

The Ecology of Padang sapu-sapu, North Bangka

HURTJAHYA Eddy¹

¹Ecology Department, University of Bangka Belitung, Indonesia



Background

The padang sapu-sapu ecosystem, which was reported as a degraded forest, has specific characteristics. In Bangko and Belitung province, it is located near the beach, in the sandy and low nutrient soil.

No	Species	2016		2017		2018		2019		2020	
		Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind	Ind
1	BT	9	4	4	2	0	1	0	0	0	0
2	SA	2	0	0	0	0	0	0	0	0	0
3	MS	1	0	0	0	0	0	0	0	0	0
4	ST	0	0	0	0	0	0	0	0	0	0
5	OT	1	0	0	0	0	0	0	0	0	0
6	OS	0	0	0	0	0	0	0	0	0	0
7	SS	0	0	0	0	0	0	0	0	0	0

This ecosystem is dominated by sapu-sapu (*Baeckea frutescens* L., Myrtaceae) (Pini et al. 2013) - a small tree which not reach 5 meter high -, *Melaleuca cajuputi* Roxb., and *Syzygium bankense* (Hassk.) Merr & Perry.

This unique ecosystem may play an important role as the source of adaptive plant species to revegetate ex tin-mined soil as its soil physical and chemical properties has similarity with those of ex tin-mined soil.

This ecosystem is dominated by sapu-sapu (*Baeckea frutescens* L., Myrtaceae) - a small tree which not reach 5 meter high -, *Melaleuca cajuputi* Roxb., and *Syzygium bankense* (Hassk.) Merr & Perry.



Figure Sapu-sapu vegetation and tree

Method

This report is a review of some studies conducted in North Bangka in 2016-2020. The study was conducted in 2016-2020, which have the largest padang sapu-sapu in the province.

Results

The sapu-sapu epidermal layer was the richest among 3 dominant species.

Species	Ind	Ind	Ind	Ind
BT	200	200	200	200
SA	100	100	100	100
MS	50	50	50	50
ST	20	20	20	20
OT	10	10	10	10
OS	5	5	5	5
SS	2	2	2	2

The Shannon-Wiener index of surface faunal was 2.06 - 2.34 with 40 species belonged to Entomobryidae, Sminthuridae, and Gyrinidae. The surface soil was dominated with predator insects, contrast to decomposers which were dominant in the nearby forest.

There were 38 species of 12 families Coleoptera with *Pararthropites* sp. 1, *Acrocytus* sp. 3, and *Lepidocyrtus* sp. 1 were potential bioindicator.

It recorded 5 families Lepidoptera, with *Geometridae* was found dominant. The highest average number phosphate solubilizing bacteria colonies was 15.8×10^6 cell g⁻¹ which *Pseudomonas* sp. 1 showed the highest phosphate solubilizing index.

References
 Pini, et al. (2013). The Ecology of Padang Sapu-Sapu in North Bangka. *Journal of Ecology and Environment*, 1(1), 1-10.
 ...
 ...



UIN Ar-Raniry
 2102 SDN