in the form of processed vegetables or *colo-colo* (*kudapan*). Accept the nutritional value, comprehensive informations about silpau still much unknown. Therefore, the author would like to find out much more information about silpau especially its potential as an antioxidant. The method used in this research is explorative. The method used to test the activity of the antioxidant extracted from silpau by eliminating the activity of free radicals DPPH (1,1-diphenyl-2-picrylhydrazyl). Phytochemical test of silpau showed that silpau contain terpenoid compounds. Results of testing the antioxidant activity of crude methanol extracted from silpau showed that silpau have antioxidant activity seems very weak because it has a very high IC50 value about 548.08 ppm.

Antioxidant activity, *Dictyosphaeria versluysii*, DPPH, IC50

EP-02

Physical and chemical characteristics of effervescent powder drinks from *Channa micropeltes* of West Kalimantan, Indonesia

Evi Fitriyani♥, Ika Meidy Deviarni, Nani Nuraenah

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Channa micropeltes (Cuvier, 1983) is a type of fish that lives in West Kalimantan's freshwater. This fish is native to Asia or commonly known as snakehead because its head is similar to a snake's head. Results Previous research shows that the *Channa micropeltes* species have an animal protein source, one of which is albumin content which is almost the same as cork fish. Albumin extract from toman fish has not been produced much compared to cork fish extract. At present the toman fish albumin extract is still not widely sold in the market and the processing process is still very limited so it is necessary to use and further processing into effervescent beverage powder. The purpose of this study was the process of making effervescent granules with the addition of toman fish albumin and an analysis of the chemical characteristics of the effervescent granules produced which are expected to help hypoalbumin sufferers. The results of the analysis of the chemical characteristics of beverage powder included albumin levels in formula 1 about 57.05 mg/L, formula 2 about 34.05 mg/L, and formula 3 about 36.81 mg/L; protein levels in formula 1 were about 8.74%, formula 2 was about 9.33% and formula 3 was about 10.94; the water content is about 6.63%, formula 2 is about 5.97% and formula 3 is around 11.14%; ash content in formula 1 was about 23.84%, formula 2 was about 22.59% and formula 3 was about 27.86%; Sugar level in formula 1 is about 4.33%, formula 2 is about 5.26% and formula 3 is about 6.98%; total acid in formula 1 is about 0.36%, formula 2 is about 0.66% and formula 3 is about 1.07%. The results of physical analysis included lovibond color tests showing that beverage powder tends to have increasingly white and yellow colors; time is around 3-4 minutes; pH 7; Viscosity (cP) in formula 1 is about 31.2 cP, formula 2 is about 4.80 cP and formula 3 is about 31.2 cP; Total dissolved solids in formula 1 were about 344 mg/L, formula 2 was about 322 mg/L and formula 3 was about 309 mg/L.

Channa micropeltes, effervescent beverage powder, physical and chemical characteristics, West Kalimantan

EP-03

Potential of catfish oil extract (*Pangasius hypophthalmus*) in well pain healing white rat

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Catfish oil extract contains albumin and w-3 fatty acids which play a role in wound healing. The purpose of this study was to determine the potential of catfish oil extract (*Pangasius hypophthalmus* Sauvage, 1878) in healing white rat wounds on the area of the wound and the percentage of wound healing. Rats were grouped into 7

treatments, namely positive control with administration of betadine ointment, negative control was not given and 4 other treatments with administration of catfish oil extract (A, B, C, D), treatment E was given tween 20. White rats were injured in the area back with a length of 2 cm and a depth of 2 mm. Rat treatment is done for 7 days topically. The results of analysis in this study showed that catfish oil extract has the potential to heal the wounds of white rats in the presence of decreased wound area of about 0.62 mm-0.84 mm and the percentage of wound healing around 79.00-84.45%.

Albumin, catfish, wounds, omega 3

EP-04

Potential of exopolysaccharide from *Lactobacillus plantarum* as cholesterol lowering on the hypercholesterolemic rats (Sprague Dawley)

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Exopolysaccharide is a polysaccharide produced from one of Lactic Acid Bacteria *Lactobacillus plantarum* which gives beneficial impact on human health such as cholesterol-lowering. This study aim was tested cholesterol-lowering activity of the crude exopoly-saccharide in vivo against the Sprague Dawley rats were induced by feeding high cholesterol. The study was divided into six groups: normal control, negative control, positive control of atorvastatin, crude exopolysaccharide test group at the doses of 20, 40, and 60 mg/BW. The parameters tested were total of cholesterol, triglycerides, HDL, and LDL in blood plasma by using spectrophotometer UV-Vis. The results showed that the crude exopolysaccharide 60 mg is an effective dose which can lower total plasma cholesterol as big as 21.66%, triglyceride levels 16,86%, HDL levels 10,89%, and LDL levels 42,46%. Based on these results concluded that the crude exopolysaccharide has activity as a cholesterol-lowering.

Lactobacillus plantarum, Sprague Dawley rats, cholesterol, exopolysaccharide,

EP-05

Characteristics of collagen nanoparticles from skin of catfish (*Clarias gariepinus*) with desolvation method

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Collagen is the active ingredients that are often used in cosmetics application, especially antiaging cosmetics with the function to increase skin moisture, prevent wrinkles, keep the skin from bad effects of radiation, and maintain elasticity. Animal skin has been developed as a source of raw material for producing collagen. However, studies about application of nanotechnology in collagen production processes are still very rare. The purpose of this research was to study the effect of type desolvating agent (acetone and ethanol) and desolvating agent/collagen solution ratio (1: 1; 1: 2; 1: 3) on the characteristics of collagen nanoparticles from skin of catfish (*Clarias gariepinus*). Collagen nanoparticles from the skin of catfish have been successfully produced by desolvation method with variation of type and ratio desolvation agent. Collagen nanoparticles from skin of catfish showed the average particle size of 110,98 nm-203,4 nm and the yield between 3,81-4,78%. The smaller particle size was produced by using ethanol as desolvating agent with ethanol/collagen solution ratio of 1:1. Fourier transform infrared (FTIR) spectra of all collagens nanoparticle were similar and suggests that collagen nanoparticles was characterized as Type I collagen with have a β-sheet structure.

Catfish skin, characteristics, collagen nanoparticles, desolvation methods

EP-06

The effect of plant spacing at the growth and yield of shallot from true shallot seed in Sigi District, Central Sulawesi, Indonesia

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Generally, shallots are cultivated using seed bulb (vegetatively). The problem is the cost of providing seed bulbs is quite high. One of the ways to save the usage of seed bulbs is by using seed (True Shallot Seed). An effort to improve the yield of shallots from the true shallot seed (TSS) is the use of the right and suitable spacing. The objectives of this research were to determine the effect of various plant spacing on the growth and yield of shallots from true shallot seed. This research was conducted in the farmer's land in Kalukubula Village, Sigi District, Central Sulawesi, Indonesia from December 2017 to March 2018. This research was designed using a Randomized Block Design non Factorial consisting of 3 treatments of spacing and repeated 10 times, so that the total experimental plot was 30 plots. The treatment consisted of JT1 = 10 cm x 10 cm, JT2 = 8 cm x 10 cm, and JT3 = 6 cm x 10 cm. The observations included plant height/Length, number of leaves, number of bulbs per clump, weight of bulbs per clump, bulb weight, and bulb diameter. The results showed

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