

## Taxonomic Study on Some Useful Plants Growing from Malikha Village, Myitkyina

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### Abstract

Taxonomic studies on some useful plants growing from Malikha Village, Myitkyina, Kachin State. Malikha Village is located between North Latitude 25° 21' 22" and East Longitude 97° 11' 15". The elevation of study area is 171m above sea level. Altogether 8 species belong to 5 genera of the Acanthaceae were collected, preserved, identified and classified from May 2017 to October 2018. The widely distributed species were *Phylogacanthus curviflorus* (Wall.) Nees., *Rungia repens* (L.) Nees, *Thunbergia alata* Bojer ex Sims. and *Thunbergia grandiflora* Roxb.. The species of *Thunbergia coccinea* Wall. was rarely distributed in the study area. The detailed descriptions of the collected species with figures, scientific names, Myanmar names, flowering period and uses were mentioned. An artificial key to the species was constructed and stated.

Keywords : Taxonomic studies, Acanthaceae, *Phylogacanthus*, *Rungia*, *Thunbergia*

### Introduction

Angiosperms or flowering plants are the largest group of plant kingdom, including about 411 families, 8000 genera and 300,000 species. They are considered to be the highest evolved plants on the surface of the earth. Angiosperms are annual or perennial herbs, shrubs, trees, climbers, twinnings and lianas (Subrahmanyam, 1999). Angiosperms Phylogeny Group (APG IV, 2016) stated that flowering plants descended Basal Angiosperms, Magnolids, Monocots and Eudicots, which contain most but not all of the dicotyledons and are characterized by a pollen type with three apertures. In the order Lamiales, the families of Oleaceae, Scrophulariaceae, Acanthaceae, Verbenaceae, Lamiaceae and Orobanchaceae are closely related families.

The present research deals with taxonomic study on some species of Acanthaceae growing in Malikha village, Myitkyina Township, Kachin State. It is located between North Latitude 25° 21' 22" and East Longitude 97° 11' 15". The elevation of study area is 171 m above sea level. In the surrounding villages, the local people cultivate crops and vegetables alternately throughout the year. Many

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mountainous region and lowland area are found in the study area. Malikha village is rich in useful plants especially for medicinal uses.

The Acanthaceae is a family of dicotyledonous flowering plants commonly known as acanthus family. It contains almost 346 genera and nearly 4300 species distributed predominantly in tropical and subtropical regions of the world. The greater part of the Acanthaceae family are herbs or shrubs, but vines and trees occur as well. *Barleria* genus was investigated to be the third largest warm tropical genus of Acanthaceae with more than 300 species worldwide. *Justicia* is the largest genus of Acanthaceae, with approximately 600 species that are found in tropical to warm tropical regions of America, India and Africa. *Phylogacanthus* is represented by 15 - 17 species which were found in India, Burma, Indo-Chinese, Malaya peninsular. *Rungia* has approximately 50 species in the world, mainly distributing in the tropical. *Thunbergia* species include more than 100 species of annuals, perennials and shrubs. There are many twinning climber, native to tropical regions of Africa, Madagascar, Australia and South Asia.

The aims and objectives of this research are to get the morphological characters of studied species, to ascertain the nomenclature of plants and to share the valuable information of plant species that are very useful for medicinal purposes distributed in Malikha village.

## Results

### List of Collected Species

Eight species belong to five genera were found in the present study. The resulted species were arranged alphabetically as shown in Table 1.

**Table 1. List of Collected Species from Malikha Village**

Group	Order	Family	No.	Scientific Name
Asterids	Lamiales	Acanthaceae	1.	<i>Barleria cristata</i> L.
			2.	<i>Justicia adhatoda</i> L.
			3.	<i>Phylogacanthus curviflorus</i> (Wall.) Nees
			4.	<i>Rungia pectinata</i> Nees
			5.	<i>Rungia repens</i> Nees
			6.	<i>Thunbergia alata</i> Bojer ex Sims
			7.	<i>Thunbergia coccinea</i> Wall.
			8.	<i>Thunbergia grandiflora</i> Roxb.

**An Artificial Key to the Species**

1. Leaves opposite and decussate ----- 2  
 1. Leaves opposite and distichous ----- 3  
     2. Anther with spurs ----- **3. *Phylogacanthus curviflorus***  
     2. Anther without spurs ----- 4  
 3. Leaf blade elliptic-oblong ----- **4. *Rungia pectinata***  
 3. Leaf blade cordate ----- **8. *Thunbergia grandiflora***  
     4. Corolla tubular ----- **6. *Thunbergia alata***  
     4. Corolla campanulate ----- 5  
 5. Inflorescences terminal or axillary cymes ----- **1. *Barleria cristata***  
 5. Inflorescences terminal or axillary racemes ----- 6  
     6. Ovary beak present ----- **2. *Justicia adhatoda***  
     6. Ovary beak absent ----- 7  
 7. Stamens 4 ----- **7. *Thunbergia coccinea***  
 7. Stamens 2 ----- **5. *Rungia repens***

**1. *Barleria cristata* L. Sp. Pl. 2: 636. 1753. (Figure 2)**

- Myanmar name : Pyo ma naing  
 Common name : Philippine violet  
 Flowering period : October to March  
 Uses : Whole plant - paste or a decoction-tuberculosis

Mesophytic perennial shrubs, up to 2 m high; stems and branches terete, pubescent, spiny. Leaves simple, opposite and decussate; exstipulate; petioles 3 mm – 17 mm long, 1 mm – 3 mm wide, pubescent, green; blades elliptic-lanceolate, 2.5 cm – 13.0 cm long, 1.7 cm – 6.2 cm wide, attenuate at the base, entire along the margin, acuminate at the apex, pubescent. Inflorescences terminal or axillary cymes with many flowers, 2.0 cm – 2.5 cm long, 2.5 cm – 3.0 cm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, pentamerous, hypogynous, 2.0 cm – 2.5 cm in diameter at anthesis, showy; pedicels very short, about 1 mm long, pubescent; bracts 5 mm – 7 mm long, about 1 mm wide, green, pubescent; bracteoles linear, 5 mm – 6 mm long, 2 mm – 3.5 mm wide, pubescent. Calyx 5, slightly united at the base, acute at the tip, linear, 8 mm – 17 mm long, 1.5 mm – 8.0 mm wide, pale green, pubescent. Corolla tubular, tube 2.0 cm – 2.5 cm long, 2 mm – 3 mm wide, white, pubescent; lobes 1.5 cm – 1.7 cm long, 9 mm – 15 mm wide, glabrous above surface and pubescent beneath surface. Stamens 4, didynamous, inserted; filaments long, 5 mm – 31 mm long, white, pubescent, anthers dithecous, dorsifixed, dehiscent by longitudinal slits. Carpel 1, syncarpous; ovary superior, about 2 mm in diameter, glabrous, green, locules 2, four ovules in each locule on axile placenta; styles long, 3.5 cm – 4.0 cm long, white, glabrous; stigma simple, dark brown, pubescent. Fruits capsular, ovoid. Seeds 2- 4, pubescent.

**Specimen examined** : October 11, 2017, TheintTheintSoe, collection no. (101).

**2. *Justicia adhatoda* L., Sp. Pl. 1: 15. 1753. (Figure 3)**

- Myanmar name : Mayagyi  
 Common name : Malabar nut  
 Flowering period : December to June  
 Uses : Whole plant - coughs, colds, asthma, leprosy

Mesophytic perennial small trees, up to 4 m high, stems and branches terete, pubescent. Leaves simple, opposite and decussate, exstipulate; petioles 1.5 cm – 2.5 cm long, 2 mm – 3 mm wide; pubescent, blades 13.5 cm – 18.0 cm long, 5 cm – 7 cm

wide, obtuse at the base, entire along the margins, acuminate at the apex, pubescent. Inflorescence terminal or axillary racemes, 6 cm – 7 cm long, 3 cm – 4 cm wide, pubescent. Flowers bisexual, irregular, zygomorphic, hypogynous, pentamerous, white, about 4 cm in diameter at anthesis; pedicels short, about 6 mm long, glabrous; bracts ovate, 5 mm – 6 mm long, 4.0 mm – 4.5 mm wide; bracteoles ovate, 4.5 mm – 5.5 mm long, 4 mm – 4.5 mm wide. Calyx tubular, tube 3 mm – 4 mm long, about 4 mm wide, green, pubescent; lobes 7 mm – 8 mm long, 3 mm – 4 mm wide, green, pubescent. Corolla campanulate, 5 lobed, tube 8 mm – 12 mm long, 4 mm – 5 mm wide, white, glabrous without and pubescent within; lobes 2.3 cm – 2.5 cm long, 1.0 cm – 1.2 cm wide, white, pubescent. Stamens 2, free, epipetalous, inserted; filaments long, 2.0 cm – 2.2 cm long, pubescent at the base; anthers dithecous, basifixed, pubescent, dehiscing by longitudinal slits. Staminode absent. Carpel 1, syncarpous; ovary superior, oblong, about 3 mm in diameter, locules 2, four ovules in each locule on the axile placenta; style filiform, 3.0 cm – 3.5 cm long, white, pubescent; stigma simple, white. Fruits capsular, obovoid. Seeds orbicular, compressed.

**Specimen examined** : December 23, 2017; TheintTheintSoe, collection no. (135).

**3. *Phylogacanthus curviflorus* (Wall.) Nees. Pl. Asiat. Rar. 3: 76, 99. 1832. (Figure 4)**

***Justicia curviflora* Wall., Pl. Asiat. Rar. 2. 1831**

Myanmar name	: Unknown
Common name	: Wild Nongmangkha
Flowering period	: November to February
Uses	: Whole plant - whooping cough, menorrhagia

Mesophytic perennial herbs; about 60 cm long, stems and branches terete, pubescent, green. Leaves simple, opposite and distichous; exstipulate; petioles 4.5 cm – 6.0 cm long, 3 mm – 4 mm wide, pubescent, white; blades elliptic-lanceolate, 16.2 cm – 18.3 cm long, 5.5 cm – 6.5 cm wide, cuneate at the base, crenate along the margin, acuminate at the apex, pubescent. Inflorescences terminal cymes, 10.0 cm – 10.5 cm long, 3.0 cm – 3.5 cm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, pentamerous, hypogynous, red, about 1 cm in diameter at anthesis, showy; pedicels long, 6 mm – 7 mm long, red, pubescent; bracts 4 mm – 5 mm long, about 1 mm wide, green, pubescent; ebracteolate. Sepals 5, free, 4 mm – 5 mm long, 1.0 mm – 1.5 mm wide, pale green, pubescent. Corolla tubular, 5-lobed, tube 18 mm – 20 mm long, 5 mm – 6 mm wide, red, pubescent, lobes 5, 4 mm – 5 mm long, 2.5 mm – 3.0 mm wide, red, pubescent. Stamens 2, free, inserted; filaments 20 mm – 23 mm long, about 1 mm wide, glabrous, anthers dithecous, dorsifixed, about 1.7 mm in diameter, white, dehiscing by longitudinal slits. Staminode present. Carpel 1, syncarpous; ovary superior, oblong, about 2 mm in diameter, glabrous, locules 2, eight ovules in each locule on axile placenta; styles long, 2.3 cm – 2.5 mm long, about 1 mm wide, glabrous; stigma simple, red. Fruits capsular, globose, purple. Seeds lenticular, glabrous.

**Specimen examined** : December 23, 2017; TheintTheintSoe, collection no. (172, 185).

**4. *Rungia pectinata* (L.) Nees, Prodr. 11: 470. 1847. (Figure 5)**

***Justicia pectinata* L., Amoen. Aead. 4: 299. 1760**

Myanmar name	: Unknown
Common name	: Comb Rungia
Flowering period	: September to February
Uses	: Leaf juice – small-pox; roots - fevers

Mesophytic perennial erect herbs, about 45 cm high; stems and branches quadrangular, pubescent, white. Leaves simple, opposite and distichous; exstipulate; petioles 5 mm – 6 mm long, about 1 mm wide, pubescent; blades acute, 15 mm – 43 mm long, 5 mm – 15 mm wide, attenuate at the base, entire along the margin, acute at the apex, pubescent. Inflorescences terminal cymes, 2.5 mm – 4.5 mm long, 5 mm – 8 mm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, tetramerous, hypogynous, purple, 3 mm – 4 mm in diameter at anthesis, showy; pedicels very short, about 1 mm long, pubescent, peduncles 1.1 cm – 1.3 cm long, about 1 mm wide, pubescent; bracts linear, 4 mm – 5 mm long, 1.5 mm – 3.0 mm wide, pubescent; bracteoles linear, 3.5 mm – 4 mm long, 1.5 mm – 2.5 wide, pubescent. Sepals 4, free, 4 mm – 5 mm long, 1.0 mm – 1.5 mm wide, pubescent; epicalyx 3, 3 mm – 5 mm long, 0.5 mm – 1.0 mm wide, pubescent. Corolla tubular, 2-lobed, tube 4.0 mm – 4.5 mm long, 1.5 mm – 2.0 mm wide, purple tinged with white, glabrous, lobes 2.5 mm – 3.1 mm long, 2 mm – 3 mm wide, pubescent. Stamens 2, free, inserted; filaments 2.5 mm – 3.0 mm long, about 0.5 mm wide, glabrous; anthers ditheous, basifixed, about 1.3 mm in diameter, reddish yellow, dehiscing by longitudinal slits. Carpel 1, syncarpous; ovary superior, oblong, about 0.5 mm in diameter, hairy, locules 2, four ovules in each locule on axile placenta; styles long, 5 mm – 6 mm long, about 0.4 mm wide, pubescent; stigma simple. Fruits capsular, oblong, scattering the seeds. Seeds orbicular, glabrous.

**Specimen examined** :September 16, 2017; TheintTheintSoe, collection no. (78).

**5. *Rungia repens* (L.) Nees Pl. Asiat. Rar. (Wallich). 3: 110. 1832. (Figure 6)**

***Justicia repens* L., Sp. Pl. 1: 15. 1753**

Myanmar name	: Kanyo
Common name	: Creeping Rungia
Flowering period	: September to February
Uses	: Whole plant - fevers, coughs, snake bite, coma

Mesophytic perennial erect herbs, about 30 cm high; stems and branches terete, pubescent, white. Leaves simple, opposite and distichous; exstipulate; petioles 2.0 mm – 2.5 mm long, about 1 mm wide, pubescent, white; blades elliptic-lanceolate, 5 mm – 23 mm long, 3 mm – 9 mm wide, obtuse at the base, entire along the margin, acute at the apex, pubescent. Inflorescences terminal or axillary cymes, 1.7 cm – 2.5 cm long, 5 mm – 7 mm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, tetramerous, hypogynous, purple, 3 mm – 4 mm in diameter at anthesis, showy; pedicels very short, about 1 mm long, pubescent, peduncles 1.0 cm – 1.5 cm long, about 1 mm wide, pubescent; bracts linear, 4 mm – 6 mm long, 1.7 mm – 3.0 mm wide, pubescent; bracteoles linear, 3 mm – 5 mm long, 1.5 mm – 3.0 mm wide, pubescent. Sepals 4, free, 4 mm – 5 mm long, about 0.7 mm wide, pubescent. Corolla tubular, 2-lobed, tube 3.0 mm – 3.2 mm long, 1.7 mm – 3.0 mm wide, purple tinged with white, glabrous, lobes 4 mm – 6 mm long, 3 mm – 4 mm wide, pubescent. Stamens 2, free, inserted; filaments 2 mm – 3 mm long, about 0.5 mm wide, glabrous, anthers ditheous, basifixed, about 0.7 mm in diameter, white tinged with brown, dehiscing by longitudinal slits. Carpel 1, syncarpous; ovary superior, oblong, about 1 mm in diameter, glabrous, locules 2, four ovules in each locule on axile placenta; styles long, 4 mm – 5 mm long, about 0.5 mm wide, pubescent; stigma simple. Fruits capsular, ovoid, dehiscence. Seeds lenticular, glabrous.

**Specimen examined** :September 16, 2017; TheintTheintSoe, collection no. (85).

**6. *Thunbergia alata* Bojer ex Sims, Bot. Mag. 52. Pl. 2591. 1825. (Figure 7)**

Myanmar name	: Black eyed susan
Common name	: Black eyed susan
Flowering period	: December to February
Uses	: Whole plant – skin problems, piles, rectal cancer

Mesophytic perennial herbs twining with stem; stems and branches terete, pubescent, green. Leaves simple, opposite and decussate; exstipulate; petioles 1.0 cm – 1.5 cm long, about 1 mm wide, pubescent; blades 2.5 cm – 3.0 cm long, 1.7 cm – 2.5 cm wide, hastate at the base, entire along the margin, acuminate at the apex, pubescent. Inflorescences solitary cymes, 5 cm – 6 cm long, 2 cm – 3 cm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, pentamerous, hypogynous, yellow tinged with dark purple, about 3 mm in diameter at anthesis, showy; pedicels long, 4.0 cm – 4.3 cm long, green, pubescent; ebracteate, bracteoles foliaceous, 10 mm – 12 mm length, 4 mm – 5 mm wide, pubescent. Sepals 5, free, 2 mm – 3 mm long, about 1 mm wide, pale green, pubescent. Corolla tubular, 5-lobed, tube 1.5 mm – 1.8 mm long, 4 mm – 6 mm wide, white and dark purple at the base, pubescent, lobes 5, 10 mm – 12 mm long, about 12 mm wide, pubescent. Stamens 4, free, inserted; filaments 4 mm – 5 mm long, about 0.8 mm wide, pubescent, anthers ditheous, dorsifixed, about 2 mm in diameter, long and white hairy, pubescent, dehiscing by longitudinal slits. Carpels 2, syncarpous; ovary superior, globose, about 1.5 mm in diameter, pubescent, locules 2, four ovules in each locule on axile placenta; styles long, 10 mm – 12 mm long, about 0.7 mm wide, pubescent; stigma bifid, white, pubescent. Fruits globose, pubescent. Seeds 2, thick, reticulate on the dorsal surface.

**Specimen examined** : September 16, 2017; TheintTheintSoe, collection no.(195).

**7. *Thunbergia coccinea* Wall, Tent. Fl. Nepal. 120. 1826. (Figure 8)**

Myanmar name	: Nwenyo
Common name	: Scarlet clock vine
Flowering period	: December to February
Uses	: Leaves – anti-inflammatory, antipyretic, analgesic

Mesophytic perennial herbs twining with stem; stems and branches terete, pubescent. Leaves simple, opposite and decussate; exstipulate; petioles 2.0 cm – 3.0 cm long, about 1 mm wide, pubescent, white; blades elliptic, 7.5 cm – 11.5 cm long, 2.0 cm – 4.5 cm wide, cordate at the base, dentate along the margin, acuminate at the apex, pubescent. Inflorescences terminal racemes, 13 cm – 14 cm long, 6 cm – 7 cm wide, pubescent, white. Flowers bisexual, irregular, zygomorphic, pentamerous, hypogynous, reddish yellow, about 1.5 cm in diameter at anthesis, showy; pedicels short, 2 cm – 3 cm long, reddish brown, pubescent, bracts 1.0 cm – 1.5 cm long, about 1 cm wide, reddish brown, pubescent, ebracteolate. Sepals 5, free, 1.8 cm – 2.0 cm long, 7 mm – 8 mm wide, reddish brown, pubescent. Corolla campanulate, 5-lobed, tube 2.5 cm – 3.0 cm long, 4 mm – 5 mm wide, reddish yellow tinged with orange, pubescent within, glabrous without; lobes 5, 8 mm – 10 mm long, 6 mm – 7 mm wide, dark orange, glabrous. Stamens 4, free, inserted; filaments 1.6 cm – 1.8 cm long, about 1 mm wide, pubescent, yellow; anthers ditheous, basifixed, about 2 mm in diameter, yellow, dehiscing by longitudinal slits. Carpels 2, syncarpous; ovary superior, globose, about 2 mm in diameter, glabrous, locules 2, eight ovules in each locule on axile placenta; styles long, 2.4 cm – 2.6 cm long, about 1 mm wide,

glabrous; stigma bifid, pale green, glabrous. Fruits capsular, glabrous. Seeds compressed.

**Specimen examined** :December 23, 2017; TheintTheintSoe, collection no.(165).

**8. *Thunbergia grandiflora* Roxb., Bot. Reg., 6: pl. 495. 1820. (Figure 9)**

Myanmar name : panyesut-new

Common name : Blue trumpet vine

Flowering period : May to October

Uses : Leaves - stomach complaints, stone in urinary bladder

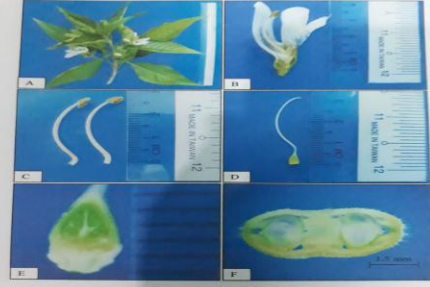
Mesophytic perennial woody vines; stems and branches terete, pubescent, green. Leaves simple, opposite and distichous; exstipulate; petioles 2 cm – 5 cm long, sparsely pubescent, blades ovate, 1.5 cm – 6.5 cm long, 2.0 cm – 4.5 cm wide, subcordate or cordate at the base, entire along the margin, acute at the apex, pubescent. Inflorescences axillary cymes, peduncles 3 cm – 6 cm long, slightly pubescent. Flowers bisexual, irregular, zygomorphic, pentamerous, hypogynous, purple, about 6 cm in diameter at anthesis, showy; pedicels long, 2.5 cm – 4.6 cm long, glabrous, ebracteate; bracteoles large, obliquely oblong, 2 cm – 4 cm long, glabrous. Sepals 5, free, 1.0 cm – 1.5 cm long, 7 mm – 8 mm wide, green, glabrous. Corolla campanulate, 5-lobed, tube 2.5 cm – 3.0 cm long, 5 mm – 7 mm wide, purple, glabrous; lobes 5, unequal, 3 cm – 4 cm long, 2.0 cm – 4.5 cm wide, purple, glabrous. Stamens 4, epipetalous, didynamous, inserted; filaments 2 cm – 3 cm long, creamy, glabrous; anthers ditheous, dorsifixed, about 3 mm in diameter, white, dehiscing by longitudinal slits. Carpels 2, syncarpous; ovary superior, ovoid, about 2.5 mm in diameter, glabrous, locules 2, four ovules in each locule on axile placenta; styles long, 2.4 cm – 2.6 cm long, about 1 mm wide, glabrous; stigma trifid, white, glabrous. Fruits capsular, pubescent, about 1.7 cm in diameter. Seeds ovoid, brown.

**Specimen examined** :September 16, 2017; TheintTheintSoe, collection no.(45).

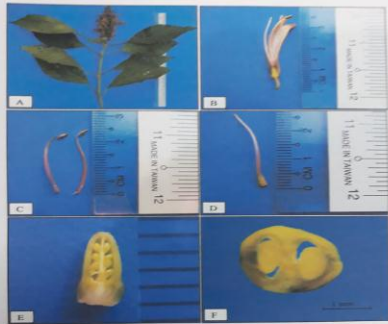




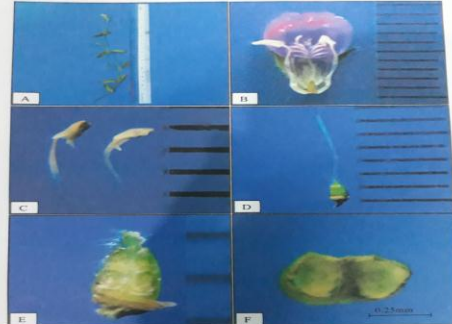
**Figure 3. *Barleria cristata* L.**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



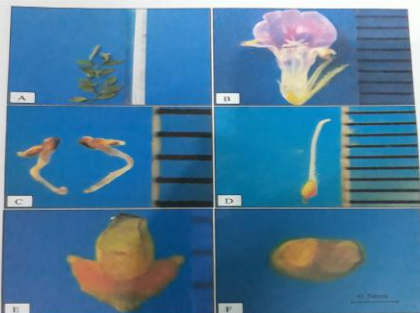
**Figure 3. *Justicia adhatoda* L.**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 4. *Phytolacanthus curviflorus* (Wall) Nees**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 5. *Rungia pectinata* (L.) Nees**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 6. *Rungia repens* Nees**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 7. *Thunbergia alata* Bojer ex Sims.**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 8. *Thunbergia coccinea* Wall**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



**Figure 9. *Thunbergia grandiflora* Roxb.**  
 A. Habit B. L.S of flower C. Stamens  
 D. Pistil E. L.S of ovary F. T.S of ovary



### Discussion and Conclusion

The present research work deals with the taxonomic study on some species of Acanthaceae growing in Malikha village of Myitkyina Township, Kachin State. This study area located between 25° 21' 22" North Latitude and 97° 11' 15" East Longitude. It lies about 171 m above sea level. The total area of study area is 64.2 square kilometer.

The habit of *Barleria cristata* was perennial shrubs and terete stem with spines. *Justicia adhatoda* was perennial small trees and leaves opposite and decussate. These characters were in agreement with those described by Hooker (1885). Inflorescences of *B. cristata* were terminal or axillary cymes and flowers zygomorphic. Inflorescences of *J. adhatoda* were terminal racemes and flowers zygomorphic. The flowers of *B. cristata* were white, campanulate with inserted stamens. *J. adhatoda* was white, bilabiate corolla with inserted stamens. *B. cristata* and *J. adhatoda* were bilocular ovary with axile placentation. These characters were agreement with those described by Hooker (1885), Backer & Brick (1965) and Dassanayake (1983). The habit of *Phylogacanthus curviflorus* was perennial herbs with terete stem. The types of leaves were simple and shape of leaf blade was elliptic-lanceolate and acuminate at the apex. Inflorescences of *P. curviflorus* were terminal racemes. The flowers were red, tubular corolla and bilocular ovary. These characters were in agreement with those described by Hooker (1885). The habit of *Rungia* species were perennial erect herbs with terete stem. The types leaves were simple, shape of leaf blade was elliptic-oblong and acute at the apex in *R. pectinata*. Shape of leaf blade was elliptic-lanceolate and entire along the margin in *R. repens*. All the flowers of *Rungia* were purple. Both of the species were bracteate and bracteolate. These characters were agreement with those described by Hooker (1885), Backer & Brick (1965) and Dassanayake (1983).

The habit of *Thunbergia alata* and *Thunbergia coccinea* were perennial herbs with twining stems. The types of leaves were simple and shape of leaf blade was sagittate in *T. alata*. Shape of leaf blade was elliptic and acuminate at the apex in *T. coccinea*. The flowers were yellow tinged with dark purple and tubular corolla with bilocular ovary in *T. alata*. The flowers were reddish yellow with campanulate corolla and bilocular ovary in *T. coccinea*. The habit of *T. grandiflora* was perennial woody vines with terete stem. The types of leaves were simple and shape of leaf blade was cordate. The flowers were purple with campanulate corolla and bilocular ovary. These characters were agreement with those described by Hooker (1885), Backer & Brick (1965) and Dassanayake (1983).

The species of Acanthaceae play a key role in the treatment of many lethal diseases. It contains many important secondary metabolites as alkaloids, phenols, terpenoids, tannins, saponins, carbohydrates, flavonoids and proteins that have many therapeutic uses. *Barleria* is used traditionally as antipyretic, antiasthmatic, antiviral and in respiratory diseases. *B. cristata* promote scalp health and skin. Leaves of *J. adhatoda* are used traditionally for chest diseases, fever, asthma, pneumonia, tuberculosis, antiseptic and to reduce swelling. Traditionally, *Thunbergia* species have been used for treating fever, wounds, skin problems, back and joint pains, eye

inflammation, piles, rectal cancer and antidote for snake bite. Whole plant of *P.curviflorus* can cure whooping cough and menorrhagia. Leaf juice of *R.pectinata* has been used for small-pox and roots for fevers. Whole plant of *R.repens* has been used for fevers, coughs, snake bite and coma (Khan *et.al*, 2017).

In conclusion, *J. adhatoda* was small tree and *B.cristata* was shrub. *P.curviflorus* was herb and *R. pectinata* and *R.repens* were erect herbs. *T. alata* and *T. coccinea* were herbs with twinning stem and *T. grandiflora* was woody vines. Anthers of *T. coccinea* have spurs and the other two species without spurs. The leaves of *R. pectinata* were elliptic-oblong and *R. repens* were elliptic-lanceolate. The widely distributed species were *P. curviflorus*, *Rungiarepens*, *T. alata* and *T. grandiflora*. The species of *T. coccinea* was rarely distributed in the study area.

The present study will contribute towards a better understanding and knowledge on morphological characters of family Acanthaceae. It is hoped that the natural resources from Malikha village can stand up valuable information for further investigation.

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