COVERING LETTER

Dear **Editor-in-Chief,**

I herewith enclosed a research article,

Title:

Penilaian indikator biodiversitas dalam menilai status kesehatan hutan di Resort Pemerihan Taman Nasional Bukit Barisan Selatan: "Keanekaragaman jenis pohon"

Author(s) name:

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Biodiversitas

Novelty:

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Novelty penelitian ini didasarkan pada kriteria *focus*, *advance*, dan *scholar*. *Focus*, penelitian yang dilakukan berfokus pada kajian tentang indikator dan parameter kesehatan hutan konservasi yang ada di Provinsi Lampung. *Advance*, penelitian didasari oleh indikator ekologis penting kesehatan hutan berdasarkan pendapat pakar, klaster-plot FHM yang *etablishment* berdasarkan tujuan penelitian, dan penilaian kesehatan hutan untuk mengetahui status kondisi kesehatan hutan. *Scholar*, penelitian menggunakan serangkaian metode berdasarkan kaidah-kaidah ilmiah, berupa metode FHM, *Analytic Network Process* (ANP), skoring, dan rumus nilai kesehatan hutan serta menggunakan indikator dan parameter penting yang telah diakui kebenarannya (*quality objective*).

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Sincerely yours,

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Rahmat Safe'i

Penilaian indikator biodiversitas dalam menilai status kesehatan hutan di Resort Pemerihan Taman Nasional Bukit Barisan Selatan:"Keanekaragaman jenis pohon"

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Abstrak. Biodiversitas merupakan salah satu indikator ekologis kunci bagi kesehatan hutan hujan tropis (Indonesia). Tingkat biodiversitas pada suatu area, terutama keanekaragaman jenis pohon, berkaitan erat dengan tingkat kestabilan ekologi pada suatu ekosistem. Makin tinggi nilai keanekaragaman jenis pohon pada suatu area akan meningkatkan pula keragaman fungsi ekologi yang pada akhirnya akan menghasilkan peningkatan pada tingkat stabilitas ekologi. Oleh karena itu keanekaragaman jenis pohon merupakan parameter terukur biodiversitas. Resort Pemerihan merupakan bagian dari Taman Nasional Bukit Barisan Selatan (TNBBS) Seksi Pengelolaan Taman Nasional (SPTN) Wilayah II Bengkunat dengan luas wilayah 17.902 ha yang terletak di sebelah barat Provinsi Lampung. Wilayah ini termasuk memiliki tingkat biodiversitas yang tinggi, diantaranya keanekaragaman jenis pohonnya. Penelitian ini bertujuan untuk mendapatkan nilai status kesehatan hutan di Resort Pemerihan TNBBS berdasarkan nilai keanekaragaman jenis pohon. Tahapan dari penelitian ini terdiri dari penetapan dan pembuatan klaster plot *Forest Health Monitoring* (FHM), pengukuran parameter indikator biodiversitas, pengolahan dan analisis data, dan penilaian kesehatan hutan. Hasil penelitian menunjukkan bahwa nilai status kesehatan hutan di Resort Pemerihan TNNBS adalah berada pada kriteria jelek (klaster plot-5), sedang (klaster plot-1, 2, dan 3), dan bagus (klaster plot-4). Dengan demikian, kondisi pada saat ini (status) kesehatan hutan di Resort Pemerihan TNNBS rata-rata berada pada kriteria sedang.

Kata kunci: Indikator biodiversitas, Keanekaragaman jenis pohon, Kesehatan hutan, Resort Pemerihan TNBBS.

Abstract. Biodiversity is one of the key ecological indicators for the health of tropical rainforest (Indonesia). The level of biodiversity in an area, especially the diversity of tree species, is closely related to the level of ecological stability in an ecosystem. The higher the value of tree species diversity in an area will also increase the diversity of ecological functions that will ultimately result in an increase in the level of ecological stability. Therefore, the diversity of tree species is a measured parameter of biodiversity. Pemerihan Resort is part of Bukit Barisan Selatan National Park, National Park Management Section Region II Bengkunat with an area of 17,902 ha located in the west of Lampung Province. This region includes a high level of biodiversity, including the diversity of tree species. This study aims to obtain the value of forest health status in Resort Pemerihan of Bukit Barisan Selatan National Park based on the value of tree species diversity. The stages of the study consisted of establishing cluster plot of Forest Health Monitoring (FHM), measuring the parameters of biodiversity indicators, data processing and analysis, and forest health assessments. The results show that the value of forest health status in Pemerihan Resort of Bukit Barisan Selatan National Park are poor (cluster plot-5), moderate (cluster plots-1, 2, and 3), and good (cluster plot-4). Thus, the current state (status) of forest health in Pemerihan Resort of Bukit Barisan Selatan National Park is on average moderate.

Key words: Biodiversity indicator, Tree species diversity, Forest health, Pemerihan Resort.

PENDAHULUAN

Biodiversitas merupakan bagian dari mata rantai tatanan lingkungan atau ekosistem. Biodiversitas hutan telah diidentifikasi sebagai kriteria keberlanjutan ekosistem hutan. Dengan sendirinya, biodiversitas berguna sebagai ukuran kesehatan hutan. Kesehatan hutan adalah kemampuan untuk mempertahankan kondisi yang diinginkan, bila dikaitkan dengan keberlanjutan ekosistem (MDNR 2012). Lebih jauh O'Laughlin *et al*. (1994) menyatakan bahwa kesehatan hutan adalah tentang bagaimana mempertahankan ekosistem hutan. Biodiversitas merupakan salah satu indikator ekologis kunci bagi kesehatan hutan hujan tropis Indonesia. Menurut Supriyanto *et al*. (2001) ada empat indikator ekologis kunci bagi kesehatan hutan hujan tropis Indonesia, yakni: produktivitas, vitalitas, kualitas tapak, dan biodiversitas. Dalam penilaian kesehatan hutan untuk mengukur indikator biodiversitas diperlukan suatu parameter. Salah satu parameter indikator biodiversitas adalah keanekaragaman jenis. Makin besar jumlah keanekaragaman jenis, maka akan semakin besar biodiversitasnya. Makin tinggi jumlah jenis dan nilai keanekaragaman jenis pada suatu area akan meningkatkan pula

keragaman fungsi ekologi. Oleh karena itu, tingkat biodiversitas pada suatu area, terutama keanekaragaman jenis pohon, berkaitan erat dengan tingkat kestabilan ekologi pada suatu ekosistem.

Ekosistem Resort Pemerihan secara umum merupakan ekosistem hutan hujan tropis dataran rendah. Resort Pemerihan merupakan bagian dari Taman Nasional Bukit Barisan Selatan (TNBBS) di sebelah barat Provinsi Lampung. Resort Pemerihan merupakan bagian wilayah pengelolaan TNBBS dalam pengelolaan Seksi Pengelolaan Taman Nasional (SPTN) II Bengkunat, Bidang Pengelolaan Taman Nasional (BPTN) Wilayah I Semaka dengan luas wilayah 17.902 ha. Wilayah ini termasuk memiliki tingkat biodiversitas yang tinggi, diantaranya keanekaragaman jenis pohonnya. Menurut Kartawinata (2010) bahwa keanekaragaman jenis pohon di hutan hujan tropis dataran rendah Sumatera dapat mencapai 180 jenis dalam luasan satu hektar. Selain itu, secara umum pada kawasan TNBBS teridentifikasi mempunyai 514 jenis pohon dan tumbuhan bawah, 128 jenis anggrek, 26 jenis rotan, 25 jenis bambu, dan 137 jenis tumbuhan obat dan bunga langka (BBTNBBS, 2017). Namun, apakah kondisi tersebut dapat menggambarkan kondisi kesehatan ekosistem hutan di Resort Pemerihan TNBBS?. Karena pada saat ini, kondisi kesehatan ekosistem hutan menjadi sangat penting di seluruh dunia, ketika berbagai isu global, seperti: perubahan iklim global, pencemaran udara, hujan asam, kebakaran hutan, masalah kualitas dan jumlah air, dan peningkatan populasi manusia telah mempengaruhi terwujudnya pengelolaan hutan yang lestari. Penelitian ini bertujuan untuk mendapatkan nilai status kesehatan hutan di Resort Pemerihan TNBBS berdasarkan nilai keanekaragaman jenis pohon.

BAHAN DAN METODE

Lokasi Penelitian

Materials and Methods should emphasize on the procedures and data analysis. For field study, it is better if study site is included (Figure 1).

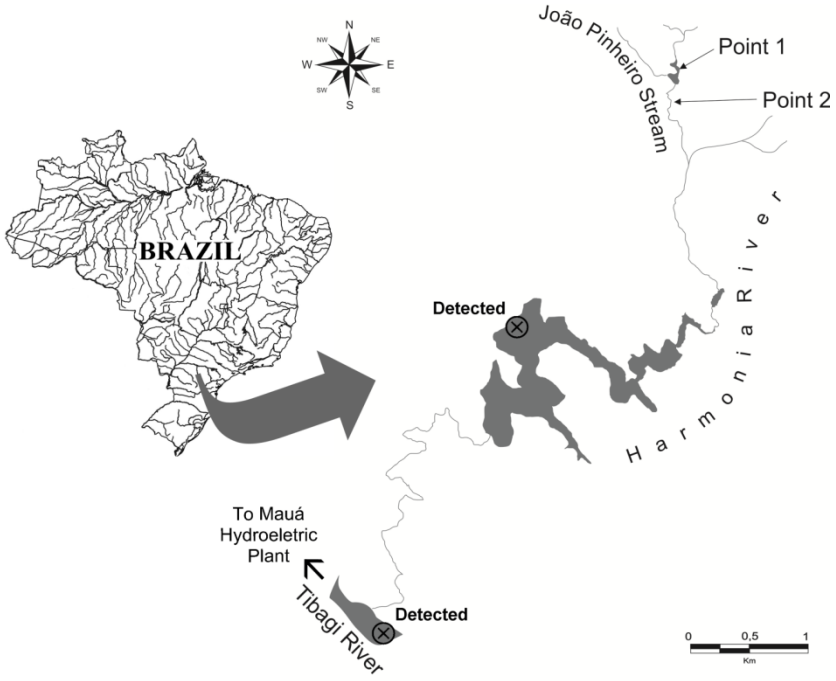

Figure 1. Location of João Pinheiro Stream, subaffluent of the Tibagi River indicating the sampling sites of *Micropterus salmoides*: point 1 (24º16'58.96"S, 50º35'00.04"W), point 2 (24º17'04.49"S, 50º34'58.71"W); and the detected sites. (Figure, 9 pt)

Prosedur

*Sub-procedures-1 (***replace with your sub-sub-title of procedures***)*

Xxxxxx.

Sub-procedures-2

Xxxxxx.

Data analysis

Xxxxxx.

HASIL DAN PEMBAHASAN

Results and Discussion should be written as a series of connecting sentences, however, for manuscript with long discussion should be divided into subtitles. Results should be clear and concise.

Result-1 (*replace with your sub-sub-title of result***)**

Figures and tables of maximum of three pages should be clearly presented. Number tables consecutively in accordance with their appearance in the text. Title of a picture is written down below the picture, while title of a table is written above the table. Colored figures can only be accepted if the information in the manuscript can lose without those images; chart is preferred to use black and white images. Author could consign any picture or photo for the front cover, although it does not print in the manuscript. All images property of others should be mentioned source. There is no appendix, all data or data analysis are incorporated into Results and Discussions. For broad data, it can be displayed on the website as a supplement (Figure 2; Table 1).

Result-2

Xxxxxxxxx (Table 2).

Xxxxxxxxx (Figure 3).

Table 1. Diagnostic character of *S. caseolaris, S. lanceolata, S. x urama* and *S. x gulngai* with references to Duke and Jackes (1987) and Duke (2006). (9 pt)

Characters	*S. lanceolata*		*S. x urama*		*S. x gulngai*	
	Duke and Jackes (1987)	Present study	Duke 2006	Present study	Duke and Jackes (1987)	Present study
Leaf shape						
Leaf apex						
Leaf base						

Note: Xxxxxx

Discussion

Thorough discussion represents the causal effect mainly explains for why and how the results of the research were taken place, and do not only re-express the mentioned results in the form of sentences, not repeat them. Concluding sentence should be given at the end of the discussion.

ACKNOWLEDGEMENTS

Acknowledgments are expressed in a brief; all sources of institutional, private and corporate financial support for the work must be fully acknowledged, and any potential conflicts of interest are noted.

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