



## MORPHOLOGICAL CHARACTERISTICS OF TERRESTRIAL ORCHIDS IN THE FOREST OF BUKUM VILLAGE , SIBOLANGIT DISTRICT, DELI SERDANG REGENCY

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### ABSTRACT

The study aims to determine the types of terrestrial orchids that exist in the Forest of Bukum Village, Sibolangit District, Deli Serdang Regency. This study uses an exploratory method. Orchid found identified and observed morphology from root to fruit. Type 15 species of orchids were found including *Anoectochilus longicalcaratus* J.J.Sm., *Anoectochilus reinwardtii* Blume, *Calanthe triplicata* (Willemet) Ames, *Chrysoglossum ornatum* Blume, *Corymborkis veratrifolia* (Rein.w) Blume, *Cymbidium ensifolium* (L.) Sw., *Cystorchis stenoglossa* Schltr, *Habenaria* sp, *Hetaeria oblongifolia* Blume, *Liparis rheedei* Lindl, *Malaxis oculata* (Rehb.f.) Kuntze, *Malaxis ophrydis* (J.Koenig) Ormerod, *Phaius callosus* (Blume) Lindl, *Phaius corymbioides* Schltr, *Plocoglottis javanica* Blume. 7 species of which have pseudobulbs.

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### Introduction

Orchid is one type of ornamental plant that has almost 1.000 genera and more than 22.000 species whose growth is spread all over the world especially in tropical countries (Pratiska et al., 2021). Orchid germplasm in Indonesia about more than 5.000 species from 40 genera scattered in forests such as Sumatera, Borneo, Sulawesi, Java and Irian Jaya. On the island of Sumatera as many 1.118 species (Comber, 2001). Borneo as many as 2.000 types. (Chan et al., 1994) and in New Guinea have 2.856 orchid species (Kusumastuti, 2021).

Orchid habitats are threatened all over the world. At the end of 2020 almost 1.700 orchid species have been added to the Global Red

List, an increase of almost 1.500 in the last decade (Fay, 2020). *World Conservation Monitoring Center* (WCMC), stated that the orchid plant in the world Indonesia, which is as many as 203 species or 39%, it does not rule out the possibility that many orchids became extinct before being described and documented (Hilmiah et al., 2017).

Orchid plants are known for their unique flower shape, color and aroma. Orchid plants as natural resources have attracted the attention of botanists to exploit and research, while also attracting ornamental flower hunters to exploiting of the habitat for economic purpose and hobbis (Bieth, 2020). The high exploitation of orchids is due to the high interest society towards orchids and the

taking of orchids is not followed by cultivation activities. Another factor that causes orchids to become extinct is the conversion of forest functions into plantation land and agricultural land (Maimunah, 2020). In addition to growth orchids are very slow because they require the presence of mycorrhizae that can support growth so that this is one of the factors causing extinction (Garvita, 2020).

Bukum Village Forest is located in Sibolangit District, Deli Serdang Regency. The Bukum forest is bordered by Negri Gugung to the south, Bukum Village to the north, Tahura to the west, and Suka Maju Village to the east. Research on types of orchids especially terrestrial orchids in the Bukum Forest do not yet exist, so a study needs to be done morphological characteristics of terrestrial orchids in the Bukum Village Forest.

## Materials and Methods

This research was conducted in the

Forest of Bukum Village, Sibolangit District, Deli Serdang Regency in November 2021 – August 2022. The tools used in this research are stationery, knife, camera, ruler, plastic bag, newsprint, spray bottle, rope, thread, needles, glue/insulation, tissue, specimen paper, wood presses, thermohygrometer, soil solter, and GPS. While the material used in this study is 70% alcohol and terrestrial orchid plants found in the Forest of Bukum Village, Sibolangit District, Deli Serdang Regency.

The type of research is descriptive research with the roaming method (exploration), where Observation of the object to be studied is carried out by searching the study area, then altitude and identify any terrestrial orchid that found through morphological characteristics. morphological characteristics include roots, stems, leaves, flowers, and fruit. Orchid plants obtained are collected by making herbarium dry. If the sample population is small, the herbarium is not done, it is enough to take image for identification process.

## Results and Discussion

Based on the results of research conducted, there are 15 species of orchids that found in the Bukum Village Forest.

### Key of determination

1. a) Smooth root surface .....2  
b) Hairy root surface .....7
2. a) Have pseudobulbs .....5  
b) Does not have pseudobulbs .....3
3. a) Woody stem, round (covered by midrib) green, branched monopodial. Build elongated leaves, pointed leaf tips, flat leaf edges, top surface and the underside of the smooth leaves is green, has a pattern of parallel leaf veins....***Corymborkis Veratrifolia* (Rein.W.) Blume**  
b) Wet stem .....4
4. a) Build elongated leaves, Build elongated leaves, flat edges, hairy top surface brownish green, undersurface hairy green, bony pattern parallel leaves. Compound flower type, capsule-shaped fruit, green.....***Malaxis oculata* (Rchb.f.) Kuntze**  
b) Build leaf lanceolate tapered leaf tip, flat edge, upper and lower surface of the leaf hairy, green, parallel leaf veins pattern. This orchid has a flower type compound, capsule-shaped fruit, brown .....***Habenaria sp***
5. a) Pointed leaf tip .....6  
b) The tip of the leaf is tapered, the leaves are lanceolate, the edges are flat. parallel leaf pattern.....***Phaius callosus* (Blume Lindl)**

6. a) Ribbon leaf shape, flat edge, smooth green leaf surface, reinforcement pattern parallel. Pseudobulb (pseudo-tuber) covered in midrib. Green capsule-shaped fruit .....***Cymbidium ensifolium* (L.) Sw.**  
b) Build elongated leaves, flat leaf edges, smooth top surface green, the undersurface is green, the leaf veins are parallel.....***Plocoglottis javanica* Blume**
7. a) Sympodial branching, roots yellowish white. round rod, wet, smooth surface, green. Build elongated leaves, top surface and smooth green underside, parallel leaf veins pattern, Possess pseudobulbs, compound interest type, capsule-shaped fruit, green. ....***Chrysoglossum ornatum* Blume**  
b) Monopodial branching .....8
8. a) Have pseudobulbs .....9  
b) Does not have pseudobulbs .....11
9. a) The tip of the leaf is pointed, the leaf is elongated (asymmetrical), the edge is flat, the surface is smooth dark green, parallel rib pattern.....***Liparis rhedeii* Lindl**  
b) Tapered leaf tips .....10
10. a) The leaves are lanceolate, the leaves are green, the edges are flat, the leaf veins are parallel, Pseudobulb covered by leaf sheath.....***Calanthe triplicata* (Willemet) Ames**  
b) Build elongated leaves (asymmetrical), leaf base covered with midrib, leaf surface green, leaf veins parallel pattern, leaf stalks midrib. flower type compound, capsule-shaped fruit, green.....***Malaxis opharydis* (J.Koenig) Ormerod**
11. a) Wavy leaf edges, the upper surface of the hairy leaves is brown with green patterns young in the middle, the lower surface is greenish-brown hairy, bony pattern pinnate leaves. Compound flower type, pink bracts, green sepals light pink tip .....***Cystorchis stegnolossa* Schltr**  
b) Flat leaf edge .....12
12. a) Lancet leaves .....13  
b) Oval leaves .....14
13. a) Smooth leaf surface, parallel bony pattern.....***Phaius corymboides* Schltr**  
b) The leaf surface is hairy, the leaf veins are parallel. Compound flower type, stalk flowers attached to the flower stalk, bracts brown, petals colored green, sepals yellow. The fruit is capsule-shaped, green. ***Hataeria oblingifolia* Blume**
14. a) The upper surface is brownish green, the lower surface is brown, parallel leaf veins, leaf bone color and leaf veins brick red to yellow. Type compound flowers, bracts pink, sepals green pink **Anoetochillus Reinwardtii Blume**  
b) The upper surface is reddish green, the leaf bones are gold, the surface is red-green hairy underside, parallel leaf veins pattern **Anoetochillus longicalcaratus J.J.Sm.**

**Tabel 1** Terrestrial Orchid Species

No	Name Species	Height (masl)
1	<i>Anoetochilus longicalcaratus</i> J.J.Sm.	1.006
2	<i>Anoetochilus reinwardtii</i> Blume	1.006
3	<i>Calanthe triplicata</i> (Willemet) Ames	963
4	<i>Chrysoglossum ornatum</i> Blume	943
5	<i>Corymborkis veratrifolia</i> (Rein.w) Blume	943
6	<i>Cymbidium ensifolium</i> (L.) Sw.	1.006
7	<i>Cystorchis stenoglossa</i> Schltr	1.004
8	<i>Habenaria</i> sp	943
9	<i>Hetaeria oblongifolia</i> Blume	918

10	<i>Liparis rheedei</i> Lindl	1.015
11	<i>Malaxis oculata</i> (Rchb.f.) Kuntze	970
12	<i>Malaxis ophrydis</i> (J.Koenig) Ormerod	966
13	<i>Phaius callosus</i> (Blume) Lindl	1.007
14	<i>Phaius corymbioides</i> Schltr	995
15	<i>Plocoglottis javanica</i> Blume	1.006

Morphological characteristics of terrestrial orchids in the Forest of Bukum Village, Sibolangit District, Deli Serdang Regency.

1. *Anoetochilus longicalcaratus* J.J Sm.

*Anoetochilus longicalcaratus* J.J Sm., is an orchid that grows on the forest floor. Root white, smooth-haired surface, root length 1.2 cm - 2.2 cm. shaped rod round, wet, smooth-haired stems surface, brownish green, diameter rod 0.23 mm. The leaves are oval in shape, tapered leaf tip, the upper surface is reddish green gold leaf veins, undersurface of fine greenish red hair, pattern parallel leaf veins, leaf length 1.2 cm – 2.1 cm, leaf width 0.3 cm

– 0.5 cm, distance between nodes 0.7 cm – 2.1 cm.

*Anoetochilus longicalcaratus* J.J Sm., flowers have white flowers with less attractive colors. This orchid grows at the bottom of the forest and grows between leaf litter, so it is difficult to find it (Ritonga, 2019). Distribution of North Sumatra *Anoetochilus longicalcaratus* J.J Sm., is one of the endemic plants of Sumatra (Comber, 2001). In the forest of Bukum Village this orchid can be found at an altitude of 1,006 masl, the coordinate point is N 03°13'32.4" E 098°35'18.1".



**Figure 1.** *Anoetochilus longicalcaratus* J.J Sm.,  
(Source : Personal documentation, 2022)

2. *Anoetochilus reinwardtii* Blume

*Anoetochilus reinwardtii* Blume grows on the forest floor with very little light. When exposed to sunlight, the veins of the leaves will light up with colored orchid roots yellowish white, smooth-haired surface, root length 3.2 cm - 5.5 cm. Stem; shaped round, wet, smooth-haired surface, brownish green, stem diameter 2.6 mm – 3.7 mm. Leaves oval leaf shape, leaf base rounded, pointed leaf tip, flat edge, upper surface smooth brownish green hair, lower surface brown, leaf veins are parallel, the color of the veins and veins is

brick red to yellow, leaf length 2.9 cm – 5.9 cm, leaf width 2.1 cm – 4.4 cm, distance between nodes 0.4 cm – 2 cm, petiole midrib 1.2 cm – 1.8 cm. Compound interest type, flowering length 14.5 cm, flower stalk length 11.8 cm, flower stalk length 1.2 cm – 1.5 cm, diameter 4.6 mm – 6.5 mm, flower length 1.6 cm. *Anoetochilus reinwardtii* Blume flower still buds found on April 19, 2022.

Distribution in Borneo, Java, Maluku. In Sumatra is precisely in the tropical rain forest at an altitude of 200 to 1000 meters above sea level (masl) (Jannah et al., 2020). In the forest

of Bukum Village this orchid can be found at an altitude of 1,006 masl, the coordinates point N 03<sup>o</sup>13'30.8" E 098<sup>o</sup>35'18.0".



**Figure 2.** *Anoectochilus reinwardtii* Blume  
(Source : Personal documentation, 2022)

3. *Calanthe triplicata* (Willemet) Ames

*Calanthe triplicata* (Willemet) Ames is a terrestrial orchid. Orchid roots are brown and smooth hair, root length 16.8 cm – 57.5 cm. Stem; wet and slippery light green. Has a pseudobulb covered by a leaf midrib, 1.83 mm in diameter 2.43 mm and 2.94 cm long. The leaves are lanceolate, the tips of the leaves are tapered, the edges are flat, green color,

parallel leaf veins pattern, leaf length 46.3 cm – 62.2 cm, leaf width 12.7 cm – 16 cm.

Distribution is widespread to Papua New Guinea, Indonesia, Malaysia, India to China (Milar, 1978). In the Forest of Bukum Village, this orchid can be found at an altitude of 963 masl coordinate point N 03013'53.9" E 098034'55.1".



**Figure 3.** *Calanthe triplicata* (Willemet) Ames  
(Source : Personal documentation, 2022)

4. *Chrysoglossum ornatum* Blume

*Chrysoglossum ornatum* Blume is a terrestrial orchid with sympodial branches. cream colored roots, smooth hairy surface, root length 5.2 cm – 12.6 cm. Stem round, wet, smooth surface, green, stem diameter 0.72 mm. Build elongated leaves,

tapered leaf base and tip, flat edge, upper surface and smooth green underside, parallel leaf veins pattern, leaf length 23.3 cm – 25.3 cm, leaf width 7.2 cm – 8.9 cm. Has pseudobulb. pseudobulb diameter 7.2 mm – 10.6 mm, pseudobulb length 3.6 cm – 4.4 cm.

Compound interest type, flowering length 58.9 cm, flower stalk length 38.5 cm.

Flowers are green with sepals and petals lanceolate. Lips white. capsule fruit, green, fruit length 2.1 cm – 2.9 cm, fruit stalk length 0.8 cm – 1.6 cm. Flowering in August – October. India, China, Taiwan, Cambodia,

Indonesia, Malaysia, Nepal, Philippines, Sri Lanka, Thailand, and Vietnam (Gogoi et al., 2012). In the Forest of Bukum Village Chrysoglossum ornatum Blume can be found at an altitude of 943 masl point N 03036'37.4" E 098042'14.3".



**Figure 4.** *Chrysoglossum ornatum* Blume  
(Source : Personal documentation, 2022)

5. *Corymborkis veratrifolia* (Rein.W.)  
Blume

*Corymborkis veratrifolia* (Rein.W.) Blume has a rhizome in the soil, brown roots, smooth surface, root length 7.4 cm – 23.7 cm. Stem woody and unbranched, round shape (covered by midrib) green, stem diameter 0.64 mm, design monopodial. Build elongated leaves, pointed leaf tips, flat leaf edges, upper surface and the underside of the leaves is smooth, green, has a leaf veins pattern parallel

to the length of the leaf 13.3 cm – 18.2 cm and leaf width 3.5 cm – 7.8 cm. The distance between the nodes is 2.2 cm – 5.6 cm.

Distribution in Madagascar, India, Southeast Asian Countries, Japan, Australia and the South Pacific (Mahyar, 2003). In the Forest of Bukum Village, *Corymborkis veratrifolia* (Rein.W.) Blume can be found in an altitude of 943 masl, coordinate point N 03036'37.4" E 098042'14.3".



**Figure 5.** *Corymborkis veratrifolia* (Rein.W.) Blume  
(Source : Personal documentation, 2022)

6. *Cymbidium ensifolium* (L) Sw.

*Cymbidium ensifolium* (L) Sw., is a terrestrial orchid. Roots are light brown, smooth surface, root length 11.7 cm – 31.9 cm. Has a pseudobulb which hidden leaf midrib. Build ribbon leaves, leaf tips pointy, flat edges, smooth green leaf surface, parallel bony pattern with a length of 31.4 cm – 72.2 cm and a width of 1.7 cm – 2.7 cm. Pseudobulb covered in midrib. Fruit shaped green capsule

with a length of 4.2 cm - 6.4 cm. flower length 51.1 cm, length flower stalk 35.4 cm.

Distribution in China, India, Sri Lanka, Southeast Asia and New Guinea. *Cymbidium ensifolium* (L) Sw., can grow in primary forest at an altitude of 500-1,300 masl (Mahyar, 2003). In the Forest of Bukum Village *Cymbidium ensifolium* (L) Sw., can be found at high altitudes 1,006 masl, coordinate point N 03013'32.4" E 098035'17.7".



**Figure 6.** *Cymbidium ensifolium* (L) Sw.  
(Source : Personal documentation, 2022)

7. *Cystorchis stenoglossa* Schltr

*Cystorchis stenoglossa* Schltr has cream-colored roots, smooth, long hairy surface root 0.9 cm – 12 cm. The stem is round, wet, smooth-haired surface, yellowish white, stem diameter 0.28 mm. Build elongated leaves, base and tapered leaf tip, wave leaf edge, leaf upper surface with fine hair color brown with light green in the middle, the lower surface of the smooth hair is brown greenish, parallel leaf veins pattern, leaf length 1.2 cm – 1.8 cm, leaf width 0.6 cm – 1.8 cm. Compound flower

type, smooth hair, 10.1 cm long inflorescence, long stalk inflorescence 7.3 cm, flower stalk length 0.3 cm – 0.5 cm, diameter 0.4 mm, flower length 1.4 cm – 1.7 cm, petals pink, sepals light green with colored tips pink.

*Cystorchis stenoglossa* Schltr is a plant endemic to North Sumatra (Comber, 2001). In the Forest of Bukum Village, *Cystorchis stenoglossa* Schltr can be found at an altitude of 1,004 masl coordinate N 03013'31.0" E 098035'18.0".



**Figure 7.** *Cystorchis stenoglossa* Schltr  
(Source : Personal documentation, 2022)

#### 8. *Habenaria* Sp.

Is a terrestrial orchid, the surface of the roots is smooth brown, has a rhizome, root length 9.8 cm – 17.8 cm. Stem round, wet, hairy surface smooth, brown, monopodial branching, stem diameter 1.02 cm. Wake up lanceolate leaves the tip of the leaf is tapered, the edge is flat, the upper and lower surfaces of the leaves are smooth, colored green, parallel leaf veins, leaf length 12.5 cm – 20.9

cm, leaf width 5.4 cm – 5.8 cm, the distance between nodes 5.2 cm – 5.6 cm. Compound flower type, flowering length 31.8 cm, flower stalk length 15.8 cm. Fruit shaped capsule, brown, fruit length 1.7 cm - 2.4 cm. brown lips. In the Forest of Bukum Village can be found at an altitude of 943 masl, the coordinates point N 03013'49.8" E 098034'59.2".



**Figure 8.** *Habenaria* sp.  
(Source : Personal documentation, 2022)

#### 9. *Hetaeria oblongifolia* Blume

*Hetaeria oblongifolia* Blume has cream colored roots, smooth hairy root surface, root length 2.2 cm – 5.1 cm. The stem is round, wet and has fine hair, green, stem diameter 0.35 mm - 0.49 mm. Build lanceolate leaves, base and tip pointed leaves, flat edge, green, smooth hairy surface, leaf veins pattern parallel, leaf length 4.6 cm – 7.2 cm, width 1.6 cm – 2.4 cm, distance between nodes 1cm – 2.6 cm, petiole length 0.2 cm – 1.7 cm. Compound flower type, flower length 14.2 cm – 26.6 cm, flower stalk length 11.1 cm – 18.5 cm, flower stalk attached to the stalk inflorescence, 0.24 mm in diameter, 0.9 cm in

length, brown petals, colored sepals yellow. The fruit is capsule-shaped, green, fruit length 0.7 cm.

Distribution in South Asia and Southeast Asia (including most of Malesia), Taiwan and the Ogasawara Islands (Japan), Queensland (Australia), and the Pacific Islands. In Papua New Guinea, *Hetaeria oblongifolia* grows at an altitude of about 800 masl, grows in shrubs moist and shady shrubs in the savanna area (Leong et al., 2021). In The Forest of Bukum Village you can found at an altitude of 918 masl, coordinate point N 03014'34.3" E 098034'24.7".





**Figure 9.** *Hetaeria oblongifolia* Blume  
(Source : Personal documentation, 2022)

#### 10. *Liparis rheedei* Lindl

It is a terrestrial orchid, the root surface is smooth, cream colored, long root 3.5 cm – 23.2 cm. The shape of the flat round stem is wet, the surface is smooth and colored green. It has pseudobulbs with a diameter of 18 mm and a length of 9.8 cm. Get up leaves are elongated (asymmetrical) with pointed ends and flat edges, smooth colored surface dark

green, parallel bone pattern, leaf length 9.3 cm – 15.1 cm and width 4 cm – 6.7 cm.

Distribution in Peninsular Malaysia, Sumatra, Thailand, Sulawesi, Sumbawa and New Guinea. *Liparis rheedii* Lindl lives in primary forest at an altitude of 600-1.500 masl (Mahyar, 2003). In The Forest of Bukum Village can be found at 1.015 masl, coordinates point N 03013'32.2" E 098035'18.2".



**Figure 10.** *Liparis rheedei* Lindl  
(Source : Personal documentation, 2022)

#### 11. *Malaxis oculata* (Rchb.f) Kuntze

Is a terrestrial orchid with green roots, smooth surface, root length 1.2 cm – 6,7 cm. The stem is round, wet, smooth surface, reddish, rod diameter 0.4 mm – 0.52 mm. Build elongated leaves, tapered ends, flat edges, the upper surface is brownish green, the

lower surface is green, parallel leaf pattern, leaf length 7.9 cm – 9.8 cm, leaf width 2.3 cm – 3.2 cm, distance between nodes 1.2 cm – 1.8 cm, petiole length 1.7 cm – 2.6 cm. compound interest type, flower length

26.1 cm, flower stalk length 8.6 cm. capsule fruit, green, fruit length 0.8 cm – 1.1 cm, fruit stalk 0.3 cm – 0.4 cm.

*Malaxis oculata* (Rchb.f) Kuntze flowers are yellow and purple. The dorsal sepals are lanceolate in shape while the lateral

sepals are oval in shape. Distribution of North Sumatra and Mount Kerinci in Jambi Province (Comber, 2001). In the Forest Bukum Village it can be found at 970 masl, coordinate N 03013'54.0" E 098034'44.7".



**Figure 11.** *Malaxis oculata* (Rchb.f) Kuntze  
(Source : Personal documentation, 2022)

#### 12. *Malaxis ophrydis* (J.Koenig) Ormerod

Terrestrial orchid with monopodial branching. Cream colored roots, surface smooth hair, root length 6.1 cm – 17.6 cm. Stem round flat, wet, surface smooth, green. Has pseudobulbs, diameter of pseudobulbs 19.8 mm, length of pseudobulbs 13.8 cm. Build elongated leaves (asymmetrical), leaf base covered with midrib, leaf tip tapered, smooth green leaf surface, parallel leaf veins pattern, leaf length 9.6 cm – 19.6 cm, leaf width 6.2 cm – 6.8 cm, distance between nodes 0.6 cm – 4.4 cm, leaf stalk midrib.

Compound flower type, 36 cm inflorescence, flower stalk length 21.6 cm. Capsule-shaped fruit, green, fruit length 0.5 cm – 1.2 cm, length fruit stalk 0.2 cm.

Widespread from India to China and Most of Southeast Asia to Australia. In Sumatra, one of them can be found in the Wampa Valley near Bahorok on an altitude of 550 masl (Comber, 2001). In the Forest of Bukum Village can be found at an altitude of 966 masl, coordinate point N 03013'45.9" E 098035'03.2".



**Figure 12.** *Malaxis ophrydis*(J.Koenig) Ormerod  
(Source : Personal documentation, 2022)

13. *Phaius callosus* (Blume) Lindl.

The roots are smooth green, 11.2 cm -84.6 cm long. Stems are wet, smooth colored green. Monopodial branching pattern, has pseudobulbs with a diameter of 3.22 mm - 3.71 mm, length 6.9 cm. The leaves are lanceolate, the tips of the leaves are tapered, the edges are flat. Pattern parallel leaf veins, leaf length 54.2 cm – 58.4 cm, leaf width 12.6 cm – 12.8 cm. Flowering grows from the top pseudobulb, the inflorescence is longer from

the leaves sometimes reach  $\pm$  125 cm, the number of flowers 6 to 12. The petals are rounded, flower length  $\pm$  5 cm (Mahyar, 2003).

Distribution is in Peninsular Malaysia and Kalimantan. Lives in primary forest at an altitude of 350-1,400 masl (Mahyar, 2003). In the forest of Bukum Village can be found at an altitude of 1,007 masl, the coordinates point N 03013'34.6" E 098035'13.1".



**Figure 13.** *Phaius callosus* (Blume) Lindl.  
(Source : Personal documentation, 2022)

14. *Phaius corymbioides* Schltr

Terrestrial orchid with monopodial branching. Cream-colored roots, surface smooth hair, root length 5.2 cm - 24.4 cm. Stems round, wet, smooth surface, green color, diameter 0.74 mm – 0.94 mm. Wake up lanceolate leaves, pointed leaf tip, flat edge, green, smooth surface, pattern parallel spines, leaf length 10.3 cm – 30.8 cm, leaf width 4.8 cm – 9.6 cm, distance between node 2.8 cm – 7.6 cm.

Inflorescences from the stem, sepals and petals are lemon yellow, the base is slightly slightly pale, lemon yellow lips, transparent white spurs (Comber, 2001). Distribution in Java, Mount Manggisan, East Java, Mount Jakoreng Selatan, West Sumatra and Jambi (Comber, 2001). In the Forest of Bukum Village can be found at an altitude of 995 masl, point N 03013'34.1" E 098035'13.9".



**Figure 14.** *Phaius corymbioides* Schltr  
(Source : Personal documentation)

### 15. *Plocoglottis javanica* Blume

Roots are yellowish white, smooth surface, root length 10.4 cm – 18.4 cm. stem round, wet, smooth surface, dark green, stem diameter 3.3 cm. Get up elongated leaves, tapered leaf base, pointed leaf tip, flat leaf edge, upper surface smooth green, smooth undersurface green, leaf veins parallel pattern, leaf length 9.3 cm – 14.1 cm, leaf width 4.1 cm – 5.6 cm, distance between nodes 4.1 cm

– 5.7 cm, has pseudobulb diameter 3.6 mm – 7.3 mm, Length 3.5 cm – 6.4 cm.

The length of the ridge is higher than the leaf, the flower reaches 20 to 30 buds, 2 to 4 buds can grow at the same time, flowers are yellow with red spots (Mahyar, 2003). support upward Distribution in Java, Kalimantan, Peninsular Malaysia and Thailand (Comber, 2001). In the Forest of Bukum Village it can be found at litude 1.006 masl, coordinate point N 03013'30.8" E 098035'18.0".



**Figure 15.** *Plocoglottis javanica* Blume  
(Source : Personal documentation, 2022)

### Conclusions

Based on the results of exploration that has been carried out terrestrial orchids found totaling 15 species, namely *Anoectochilus longicalcaratus* J.J.Sm., *Anoectochilus reinwardtii* Blume, *Calanthe triplicata* (Willemet) Ames, *Chrysoglossum ornatum* Blume, *Corymborkis veratrifolia* (Rein.w) Blume, *Cymbidium ensifolium* (L.) Sw., *Cystorchis stenoglossa* Schltr, *Habenaria* sp, *Hetaeria oblongifolia* Blume, *Liparis rheedei* Lindl, *Malaxis oculata* (Rchb.f.) Kuntze, *Malaxis ophrydis* (J.Koenig) Ormerod, *Phaius callosus* (Blume) Lindl, *Phaius corymbioides* Schltr, *Plocoglottis javanica* Blume. Of the 15 species of which 7 species have while namely : *Calanthe triplicata* (Willemet) Ames, *Chrysoglossum ornatum* Blume, *Cymbidium ensifolium* (L.) Sw., *Liparis rheedei* Lindl, *Malaxis ophrydis* (J.Koenig) Ormerod, *Phaius*

*callosus* (Blume) Lindl, *Plocoglottis javanica* Blume.

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