

## PRELIMINARY STUDY ON SOME WILD ORCHIDS AT NAT MA TAUNG WILDLIFE SANCTUARY, KAN PET LET TOWNSHIP IN SOUTHERN CHIN STATE\*

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### Abstract

This research paper was concerned with some wild orchids of natural habitat in Nat Ma Tung Wildlife Sanctuary in Kan Pet Let Township. These wildlife Sanctuary was located in Kan Pet Let Township of Min Tet District in Southern Chin State and also east part and 2.5 miles distance away from Kan Pet Let city. In this study (9) genera and (10) species were recorded in study area. Nat Ma Taung is hill evergreen forest and rain forest type. Various wild orchids are stretch out around the Nat Ma Taung Mountain hill and rich in diverse flora and fauna. All collected species are epiphyte, terrestrial and lithophyte. Collected genera namely *Anthogonium*, *Arundina*, *Cymbidium*, *Dendrobium*, *Habenaria*, *Obeionia*, *Paniisea*, *Peristylis*, *Pleione* and *Spathoglottis*, were recorded and have been taken photographs in natural habitat of orchids. The collected specimens were classified, identified and described with color photographs also found unknown species in study area. The morphological characters have been emphasized and artificial keys from the tribe to the species have been constructed and location was mentioned by Global Positioning System (GPS).

**Keyword:** Nat Ma Taung Wildlife Sanctuary, Chin State, wild orchids, unknown species, rich in biodiversity, artificial key.

### Introduction

The family Orchidaceae are largest family among Angiospermae, Monocotyledonae. Some botanist estimated about 35000 orchids among flowering plants. (Seidenfaden, 1992) Orchidaceae grow well throughout the world. They can thrive in tropical, subtropical and temperate regions except in ice capped regions and deserts. The most wild orchids have distributed various regions of Myanmar that is tropical, subtropical and temperate regions, especially they have grown in temperate regions (Dassanayake, 1981). Nat Ma Taung National Park is highest mountain in Chin State within the Eastern Himalayas. Chin State lies in the north-western mountainous region of Myanmar. The Chin Hills are home to the temperate and alpine species typical of the Himalaya Mountain Range. The Mount Victoria (Nat Ma Taung in local language) is the highest mountain in Chin State and one of the most widely distributed pine in Asia. The flora and fauna of Mount Victoria is extremely rich. Nat Ma Taung National Park (NTNP) was established in 1994. It was also designated as an ASEAN Heritage Park. In addition, many medicinal orchids and other endemic plant species have been extracted from the (NTNP) and exported to China. It has reached a critical state in which precious native orchids biodiversity within the NMNP might be lost. Now the study area is Nat Ma Taung National Park of Kanpetlet Township in Mindat district of Southern Chin State. Kanpetlet Township is located on the east by Saw Township, on the west by Platwa Township, on the south by Mindat Township, on the north by Minbra Township, and it lies between North latitude 20°69'-22°14' and East longitude 93°30'-94°10' and is hill evergreen forest type. Hill evergreen forest type (The hill evergreen forest is found in the north at altitudes of over 1,000 meters above sea level. In other regions they are found area of high altitudes. This type of forest is less dense than the tropical evergreen forest because it has less large trees. This type of forest too

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is quite cool because it is found at high altitudes. The hill evergreen forest is very important to the preservation of water sources. Trees are mainly shrubs mixed with some pines. Smaller plants in the forest include ground orchids and other tropical plants such as wild roses, violets and lilaes. In addition there are small plants that grown on the larger trees such as moss and orchids.(Hill evergreen forest<<pirun-Ku.ac.th>) where the wild Orchids have grown well on the various old plants which are *Shoreaob longifolia* Klall. (Thit-ya), *Lagerstrmia speciera* Pers (Thit-el).*Dipterocarpus obtusifolius* Teysm. ex. Miq. .(Pyin-Ka-doe) .Nat Ma Taung National Park is located in Ken Pat Lat Township in Min Tet district of Southern Chin State. The area of these forest is about 176202 acres and altitude of 3200.4 m above sea level and lies between North latitude 21°30'21°50'and East longitude 93°30'.94°10'.Genus *Anthogonium*, *Arundina*, *Cymbidium*, *Dendrobium*, *Habenaria*, *Obeionia*, *Paniisea*, *Pecteilis*, *Pleione* and *Spathoglottis*, have been found in this area.

In this recent study, (3) Subfamilies belong to (5) Tribes (6) Subtribes (9) genera and (10) species have been collected from this study area including epiphyte, terrestrial and lithophytes. The classification and taxonomic description of collected specimens are provided with coloured photographic and artificial keys of Tribe, Subtribe, genera and species are also constructed. The aim of the study was to know of Myanmar wild orchids and to access the presence distribution of wild orchids in Nat Ma Taung Wildlife Sanctuary in Southern Chin State. To fulfill this aim, the collected wild orchids identified, classified and described systematically.

### Methodology

The specimens were collected from Nat Ma Taung National Park of Kanplet Township of Minduct District from 2019-2021. All these specimens were colourful photographed to record their actual habitat and the nature of inflorescence. The collected specimens were classified according to Dresseler's classification Dresseler's (1927) and identified by Grant: (1966), Hooker, (1954), Chen et al (2013), Dassanayake, (1981), Seidenfaden and Wood (1992) , Nantiya Vaddhanaputi (2006), Flora of China Vol. 25 (2013) and Flora of Thailand Vol. XI & XII. Part I&II (2014) methods. Herbarium specimen well prepared and submitted to Forest Department, Nay Pyi Taw.

### Arrangement of the Subfamily, Tribe, Subtribe and Genera in the present study

Class	:	Liliopsida (Monocotyledoneae)
Subclass	:	Orchidales
Family	:	<b>Orchidaceae</b>
		(I)Orchidoideae
Subfamily	:	(II) Epidendroideae
	:	(II)Vandoideae
I. Subfamily	:	Orchidoideae
Tribe		Orchideae
Subtribe:		Habenariinae
Genera		(1) <i>Pecteilis</i>
		(2) <i>Habenaria</i>

II. Subfamily : (II) Epidendroideae

Tribe : Arethuseae

Subtribe: Thuniinae

Genera; (3) *Arundina*  
(4) *Spathoglottis*  
(5) *Anthogonium*

Tribe Coelogyneae

Subtribe : Coelogyninae

Genera : (6) *Pleione*

Tibe : Malaxiadeae

Genera : (7) *Oberonia*

Subtribe : Dendrobiinae

Genera (8) *Dendrobium*

II. Subfamily : Vandoideae

Tribe : Vandae

Subtribe : Cyrtopodiinae

Genera : (9) *Cymbidium*

The classification of Subfamilies in the study is in accordance with Dresseler (1927) and the key below is cited from Seidenfaden and Wood (1992) described in “The Orchids of Indochina”

### Result

In this paper (3) subfamily, (5) tribes, (6) subtribes (9) genera and (10) species have been collected from study area. According to Seidenfaden and Wood (1992).

### Key to the Subfamily of family

1. Plants with characteristic tuber or root stem tuberoids. Anther erect or reflexed at base firmly attached to the viscidium or visidia. Apex of rosetellum often protruding between the thecae----- (I) **Orchidoideae**
1. Plants with characteristic with often aerial root and sympodial shoot pseudobulb Anther most often distinctly incumbent. Rostellum incumbent or deflexed-----2.
2. Pollinia soft, waxy, without stalk or with caudiculae only rarely with stipe. Anther erect and earlier ontogeny ----- (II) **Epidendroideae**
2. Pollinia cartilaginous or bony, usually with stipe. Anther incumbent already from earliest stages in ontogeny often strongly deflexed at maturity. --- (III) **Vandoideae**

### Key to Tribe of Subfamily Epidandroideae

1. Terrestrial. Absent of pseudobulb. Leaves plicate. Inflorescence. Inflorescence long and erect. -----2
1. Pseudobulb present and single with internode. Leaves simple and coraceous. Inflorescence suberect and too long. Flower small to medium. Column long with distinct wings and caudicle. Pollinia 2 -----Coelogyneae
2. Plant with plicate leaf. Inflorescence erect and lateral (except *Thunia*). Pollinia 8 -----**Arethusea**
2. plants with conduplicate or plicate leaves. Inflorescence with many flowers -----**Malaxideae**

### I. Subfamily Orchidoideae

Subfamily	Tribe	Subtribe	Genus	Species	Myanmar name
Orchidoideae	Orchideae	Habenariae	<b>Pecteilis</b>	<i>susannae</i>	none
			<i>Habenaria</i>	<i>sp.</i>	none

In this recent study two genus of *Pecteilis* and *Habenaria* was collected in subfamily Orchideae and this subfamily has not divided into tribe and subtribe.

### Key to the genus of Subtribe Orchideae

1. Tall stout terrestrial orchids over 60cm or more high with large broad leaves. Flower often white. Sepals and petals are quite different -----**Pecteilis**
1. Medium tall terrestrial orchids and about 45cm high with leaves. Scape with sessile white and yellow flowers -----**Habenaria**

### (1) *Pecteilis susannae* (L) Rajin



Habitat



Inflorescence



Flower



Segment of Flower



Pedicle & column

***Pecteilis susannae* (L) Rajin*****Orehis Uabenark* (L.) R. Brown**

Terrestrial. Inflorescence erect. Flower large white to pale greenish white about 6.00 cm long 8.00 cm wide with cylindric green spar fragrant. Dorsal and lateral sepals broadly ovate subacute, erect, with seven veined. Petals very small, suberect, linear triangular. Labellum trilobed, side-lobes preading with lacimate, mid lobe oblong, entire, 3.5 cm long and 1.00 cm wide with spur cylindric, green, 12.00 cm long 0.5 cm wide. Ovary large, green with distinct longitudinal keels. Pollinia 2.

Myanmar Name - None

Occurrence - Kan Palat Township, Near Saw-Chaung Village, Chin State. N 21° 27' 38.6", E 94° 10' 32.7"

Distribution - Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Malaysia, Thailand, S Vietnam (Flora of China 2013)

Ecology - Terrestrial, Dipterocarp forest, mixed deciduous forest, open grassy places, Valley, alt. 924 m

Flowering period - September- October

**(2) *Habenaria* sp. Schltr, Repert.**

Habit



Flower



Inflorescence



labellum



flower



Inflorescence



Curved labellum



Segment of flower

**(2) *Habenaria* sp. Schltr, Repert. Spec. Nov. Regni Veg 2:82.1906*****Elulophia sumarsis***

Terrestrial. Inflorescence erect with lax 2-3 flowered. Flower brownish pink, medium size, 3.00 cm across. Lateral sepals similar to dorsal sepal. (reddish brown with green lip). Lip trilobed, quandencular, white with deeper purple in the center, mid lobe quandencular in shape, curved downward at the tip, margin undulate, papilose on the epichile seven fimbriate keels in center, side keels on each side shorter than the 5 middle keels. Spur slender, green, about 8.00mm long and 2.00mm wide. Operculum green.

- Myanmar Name - Non
- Occurrence - Myanmar, Kan Pat let Township, Chin State, Near Chew song village.  
N 21° 10' 30", E 94° 05' 70"
- Distribution - Natmataung Wild life Century, Chin State .Myanmar (2019
- Ecology - Terrestrial, Mixed deciduous forest, open grassy place valley, 924 m, alt.
- Flowering period - October

## II. Epidendroideae

Subfamily	Tribe	Subtribe	Genus	Species	Myanmar name
Epidendroideae	Arethuseae	<i>Thuniinae</i>	<b>Arundia</b>	<i>graminifolia</i>	မြက်သစ်ခွ
			<b>Spathoglottis</b>	<i>pubescence</i>	အုန်းသစ်ခွ
			<b>Anthogonium</b>	<i>glacia</i>	None
	Coelogyneae	Coelogyneinae	<b>Pleione</b>	<i>praecox</i>	ဖားလက်တက်
	Malaxiadeae	malaxeae	<b>Obeonia</b>	<i>pyrulifera</i>	None
	Epidendrae	dendrobiinae	<b>Dendrobium</b>	<i>longicornu</i>	-

### Key to the genus of Subtribe Thuniinae

1. Pseudobulb absent, erect and leafy stem. Leaves two ranks, leafy sheaths at the base. Scape terminal with showy flowers. Sepal spreading nearly equal. Lip sessile, concave at the base, embracing the column.-----**Arundina**
1. Pseudobulb ovoid. Leaves with petiolate. Scape arising from the base of the pseudobulbs. Sepal not spreading. Lip not sessile-----2.
  2. Pseudobulbs ovoid. Leaves plicate, petiolate, evergreen. Scape erect with medium flowers. Sepal free and equal with petals. Lip strongly 3 lobes-----**Spathoglottis**
  2. Pseudobulb small. Leaves very narrow with petiolate. Scape branched with small flowers. Flower small. Lip adnate to the base of the column. Spur long clawed.-----**Anthogonium**

### (3) *Arundina graminifolia* (D. Don) Hochr



Habit



Inflorescence



Flower

**(3) *Arundina graminifolia* (D. Don) Hochr., Bull. N.y. Bot. Gard. 61270,1910*****Bletia graminifolia* Don. Prods*****Arundina bambusifolia* Lindl.**

Terrestrial. Inflorescence erect, 20-30.00 cm long with few flowers, terminal flower opening in succession. Flower white with pale pinkish purple or tinged, pedicle short. Sepals elliptic lanceolate acute. Lip trilobes, side lobes rounded, embracing column, mid-lobe broadly rounded, purple with dark purple at the tip and yellow in the centre and with 3 distinct keel, margin undulate.

In this resented study only specie of genus *Arundina* collected from study area.

Myanmar Name	-	Wah Thit Khwa
Occurrence	-	Kan Palat Township, Near Saw-Chaung Village. N 21° 10' 10", E 94° 05' 36.8"
Distribution	-	Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Malaysia, Thailand (Flora of China, 2013)
Ecology	-	Terrestrial, Sandstone deciduous forest, alt. 105 m
Flowering period	-	May- December

**(4). *Spathoglottis pubescence* Lindl.**

Habit



Inflorescence



Segment of flower



Labellum &amp; Column

**4. *Spathoglottis pubescence* Lindl.*****Spathoglottis fortune* Lindl.**

Distinct character

Terrestrial, Leaves linear lanceolate, acute grass-like, glabrous, plicate. Flower greenish yellow with purple tinged, about 35 cm across with spatulate lip with brown sport. Labellum trilobed, sidelobed erect, oblong obtuse, yellow with brownish purple stipe, 8.00 mm × 5.00 mm wide, mid-lobe shortly clawed reniform, truncate with lamella-like twin-calli on the mesochile tapering toward the base. Column yellow, about 1.00 cm long and 3.00 mm wide. Rostellum whitish green, short. Ovary 8.00mm long 2.0 mm wide.



In this resented study only specie of genus *Spathoglottis* collected from study area.

- Myanmar Name - Non
- Occurrence - Near Saw-Chang Village, Kan Palat TS. N 21° 10' 10", E 94° 05' 37.8"
- Distribution - NE India, Myanmar, Thailand, China. (Seidenfaden and wood 1992). Cambodia, NE India, Laos, Myanmar, Thailand, Vietnam (Flora of China, 2014, Vol-25)
- Ecology - Terrestrial, Grassland, deciduous forest, alt 105 m
- Flowering period - August ~ October

**(5) *Anthogonium gracile*. Lindley**



Habit



Inflorescence



Flower



Pedicle & Flower

**(5) *Anthogonium gracile*. Lindley. in Wall. Cat 7398 Gen and Sp orchid. 426:**

***A. griffithii* Rchb.f. Ic. Plant. Asiatt. 345.**

Lithophyte or terrestrial. Stem slender, 45 cm tall. pseudobulb small, Inflorescence erect with laxly 8-10 flowers, Flower white with pink tinged, nodding pedicle with ovary at right angles to the parienth. Lip wedge-shaped, cuneate, 1.00 cm long, 8.00 mm wide. Pollinia 4, without caudicle.

In this resented study only one species of genus *Anthogonium* collected from study area.

- Myanmar Name - Non
- Occurrence - Saw-Chaung village, Kan-Pat-let Township, Chin State, Myanmar. N 21° 10' 30", E 94° 05' 70"
- Distribution - Himalaya, Nepal, Naga Hill (Grant B, 1966)  
Bangladesh, Bhuttan, Combodia, N India, Laos, Myanmar, Nepal, Seri Lanka, Thailand, Vietnam (Flora of China, Vol 25, 2014).
- Ecology - Terrestrial or Lithophyte, open grassy places, valley, 112 alt.
- Flowering period - October



6. *Pleione praecox* (Smith) D. Don,

Habit



Inflorescence



Segment of Flower



Rostellum



Inflorescence



Flower



Labellum &amp; Column

(6) *Pleione praecox* (Smith) D. Don, Prodr. Fr. Nepal 37. 1825*Epidendran praecox*

Epiphyte or teretril. Pseudobulbs impulliform or turbinate. Inflorescence appearing side of the pseudobulb with one showy flower. Lip trilobed, midlobed ovate broadly, 5 distinct longitudinal keels or crest reaching near at the top, middle one scate. Column purple, about 4.5 cm long 0.4 cm wide, dentate. Pollinia 4 in pairs.

In this resent study only specie of genus *pleione* collected from study area.

Note: - (Rare orchids) (www. e Floras org Flarataron)

Myanmar Name - (ဖားလက်တက်) (Pha Latt.Tet)

Distribution - SE and SW Yunnan, Bhutan, Bangladesh, NE India, Laos, Myanmar, Nepal, N-Thailand, N- Vietnam (Flora of China Vol.25) Takangoo Tanisserim (Grant 1964), India Nepal, Myanmar, Schna, Laos, Vietnam, Shula (Flora of Thailand)

Ecology - Epiphyte, hill evergreen forest, terrestrial rock with mass in Mountain forest, alt-1200 m-2000 m,

Flowering period - September ~ October

(7) *Oberionia pyrulifera* Lindley.

Habit



Inflorescence



Flower



**(7) *Oberionia pyrulifera* Lindley.***Iridorkis pyrulifera* (Lindl.) Kuntze 1891.*Malaxis pyrulifera* (Lindl.) Rchb.f. 1861*M. verticillata* var *Khasiana* (Lindl.) Rchb.f

Epiphyte, stem erect, tuft, short 4.5.00cm attached by fibrous root. Leaves laterally flattened, distichous. Inflorescence suberect with many flowers, whole with minute floral bract which is ovate acute. Flower pale yellow. Lip broadly oblong, protruding with deeply bilobed, small auricle on each side on hypochile. Column short, stout. Pollinia 4 in pairs, unequal, incumbent.

- Myanmar Name - Yet Taun Pan  
 Occurrence - Natmataung Wildlife Sanctuary. Kanpetlet Township  
 N21° 13' 39", E 93° 32' 91"  
 Distribution - Chinese Himalayas, Assam, India, Nepal, Thailand (300-2000 meters)  
[www.orchidspecies.com](http://www.orchidspecies.com). [www.theplantlist.org](http://www.theplantlist.org). Bhutan, India, Thailand  
 (Flora of China)  
 Ecology - Epiphyte, Hill Evergreen forest, Montane forest, alt 2582m.  
 Flowering period - September - November

**(8) *Dandrobium longicornu* Lindley.**

Habit



Inflorescence



Flower



Segment of Flower



Column &amp; Labellum

**(8) *Dandrobium longicornu* Lindley.***D. bulleyi* Rdrf (1913)*D. flexuosum* Griff (1851)

Stem evergreen, erect, slender, clustered, about 7.12 cm long and 1.5 cm wide, blackish brown hair on both surfaces. Inflorescence subterminal. Flower white with orange block labellum, pendulous downward, about 3.5 cm across, mentum long and narrow, pale green. Lip rhombic, trilobed, side lobes subovate, larger than the midlobe, slightly wavy on margin, midlobe protruding downward, margin undulate and irregular toothed at apex, excurved tip, distinctly orange vein on hypochile, 3-4 longitudinal keels in the centre. Column with triangular teeth. Pollinia 4.

- Myanmar Name - Chin Daiwy  
 Occurrence - Nat-Ma-Taung Wildlife Century, Chin State, Myanmar. N 21° 13' 26.2", E 93° 59' -01.4'  
 Distribution - Bhautan, NE India, Myanmar, Nepal, N Vietnam (Flora of China 2013), E Himalayas, Assam, Bangladesh, Nepal, Bhautan, Myanmar,

Southern China, Vietnam (W3 Tropicos. Kew Monocot list, IPNI)

Ecology - Epiphyte, on tree trunk, Mountain forest, alt: 1267 m.

Flowering period - September ~ November

### III. Subfamily Vandoideae

Subfamily	Tribe	Subtribe	Genus	Species	Myanmar name
Vandoideae	Vandeae	Cyrtopodiinae	<b>Cymbidium</b>	<i>irridioides</i>	Pan Thet Shay nyo
				<i>elegans</i>	none

#### (9) *Cymbidium iridioides* D.Don Prodr. FL. Nepal 1825:36.



Habit



Flower



Segment of flower

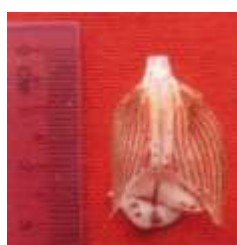


column

#### *Cymbidium iridioides* D.Don Prodr. FL. Nepal 1825:36.



labellum



Pollinia

#### (9). *Cymbidium iridioides* D.Don Prodr. FL. Nepal 1825:36.

##### *C. giganteum* Wallex Lindl.

Epiphyte or terrestrial. Pseudobulb, bilaterally flattened, enclosed persistent leaf sheath Flower large, 8-10.00 cm across, fragrant. Sepals 3, dorsal sepal obovate oblong, acute, 35.00 mm long and 8.00 mm wide, yellowish green with reddish brown longitudinal stripe. Lip trilobed, side lobes creamy yellow with reddish brown stripes, ciliate, mid lobe orbicular recurved, erose and undulate, creamy yellow with reddish brown spot, 2 central callus with long papillose and red spot ending at the base of midlobe, the hairs not continuing beside of the apices of callus. Pollinia 2, yellow, subtriangular. Anther cap papillose, cap shaped.

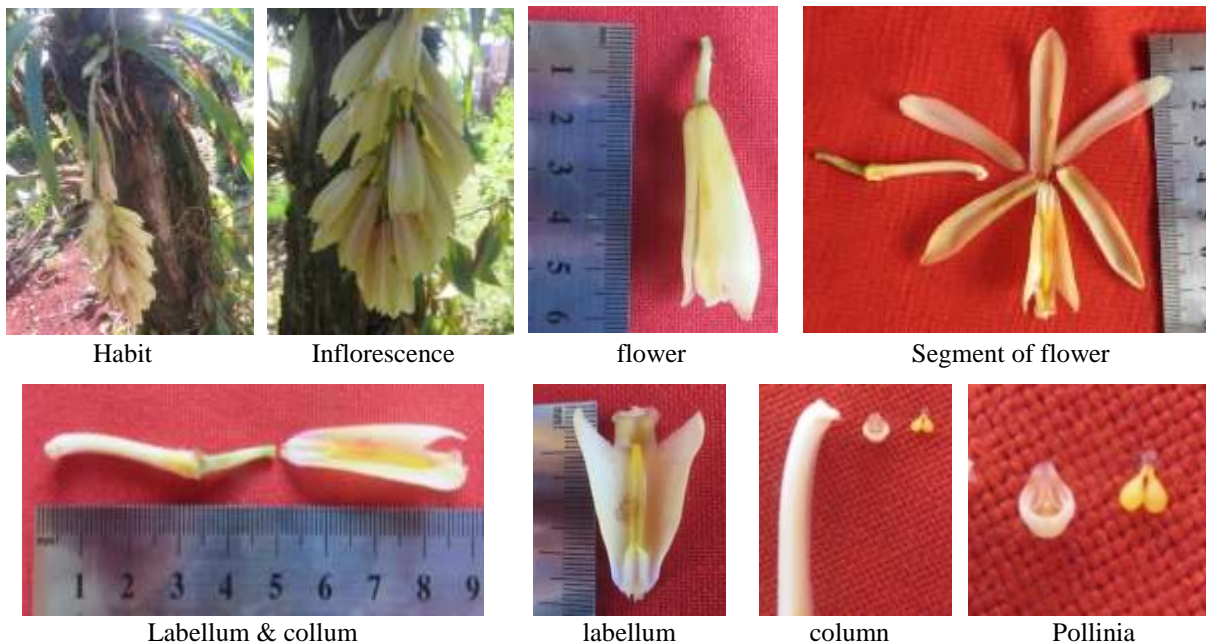
Myanmar Name - Pan Thetshay Nyo

Occurrence - Saw-Chaung Village, Kan-Pat-let Township, Chin State, Myanmar. N 21° 27' 39", E 94° 12' 32.9"



- Distribution - NW Himalaya, eastward to SW China (Seidanfadon and Wood, 1992) NW to SE Yunnan, Bhutan, India, Myanmar, Nepal, N Vietnam (Flora of China 2013), Upper Burma (Grant 1966)
- Ecology - Terrestrial, Epiphyte on tree trunk, Mountain forest, alt: 1267 m.
- Flowering period - October ~ December

**(10) *Cymbidium elegans* Lindl.**



**(10) *Cymbidium elegans* Lindl. in Wall. Cat 7345: Gen and Sp. 163,1833**

***C. lushuiense* (Z.h. liu, S.E. (hen and X.C. Shi) ZJ. Liu and Sc. Chen 2006)**

***C densiflorum* Griff, 1851**

***Cyperorchis elegans* Blume Rumph.**

Epiphyte. Inflorescence pendulous and nodding, arising from the base of the flattened pseudobulb, densely flowered 20-35 flowered about 45.00 cm long with small floral bracts. Flower pendulous, peculiarity half closed, bell shaped, creamy yellow, 4.00 cm long and 1.5 cm wide, fragrant with short pedicel. Lip trilobed, midlobe small, endulate, with 2 distinct longituding yellow lamellae enduring at the base of midlobe with longitudinal channel between them, two short appendage on hypochile with densely pubescent. Pollinia 2, caudile, 2.00mm wide, obovate, yellow.

- \* Note - Very rare Species (Grant, 1964)
- Myanmar Name - Pan Thet Shay Pyar Ohn
- Occurrence - Nat-Ma-Taung, Chin State, Myanmar. N 21° 12' 0.9", E 93° 56' 32"
- Distribution - SE Xizang Yunnan, Bahutan, India, Myanmar, Nepal (Flora of China 2013), Myanmar (Grent B, 1964). China, Himalayas, Assam India, Nepal, Bhutan, Sikkim and Myanmar (W3. Tropicas, Kew. Monocot list- IPNI)
- Ecology - Epiphyte, on t hree, Mountain forest, alt: 2582 m.
- Flowering period - October

**IUCN status of collected species**

Subfamily	Tribe	Subtribe	Genus	Species	Myanmar name	IUCN Status
Orchidoideae	Orchideae	Habenariiae	<b>Pecteilis</b>	<i>susannae</i>	none	Appendix (II)
			<i>Habenaria</i>	<i>sp:</i>	none	-
Epidendroideae	Arethuseae	Thuniinae	<b>Arundia</b>	<i>graminifolia</i>	မြက်သစ်ခွ	Appendix (II)
			<b>Spathoglottis</b>	<i>pubescence</i>	အုန်းသစ်ခွ	rare
			<b>Anthogonium</b>	<i>glacia</i>	None	
	Coelogyneae	Coelogyiniinae	<b>Pleione</b>	<i>praecox</i>	ဖားလက်တက်	endangered
	Malaxiadeae	malaxaeae	<b>Obeonia</b>	<i>pyrulifera</i>	None	
	Epidendrae	dendrobiinae	<b>Dendrobium</b>	<i>longicornu</i>	ချင်းဒေဝီ	Threaten
				<i>elegans</i>	none	rare
Vandoideae	Vandaeae	Cyrtopodiinae	<b>Cymbidium</b>	<i>irridioides</i>	ပန်းသက်ရှည်ညို	Appendix II

**Discussions and Conclusions**

This paper based on some collected wild orchids specimens. The present list is (3) subfamily, (5) tribe, (6) subtribe, (9) genera and (10) species. The Subfamily Orchidoideae contains (1) Tribe (1) Subtribe and (2) genera. The subfamily Epidendroideae includes (3) tribe, (4) subtribe, (6) genera. The Subfamily Vandoideae is (1) Tribe (1) Subtribe (1) genera. Genus ***Anthogonium***, ***Arundina***, ***Cymbidium***, ***Dendrobium***, ***Habenaria***, ***Obeionia***, ***Paniisea***, ***Peristylis***, ***Pleione*** and ***Spathoglottis*** have been collected in recent study. In Subfamily Orchidoideae, two genus of Subtribe Habenariinae under Tribe Orchideae were collected in this study area. They are ***Pecteilis susannar*** (L)Rajin and ***Habenaria sp: Pecteilis susannar*** (L)Rajin possess long scape with large white flower, linear triangular very small petals, trilobed labellum and spreading sidelobed with lacinate and long green cylindric spur these characters agreed with Seidenfaden and Wood (1992). ***Habenaria sp:*** contain 2-3 lax flowers with erect inflorescence, brownish pink medium size flower, quadrangular lip with seven fimbriate keels in the center. In the subfamily Epidendroideae, (6) genus of (3) Subtribe under (3) Tribe have collected in recent study. Three genus of Subtribe Thunniinae are ***Arundina***, ***Spathoglottis***, ***Anthogonium***. ***Arundina graminifolia*** have medium size white flower with pale purple tinged, broadly rounded mid-lobed with yellow in the center with 3 distinct keels and undulate margin. ***Anthogonium gracile*** is lithophyte, white flower with pink tinged and nodding pedicle with ovary at right angle, wedge-shaped cuneate lip and mid-lobe obovate recurved with purple spot. ***Spathoglottis pubescence*** possess linear lanceolate plicate grass like leaves, greenish yellow flower and mid-lobe of lip shortly claw reniform with twin calli on the mesochile tapering toward the base and above three species of all characters are agreed mention by Chen X., *et al.*, (2013), Henrik, *et al* (2014) and Dassanayake, (1981). One genus of Subtribe Coelogyiniinae is ***Pleione***. ***Pleione praecox*** present imbricate green pseudobulbs with reddish brown blotched, purple flower and broadly ovate mid-lobed with 5 longitudinal keels and yellow in the centre. These characters are agreed by Grang (1966). Only One genus of Tribe Malaxiadeae is ***Oberonia***. ***Oberonia pyrulifera*** has suberect many flowers inflorescence and broadly oblong protruding lip with deeply bilobed and small auricle on hypochile. Above all characters of these species conform by Seidenfaden and Wood (1992). Only one genus of Subtribe ***Dendrobiinae*** is ***Dendrobium***.

*Dendrobium longicornu* possess white flower with orange block labellum, distinct keels on the back of sepals and 5 veins and mid-lobed rombic, distinctly orange vein on hypochile 3-4 longitudinal keels in the centre. These characters are agreed with Seidenfaden and Wood (1992). In the subfamily Vandoideae, only one genus of Subtribe Cryptopodiinae under the Tribe Vandaeae is *Cymbidium*. Two species genus *Cymbidium* are *C. iridioides* and *C. elegans* have been collected in this study area. *C. iridioides* contain greenish brown fragrant large flower, lip creamy yellow with reddish brown sport, orbicular recurved mid lobe with 2 centre callus, long papillose and red spot at the base of mid lobe. *C. elegans* possess pendulous and nodding inflorescence with densely flowers, peculiarity half closed flower, large side lobes of lip and small midlobe with 2 distinct longitudinal yellow lamellae and two short appendage on hypochile. All characters are conform with Henrik AE (2014) Seidenfaden and Wood (1992) and in this paper all collected species are epiphyte, lithophytes and terrestrial.

In recent study, species *Pecteilis susannae*, *Arundina graminifolia* was putted in Appendix (II) and well distributed in around the Saw Chaung village, they grow well on the limestone. *Spathoglottis pubescent* regard as rare species, *Pleione praeox* is endangered, *Dendrobium longicornu* is threatens and *Cymbidium elegans* regard as very rare species according to (IUCN) and unidentified species of genus *Habenaria* was record in study area. *Anthogonium graci* was found in Mon, Mandalay and Thanintheri (Kress *et al.*, 2003) but in recent study also found in Chin State. *Cymbidium elegant* was found in Kachin State (Kress *et al.*, 2003) but also found in Chin State.

In conclusion orchids habitat and locations are very important for survive and reproduction. Today wild orchids are gradually disappear by human activity and some species are dangerous to survive and reproduction. The flora and fauna are very diverse in Myanmar but very weak in maintenance and survey record. Botanical collection is still needed to cover the whole floristic diversity of Myanmar, because botanical exploration has sharply decreased in Myanmar 1950. (Kress *et al.*, 2003) Compared with neighboring countries with intensive orchids studies. Myanmar orchids flora have lagged behind being well documented and studied. So the orchidologist will have to find out continuously and also should attend to all international orchids forum to get update current wild orchids information and report to government for protection of our living jewels. We have known deeply in current study that need to conservation for sustainable rich orchids biodiversity and ecotourism to invite international expert.

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## The Study Area

