

## EDIBLE WILD MUSHROOMS ARE CONSUMED IN THE INTEREST OF CHILDREN IN NATIONAL PARK HILL DUABELAS (TNBD) JAMBI

Kiky Widyloka, Periadnadi\* and Nurmiati

Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, West Sumatera, Indonesia.

\*Corresponding Author: Periadnadi

Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, West Sumatera, Indonesia.

Article Received on 23/07/2019

Article Revised on 13/08/2019

Article Accepted on 03/09/2019

### ABSTRACT

Determination TNBD Region in particular one of which aims to protect and preserve cultural and tourist attractions Orang Rimba or also called Suku Anak Dalam since long in the TNBD Region. SAD have been accustomed to collecting food and hunting in the area. One example is to utilize the fungi that live in the wild as food and medicine. Mushroom samples collected in Murky River Resort Air Hitam 1 Desa Pematang Kabau, Dusun SidoMulyo National Park area of Jambi, identified in the Laboratory of Mycology Andalas University, Padang. Nutrient content analysis conducted at the Laboratory of Agricultural Technology, Faculty of Agricultural Technology Andalas University. There are 10 species of edible wild mushrooms are *Favolus* sp, *Pleurotus* sp, *Pleurotus cystidiosus*, *Pleurotus ostreatus*, *Marasmiellus* sp, *Auricularia* sp, *Auricularia auricula*, *Tricholoma* sp, *Collybia* sp and *Schizophyllum commune*.

**KEYWORDS:** TNBD, Suku Anak Dalam, Edible Wild Mushrooms.

### PRELIMINARY

Region TNBD (TNBD) is one of nature conservation areas located in Jambi province with an area of 60.500 ha. Determination TNBD Region in particular one of which aims to protect and preserve cultural and tourist attractions Orang Rimba or also called Suku Anak Dalam since long in the TNBD Region (Bukit DuaBelas National Park Office, 2007). The existence and the existence of SAD as an important part of management in order to support the management TNBD while respecting the rights of the SAD as part of the Republic of Indonesia (Algopeng, 2014).

SAD have been accustomed to gathering and hunting in the region. One example is to utilize the fungi that live in the wild as food and medicine. During this time SAD not know about edible wild mushrooms that have a positive impact on the body as health and medical purposes, as well as their nutritional content.

According Roosheroe, Sjamsuridzal, and Oetari, (2006), the fungus can be found in nature and are easily identifiable when we look at places that are moist, as in the litter substrate, fruits begin to rot and plant stems. Ahmad *et al.*, (2011) states that the fungus can be observed directly because it has the outer form of the body in the form of large-sized fruit. Body shape a common fruit that is like an umbrella. Before utilized,

mushrooms explored beforehand and followed the identification, both related to the potential, taxonomy, as well as optimal growing environment. Fungi can grow optimally under humid conditions with a relative humidity of 95-100% (Roosheroe *et al.*, 2006)

### Implementation research

Mushroom samples collected in Murky River Resort Air Hitam 1 Desa Pematang Kabau, Dusun Sido Mulyo National Park area of Jambi, the samples are identified in the Laboratory of Mycology Andalas University, Padang. Nutrient content analysis conducted at the Laboratory of Agricultural Technology, Faculty of Agricultural Technology Universitas Andalas.

The method of research used in this research is the method by interviewing several public figures SAD and direct field observation of the presence of Wild Mushrooms with purposive sampling.

The tools used are digital scales, rubber bands, tweezers, sterile paper, jam jars, thermometers, sling psychrometer, GPS, digital cameras, rulers, books and stationery. While the materials used, namely, sample Wild Mushrooms, alcohol 70%, aquadest sterile, methylated.

The field survey was conducted as a preliminary study to determine the general description of the research sites

where wild mushrooms and all the information related to edible wild mushrooms. Edible wild mushrooms obtained from results of field surveys that *Favolus* sp, *Pleurotus* sp, *Pleurotus ostreatus*, *Pleurotus cystidiosus*, *Auricularia auricula*, and *Schizophyllum commune* collected as dry preservation. As a first step to do interviews to several prominent SAD regarding any wild mushrooms consumed.

Stage sampling was photographed with a comparison scale, after it is inserted into a paper envelope and coded specimens. Samples were taken by all parts of the fruiting bodies. Then the sample is taken and put into the specimen bottle, then coded and added 20% alcohol into the bottle. The sample is then deposited into the sample box and taken to the laboratory for identification and further research.

Samples of wild mushrooms that have been collected are then identified and described several characters such as form a fruiting body, the shape of the hood (pileus), color hood (pileus), the form of blades (gills), the shape of the stem (stipe), presence or absence of a ring (annulus) and volva, Identification is done using Aragic book Flora of the Lesser Antulles, A Preliminary Aragic Flora of East Africa and Aragic Flora of Sri Lanka A Field Guide to western Mushroom.

**RESULTS AND DISCUSSION**

Family Schizophyllaceae most commonly found in this research that the type of *Schizophyllum commune*. This type can last for months and not easily damaged by the circumstances. This is largely attributable by *S. commune* has a lamella which can be folded up due to dry conditions and rehydrate (opening and closing) many times during the growing season (Nion, et al., 2012).

**Table 1. Types of Wild Mushrooms Edible Region TNBD.**

Ordo	Family	Genus	Nama jenis	Nama local
Polyporales	Polyporaceae	Favolus	<i>Favolus</i> sp1	Tendewon kuku
Agaricales	Agaricaceae	Pleurotus	<i>Pleurotus</i> sp1	Tendewonbiaso
Agaricales	Agaricaceae	Pleurotus	<i>Pleurotusostreatus</i>	Tendewonbiaso
Agaricales	Agaricaceae	Pleurotus	<i>Pleurotuscystidiosus</i>	Tendewonbiaso
Auriculariales	Auriculariaceae	Auricularia	<i>Auriculariaauricula</i>	Tendewontelingoberok
Auriculariales	Auriculariaceae	Auricularia	<i>Auricularia</i> sp1	Tendewontelingoberok
Agaricales	Marasmiaceae	Marasmiellus	<i>Marasmiellus</i> sp1	Tendewonbiaso
Agaricales	Tricholomataceae	Tricholoma	<i>Tricholoma</i> sp1	Tendewonudang
Agaricales	Tricholomataceae	Collybia	<i>Collybia</i> sp1	Tendewonudang
Agaricales	Schizophyllaceae	Schizophyllum	<i>Schizophyllum commune</i>	Tendewon kuku



**Figure 1: *Favolus* sp.**

*Favolus* sp or SAD tendewon know as the nail has a wet weight of 5-20 g with a diameter of fruit hood (pileus cup) 1-4 cm white with applanate type that is part of a

flat surface. Pileus margin (cup edge) with the type of plicate (pleated), while the surface of the hood has a type glabrous (smoth) and the lamella arrangement of type pores (sponge like). Stalk (stipe) *Favolus* sp at the center (central) with a cylindrical shape and the surface of the stalk stalks glabrous (smoth). Type *Favolus* sp grown on substrates that is directly attached to the timber (insititious) and does not have the annular or volva. Based on the characteristics described, this fungus is a fungus of the genus *Favolus*. Mushrooms Polyporaceae *Favolus* included in the family of class Basidiomycetes.



**Figure 2: a). *Pleurotusostreatus*, b). *Pleurotus* sp c) *Pleurotuscystidiosus*.**

*Pleurotus* or SAD know as tendewonbiaso have 5-30 g wet weight with a hood diameter of fruit (pileus cup) of

2-15 cm are white and some are brown in colored with type infundibuliform is hollowed into the middle part.

Pileus margin (cup edge) with the type of entire (smooth), while the surface of the hood has a type glabrous (smooth) and the lamella arrangement of type intercalated in two series. Stalk (stipe) Pleurotus have stalks at the center (central) with a cylindrical shape and the surface of the stalk stalks glabrous (smooth). Type Pleurotus grown on substrates that is directly attached to the timber (insititious) and does not have the annular or volva. Based on the characteristics described, this fungus is a fungus of the genus Pleurotus.



Figure 3: *Marasmiellus* sp.

*Marasmiellus* sp or in SAD known as tendewonbisao have 4-25 g wet weight with a hood diameter of fruit (pileus cup) 3-7 cm white with appalante type that is the center of the slightly curved upwards. Pileus margin (cup edge) with the type of plicate (pleated), while the surface of the hood has glabrous type (smooth) and the lamella arrangement of type intercalated in two series. Stalk (stipe) *Marasmiellus* sp at the center (central) with a cylindrical shape and the surface of the stalk stalks glabrous (smooth). Type of *Marasmiellus* sp grown on substrates that is directly attached to the timber (insititious) and does not have the annular or volva. Based on the characteristics described, this fungus is a fungus of the genus *Marasmiellus*. Mushrooms *Marasmiellus* included in the family Marasmiaceae of the class Agaricomycetes.

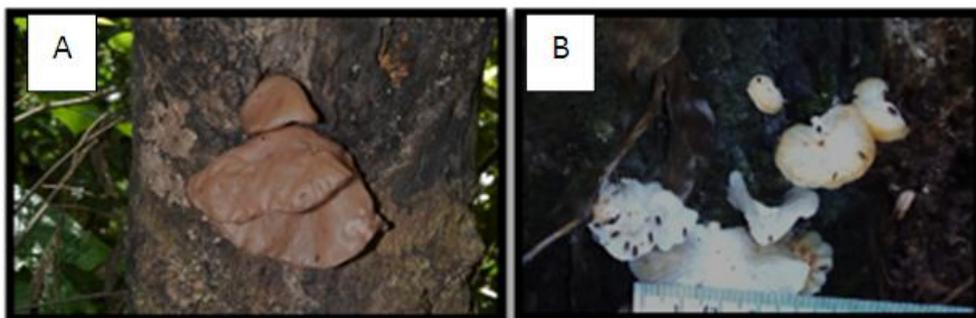


Figure 4: a) Environmental grow *Auricularia auricular*, b) *Auricularia* sp.

Fruit body shape *Auricularia* sp or SAD refer to as tendewontelingoskirtin the form of corrugated sheets with a weight of 2-8 g and has a hood fruit (pileus) were slick with a diameter of 2-5 cm. Color hood (pileus) *Auricularia* off-white and brown. The shape of blades (gills) *intercalated in one series* and bumpy with tipe grow *Auricularia* that is directly attached to the timber (insititious) and does not have a well annulus volva. Based on the characteristics described, this fungus is one of the genus *Auricularia*. Mushrooms *Auricularia* included in the family Auricularialesceae of the class Agaricomycetes.



Figure 5: *Tricholoma* sp.

*Tricholoma* sp in SAD tendewon known as shrimp has a hood fruit (pileus) in the form Applanate with a flat surface (flat) and has a diameter of 2-9 cm and 4-20 g wet weight. Stalk (stipe) *Tricholoma* sp has a height of 6 cm at the center (central) with a cylindrical shape and the surface of the stalk stalk fibrillose (vertical fibers). Hood (pileus) *Tricholoma* sp brownish form of blades (gills) *intercalated in two series* were pretty tight. *Tricholoma* sp growing mode is directly attached to the timber (insititious) and does not have the annular or volva. Based on the characteristics described, this fungus is a fungus of the genus *Tricholoma*. *Tricholoma* mushrooms included in the family Tricholomataceae of the class Agaricomycetes.



Figure 6. *Collybia* sp.

*Collybia* sp in SAD tendewon known as shrimp has a hood fruit (Pileus) appanate form with a flat surface (flat) and have 2-7 cm in diameter and 4-30 g wet weight. Stalk (stipe) *Collybia* sp has a height of 4.5 cm at the center (central) with a cylindrical shape and the surface of the stalk stalk fibrillose (vertical fibers). Hood (pileus) *Collybia* sp brownish form of blades (gills) *intercalated in two series* which is quite tightly, Tipe grow *Collybia* sp that is directly attached to the timber (insititious) and does not have the annular or volva. Based on the characteristics described, this fungus is a fungus of the genus *Collybia*. Mushrooms *Collybia* included in *Tricholomataceae* family of class *Basidiomycetes*.



Figure 7: *Schizophyllum commune*.

*Schizophyllum commune* in SAD tendewon referred to as nails, in other areas of Central Kalimantan *S. commune* has a toadstool kritip designation in the Dayak language Ngaju (Nion, et al., 2012) and in Malaysia *S. commune* has the name of the fungus comb (Matjunin, 2008), while in Sumatra *S. commune* generally referred to by the fungus bite. Fruiting bodies of *S. commune* grayish brown with a flat surface and have fine hair on its surface with a width of 2-5 cm and 5-15 g wet weight. *S. commune* has a short stalk and did not have a hood fruit (pileus) because his body extends laterally. The shape of blades (gills) furcated clay shaped and has a jagged edge. Type grew *Schizophyllum commune* is caespitose and has no annular or volva.

## CONCLUSION

Environmental conditions where the discovery of wild edible mushrooms have height of 80-107 meters above sea level and temperatures ranging between 27-30 ° C and 50-77% humidity. On a humid, wet, soil texture is soft, covered from the sun, and blocked by a canopy of trees. Myopia finding the location of wild edible jungle namely in the area close to the settlement SAD.

There are 10 species of edible wild mushrooms are *Favolus* sp, *Pleurotus* sp, *Pleurotuscystidiosus*, *Pleurotustosreatus*, *Marasmiellus* sp, *Auricularia* sp, *Auricularia auricular*, *Tricholomasp*, *Collybia* sp and *Schizophyllum commune*.

## REFERENCES

1. Algoteng, Z. Orang Rimba di Taman Nasional Bukit Duabelas. Balai Taman Nasional Bukit Duabelas. Jambi, 2014.
2. Achmad. Mugiono. T. ArliantidanAzmi, C. Panduan Lengkap Jamur. Penebar Swadaya. Jakarta, 2011.
3. Balai Taman Nasional Bukit Duabelas (BTNBD). \. Mengenal Taman Nasional Bukit Duabelas. Jambi, 2007.
4. Nion, A.Y., A.A. Djaya, E.M. Kadie, Lune, Sumarlan, H. Wijaya. Siklus Hidup Jamur. Konsumsi Lokal Kulat Kritip (*Schizophyllum commune*) Pada Daerah Bergambut dan Daerah Bertanah Mineral serta Potensi Nutrisinya. Jurnal Biologi Indonesia, 2012; 8(2): 339-406.
5. Roosheroe, I.G. W. Sjamsuridzaldan A. Oetari. Mikologi Dasar dan Terapan. Yayasan Obor Indonesia. Jakarta, 2006.
6. Sinaga, M. Jamur Merang dan Budidaya. Penebar Swadaya. Jakarta, 1998.