

## ETN OF ARMAKOLOGI PLANTS ANTS NEST PAPUA (HYDNOPHYTUM FORMICARUM) ON SKOUW TRIBE OF PAPUA

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### ABSTRACT

*Papua has abundant medicinal plant diversity that is utilized by every tribe in Papua to treat the disease. One of the plants used by tribal Skouw Papua ant nest is a plant that is believed to cure various diseases.*

*This study aimed to use the ant nest Papua as a medicine by traditional healers community Skouw tribe in Jayapura Papua.*

*This type of research is qualitative research by conducting depth interviews with traditional healers in the village of Jayapura city Skouw with data analysis using content analysis.*

*Research results indicate the type anthill etnofarmakologi used was anthill mangrove or attached to another tree, his usefulness for treating various diseases like cancer, diabetes, hypertension, gout, asthma, tuberculosis, HIV, Kidney, cyst. , Parts used are kaudeks, processing method that is a piece or a handful of ant nest is approximately 10 g of boiled, alone or mixed with other ingredients such as, white strap, strap red, yellow rope, lemongrass red, ceplukan, tread blood, turmeric, leaf bowl , leaves of the gods, the gods crown, ginger, soursop leaves, white turmeric, curcuma, black meeting, katuk leaf forest, moss, leaves binahong boiled in earthen vessels. Anthill dose taken 3 times daily or 1 time a day at bedtime or as needed. Abstinence during treatment should not eat food that comes from the sea and should not eat the fruit, flowers and leaves papaya. Anthill can be used as a natural medicine and developed in the form fitofarmaka to treat various diseases.*

**Keywords:** *Etnofarmakologi, Hypnopitum formicarum, Skouw Tribe, Papua*

### A. INTRODUCTION

Indonesia is very rich in tropical forests, so it has the potential of medicinal plants are priceless because no less than 1260 species of medicinal plants in the tropical forests of Indonesia ( [Zuhud, 1994](#) ). Papua Island is the largest contributor traditional medicinal plants in Indonesia, more than 50% of medicinal plants are in the area of Papua, and until now there are still many unknowns stored in forests of Papua, but the people who live in the area of Papua has

been using plants as a source of life. That potential has been used for hundreds of years by ethnic groups who live in the surrounding forests and countryside. The ethnic utilizing medicinal plants for the prevention and cure of various diseases.

Knowledge about medicinal plants, ranging from the type tumbuhannya, used parts, processing up to efficacy or incurable disease is a wealth of knowledge of each ethnic inherited ( [Damayanti, 1999](#) ).

Traditional drugs derived from medicinal plants have been used by approximately 60% of the world population ( [Modak, 2007](#) ). In recent years there has been an exponential growth in the field of herbal medicine and drugs and gaining popularity in both the developing and developed countries because it comes from nature and less side effects. Many traditional medicines are used comes from medicinal herbs, minerals and organic matter ( [Grover, 2002](#) ) The World Health Organization (WHO) has registered 21,000 species of plants, which are used for medicinal purposes throughout the world ( [Modak, 2007](#) ).

Knowledge of traditional medicinal use of plants as just based empiris. Perubahan pattern of modern medicine to traditional medicine, causing the need for drugs derived from natural ingredients to be increased. Natural materials are used as medicine should be held to the guidelines that the ingredients of the drug does not cause intoxication either acute or chronic and proven to cure disease or have medicinal properties and can be obtained continuously ( [Rofida 2010](#) ). Therefore the use of plants as medicine traditionally by certain ethnic communities need to be evaluated scientifically ( [Hidayah 2009](#) ).

Knowledge of each tribe or ethnic groups in Papua on traditional medicine are different from one another, it will enrich the knowledge of traditional medicine so that potential to be developed and scientifically conducted studies that Etnofarmakologi study of traditional medicine.

Etnofarmakologi is the study of the usefulness of plants that have pharmacological effects in relation to treatment and health care by a tribe. Etnofarmakologi study is the study of the use of plants that serves as a drug or herb that generated the locals for treatment ( [Darmono, 2010](#) ).

In Papua, there are about 243 tribes with 248 bahasa. Adanya high cultural diversity, the

possibility lifestyle of the tribes in Papua are also very different. How tribes live how ornate self, social development and expressions of spiritual life in myth and ritual, in the carvings and dances showed a very big difference. It appears also in the pattern pemanfaatan plants that vary in cultural environment and social system of a particular group of people are strongly influenced by differences in ethnographic and physiographic differences in the environment in which the tribe is located. One plant that is used by several ethnic in Papua for the treatment of plants, ant nest ( [Korowotjeng 2011](#) ). One tribe in Papua who use the plants for the treatment of ant nest is a tribal society Skouw. Plant anthill believed by the public is able to cope with a wide range of serious illnesses, such as cancer, diabetes, hypertension, liver, gout, and heart. Based on this background as well as empirical evidence of the public that the ants nest, it is necessary to do a scientific study regarding etnofarmakologi anthill on indigenous Papuans who have hereditary utilize the ant nest as medicine

## B. RESEARCH PURPOSES

Assessing etnofarmakologi plants, ant nest Papua in Jayapura City Skouw Tribe of Papua Province

## C. METODE

This type of research is qualitative research that etnofarmakologi depth interviews with traditional healers Tribe 3 Skouw Kota Jayapura of Papua Province as an informant. The research was conducted from January 2016, and research locations in Kampung Skouw, Kota Jayapura. The data source or informant is traditional healers Skouw tribe with the help of a tape recorder. Analysis of qualitative data using content analysis or content analysis.

## D. RESULTS.

Studies conducted in Kampong Skouw etnofarmakologi by conducting interviews with

traditional healers as many as three people. Selection of traditional healers as an informant with the consideration that the healers in indigenous communities in Papua are the person most knowledgeable about the treatment. Informants also selected from Ondoafi, but after the interview Ondoafi directing that went directly to traditional healers because traditional healers who know and understand the problem pengobatan. Hasil informant interviews are described as follows:

### 1. Type of ant nest used

Anthill used as drugs of many kinds, from the color of ant nests there were red, and there are white. There was stuck to the other plants and there are stuck in the stone. There are thorny, there are no thorns. From interviews with informants can be concluded that the host plant species ant nests are concerned.

Information from other informants said anthill type used and the good thing is the ants' nest attached to the mangrove trees or tree that grows in the highlands located far from the shore that grow in the forest.

### 2. Part anthill used

Anthill plant is a plant that is attached to other plants called epiphytic plants (plants attached but does not harm their host plants. The morphology consists tubers, stems, plants, ant nest daun. Bagian used as medicine is bongkolnya or tuber

### 3. Types of diseases that can be treated with the anthill

Diseases that can be treated using the ant nest informant is a disease like cancer and cancer most commonly breast cancer and uterine cancer, tuberculosis, gout, high blood pressure, asthma, diabetes, HIV, Borok, Stroke, cysts, headache, kidney disease and so on.

4. Load time anthill does not use certain times because anytime when needed anthill can be taken. So when healers need anthill they took it and usually for supplies in large quantities to give to people in need and to consult the healers. Some are given in the form of processed fresh so directly, there are also dried in order to survive long.
5. How to capture the ant nest

Intake of ant nests of the host tree need not require special equipment such as sharp objects machetes, knives and so forth because the process of extraction is easy because the plants anthill just stick to the trunks of trees, simply use your hands, and if they are in high places unreachable can use wooden tool to retrieve it.

### 6. Forming anthill used

Anthill used for the treatment is to informants there that use either fresh or already dry.

### 7. Processing Method anthill

How Processing anthill used as a medicine, namely anthill taken, cleaned of dirt attached, then washed and cut into pieces, when using the ant nest fresh then the ant nest is directly processed and mixed with other ingredients, if used dry ant nest, then the ants' nest chopped dried first then processed in a way, taken roughly a handful of ant nest or a large piece of dried, boiled until thick colored boiled water. The boiling process can be repeated for 3 days until the cooking water anthill lymph newly disposed replaced by anthill new, on condition that the cooking water anthill spent on the boiling process the first or the first day, tomorrow addition of water and boiled again drink the water runs out, so so on until the cooking water becomes clear anthill.

8. Anthill amount used is roughly enough processing at which time the ants' nest

will be boiled roughly two or three pieces which are already dry.

9. Anthill dose or doses used for the treatment according to the informant is taken 3 times a day each 1 cup and can also be taken in accordance with the purposes and drinking continued until the disease cured. Although it does not hurt an ant nest is also very good for daily consumption and drunk like regular drinking water to maintain good health so it is not easily subject to other penyakit. Informant said dosage used so far for treatment is 1 times a day taken at night when tidur. Untuk want sick people to drink sugar besides, if there are injuries such as ulcerative lesions also rubbed on the wound and the wound will quickly dry up.

#### 10. The mixture Ants Nest for Treatment

Anthill that is used for the treatment of information from informants vary beda. Salah one informant using anthill without using a mix of other apapun. Informant anthill mixed with other ingredients. is a yellow rope, white and red rope that does not exist in other areas exist only in the jungle of Papua. Another addition is a kind of grass mixture is the tongue of chicken, ceplukan, turmeric, white blood footprint, the parasite leaves orange, ginger, kencur, onion, garlic, cumin, coriander, white turmeric, curcuma, black meeting, lemongrass red

11. Abstinence in the treatment using ant nest

In treating disease using different ant nest Papua according to one informant informant no prohibition. But informants said the treatment using ant nests are no restrictions or rules are followed to accelerate the healing of sickness.

12. The container used in the processing of the ant nest

The container used as a processing point of ant nest Papua is a container like a regular pot devoted indeed to make potions. But other informants said containers are best for boiling medicinal herb is a container of soil, as fragrant and good for medication.

#### E. DISCUSSION

Etnofarmakologi research conducted in Jayapura City Skouw Tribe of Papua Province, using interviews to traditional healers who use ant nest as a traditional medicine used for the treatment of plants masyarakat. Jenis anthill used in research

Anthill plant is a plant with a unique **symbiosis**, in addition symbiosis with the host tree as a place to grow, tree ant nest also created a maze in the trunk into a den and a place to live for the ants. In addition to the unique symbiosis that occurs, ant nest tree trunk resembles an enlarged bulb turned out to be one of the herbal remedies are effective. 'Bulbs' plants, ant nest is very efficacious to cure various diseases naturally and safely

Ant nest is a collection of epiphytic plants (settled on another tree,) of the genus Myrmecodia and Hydnophytum. As epiphytic plants, ant nests in symbiosis with plants other as a place to grow (the host). Ant nests stick in some species but not the ant nest parasite, host plants growing just be the place alone. Plants also bersimbiosis anthill with ants (especially ants of the genus Iridomyrmex and Ochetellus). These plant stem tuber resembles bubbling with cavities contained in dalamnya. Rongga-cavities in the 'bulbs' anthill that resembles this labyrinth has become a place of life and nesting cavities semut. Selain are able to stabilize the temperature and humidity so that it becomes a nest that is comfortable for an ant colony, the plant was producing glucose (sugar) that interests arrival as well as a food ant ants. Colonies of ants living in the hump or 'bulb' plants, ant nest produce manure which is then absorbed by plants as nutrients. (Alamenda, 2011)

A series of symbiosis that happens is unik. Pohon host provides space for plants anthill to anthill

tumbuh. Kemudian make shelter and food for the colony semut. Dan ant will leave droppings as food (nutrients) for plants, ant nest. In addition to nutrition, the ant colonies also provide defense and protection for these epiphytic plants. Ant nest is one of the unique plant and efficacious, because of the interaction between the ants were nesting in it at the root of the ant nest is located in the halls in it. Temperature stability in it makes the ant colony comfortable nest inside the plant. In the long run there was a natural chemical reaction between compounds that issued the ants with the substance contained inside the ant nest. The combination is what allegedly made anthill powerful to overcome various diseases ( [Alliyah 2010](#) ).

Etnofarmakologi study is the study of the use of plants that serves as a drug or herb that generated the locals for treatment ( [Darmono, 2010](#) ). Etnofarmakologi research conducted in Jayapura Skouw tribal communities to collect information on the use of plants, ant nest used as medicine. Etnofarmakologi method performed in this study using in-depth interview to the informant who understand treatment within the tribe that traditional healers who use ant nest for treatment. The analysis used is content analysis (content analysis).

The study results etnofarmakologi by an interview with an informant about the ant nest Papua showed that the use of ant nest has been used for generations to treat various illnesses, especially incurable diseases such as cancer, high blood pressure, diabetes, tuberculosis, and traditional sebagainya. Pengobat Skouw village is still a very important role to provide treatment to the needy. Seen from the way in which the processing and compounding treatment of traditional medicine is still done by traditional healers and then given to the patient.

Anthill used is diverse and empirical evidence are all efficacious for use as a medicine. But there are types of ant nests should not be used as a drug informant is the ants' nest attached to or living in a toxic tree where the tree is the

common people use it as a fish poison, where the characteristics of the tree and its fruit is big leaves like stars and big. From the information from the two statements of interest, where the informants of the use of ant nest on the mangrove trees, but other informants used anthill anthill that growth is far from the shore, or that grows in the highlands.

Many of the diseases that can be treated using the nest semut. Tetapi from interviews with informants at most treated patients are suffering from cancer, especially breast cancer and cancer kandungan. Kemudian high blood pressure, diabetes, memperlancar blood circulation, kidney, and the various other diseases. Processing of ant nests for treatment can be in the form of single or mixed with other well, with a dose three times daily or 1 time a day at bedtime or as needed.

From the interview to the informant, the patients who come for treatment penyakitnya most complaints are categorized as severe, such as those suffering from cancer had surgery and will undergo chemotherapy. But they decided to use traditional medicine so that it comes to healers tradisional. Ada also patients who are already undergoing treatment in the hospital for months but there is no change, so decided to take the ant nest. In cancer patients who consume anthill routinely and regularly for approximately one month, after the tumor is not berkembang checked again and some have already recovered. Likewise for many other serious diseases such as diabetes mellitus, hypertension if consumed regularly, it can heal. The empirical evidence also proves no HIV patients treated by one of the informants after regularly consuming the concoction anthill, then the situation is gradually better and the results of the examination the doctor declared cured.

The existence of empirical evidence and the information by word of mouth, so the more people who use ant nest for treatment, not only the local communities in Papua are using ant nest at this time, but all walks of life have been

using this plant to other areas even the information has come to foreign countries.

With the increased use of anthill cause increased plant availability, so that large-scale exploitation occurred without memeperhatikan availability in nature. Local communities in Papua still dependent life in nature, especially in the treatment of disease, as well as the anthill that has many properties, anthill that had been taken and brought out the area of Papua is a type of ant nests barbed origin mostly from Papua's central highlands of forest in Wamena and the surrounding area.

Anthill stuck in the mangroves informant current supply is still very much in the coastal areas, including areas of the city and district of Jayapura and the surrounding areas., Because not many people know people rarely use this type of ant nest. But traditional healers in a tribal society Skouw using the type of ant nest attached to the mangrove trees, and not worry about the availability of the ants' nest because it is still widely available in nature Papua.

Retrieval and use of ant nests on a large scale need to pay attention to the survival of the ant nest. And need to be coupled with the cultivation of these plants, so its availability tumbuhaan anthill in Papua is always there when needed. slogan Papuans of Papua's natural wealth, including plants anthill is that nature provides everything needed. Currently used anthill plants still depend on nature sekitar.Sarang ants stuck in mangrove trees found in the blood of the coast of Papua, especially in areas of the city and district of Jayapura supply is still very abundant. Because during this time are used, and known and exploited on a large scale is a kind of red and spiny ant nest is usually obtained in the jungles and most widely grown in the mountains of Papua. So that the ants' nest in mangrove trees grow supply is still guaranteed used as medicine.

Plants, ant nest in nature so closely linked to the characteristics of the ecological habitat conditions given the anthill is a plant so that the

plant community epipit ant nest can only thrive on the ecological characteristics of a particular habitat. (Gunawan et al 2009), as the area of Papua that has very good natural conditions for life a nest of ants, because in Papua anthill existence ranging from the coast to the highland areas of Papua.

To maintain the viability of plants, ant nest that will not extinct, the cultivation of these plants need to involve local communities given the huge potential to be developed as a drug.

## F. CONCLUSION

From the results of research and discussion can be summarized as follows

anthill kind used for the treatment is the ants' nest attached to the mangrove trees and attached to a large tree that grows in hutan.sarang ants used utuk a wide range of serious diseases, especially for cancer, hypertension, diabetes mellitus, tuberculosis and asthma, kidney, ulcers, HIV. The cooking methods, namely by boiling, alone or mixed with other materials such as yellow rope, white rope, rope red, blood footprint, ceplukan, white turmeric, ginger, leaves bowl, binahong, leaves of the gods, the gods crown. Segengam dose of approximately 10 mg doses three times daily or twice daily or 1 at night before bedtime or taken as needed.

## G. SUGGESTION

1. Plant availability in nature ant nest is increasingly reduced, especially in Papua, so it is very necessary to the cultivation of the ant nests by involving the local community.
2. Keep in advanced research for the isolation of active ingredients in plants, ant nest Papua.

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