

東亞蘭科植物之研究二

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植 物 分 類 研 究 所

CONTRIBUTIONS TO THE KNOWLEDGE OF EASTERN ASIATIC ORCHIDACEAE II.

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研究中國蘭科植物與研究中國其他各科植物一樣，對鄰邦植物之種類，不能置之不顧。這因為植物的分佈是不受國境限制的，往往一脈相延，中外無間。我們知道在東方植物羣中，有不少植物的種名，戴上 japonica 或 indica 之類的形容名。顯名思義，滿以為是日本或印度特有的植物，實際上有時產在中國比在日本或印度為多。所以要想把中國蘭科植物之研究，打下穩固的基礎，要想把這些已有種類的學名更加正確不再混亂起見，勢必須把鄰邦所產的蘭科植物列在所研究的範圍之內。

這裏所謂東亞蘭科植物之研究，其地區包括中國，越南，緬甸，泰國，印度，日本和朝鮮。這項研究是於一九三五年至一九三八年在歐洲進行的，其泰半時間是在英國倫敦邱皇家植物園植物標本室工作，小半時間則是分散在歐洲其他植物標本室中，最主要的地點為法國巴黎，德國柏林和奧國維也納三座京城。

論及歐洲各國的植物學機關，對於中國和隣邦植物標本之收藏，遠比我們豐富。而在這些豐富收藏之中，不少是經專家命名過的模式種或者是經專家研究過而有準確性的標本。這些前人研究的成就，是研究中國植物分類學的物質基礎。治中國蘭科植物分類學，必須在這個基礎上，建起我們的高樓大廈，然後中國蘭科植物之研究，才能够獨立自主，穩步前進。

為求進一步充實這些研究對象起見，作者在將赴歐洲之前，遍訪過國內各植物學機關，凡十餘處，而把我國人近幾十年來靠自己力量所採得而保存之蘭科標本逐一過目，挑選重要的，如此，聚腋成裘，數量很是豐富，其中以北京前靜生生物調查所之雲南收集和廣州中山大學前農林植物研究所之廣東省和海南島之收集為最多。這些經挑選的標本全部借至英國倫敦邱皇家植物園植物標本室，以資研究，並與模式標本比較。同時美國歷年收藏的中國各地區蘭科植物標本，原分散在該國五個大標本室保存的，悉由彼邦梅樂博士 Dr. E. D. Merrill 之惠助，替作者商借，收集，亦運至歐洲。曠觀國人中赴歐美習植物分類學者，從未聞有如作者得到這樣寶貴的機會，把所有中外蘭科標本屬於作者研究範圍之內者，雖不算全備，却已無重要缺憾。像這種非常的幸運，使作者探求情緒特高，夜以繼日，露寒露暑，三年之中已成蘭科

文稿凡十餘卷。歸國後，即開始從事此項文稿之整理工作。在一九四〇年的前靜生生物調查所彙報第十卷中，已發表過東亞蘭科植物之研究其一短文一篇，十年之後才有此第二篇。在這篇文章裏面提供了對前人研究有不少修正的地方，新種，新稱，新改名，新異名和新分佈幾佔全部的記述，這不但幫助我們對於東亞蘭科植物有更明確的認識，而且有不鮮種和種之間的關係，將因此文而更有啓發也。

在訪問歐洲各大標本室，探求東亞蘭科分類學，不可不知道有三個最具有歷史重要性的蘭科標本室，即林德麗氏 J. Lindley 蘭科標本室，賴慎百氏 H. G. Reichenbach 蘭科標本室，和希列特氏 R. Schlechter 蘭科標本室。這三個標本室各保存三位專家一生工作之結晶。他們的成就代表過去百年間世界上蘭科分類學的一般發展，具有很重要的意義。林德麗氏之標本室在英倫邱皇家植物園植物標本室內，雖只有兩個櫥櫃，內容極為豐富，包括許多喜馬拉雅山區及中國，日本各地區所產的蘭科植物屬和種的模式標本。賴慎百氏之標本室在奧國維也納博物院內，當賴慎百氏想把他的圖和標本準備捐贈的時候他提出很有趣的條件。凡接受他捐贈的機關，必須從他棄世之日起，把標本封藏起來，禁止閱覽，過二十五年才准打開，以與世之植物學家相見。這個可笑的條件，終為維也納博物院接受。就這樣，一直到了一九一四年五月十六日，才把與世隔絕二十五年之久的蘭科標本室啓封，所有標本完整如故，從此，舉世植物分類學家，乃得慶禁地解放，學術交流重獲自由。就在這個標本室中，有若干中國和日本的蘭科模式標本。第三個是希列特式的標本室，在柏林植物園博物院內，不和大標本室混合，自成一個專科標本室。這個標本室比前二氏收藏都很豐富，中有不少馬來，中國和日本各地區的蘭科植物。

從一九四〇年作者的東亞蘭科植物之研究其一問世後，這項工作不幸中斷，竟達十年之久。這因為抗戰漸步入至艱苦的階段，使科學工作者正在苟延殘喘之中，不遑研究，復因作者兩地睽離，或相處甚邇，竟不得在一起工作。在抗戰期間，文稿和標本先保存在昆明黑龍潭，後來運至四川北碚，那時正日寇飛機肆虐，不斷轟炸，標本和文稿在在有毀滅的危險，然終得免於浩劫，真萬幸也。抗戰勝利以後，各機關爭相復員，作者也把標本和文稿，運回北京，保存於前北平研究院植物研究所內，所址在西直門外三貝子花園內。當解放戰爭指向北京城郊的時候，反動的國民黨軍隊倉遑逃竄，退守北平，驅逐所中研究人員，強佔房屋，以為防禦戰堡壘。當時雖經所中全部人員發動搶救，而這些無紀律的軍隊，已把全部標本毀壞約達百分之十，作者的標本和文稿，也遭輕微的損失，亦不幸中之大幸也。

本文中所有的西文字母，為中外植物學機關西文名之簡稱，這表示所引證的標本保存於某機關也。至每一引證標本的號次之後，沒有西文字母的，則表示其標本悉保存於本所植物標本室中。

- B** 英京倫敦大英博物院，
- BD** 德京柏林植物園博物院，
- C** 印度加爾各答植物園，
- CA** 美國加利福尼亞大學，
- CH** 法國什發里耶標本室，
- CU** 美國哥倫比亞學院標本室，
- E** 英國愛丁堡植物園，
- G** 美國哈佛大學格瑞氏標本室，
- K** 英國邱皇家植物園，
- KE** 英國凱氏標本室，

- L 廣州嶺南大學,
 N 南京金陵大學,
 NY 美國紐約植物園,
 P 法國巴黎博物院,
 S 廣州中山大學農林植物研究所,
 T 美國紐約植物園鐸瑞氏標本室,
 US 美國華盛頓國家植物標本室,
 W 奧京維也納博物院,
 WU 奧京維也納大學。

上面所列國內外各標本室,使作者研究蘭科分類學得到莫大的幫助,是十分感謝的。此外,前靜生生物調查所所長胡先驥博士,他在作者每一研究進行之中,經常給予珍貴的指導和鼓勵,廣州中山大學前農林植物研究所所長陳煥鑄教授,把廣東省和海南島的全部蘭科植物標本借給作者,南京前中國科學社生物研究所所長錢崇澍教授,把浙江省的蘭科標本借給作者研究,特此申謝。

Paphiopedilum Chiuwanum 新種

直立陸生草本,高三公分。根莖厚,有長絨毛。葉七枚,舌帶形,葉端有二齒,革質,上下無毛,下面有隆起的中肋,長二十一至四十一公分,闊十八至二十公厘。花軸直立,生一花,有密生臥剛毛,毛紅棕色,有節。花苞片卵形,外被如軸上有節之毛,惟較稀少,裏面無毛,與子房幾等長。中萼片橢圓形,端鈍,外被如軸上有節之毛,又有緣毛,內無毛,有脈十五條,長二·三公分,闊一·三公分。側萼片基本上二枚,惟所見自底至頂兩枚合生為一片,外有如中萼片上相同之毛,內無毛,卵形,長二十四公厘,闊十七公厘。花瓣比萼片略長,外有如萼片上所生之毛,內亦有同樣的毛,惟稀疏,向基部有密生臥剛毛,有緣毛,舌形,從較狹的基部向上略闊,長二十六公厘,闊九公厘。唇瓣鞋形,外有如萼片上之毛,惟稀少,長十九公厘,前部高五公厘,有向內褶的新月形裂片,裂片頂端圓形,幾無耳。退化雄蕊幾圓形,頂端有小尖頭,外面無毛,裏面有極稀的與花軸上相同的毛,基部以上有二個隆起,基部兩側有耳,長七公厘,寬五公厘。子房上有密生與花軸上相同之毛,圓柱狀紡錘形,長一·四公分。

雲南東南部,富寧縣,石山上,海拔 700 公尺,花紫色,一九四〇年四月十五日,王啓無 88525 (模式)。

本種和 *P. micranthum* 同樣的只有一花軸,花軸之端同只生一小花,但其不同之點,則在於後種之葉較長,和花內部構造亦不一樣。

Paphiopedilum micranthum 新種

直立陸生草本,高四公分。根莖很長,有粗根,根上有長絨毛。葉四至五枚,矩舌形,葉端鈍形,革質,上下兩面無毛,背面有粗點,長五至九公分,闊一·五至二公分。花軸直立,密被臥剛毛,棕色,有節,軸端生一花。花苞片圓帽狀,端鈍,外面被與軸上相同之毛,惟較稀少,裏面無毛,長為子房的三倍。中萼片卵形,端鈍,外被與花軸上相同之毛,毛也有節,週圍有緣毛,裏面無毛,有脈七條,長一公分,在基部以上闊七公厘。側萼片基本上兩枚,惟所見自底至頂二枚合生為一片,外有毛,毛與生在中萼片上者完全相同,內面無毛,半圓形,長寬相等,八公厘。花瓣和萼片幾等長,外面有短毛,毛與萼片上的相同,花瓣圓形,徑七·五公厘。唇瓣鞋形,外面無毛,長七公厘,前面高四公厘,有二個三角形裂片,裂片之端圓形,又有三角

形小耳。發育雄蕊之藥圓的，徑三公厘。退化雄蕊略為圓橢形，頂端圓形，無毛，基部以上有一個小三角形肉瘤，基部微有耳，長三公厘。子房有密生與花軸上相同之毛，長三公厘。

雲南東南部馬栗坡石山上，林下，海拔 1000 公尺，一九四〇年一月四日，王啓無，86182 (模式)。

就本屬東亞所有的種類之中，尙不知有與此新種相似者，它與所有其他種類的區別，即因其體極矮，花軸高僅四公分，只生一小花。

Orchis Chusua D. Don var. *pulchella* 新改名

雲南洱源縣馬耳山，一八八九年七月九日，*Delavay 12* (P)。大理至菖蒲桶道上，海拔 3150 公尺，一九一六年八月十四至十七日，*Handel-Mazzetti 9929* (Wu)。

本變種和模式種之區別在於其體較矮，高只有七·五公分，莖上只有一葉，葉長一·五至二·五公分，闊〇·三至〇·四公分，花序只有一至二花。

Amitostigma Beesianum 新改名

雲南麗江山脈東側，北緯 27°25'，海拔 11000—12000 公尺，高山砂土質草原，植物體九至二十吋高，花玫瑰色，一九一〇年八月，*Forrest 6464* (E, K, BD)。麗江一帶，*Schneider 3584* (K, US)。

Amitostigma monanthum (Finet) Schltr. var. *Forrestii* 新改名

雲南，四荊大雪山，溪旁草原，北緯 28°20'，東經 98°40'，海拔 12—13000 公尺，一九二一年八月，*Forrest 20076* (模式 BD, K, E, CA)。

本變種和模式種不同之處，為其莖被乳頭狀長柔毛。

Amitostigama puberulum 新改名

喜馬拉雅，錫金區 *Pantling 478* (K)。

Platanthera elachyantha 新稱

喜馬拉雅，錫金區 *Hooker* (K)。

四川西部，劉式民 969。

本種甚近 *P. contigua* 和 *P. opsimantha*，但花的構造和二種俱異。

Platanthera herminioides 新種

陸生直立草本，高十二公分。莖無毛，基部有二個抱莖的大鞘葉，其上有二個正常葉，正常葉之在莖上面的，苞片狀，下面的橢圓形，端圓，基部狹窄，把莖抱住，兩面無毛，長三·五公分，中部闊一·六公分。穗狀花序，有七個密生之花，長三公分。花苞片披針形，比子房長，兩面無毛。中萼片腎卵形，端圓，三條脈，無毛，長二·五公厘，中部以下闊三公厘。側萼片矩形，端極鈍，前緣基部以上張大，無毛，三條脈，長三公厘，闊一·五公厘。花瓣菱卵形，端鈍，一條脈，無毛，長二公厘，基部以上闊一·五公厘。唇瓣舌形，基部張大，無毛，長二·五公厘，闊一公厘。距圓柱狀卵形，距端以下略彎屈，端鈍，無毛，長二公厘，闊一公厘。蕊柱高一公厘。子房圓柱紡錘形，長四公厘。

雲南，高黎貢山，俞德浚，19763。

本種較近 *P. roseotincta*，但其主要不同之點，為花的形狀較似 *Herminium*，而不似 *Platanthera*。

Platanthera leptocaulon 新改名

喜馬拉雅, 錫金區 *Hooker* (K)。

西藏, 亞東, *Habson* (K)。

雲南西北部, 貢縣設治局, 四季通, 高山坡草原, 水邊, 海拔 3000 公尺, 一九三五年十月, 王啓無 67259。四莽大雪山, 海拔 3550 公尺, 一九一六年八月二十七日, *Handel-Mazzetti* 9965 (WU)。

Platanthera likiangensis 新種

陸生直立草本, 高二十八公分。塊根略為狹橢圓形, 長一七公厘, 厚四公厘, 有長厚之根。莖無毛, 基部有三鞘葉, 鬆鬆的把莖抱着, 中部以下有三葉, 中部以上有一苞葉。葉匙形, 端急尖, 基部漸狹窄而成鞘狀葉柄, 葉片長一三至一九公分, 中部以上闊二·八至五·三公分, 無毛。穗狀花序有九至十二花, 花稀生, 花序長五至八公分。花苞片披針形, 比子房長, 兩面無毛, 中萼片心狀卵形, 七條脈, 端鈍, 無毛, 長五公厘, 闊五公厘。側萼片不正卵狀披針形, 端鈍, 三條脈, 無毛, 長七·五公厘, 基部以上闊三·五公厘。花瓣不正披針帶形, 端鈍, 無毛, 一條脈, 長六公厘, 基部以上闊一·五公厘。脣瓣帶形, 端鈍, 無毛, 長十公厘, 闊一公厘, 距圓柱形, 端鈍, 末端以下寬大, 無毛, 長二一公厘, 闊一公厘。子房圓柱狀紡錘形, 長一三公厘。

雲南, 麗江縣, 林下, 海拔 2800 公尺, 花綠黃色, 一九三五年七月, 王啓無 71632 (模式)。

本種近 *P. japonica* 和 *P. Finetiana*, 但其體較矮, 中萼片為心卵形, 則與之異。

Platanthera shensiana 新改名

陝西南部, *Giraldi* 6902 (BD)。

Platanthera sinica 新種

陸生直立草本, 高四七公分。塊根圓柱形, 長達四公分。根厚, 線形, 有稀少長絨毛。莖無毛, 基部有三鞘葉, 鬆鬆的把莖抱着。葉分佈在莖上很高, 大的三枚, 矩形或橢圓形, 端急尖, 或其最下之葉頂端圓形, 基部楔形, 有抱莖的葉鞘, 長八至十一公分, 闊三至四·五公分, 上面的葉漸小, 和苞片一樣。穗狀花序幾密生, 約有十花, 長十公分。花苞片披針形, 端漸尖, 下面的苞片比花高, 上面的比花略短, 無毛。中萼片橢圓形, 端鈍, 三條脈, 無毛, 長六·二五公厘, 闊三·二五公厘。側萼片不正卵形, 端鈍, 三條脈, 無毛, 長六·五公厘, 闊四·二五公厘。花瓣不正舌形, 端截形而凹, 一條脈, 長六公厘, 闊一·五公厘。脣瓣帶形而細尖, 長一四公厘, 中部闊一公厘, 端凹, 基部略張大, 闊一·八公厘, 無毛, 距圓柱形, 靠近端處寬大, 長一六公厘, 闊一·五公厘。子房圓柱形, 無毛, 長十四公厘。

雲南西北部, 維西縣, 林下, 海拔 3500 公尺, 花綠白色, 一九三五年六月, 王啓無 63999。地名不詳, *Forrest* 2536 (K)。麗江縣, 麗江山脈的東坡, 一九一二年五至十月, *Rock* 4678 (US)。

本種很似 *P. Finetiana*, 和它的分別在其中萼片和花瓣之形狀兩樣。

Platanthera stenophylla 新種

陸生直立草本, 高一七·五公分。莖無毛。基部有一鞘葉, 中部以下有一葉。葉長矩形, 端鈍, 基部狹窄, 把莖抱住, 兩面無毛, 長四·五公分, 寬八公厘。穗狀花序由四至五個稀生之花而成, 長四公分。花苞片披針形, 比子房略長, 兩面無毛。中萼片卵披針形, 端鈍, 三條脈,

無毛，長六公厘，中部以下闊一·八公厘。側萼片爲不正披針形，端鈍，無毛，一條脈，長五·五公厘，中部以下闊一·二五公厘。花瓣爲不正卵披針形，端鈍，無毛，長五公厘，基部以上闊一·八公厘，一條脈。脣瓣披針舌形，端鈍，肉質，長五公厘，基部以上闊一·四公厘，距下垂，圓柱形，端鈍，中部以下膨起，長九·五公厘，闊一公厘。蕊柱高一·五公厘。子房圓柱紡錘形，長八公厘，比距略短。

雲南，珠江，貢山設治局，高山坡，海拔 2500 公尺，一九三五年十月，王啓無 67106。

本種的外形很像 *P. leptocaulon*，但是二種之間最大的區別爲後者大葉以上只有一苞狀小葉，本種較寬的大葉以上沒有苞狀小葉，前種之花有較短的距，後種之花則有較長之距。

Hemipilia quinquangularis 新種

陸生直立草本，高三七公分。葉着生在莖的基部，二枚，下面的大些，幾圓卵形，末端有短漸尖頭，無毛，長五·六公分，闊四·一公分，上面的葉小些，心狀卵形，端漸尖，無毛，長二·二公分，闊一·六公分。花軸上有二鞘葉，鞘葉披針形，端極漸尖，無毛，長一四公厘。總狀花序，花多而略稀，花序長一·六公分。花苞片披針形，有長漸尖頭，無毛，長爲子房的一半。中萼片狹卵圓形，端鈍，長八公厘，闊三公厘。側萼片不正卵形，端鈍，長八·五公厘，闊四公厘。花瓣不正卵形，端鈍，長七公厘，闊三·五公厘。脣瓣幾五稜圓形，端極鈍，基部楔形，緣有小圓齒，長十公厘，闊十公厘，距下垂，從基部寬大，圓柱形，端鈍，幾與子房等長。藥隔有圓端。子房圓柱形，長二公分。

雲南西北部，貢縣設治局，萬滿桶，千那通，岩石上，海拔 2500 公尺，花淡紅色，一九三五年九月，王啓無 66649 (模式)。

本種近 *H. Forrestii*，與其不同之處爲幾五稜圓形的脣瓣和圓端的藥隔。

Hemipilia sikangensis 新種

陸生直立草本，高十至二十公分。塊根矩形，根厚線形，有長絨毛。莖基部有一葉，葉腎形，其基部心形，兩面無毛，長一·三至三公分，闊二·四至四·八公分。莖中部以下有一鞘葉，管狀，鬆鬆的把莖抱着。花軸有一鞘葉，鞘葉苞狀，披針形，有長漸尖端，無毛，長十至十三公厘。總狀花序有幾個稀疏之花，長三·五至五·五公分。花苞片披針形，有長漸尖頭，無毛，長爲子房之半，中萼片橢圓形，端鈍，三條脈，略被極稀短柔毛，長四·五公厘，闊三公厘。側萼片不正卵形，端鈍，三條脈，外面被極稀短柔毛，長五·五公厘，闊三·五公厘。花瓣不正卵形，端鈍，外面有極稀短柔毛，長四公厘，闊二·五公厘。脣瓣輪廓爲有稜的圓形，端截形，基部楔形，緣有不整齊的小圓齒，上面密被短柔毛，下面被較稀短柔毛，長六·五公厘，闊五·七五公厘，距下垂，從基部脹大，圓柱形，端鈍，比子房短。子房圓柱形，長十二公厘。

西康，丹巴縣，一九二九年七月十八日，杜大華 1471 (模式)。

本種和 *H. quinquangularis* 相近，惟其體較矮，花少，較小，花軸上只有一苞狀鞘葉。

Herminium angustifolium Benth. var. *brevilabre* 新變種

本變種和模式種之區別，在其脣瓣較短，有三個長度相等之裂片。

雲南，屏邊縣，海拔 1100 公尺，林下岩石上，花綠色，一九三四年九月十一日，蔡希陶 61889。漾濞縣，鍾觀光 9696。

泰國，Chumgioni, Kerr 191 (K)。

Herminium liguliforme 新種

陸生直立草本,高十五至二一公分。根纒狀,有長絨毛。莖之基部有二至三個鞘葉,鞘葉管狀,鬆鬆的把莖抱着。莖之基部以上有二個葉,中部以上有一二個鱗葉,鱗葉披針形,長一五至二一公分。葉橢圓形或橢圓披針形,端圓或急尖,基部狹窄,把莖抱着,兩面無毛,長四·三至九·五公分,闊一·二至二·二公分。總狀花序有六至十三個稀生之花,實熟時花序長四·二至七公分。花苞片披針形。中萼片菱卵形,端鈍,三條脈,長二·二公厘,闊三公厘。側萼片不正卵形,端鈍,三條脈,長二·五公厘,闊一·七五公厘。花瓣不正卵形,端鈍,一條脈,長二公厘,闊一·五公厘。唇瓣舌形,端鈍,從基部張大,長三公厘,闊一·五公厘,距短形,端鈍,略彎,長二公厘,粗一公厘。子房圓柱形,無毛,為距之三倍長。

西康西南部,泥丘,察瓦龍,冷杉林下,海拔 3600 公尺,一九三五年八月,王啓無 66089 (模式)。

本種近 *H. forceps*, 但後者之莖無毛,花序的花少和花內部構造亦不一樣

Herminium longicruris 新改名

日本, *Wright* (T)。

台灣, *Oldham* 560 (K)。 *Price* 320 & 763 (K)。

貴州,息烽縣,望山,曠山坡,花淡黃綠色,一九三六年七月一日, *S. W. Teng* 90469 (S); 湄潭縣, *Mou-Po-Sich*, 曠山坡,花綠色,一九三五年六月二十二日, *S. W. Teng* 648 (S)。

雲南,昆明(雲南府), *Schoch* 265 (SU)。麗江縣, *Rock* 5671 (SU), *Schneider* 2061 (K)。騰越縣, *Forrest* 8364 (K)。產地不詳, *Forrest* 6315, 14729, 15990, 19036 (K), *Maire* 850 (NY), 蔣英 11389 B (S)。中甸縣, *Schneider* 3392 (K); *Cavalerie* 2451 (K)。蒙自, *Henry* 9684, 11124 (NY)。湖北, *Henry* 6421 (K), *Wilson* 2248 (K)。南沱, *Henry* 2042, 3912 (K)。長陽縣, *Henry* 6202 (K, CU)。巴東縣, *Henry* 856, 7383 (K)。

中國西部, *Wilson* 2236, 4617 (K)。

浙江,定海縣,六橫,橫嶼塘外橋,一九二〇年六月八日,鍾光觀 221 (S)。

本種和 *Herminium angustifolium* 相近,但與後種不同之處,為其唇瓣有小乳頭狀突起,側裂片長約五至八公厘,退化雄蕊和藥一樣長或過之。

Herminium spiranthiforme 新改名

雲南, *Maire* 2616 (BD)。

本種與 *H. Elizabethae* 相近,惟其葉帶形,花瓣卵披針形,與後種不同。

Pecteilis bassacensis 新改名

越南,老撾區, *Thorel* 2309 (P), *Poilane* 15504 (P)。安南區, *Evrard* 1562 (P)。

本種近 *P. Henryi*, 但與後種不同之處,在其帶形花瓣的前緣只有一齒牙或只略張大而無齒牙。

Pecteilis Laccii 新改名

泰國,景邁, *Kerr* 247 (K)。

本種近 *P. Henryi*, 和其不同之處,為花瓣披針形,且有不規則的裂片。

Pecteilis triflora 新改名

尼泊爾和寇莽 *Wallich 7035 (B)*。

本種的特點，在其有很寬的藥隔，唇瓣的側裂片扇形，緣有小齒牙。

Habenaria chiloglossa 新種

陸生直立草本，高約三十一公分。塊根狹長，肉質。莖無毛，其基部有二鞘葉，鞘葉管狀，鬆鬆的把莖抱住。葉二枚，長在莖上很高，下面的很大，矩形，端急尖，基部楔形，把莖圍起，無毛，長十公分，闊三·六公分。上面的一個葉小些，披針形，端急尖，無毛，長五·六公分，闊一·四公分。總狀花序有九個稀生之花，長約十公分。花苞片披針形，端漸尖，無毛，在下面的苞片比花高，上面的和子房一樣高。中萼片狹橢圓形，端鈍，三條脈，長六公厘，闊二公厘。側萼片不正披針形，端略漸尖，一條脈，長六公厘，闊五公厘。花瓣不正披針形，端鈍，長五公厘，中部以上闊二·五公厘。唇瓣舌形，端鈍，長六·五公厘，中部以下闊一·五公厘，距圓柱形，末端以下略張大，端鈍，長一六公厘。子房紡錘形，長九公厘。

西康，察瓦龍，秦那通，海拔 2800 公尺，花白而略帶綠色，一九三五年八月，王啓無 65326 (模式)。

本種近 *H. platantheroides*，惟其葉矩形，中萼片和側萼片一樣長，唇瓣有圓柱形之距，很易與後種識別。

Habenaria Passerina 新改名

越南，東甫寨，*Pierre (P)*。

本種像 *Herminium*。其莖高十六至三十六公分，葉三至四枚，在莖上稀稀排列，下面的葉較大，漸上漸小迨與苞片無異，因此它和 *Habenaria dankiaensis* Gagnep 有相當關係，惟後種莖高五六十公分，葉六七枚，集生在莖之基部，它和苞片迥然不同，花序十五至二十公分長，和本種很易識別。

Peristylus australis 新改名

越南，東甫寨 *Poilane 312 (P)*。

Peristylus ecalcaratus 新稱

雲南，昆明郊外，河岸土墩，*Ducloux 3971 (P)*。

本種和屬中他種之區別，為其卵形端鈍之唇瓣，無距無裂片。

Peristylus langbianensis 新改名

越南，安南區，*Evrard 1219; Eberhardt 1901; Lecomte et Finet 1534 (P)*。

本種甚近 *P. australis*，但其花較小，唇瓣長四公厘，闊五公厘，唇瓣側裂片長三公厘，闊一·五公厘，花瓣漸尖，端略鈍，長四公厘，闊二公厘，側萼片長五公厘，闊二公厘，中萼片長四·五公厘，闊二公厘，易與後種區別。

Peristylus sphaerocentron 新種

陸生直立草本，高三十三公分。塊根二，略為橢圓形，長達二·六公分，厚一·一公分。根線形，有長絨毛。莖無毛，其基部有四鞘葉，鞘葉管狀，鬆鬆的把莖抱住。中部以下有四大葉。中部以上一小葉，小葉卵形，端漸尖，基部把莖抱住，長二·六公分，闊一·六公分。花序以下有

二鱗片, 鱗片披針形, 端漸尖, 長十二至十四公厘。葉在莖中部以下的橢圓形, 端急尖, 基部楔形, 鬆鬆的把莖抱住, 面上無毛, 緣上無色, 長三·三至六·六公分, 闊二·五至三·九公分。總狀花序有密生多數之花, 長七·二公分, 闊二·二公分。花苞片披針形, 有長漸尖頭, 無毛, 幾和子房一般長。中萼片卵形, 端鈍, 一條脈, 長五·七五公厘, 闊三·七五公厘。側萼片不正的狹卵形, 一條脈, 端鈍, 長五·六公厘, 闊二·五公厘。花瓣菱卵形, 端鈍, 長五·五公厘, 中部闊約五公厘。脣瓣輪廓為倒卵形, 前部三裂, 向前伸, 基部楔形, 裂片在兩側的矩形, 端鈍, 比中間的略較長, 但很狹, 長二至二·七五公厘, 裂片居中的闊卵形, 全長六·二五公厘, 中部闊四公厘, 距幾圓球形, 長二公厘, 厚一·五公厘。子房紡錘形, 長八公厘。

雲南, 採集人不詳, 2390 (模式)。

本種和 *P. constricta* 相近, 但其體較矮, 葉較小, 中萼片卵形, 花瓣菱卵形, 與後種甚易識別。

Listera brachybotryosa 新種

陸生直立草本, 高約十二公厘。根莖短, 根線形, 有疎長絨毛。莖之基部有一鞘葉, 莖上部的四分之一或三分之一有二片對生之葉, 其上無葉或只一苞片, 葉以下之莖無毛, 葉以上之莖有乳頭狀疎柔毛。葉無柄, 幾二等邊三角形, 基部截形, 端急尖, 兩面無毛, 長十三至十六公厘, 基部以上闊十五至二十公厘。總狀花序有三四個稀生之花, 長十至十五公厘。花苞片披針形, 比子房短。中萼片矩形, 端凹, 一條脈, 無毛, 長四公厘, 闊一·五公厘。側萼片狹橢圓形, 端鈍, 一條脈, 無毛, 長四·二公厘, 闊〇·六公厘。脣瓣長倒卵形, 在最末端的五分之一部分有二裂片, 介於二裂片之間有一急尖的齒, 裂片不正卵形, 端很鈍。脣瓣中央有一鈍的龍骨, 龍骨基部寬, 漸上漸狹, 其兩側基部三分之一處有一褶片, 脣瓣全長七·五公厘, 末端以下闊三·三公厘。蕊柱高二公厘。子房有柄, 棍棒狀, 無毛, 長九公厘。

西康, 察瓦龍, 秦那通, 海拔 2800 公尺, 密林中, 花綠黃色, 一九三五年八月, 王啓無 65223 (模式)。

本種近 *L. Savatieri*, 和其區別之處, 在總狀花序短, 中萼片矩形, 脣瓣有一端鈍而明顯的龍骨, 此龍骨基部闊, 漸上漸狹, 又在龍骨之兩側後面三分之一處有一褶片。

Listera Savatieri Maxim. ex Kom. var. *maculata* 新變種

本變種和種之區別, 在葉之中肋上面和一至三條側脈上面都有顏色。

四川, 城口縣, 海拔 2200 公尺, *Farges* 927 (P), 海拔 2000 公尺, *Farges* 334 (P)。

Listera Yüana 新種

陸生直立草本, 高二十二至二十三公分。根線形, 有長絨毛。莖基部有二鞘葉, 中部以下有二葉。葉對生, 無柄, 幾兩等邊三角形, 基部幾心形, 端急尖, 二面無毛, 長二至二·二公分, 基部以上闊二·二至二·六公分。總狀花序有稀生的數花, 長達九公分。花苞片披針形, 只花梗的一半長。中萼片狹橢圓形, 端鈍, 一條脈, 無毛, 長四公厘, 闊一·二公厘。側萼片狹, 不正卵形, 端鈍, 一條脈, 無毛, 長四公厘, 闊一·六公厘。花瓣帶形, 前緣中部略張大, 端鈍, 一條脈, 無毛, 長三·六公厘, 闊〇·七公厘。脣瓣倒卵形, 無毛, 前面的三分之一有二裂, 裂片矩形, 端圓, 有緣毛, 長九公厘, 闊四公厘。蕊柱高三·五公厘。子房連柄, 長共七公厘, 棍棒狀, 無毛, 子房柄長四公厘。

雲南, 上球江谷, 海拔 2500 公尺, 混合林中陰濕之處, 花淡綠色, 俞德浚 19644 (模式)。

本種似 *L. Smithii*, 但其體高大, 葉大, 花大, 易與後種識別。

Neottia brevilabris 新種

死物寄生直立草本，高達四十公分。莖厚，靠近莖之末端有乳頭狀突起，鞘葉達六個之多，抱莖而生。總狀花序有密生少數之花，長達四公分。花苞片帶狀披針形，幾與花同長，無毛。中萼片橢圓形，端鈍，一條脈，無毛，長三公厘，闊一·八公厘。側萼片不正橢圓形，端鈍，一條脈，無毛，長三公厘，闊一·六公厘。花瓣不正橢圓形，端鈍，一條脈，無毛，長二·八公厘，闊一·二公厘。唇瓣輪廓為楔倒卵形，前部二裂，介於二裂片之間有一鈍齒，唇瓣全長二公厘，末端闊幾三公厘，唇瓣基部有小凹，裂片不正卵形，張開，端鈍。蕊柱高一·五公厘。子房連柄長七·五公厘，棍棒狀。

四川，城口縣，海拔 1800 公尺，一九〇〇年六月十六日，*Farges 1500* (模式)，*Farges* 果實標本 (P)。

本種較近 *N. Nidus-avis*，因為他們同有高壯的體格和無硬瘤的唇瓣同有二個張開的裂片，但和後種不同之點，在其花較小，唇瓣裂片較短。

Neottia oblonga 新種

死物寄生直立草本，高達二十二公分。莖無毛，有五鞘葉，鬆鬆的高抱着莖。總狀花序有幾密生多數之花，長七公分。花苞片幾矩形，端齒咬狀，略急尖，比子房柄短。中萼片帶狀披針形，端長漸尖，一條脈，無毛，長四·五公厘，闊幾一公厘。側萼片和中萼片相似。花瓣帶狀幾匙形，端楔狀急尖，一條脈，無毛，長二·五公厘，闊〇·八公厘。唇瓣矩形，端急尖，肉質，緣薄，略有顏色，長二·三公厘，闊一公厘。蕊柱短。子房棍棒狀，無毛，連柄長六公厘。

雲南，梅空，察互龍，折那，海拔 3000 公尺，樹林下，花淡黃色，一九三五年九月十一日，王啓無 66312 (模式)。

本種近 *N. micrantha*，惟其唇瓣概為矩形與後種異。

Neottia Pantlingii 新改名

喜馬拉雅，錫金區，*Smith & Cape 1020, 2657* (K)。

本種近 *N. Smithiana*，惟其幾匙形的花瓣，鐮狀矩形的側萼片和有略張開的裂片的唇瓣與後種異。

Aphyllorchis pusilla 新改名

下緬甸，*Kurz* (C)。

越南，老撾區，*Kerr 1024* (K)。

本種和 *A. montana* 相近，但與後種分別之處，為體格極矮小，花序只有一兩個花。

Aphyllorchis simplex 新種

死物寄生直立草本，高四七至五三公分，根莖厚，幾木質。根線形，無毛。莖無毛，有九鞘葉，鞘葉管狀，鬆鬆的抱住莖。總狀花序有稀生幾個之花，長二十公分。花苞片下垂，帶狀披針形，端鈍，無毛，比子房短三倍。中萼片狹矩形，端急尖，三條脈，無毛，長十公厘，闊二·二公厘。花瓣質薄，狹矩形，急尖，三條脈，無毛，長十公厘，闊二·五公厘。唇瓣質薄，狹矩形，端鈍，向外卷，一條脈，無毛，長十公厘，基部以上闊三公厘。蕊柱狹長，高七公厘。子房連柄長十七公厘，棍棒狀，無毛。

廣東，梅縣，陰那山，峻石坡，花白色，一九三二年八月，張維德 21504 (模式)。

本種近 *A. montana*, 惟因後種有卵形唇瓣, 在其中部緊縮起來而分全唇瓣為前唇和後唇, 這是和本種不同之點。

Epipactis Mairei Schltr. var. humilior 新變種

西康, 劉式民 1107 (模式)。

本變種和模式種不同之點, 在其體較矮, 葉卵披針形。

Epipactis Thunbergii A. Gray var. manshurica 新改名

朝鮮, *Carles 150* (K)。

本變種原產烏蘇里東北地區, 其和模式種之區別為前唇的前面的裂片無硬瘤。

Cephalanthera ensifolia (Sw.) L. C. Rich. var. acuminata 新改名

尼泊爾, *Wallrth, Royle* (K)。

雲南, 周家祠堂, 海拔 2550 公尺, *Maire (BD)*。 *Kaitcheon, Cavalerie 3848B, 8108* (K)。 麗江縣, *Rock 3589, 3620* (US)。 永北縣, *Schneider 3502* (K)。

西康, 打箭爐 *Wilson 4606, Pratt 51* (K)。

本種和模式種之顯著區別, 為披針形葉片有漸尖頭。

Bletilla chartacea 新改名

上緬甸, *Robertson 342* (K)。

本種近 *B. striata*, 但和後種不同之點為花較小, 長只有十五至二十公厘, 唇瓣有縱貫前唇後唇的微波狀褶片。

Bletilla foliosa 新改名

上緬甸, *Abdul Khalil* (C)。

B. sinensis 的葉子和本種相似, 只因緬甸植物之花不堪解剖, 故必須候更多更好的緬甸材料比較後, 才能決定中緬植物是一種還是二種。

Nervilia flabelliformis 新改名

尼泊爾, *Hamilton 7400 A* (K)。

本種很近 *N. tibetensis* 和 *N. Fordii*, 但本種和它們的分別, 在葉的基部為截形急尖, 花序有很多花, 萼片和花瓣較長, 唇瓣的中裂片矩形, 且有長絨毛。

Goodyera repens (L.) R. Br. var. marginata 新改名

印度西北部, 寇莽, *Wallich 7394, Royle* (K)。 喜馬拉耶西北部, *Thomson* (K)。

雲南, 四莽大雪山, 北緯 28° 10', 海拔 10,000 呎, 一九一七年八月, *Forrest 14505* (K)。 產地不詳, *Forrest 25128* (K)。

本變種和模式種之區別, 為其體格高壯, 花序穗狀, 花密, 一面向。

Goodyera Wuana 新種

陸生直立草本, 高十二公分。 根莖傾臥, 莖狀。 莖基部有葉, 上部有乳頭狀突起, 下部無毛。 葉七枚, 卵形, 端急尖, 基部楔形, 有葉柄, 兩面無毛, 長十三至十五公厘, 中部以下闊六至七公厘, 葉柄基部寬大而成鞘, 柄長至八公厘。 葉以上之莖有三鱗葉, 鱗葉披針形, 長漸尖, 無

毛，長九至十四公厘。總狀花序有九花，一面向，長達三公分。花苞片披針形，端尖漸，和子房一樣長。中萼片橢圓矩形，端鈍，一條脈，無毛，長四·二公厘，闊一·八公厘。側萼片不正卵形，端鈍，一條脈，無毛，長四公厘，闊二·三公厘。花瓣不正匙形，端鈍，一條脈，無毛。唇瓣半圓的帽狀，前部三角形，端鈍，長三·八公厘，張平後闊四公厘，裏面有二褶片。蕊柱短，包括藥在內長二·五公厘。子房紡錘圓柱狀，有疎乳頭突起，長五·五公厘。

西康，天全縣，白沙河，兩河口，樹林下，花白色微帶粉紅，一九四〇年八月卅日，吳中掄 12420 (模式)。

本新種甚近 *G. repens* 惟其葉卵形，端急尖，不集生在莖之基部，花無毛，有不整齊的花瓣，又有圓帽狀唇瓣，唇瓣內有二褶片與後種異。

Erythrodes herpysmoides 新改名

不丹, *Pantling 255 (K)*。

本種之特徵在其唇瓣有較短的距，長二公厘，無褶片，又有平的前唇。

Myrmechis pumila 新改名

喜馬拉雅，錫金區, *Hooker 325 A (K)*。 *Pantling 338 (K)*。

本種和其他種不同之處為唇瓣有較長的爪和披針形的花瓣。

Odontochilus abbreviatus 新改名

尼泊爾, *Wallich 7385 (K)*。

廣東, *Mell 728 (WU)*。曲江縣，銅坑，大瀝，林下，一九三一年十二月十九日，高錫朋 51989 (S)。英德縣，溫塘山，陰岩上，溪邊，一九三一年九月七日，梁銳雄 60864 (S)。翁源縣，一九三五年十一月二日，劉心祈 24235 (S)。

海南島，保亭縣，候寬昭 73619 (S)。

本種特徵在其花較小，長四公厘，唇瓣有長〇·五公厘之爪，前唇寬大完整，有較小褶片，蕊柱上還有平直的附屬物。

Odontochilus densiflorus 新改名

廣西，猛山，水邊，辛樹幟 3856 (BD)。

本種外形近 *O. repens*，惟花的內容則大相逕庭。

Odontochilus longifolius 新改名

喜馬拉雅，錫金區, *Hooker 335 (K)*。

本種近 *O. moulmeinensis* 和 *O. Petelotii*，但與它們不同之處為葉較長，長十四至十六公分，唇瓣有較長之爪，爪長二·五公厘。

Odontochilus moulmeinensis 新改名

下緬甸，摩爾門, *Parish 237 (K)*。

泰國，景邁, *Kerr 197 (K)*。

雲南，思茅，東山，海拔 5,000 呎，花粉紅色, *Henry 12724 (K, NY)*。

本種近 *O. Petelotii*，但與其不同之處，為唇瓣有較小的基部裂片，包括囊在內高三·五公厘，有較小的前唇，前唇長三·二五公厘，闊九公厘，蕊柱上有較短的微波狀附屬物，附屬物長一·五公厘。

Odontochilus Petelotii 新改名

越南, 東京區 *Petelot 5151, 5165* (P)。

Hetaeria Poilanei 新改名

越南, 安南區, *Evrard 1807* (P)。 *Poilane 18204* (P)。

本種近 *H. inverta* 惟其唇瓣的小裂片有不整齊的缺刻狀齒牙和長緣毛, 爪之左右緣也有缺刻狀齒牙。

Malaxis aphylla 新改名

喜馬拉雅, 錫金區, *Pantling 455* (K)。

Malaxis bahanensis 新改名

雲南, *Pteridium* 草原, 熱溫帶植物區, 又屬滇緬季候風區, 怒江河谷, 北緯 27° 59', 頁岩上, 海拔 2600 公尺, 一九一六年七月二十一日, *Handel-Nazzetti 9547* (WU)。賓川縣, *Ducloux 6702*。

本種近 *M. acuminata*, *M. Pierrei* 但與後二種不同之處為花和葉俱較小。

Malaxis calophylla (Rchb. f.) Ktze. var. **brachycheila** 新改名

緬甸, 摩爾門, *Parish 191* (K)。

泰國, 景邁, *Kerr 276* (K)。

本變種和模式種不同之處, 為其葉的全面有色點。

Malaxis Finetii 新改名

越南, 安南區 *Lecomte et Finet 116* (P)。

海南, 候寬昭 *71036* (S)。

本種近 *M. latifolia* 惟其唇瓣卵三角形, 不分裂, 子房無肉痣, 葉常較小。

Malaxis liparidioides 新改名

雲南, 思茅縣, 山凹沼地, 海拔 5500 呎, 花粉紅色, *Henry 13131* (BD, K)。

本種近 *M. Makinnoni*, 惟與其不同之點為葉較多, 互生, 唇瓣長一公分。

Malaxis macrochila 新改名

栽培植物, *Lawrence* (K)。

本種近 *M. orbicularis* 惟其花比後種特大。

Malaxis Maximowicziana 新改名

喜馬拉雅, 錫金區, *Pantling 226* (K)。

本種近 *M. Josephiana*, 惟其葉長在莖上很高, 自莖之基部至着葉的地方高有十四公分, 花序有多數之花, 花綠色, 唇瓣完整, 但有稀少微不整齊的細鈍鋸齒, 唇瓣長三公厘, 闊二·五公厘。

Malaxis microtatantha 新改名

福建, Yuen Fu Gorges 陰濕的岩上, 海拔 1800 呎, 香港植物園標本室 *3545* (K)。

本種和 *M. cylindrostachya*, *M. muscifera*, *M. yunnanensis* 的唇瓣基部俱無耳, 花粉塊俱爲二枚, 花苞俱直立, 葉俱爲一至二枚, 故在屬中自成一系, 唯本種特點唇瓣三裂, 二枚側裂片較大, 故易和它們區別。

Malaxis Miyakei 新改名

台灣, 紅頭嶼, 一八九九年十一月廿四日, *Miyake 129 (BD)*。台南, 南角 *Henry 1342 (K)*。

Malaxis muscifera (Ldl.) Ktze. var. stelostachya 新變種

本種和模式種不同之處, 爲花較大, 唇瓣長三·五公厘。

雲南西北部, 一九一七年八月, *Forrest 15867 (K)*。

四川, 峨眉山之西湓山, 林中油桐樹幹上, 海拔 4000—8000 呎, 花綠色, *Wilson 4628 (K)*。

西康, 打箭爐, *Soulie 633 (K)*。

Malaxis orbicularis 新改名

雲南, 騰越, *Howell 334 (E)*, *Forrest 18446 (K)*, 蔡希陶 62861。

泰國, 景邁, *Kerr 209 (K)*, *Kerr 490 (K)*。

本種近 *M. Parryae*, 但其較高的體格高達三十公分, 唇瓣前端圓的, 有較長而整齊之齒, 長和唇瓣前部相若, 很易與後種識別。

Malaxis Parryae 新種

草本高九至十一公分。根線形, 蜿蜒, 有疎長絨毛。莖短, 有葉三至四枚。葉橢形, 或卵橢形, 或短披針形, 長一·五至六·五公分, 闊〇·七至二公分。葉柄基部只很短的部分抱着花軸, 花軸長九至九·五公分。總狀花序有幾密生多數之花, 長三·五至四公分, 寬一分。花苞片帶狀披針形, 比子房和子房柄之和爲稍高。花倒生, 黑紫色。中萼片舌狀, 端鈍, 長四公厘。側萼片不正橢形, 端鈍, 長二·五公厘。花瓣帶形, 端鈍, 長三·五公厘。唇瓣輪廓卵形, 長五公厘, 端幾截形, 闊四公厘, 有不整齊之齒, 基部有大耳, 耳不正卵披針形, 長三公厘, 爲唇瓣前部長幾兩倍。子房包括子房柄長二·五公厘。

緬甸, 阿薩密區, *Parry 19 (K)*。

本種更近 *M. orbicularis*, 因爲它們同有紫色之花, 唇瓣同有齒, 但兩種不同之處, 爲本種體矮, 花小, 唇瓣只有少數不整齊之齒, 末端幾截形, 基部有很大的耳。本種又近 *M. acuminata* 雖後種變化很大, 要其唇瓣前部沒有齒, 而唇瓣前部之長和耳長相若, 很易識別。

Malaxis Pierrei 新改名

爪哇, *Zollinger 2536 (未見)*。

越南, 交趾支那區, *Regnier 360 (P)*, *Pierre (P)*。柬埔寨區, *Pierre (P)*。

雲南, 思茅, 海拔 4000 呎, *Henry 12284A 12284 (BD, K)*。

泰國, 景邁, *Kerr 100 (K)*。

本種和 *M. acuminata*, 除只生長部分可資識別外, 竟至無可區別處, 所以必須候觀察更多的材料, 才敢決定兩種或爲一種, 或本種只爲後種之一變種。就現有的標本論, 後種之葉在中部以上楔形, 更爲顯著, 中部以下最寬, 且有波狀緣, 但是本種之葉是短橢圓形, 中部最寬, 自中部以上不甚窄, 有平的緣, 此二種不同也。

Malaxis saprophyta 新改名

喜馬拉雅, *Pantling 394 (K)*。

本種近 *M. aphylla*, 因為它們同有附生習性, 花小, 唇瓣有鈍尖頭, 但是本種的球莖為圓球形, 花軸高七至十五公分, 唇瓣上面有凸的褶片, 後種則有不整齊的矩形球莖, 有高十七至二十三公分之花軸, 和無褶片的唇瓣。

Malaxis szemaoensis 新種

草本高九至十三公分。莖圓柱狀, 無毛, 高一至二公分。葉二至三枚, 互相接近, 斜立, 葉柄基部寬大而有鞘, 長二公分, 葉片不正卵形或橢形, 端急尖, 基部楔形, 兩面無毛, 長二至六·五公分, 闊一·二至三·五公分。花軸或多或少有稜角, 無毛, 包括總狀花序在內長八至十二公厘。總狀花序有稀少之花, 長二·五至十六公分, 闊一公分。花苞片急下彎, 披針形, 比子房和子房柄之和為稍長, 或等長。中萼片矩形, 端鈍, 長三·五公厘。側萼片不正橢形, 端鈍, 長三公厘, 花瓣帶形, 端鈍, 和中萼片一樣長。唇瓣從基部有箭頭狀之耳, 唇瓣大致為卵形, 長五公厘, 末端闊三·五公厘, 有三裂片, 側裂片有一寬三角形之外角又有一三角形的急尖齒, 中裂片有新月形小裂片, 長〇·七五公厘, 基部闊一公厘, 比在側裂片上之齒為稍長, 其平行之耳, 幾錄披針形, 長二·五至三公厘, 子房和子房柄共長四公厘。

雲南, 思茅, 西北諸山, 海拔 5000 呎, 花黃色, *Henry 13128 (K)*。

本種一若與本屬之產在中國及鄰邦之種類沒有任何的相似關係。論及其唇瓣側裂片之齒的情形, 本種近似 *M. Miyakei*, 但因後種的側裂片上有二個帶形緣毛狀裂片, 而本種則只有一個三角形之齒, 且二種唇瓣之中裂片大相逕庭, 本種為新月形, 而台灣種為矩形。

Malaxis yunnanensis 新改名

雲南, 高山草原在麗江山脈之東側, 北緯 27° 15', 海拔 11—12000 呎, 花綠黃色, 微有香味, 一九〇六年七月, *Forrest 2627 (E)*, *Schneider 3438 (K)*, *Forrest 6223, 10627 (K)*。

Malaxis yunnanensis var. nematophylla 新變種

本種和模式種之區別為其子房柄較長, 較細, 花瓣較窄。

陝西, 寧陝縣, 平河梁, 海拔 2400 公尺, 竹林中, 一九三三年七月廿六, 孔憲武 3249。

四川, 峨嵋縣, 峨嵋山, 海拔 3000 公尺, 一九三一年七月二十二日, 花綠色, 汪發繼 23411, *Faber 958 (K)*。城口縣 *Farges 32 (P)*。

湖北, 房縣, *Henry 6869 (K)*。無詳細地名, *Henry 6875 (K)*。

Oberonia myriantha Ldl. var. *parvula* 新改名

喜馬拉雅, 錫金區, *Pantling 203, 254 (K)*。

本變種和模式種之區別為花序比較很短, 長只二·五至八公分, 葉比較很少, 長一至四公分。

Liparis khasiana 新改名

阿薩密, *Griffith 5068 (K)*, *Hooker & Thomson (K)*。

雲南, 龍川江和騰越河谷之分水嶺, 叢林中及陰處岩石山, 北緯 25° 10', 海拔 6—7000 呎, 一九一二年七月, *Forrest 8627 (K)*。

本種很近 *L. macrocarpa*, 但與後種不同之處為其蕊柱特短, 高只三公厘。

Mischobulbum megalanthum 新稱

喜馬拉雅,錫金區, *Pantling 206 (K)*。

這種和馬來產的 *M. Wragana (Hook. f.) Rolfe* 相似,但這種的唇瓣無裂片,長十五公厘,闊十三公厘,顯和後種不同。

Nephelaphyllum Evrardii 新改名

越南,安南區,海拔 1200 公尺,一九二五年十一月二日, *Evrard 2387 (P)*。

這種特徵在其唇瓣有五條線形褶片。

Diglyphosa Evrardii 新改名

越南,安南區, *Evrard 1250, 1943 (P)*。

Chrysoglossum chapaense 新改名

越南,東京區,海拔 1500 公尺,一九二九年八月, *Petelot 5148 (P)*, 一九二八年七月, *Petelot 5165 (P)*。

這種和別種的區別,在其葉較小,葉柄比較很短,唇瓣中間的褶片短而不顯明。

Chrysoglossum chloranthum 新改名

越南,安南區, *Poilane 18731 (P)*。

這種和 *C. Delavayi (Gagnep.) Tang et Wang* 的分別,爲唇瓣有缺刻狀齒牙,並有褶片三條,其中間的一條也有缺刻狀齒牙。

Chrysoglossum Delavayi 新改名

雲南,地點不詳, *Delavay (P)*。

這種的唇瓣側裂片的末端有細齒牙,其他部份則全緣,褶片也全緣,是其特徵。

Collabium Balansae 新改名

越南,東京區,海拔 800 公尺, *Balansa 1998 (P)*。

這種葉較大,且有白斑點,唇瓣的中裂片長五公厘,闊十二公厘,端淺凹,側裂片三角形,端鈍,距較長,七公厘,這幾點都和他種不同。

Pholidota chinensis Ldl. var. **cylindracea** 新變種

變種和模式種的區別,在其圓筒狀假球莖長五至六公分。

廣西,羅城縣,三防西南三十里的九峯山,海拔 2000 呎,蔭壁上,秦仁昌 6790 (模式)。

雲南,蒙自縣, *Henry 13586 (K)*。

Coelogyne leucantha W. W. Smith var. **heterophylla** 新變種

變種和模式種的區別,在其假球莖矩形。

雲南,蒙自紅河之南,樹上,花黃色, *Henry 13703 (K)*。同地區,海拔 6000 呎,山谷岩石上和樹上,植物高四至八呎, *Forrest 24515* 只有花 (K)。

上緬甸,北緯二十六度十七分,東經九十八度四十六分,海拔 7000 公尺,林中樹上,花白色,一九二五年七月, *Forrest 27098 (K)*。

Coelogyne punctata Ldl. var. conferta 新變種

雲南, 野外記載不詳, *Forrest 26625* (K)。

上緬甸, *Parish 150* (K)。

變種和模式種的分別, 在其葉橢形, 長五至七公分, 闊一·五至二·五公分, 而模式標本的葉則為狹橢形, 長六至十七公分, 闊一·二至二·三公分。

Coelogyne punctata Ldl. var. hysterantha 新變種。

變種和模式種的分別為花軸和葉生在同一假球莖上, 但模式種的花軸和葉則生在二個假球莖上。

雲南西北部, 北緯二十五度四十分, 東經九十八度五十分, 海拔 9000 呎, 附生在稀林的岩石上及樹上, 植物高四至七吋, 花白色, 肉質, 唇瓣被深棕色短絨毛, 一九二四年一月, *Forrest 26146* (模式 K)。

印度北部, 米斯梅山, *Griffith* (K); 地址不詳 *Griffith* (K)。

Pleione Chiuwana 新種

陸生直立草本, 高達七·五公分。假球莖球狀卵形, 直徑一·二公分, 被有鞘葉, 鞘葉後來分裂成纖維狀。花開時無葉。管狀鞘葉鬆鬆的抱住花軸。花單生。苞片狹矩形, 端極鈍, 無毛, 較子房稍長。中萼片狹橢形, 端急尖, 無毛, 多脈, 長二十七公厘, 闊四公厘。側萼片斜橢形, 與中萼片長相等, 闊亦幾相等。花瓣匙形, 端急尖, 無毛, 多脈, 長二十五公厘, 在中部以上闊四·五公厘。唇瓣的全形為倒卵橢形, 基部楔形, 向上漸寬, 前部三分之一處成三淺裂, 中裂片特較大, 幾方形, 端凹下, 緣撕裂狀, 側裂片短, 圓形, 前部邊緣亦為撕裂狀, 龍骨片五條, 其上部微波狀, 中間一條始自粗壯脈的基部, 隨向頂端則漸寬, 通常伸長到唇瓣中裂片的一半之處, 外邊二條和中間的相同, 但較短, 最外邊二條, 從唇瓣基部以上伸到其中裂片的基部, 唇瓣全長二·六公分, 中部闊一·七公分。蕊柱和藥共長一·八公分。子房瘦長, 長一·七公分。

雲南, 昆明, 大馬山, 多草山坡上, 萼片和花瓣淡紫色, 唇瓣白色, 有深紫色斑塊和斑點, 一九三五年四月七日, 王啓無 62698 (模式)。

此種和 *P. maculata* Ldl. 關係較近, 但其花較小, 唇瓣緣為撕裂狀, 龍骨片微波狀是其特點。

Neogyne Gardneriana Rchb. f. var. basi-quinquelamellata 新變種

變種與模式種的區別在其唇瓣基部有褶片五條。

泰國, 杜蘇泰, 海拔 5500 呎, 附生密林樹上, 花白色, 唇瓣緣和中裂片黃色, 一九一二年十二月二十四日, 採集員不詳 (模式, K)。

Neogyne Gardneriana Rchb. f. var. basi-trilamellata 新變種

變種與模式種的區別, 在其唇瓣基部有褶片三條。

雲南, 騰衝縣(騰越)和緬甸邊境, *Rock 7280* (模式, B)。

上緬甸, 賽同和雲南邊境間, 在張帝方和甘倍地二地, *Rock 7456* (B)。

Panisea Bia 新改名

越南, 老鴉區, 海拔 1500 公尺, 附生在常綠樹上, 花黃白色, 唇瓣上有棕色硬瘤, 一九三二年四月十二日, *Kerr 971* (K)。

這種和 *P. Cavalerici* Schltr. 親緣很近,但其唇瓣端截形且有細尖,而後種唇瓣端急尖或幾圓形。

Pholidota articulata Ldl. var. **obovata** 新改名

印度,阿薩密,加洗山, *Simons* (模式圖, **C**)。

喜馬拉雅山, *Griffith 5034*, 果子標本 (**K**)。

印度北部,米斯梅山,一八九一年十月一日, *Walker* (**K**)。

雲南,思茅, *Henry 12974*, 果子標本 (**K, NY**)。 普洱,海拔 5000 呎, *Henry 13619* 果子標本 (**K**)。

變種的葉倒卵形,端急尖,狀圓形,是可是和模式種區別的。

Pholidota imbricata Ldl. var. **Henryi**, 新改名

雲南,鎮越北,易武, *Henry 13489* (**K**)。 思茅, *Henry 12973* (**K**)。 無詳細地址, *Forrest 17149, 18791* (**K**)。

變種的葉和花的苞片都較小,是其特點。

Thunia alba (Ldl.) Rchlb. f. var. **Bensoniae** 新改名

下緬甸,仰光(邱園栽培,一八六七年七月), *Benson* (**K**)。

變種的花玫瑰色,是可是和模式種不同之點。

Dendrobium acinaciforme Roxb. var. **minus** 新變種

變種的葉較模式種小,長十三至十公厘,闊二·五至三公厘,

廣西,地址不詳,秦仁昌 7582 (模式)。

香港,爛頭島,海拔 1500 呎,岩上 *Herklots* (**K**)。 大嶼 (Tai-o), *Herklots* (**K**)。

Dendrobium aduncum Wall. ex Ldl. var. **Faulhaberianum** 新改名

海南島, *Goldschmidt* (**BD**)。 白石山,一九二八年六月十九日,張維德 767 (**L 17516**),張維德 645 (**L 17394, S**)。 保亭縣,牛角嶺,林中樹上,一九三五年八月十一日,侯寬昭 73436 (**S**)。 地址不詳,一九三五年,侯寬昭 72238 (**S**)。 保亭縣,一九三五年五月十七日,侯寬昭 72389 (**S**)。 同上,一九三五年四月二十五日,侯寬昭 72144 (**S**)。 崖縣,羅蓬,林中灌木上,花粉紅色,一九三三年七月十二日,侯寬昭 71020 (**S**)。 銅甲到毛尙,海拔 1700 公尺,溪邊樹上,一九三三年八月十八日,左景烈,陳念勉 43552 (**S**)。 Baksha, 一九三六年四月十日,劉心祈 26200 (**S**)。

廣東,地址不詳,黃志 33573, 33513, (**S**)。

變種的葉較模式種闊,其側萼片和模式種不同。

Dendrobium clavatum Ldl. var. **aurantiacum** 新改名

阿薩密, *Mann 7* (**W**)。

緬甸, *Hildebrandt* (**K**)。

James Veitch & Sons 栽培 (**K**)。

越南,老撾區,海拔約 1100 公尺,溪邊樹上,花黃色,唇瓣基部色較深, *Kerr 965A* (**K**)。

雲南, 怒江金沙江分水嶺, 維西東部, *Rock 9401 (K)*。地點不詳, *Forrest 24797 (K)*, *Maire 1680 (K)*。雲南中西部, *Forrest 26749 (K, NY)*。屏邊縣, 林中樹上, 花黃色, 一九三四年六月二日, 蔡希陶 62173。

西康, 打箭爐, *Pratt 26 (K)*。

台灣, 一九〇七年七月, 本田文藏 (K); Bu Kai, 海拔 1400 公尺, 一九三四年五至八月, *Gressitt 319 (K)*。

這變種唇瓣無斑點, 但模式種唇瓣則有一或二半月形紫色斑點。

Dendrobium ellipsophyllum 新種

此新種與 *D. revolutum* Ldl. 親緣很近, 但其不同的特徵在其葉卵橢形, 唇瓣側裂片小, 三角形, 餘俱和後種相同, J. D. Hooker 昔認此種為 *D. revolutum* Ldl. 經作者研究之後, 認為一未發表的種。

下緬甸, 摩爾門, *Peche (模式, K)*。上緬甸, 曼德勒區, *Swinhoe 60 (K)*。

泰國, 海拔約 300 公尺, 一九二二年六月十九日, *Kerr 477 (K)*。海拔約一千公尺, 一九二四年三月二十九日, *Kerr 163 (K)*。

Dendrobium fimbriatum Hook. var. *bimaculosum* 新變種

變種唇瓣有二圓形斑點, 是和模式種區別的特徵。

雲南, 中西部, 海拔 6000—7000 呎, 花顯明淡橙黃色, 一九二五年六月, *Forrest 26786 (K, NY)*。地點不詳, 海拔 8000 呎, 一九二四年八月, *Forrest 24791 (K, NY)*。

Dendrobium fimbriatum Hook. var. *oculatum* Hook. 和這新變種的不同, 為其唇瓣上僅有一腎形斑點。

Dendrobium Loddigesii Rolfe var. *album* 新變種

變種的葉較長, 向頂端漸窄, 萼片和花瓣白色或黃色, 這是和模式種分別的特徵。

雲南, 思茅, 東山, 海拔 4500 呎, 樹上, 花白色, *Henry 12382 (K, NY)*。同上, 花黃色, *Henry 12383 (K, NY)*。

貴州, 關嶺縣, 樹上, 一九三五年十一月三十日, *Teng 1634A (S)*。

Dendrobium lohohense 新種

陸生直立草本, 高二十五至二十七公分, 枝少。根線形, 無毛。莖瘦長, 圓筒狀, 有槽, 多節, 節間長一·三至二·三公分, 生多葉。葉橢圓形, 端急尖, 基部萎縮成鞘葉, 鞘葉初不顯明, 後則明顯, 膜質, 管狀, 完全抱莖。葉紙質, 長三·五至六公分, 闊一至一·五公分, 上下兩面無毛, 兩行排列。花單生在尚沒有葉的莖之末端, 直立, 花柄短, 有二鞘葉抱在柄的基部。苞片小, 闊卵形, 端急尖, 無毛, 較子房很短。中萼片橢圓形, 端圓形, 有七脈, 無毛, 長十五公厘, 闊九公厘。側萼片斜橢圓形, 端圓形, 有七脈, 無毛, 連蕊柱跟長二十三·五公厘, 闊八公厘。側萼片基部向前伸和蕊柱足連生而成蕊柱跟, 蕊柱跟端圓, 長四·五公厘。花瓣橢圓形, 端圓形, 有七脈, 無毛, 長十七公厘, 闊十公厘。唇瓣倒卵形, 基部楔形, 前緣被不規則的鋸齒, 凹下, 鋪平時, 長二公分, 闊一·七公分, 前半部有肉質乳狀突起。蕊柱短, 高三·五公厘。蕊柱足長七公厘。子房棍棒狀, 無毛, 長二·二公分。

廣西西部, 凌雲縣(泗城縣), 海拔 1150 公尺, 谷中岩石上, 花黃色, 一九三三年六月六日, *Steward & Cheo 595 (模式)*。

這新種和 *D. Henryi* Schltr. 相近,但其唇瓣較小,長二公分,闊一·七公分,前半部上面被乳頭狀突起,花瓣和中萼片闊幾相等,這是和後種不同的特徵。

Dendrobium tortile Ldl. var. **Hildebrandii** 新改名

上緬甸,撣部,海拔 1500 呎, *Hildebran* (K)。南撣部, *Robertson 272* (K)。
這變種花白色,唇瓣黃色,但模式種的花則為玫紅色。

Dendrobium Wildianum 新改名

泰國,海拔 1650—1800 公尺, *Kerr 311* (K, E)。

花粉塊的數目雖不詳,但作者則確定這是石斛的一種,牠的葉乾時呈紅色,為頂生花序,這些特點和 *D. ciliatum* Par., *D. pygmaea* Ldl., *D. Dixonianum* Rolfe. *D. cuspidatum* Ldl., *D. barbatulum* Ldl., *D. Eytchianum* Batem. 相同,但這種花序只有一花,其下有二枚對生而無花的苞片,這苞片生在花軸上,有時再有一枚苞片生在這兩枚之下。

Sarcopodium cacuminis 新改名

越南,安南區,海拔 2100 公尺,一九二〇年八月二十七日, *Evrard 378* (P)。

這種和 *S. elongatum* (Bl.) Kränzl. 較相近,但這種花柄較長,長三至四公分,花也和後種兩樣。

Sarcopodium chapaense 新改名

越南,東京區 *Poilane 12605, 12607* (P)。

這種和 *S. Fargesii* (Finet) Tang et Wang 分別的特徵,是其葉較小,長二公分,闊一·一公分,端稍凹,前唇比後唇特別闊。

Sarcopodium Clemensiae 新改名

越南,安南區,樹上, *Clemens 4327* (P)。老撾區, *Delacour* (P)。

這種和 *S. Fargesii* 和 *S. chapaense* 分別的特徵,為其葉較大,長三·五至五·五公分,闊一·一至一·八公分,前唇幾圓形,端稍凹,和後唇一般闊,這點和 *S. Fargesii* 一樣,這種的唇瓣長二·二公分,闊〇·九公分, *S. Fargesii* 和 *S. chapaense* 的前唇或橫矩形或幾腎形。

Sarcopodium Fargesii 新改名

四川,城口縣,海拔 1200 公尺,一九〇〇年六月四日,花紅色,唇瓣白色, *Farges 1506* (P, K, NY)。

這種和 *S. chapaense* 的區別,在其唇瓣較大,長二公分,闊一·五公分,端有凹,前唇和後唇一樣闊。

Desmotrichum nodosum 新改名

印度,馬拉巴,貢敢, *Stocks 30* (K)。賴母高特近處森林中,八月開花 (K)。

這種和 *D. fugax* Rchb. f. 的前唇都是半圓形,但和後種不同的特徵,在其唇瓣側裂片向前伸,全緣,而 *D. fugax* 唇瓣側裂片,則開張,緣略有細齒牙,端稍凹。

Desmotrichum stenoglossum 新改名

越南,安南區, *Evrard 2028* (P)。

這種和 *D. Poilanei* Gagnep. 很相近, 但這種唇瓣較大, 長十八公厘, 闊七公厘, 中裂片有褶片, 半裂, 二裂片平行, 這都是和 *D. Poilanei* 不同之點。

Eria Boniana 新改名

越南, 東京區, 一八六六年八月二十一日, *Bon 2844* (P), Chapa?, 海拔 1000 公尺, 一九二八年七月, *Petelot 5141* (P)。

這種外形很像 *E. clausa* King et Pantl., 但這種假球莖聚生, 蕊柱足較短, 唇瓣中裂片上有幾條裂的褶片。這種又和 *E. Corneri* Rchb. f. 很相近, 但其唇瓣中裂片有褶片五條, 而後種則為七條。*Bon 2844* 葉較標準的 *E. Corneri* 特別小, 但 *Petelot 5141* 的葉則和 *E. Corneri* 十分相像。*D. Bonianum* 的模式 (*Bon 2844*) 僅一本之上有假球莖與本年假球莖並生, 另有花序一個與二枚脫落葉混在一起。這二葉似為 *E. Corneri*。在 *Bon 2844* 中還有二張標本, Gagnepain 氏亦名它們為 *D. Bonianum*, 這二張標本之一, 僅有三枚脫落葉, 其他一張只是果子標本, 上有葉和果序, 這兩張標本和 *Bon 3062* (只有葉而無花果) 同, 似為 *E. Corneri*。*Petelot 5141* 則是 *E. Petelotii* 的模式, 有脫落葉, 但其他部份則很完全, 與標準的 *E. Boniana* 完全一樣, 故認為同種。

Eria major Ridley

東北婆羅洲, Mt. Kinabalu, 海拔 6000 呎, *Haviland 1250* (K)。

Eria Ridleyi Rolfe

馬來半島, Perak, 海拔 3-4000 呎, 一八八五年八月, King 氏採集員, *6491, 8153* (K)。同上, 記載不詳, *Scortechini* (K)。

作者把這種和前種相提並論, 是因為這兩種植物從一八九四至一九一四年間學名混亂整整經過了二十年, 並且一直到現在為止, 還沒有人把它們混亂的過程, 引根據典細述一番, 所以在英國邱園的標本室裏面, 這種植物標本還沒有把它的學名改正過來。

這兩種植物之間, 實際上只有疎遠的關係而很易把它們分開, *E. major* 的花序軸和花有棕色絨毛, 但 *E. Ridleyi* 的花軸和花則被白色絨毛, 前者的唇瓣中裂片卵形有細齒牙, 而後者的唇瓣中裂片則為菱形且全緣。

這兩種植物的混亂開始在一八九四年, 當 Stapf 氏在林娜學會學報第四卷中 (*Transaction of Linnaen Society 4: 237, 1894*), 發表他的婆羅洲 Kinabalu 山區植物論文時, 他把文中的蘭科部分, 原由 Ridley 氏寫的, 有 *E. Kingii* Hook. f. var. *major* Ridl. 一變種, 疎忽處理了, 原因 Stapf 知道此前尚有 *E. Kingii* F. von Mueller 被命名於澳洲產的一種蘭草, 他遂改命這種植物為 *E. Scortechinii* Stapf, 而把 *E. Kingii* Hook. f. var. *major* Ridl. 列入異名, 又在付印時, 竟把這個變種異名誤排為 *E. major* Ridl. 了。然而 Stapf 氏在把這植物另改新名時, 尚不知道其前又還有 *E. Scortechinii* Hook. f. 之名, 已用到馬來 Perak 產的一種不同的蘭草。

這很顯明, Ridley 氏始終認為婆羅洲的一種和馬來半島的一種同為一物。我們可拿他以後在一八九六年和一九〇七年所發表的兩篇文章看一看, 以為證明。他在這兩篇文章中, 仍舊用 *F. major* Ridl. ex Stapf 或 *E. major* Ridl., 而把 *E. Kingii* Hook. f. 和 *E. Scortechinii* Stapf 列為異名, 這是一個實事。這兩篇文章之一是馬來蘭科和輻蘭科植物之研究 (*Ochidaceae and Apostaceae of Malay Peninsula*) 在林娜學會雜誌三十二卷 (*Journal of Linnaen Society 32: Sept. 1896*) 發表。另一篇為馬來植物誌資料 (*Materials for*

a Flora of the Malayan Peninsula 1: 90. 1907), 是用書的形態發行的。可是事又湊巧得很, Ridley 氏於一八九六年五月已在林娜學會雜誌三十一卷發表過一篇婆羅洲蘭科植物總結報告 (Enumeration of Orchidaceae recorded in Borneo)。他在這個報告中,再一次提及 *E. major* Ridl. 且把它當作公認學名看,不過沒有列舉異名,及野外記載,就這樣, *E. major* Ridl. 乃得正式成立了。雖然,如所週知,在他的以後兩篇報告中,他對於這兩種植物還是混淆不清,已如上述。

這個問題,一直到 Rolfe 氏在一九一四年 Gibbs 氏的 Kinabalu 山植物一文之中 (見 Gibbs Fl. Mount Kinabalu in Journ. Linn. Soc. Bot. 42: 150) 他記述 *E. villosissima* 新種時,第一次把這兩種分開,那麼久遠的糾纏,到今日才得到最後解決,他把馬來 Perak 的一種,另給以 *E. Ridleyi* Rolfe, 同時認 *E. Kingii* Hook. f. 爲此種之異名,又把 *E. major* Ridl. 保用於婆羅洲產的植物,且同時把 *E. Scortechinii* Stapf 爲此種之異名。迨乎一九二四年, Ridley 氏的馬來半島植物誌問世 (Ridley, Flora Malay Peninsula 4: 87), 他採用 Rolfe 氏所命之新名,且把所有異名列入。呵! 這位先生腦中多年不清的老帳,好像到此時才弄明白了。

和 *E. Ridleyi* 親緣相近的是 *E. paniculata* Ldl., 其分別特點是在這種的葉短披針形,且質較薄,唇瓣中裂片菱腎形而全緣,但後種的葉帶形,而較厚,唇瓣中裂片腎形有細齒牙,但和 *E. major* 相近的,或許照 Rolfe 氏所說,是 *E. villosissima*, 可惜作者在邱園時把它忽略過去了。

Eria rhomboidalis 新種

岩石生草本。根莖匍匐,在假球莖間相距一·七至四·一公分,根線形,密被長絨毛。假球莖短圓筒狀,長〇·九至一·三公分,基部闊四至五公厘,頂端生二葉。葉狹橢形,端急尖,急尖頭上有細尖,向基部略窄,長三至六公分,闊六至十五公厘。花軸頂生,自鱗葉腋出現單花,花軸長八至十三公分。花苞片小,幾圓形,端漸尖,長一·五公厘。中萼片狹橢形,端急尖,有五脈,無毛,長十一·五公厘,闊四公厘。側萼片半月形,端急尖,有五至六脈,無毛,下緣長十八公厘,上緣長十二公厘,闊四·五公厘,前面基部延伸和蕊柱足合成一長十公厘斜短圓形,而有鈍端的蕊柱根。花瓣幾匙形,端急尖,有三脈,無毛,長十二公厘,闊三公厘。唇瓣外形爲菱形,一半以下楔形,一半以上寬闊,前面三分之一處,有缺刻,中裂片不顯明,端截形,上面被髯毛,唇瓣有龍骨片二,長而並行,唇瓣中部以上是沒有龍骨片的,長十七公厘,舖平後闊九公厘。蕊柱高三·五公厘,蕊柱足長九公厘。子房有柄,無毛,棍棒狀,長十公厘。

海南,陸水縣,蕃萬村,尖山,海拔 1500 公尺,山邊低林岩石上,花乳酪色及淡藍紅色,一九三二年五月, McClure 20064 (模式)。

和 *E. setschuanica* Schltr. 及 *E. reptans* (Fr. et Sav.) Makino 相近,但這種的假球莖不聚生,假球莖間相距一·七至四·一公分,花較大,單生,唇瓣長十七公厘,闊九公厘,全形爲幾菱形,無裂片,中裂片不顯明,端截形,上面被髯毛,緣有缺刻,中心部分有二條平行龍骨片。

Cheirostylis bhotanensis 新種

陸生直立草本,矮小。根莖莖狀,匍匐。葉有短柄,卵形,端短漸尖,上下兩面都無毛,長六至七公厘,闊四至五公厘,葉柄基部極寬闊成鞘葉。花軸被長絨毛,上有長漸尖端佛焰苞狀的鞘葉,末端生少數之花。花苞片橢形,端長漸尖,無毛,凹的,和子房幾等長。片披針萼

形,一半以上合生成圓管,長三·五公厘,無毛,有一脈,頂端離生,狹三角形,端鈍。花瓣斜舌形,端鈍,有一脈和中萼片的邊緣連生,無毛,長和中萼片相等。唇瓣由基部形成凹的橢圓形爪,基部以上有二條側脈,脈上有二至三個乳頂突起的附屬物,前面為唇瓣片,全貌腎形,有二深裂,裂片幾方形,緣有粗條裂,唇瓣連裂片全長五·五公厘,就二裂片的外緣量之闊四公厘。子房圓筒狀矩形,無毛,長四·五公厘。

不丹, *Griffith 679 (K)*, *Griffith 5329 (K)*。

這新種和 *C. chinensis* Rolfe 親緣最近,但和後種不同的特徵,在其唇瓣有分叉的裂片。

Ceratostylis caespitosa 新改名

海南島,邱園栽培,一八九四年八月開花 (K)。保亭縣,林中樹上,花白色,一九三五年六月十四日,侯寬昭 72894 (S)。紅毛山及其附近地區,一九二九年七月二十四日,張維德與馮 00558 (嶺大 18092) (L)。

這種和 *C. siamensis* Rolfe 及 *C. Evardii* Gagnep. 相似之點,在它們的簇生習性,和前一種的分別,在其葉較大,長四十至七十公厘,闊二·五至四公厘,唇瓣有爪,除爪,長四至四·五公厘,闊三至三·五公厘,和前一種相像處,唇瓣之端質厚,但不下彎,和後一種的分別,在其葉較大,唇瓣闊卵形,有明顯三裂,和後一種相似處在它們的唇瓣有爪,末端質厚而不下彎。

Calanthe sacculata Schltr. var. *tchenkeoutinensis* 新變種

變種和模式種的區別,在其唇瓣的褶片為三條。

四川: 城口縣, *Farges* (模式, P, K, NY); 同上, *Farges 446 (NY)*。

Calanthe trifida 新種

陸生,直立草本,高七十五公分。根莖短;根線狀而長,密被長絨毛。一年生的葉橢形,端漸尖,基部狹窄而成長三十至三十七公分的葉柄,無毛,質薄,葉片長三十二公分,闊十公分,其當年的葉則未完全發放。花軸直立,有稜角,有槽,無毛,生花部份被短柔毛,有闊卵形漸尖的無毛鱗片二枚。總狀花序長約三十公分,多花。苞片披針形,端急尖,比子房特短。中萼片橢形,端短漸尖,有五脈,外邊被短柔毛,長十公厘,闊四公厘。側萼片斜橢形,端短漸尖,有五脈,外邊被短柔毛,長九公厘,闊四公厘。花瓣狹橢形,端鈍,有五脈,外邊被短柔毛,長七公厘,闊二·二公厘。唇瓣有闊爪和蕊柱連生,唇瓣片外形為幾扇形,長五·五公厘,在唇瓣二側裂片頂端處,闊七公厘,中脈自唇瓣基部向頂端變為粗厚,二側脈較中脈短,且較細,唇瓣側裂片較中裂片略短,闊短形,端鈍,中裂片短形,端漸尖,長三·五公厘,距圓筒狀,中部稍收縮,頂端有二很淺的裂,被短柔毛,長六·五公厘。蕊柱長四公厘。子房有柄,瘦長,被短柔毛,長達十三公厘。

雲南西部,龍陵縣,化桃林,海拔 1700 公尺,花粉紅色,一九三四年三月十七日,蔡希陶 55503 (模式)。

上緬甸,欽德文河上部,海拔 5600 呎,花帶黃色,深灰色,一九二九年二月二十三日,緬甸採集員 9045 (K)。

這種和 *C. Limprichtii* Schltr. 很相近,但其花較小,唇瓣形狀也不同,距的頂端有很淺的二裂,是和後種不同的點。

Calanthe Tsoongiana 新種

陸生,直立,高三十二公分。根莖短,根線狀,很長,密被長絨毛。去年老葉橢形,基部

狹窄成一長八公分的葉柄，端鈍，上面無毛，下面被短柔毛，質薄。葉片長十四公分，闊五·五公分。本年新葉三枚尚未完全開放，在本年新葉的下部有三鞘葉，鬆鬆的抱着花軸。花軸直立，有槽，被稀疏長柔毛。鱗片一枚，卵形，端急尖，無毛。總狀花序有稀生多數之花，長達十四公分。花苞片卵形，端急尖，無毛，較子房特短。中萼片矩形，端鈍，有三脈，長六公厘，闊二公厘。側萼片斜矩形，端鈍，有五脈，無毛，長六公厘，闊二·五公厘。花瓣匙形，端鈍，有三脈，無毛，長五公厘，闊一至五公厘。唇瓣有闊爪和蕊柱連生，全貌為闊倒卵形，長三·二公厘，就唇瓣側裂片的頂端處量之闊三公厘，裂片三，矩形，長幾相等，長一·五公厘，中裂片端截形，且略凹而有細尖，二側裂片向前伸，端圓形，無距。蕊柱長三·五公厘。子房和子房柄瘦長，被短柔毛，長十·五公厘。

浙江。於潛縣。西天目山，五里亭，一九二九年四月二十四日，鍾觀光 212 (模式)。

貴州，地點不詳，*Cavalerie* 7464 (K)。貴陽城南，六冲關，海拔 1450 公尺，一九一〇年四月，*Esquirol* 2010 (P)，*Cavalerie* (P)。

Esquirol 在貴陽城南六冲關採的 2010 號標本，花軸(連總狀花序長十四公分)長三十七公分，葉片長十三至十七公分，闊二至四公分，無葉柄，側萼片較浙江產的為短。*Cavalerie* 在貴州採的標本花軸(連總狀花序長二十四公分)長五十五公分，葉片長三十七公分，闊六公分，而有長十九公分的葉柄，另一號的葉片三十七公分，葉柄長十八公分。

這種花特小，花被長六公厘，花序有稀生的花，都和 *C. Mannii* Hook. f. 相似，但這種唇瓣的中裂片矩形，端截形，且略凹，有短銳尖，側裂片向前伸和中裂片長幾相等，唇瓣無褶片，無距，則與 *C. Mannii* 不相同。*C. Mannii* 的唇瓣中裂片腎形，有二小淺裂，側裂片極斜出，唇瓣有三褶片和長一至二公厘的距。

Ania hongkongensis 新改名

香港，Happy valley，樹林中，一八七九年四月七日，*Ford* 11 (K, NY)。Parker 山山溝，一八五八年五月，*Wilford* 384 (K)。地點不詳，*Wright* 522 (K, T)。

廣東，鼎和山，庇蔭山坡，一九二一年四月十四日，*Levine*；潮安縣至鳳凰路上，路邊，花軸綠色，有斑點，花綠色有棕紫色的條紋和點，一九三一年四月五日，陳念劬 42576 (S)。

這種的唇瓣不分裂，倒卵形，端短漸尖，有三褶片，長十四公厘，闊七公厘，這是和他種不同的特徵。

Ania Hookeriana 新改名

喜馬拉雅，錫金區，Teesta 山谷，海拔 1000 呎，三月開花，*Pantling* 204 (K)。

泰國，景邁，海拔 2200 呎，一九一一年一月十七日，*Kerr* 214 (K)。

邱園栽培 (K)。

West Duars, *Haines* 2839 (K)。

海南島，地點不詳，梁向日 65114 (S)。

Ania viridifusca 新改名

喜馬拉雅，阿薩密區，由 Simon 氏引入邱園栽培 (K)。

越南，東京區，*Eberhardt* 3984, 4673 (P)，*Rives* (未見)。

邱園栽培 (K)。

下緬甸，寧爾門，*Parish* (K)。上緬甸，馬尼泊，*Watt* (K)。緬甸地點不詳，*Lace* (K)。

雲南, 思茅, 海拔 5000 呎, *Henry 11813* (K, NY)。

這種和 *A. Hookeriana* 分別的特徵, 在其唇瓣有粗細不等的褶片五條, 又據邱園標本室 Summerhayes 氏見到的鮮植物, 它的花被無條紋。

這種和前種已由英國邱皇家植物園植物標本室蘭科專家 Summerhayes 氏在英國植物學雜誌第一六一卷發表, 前種並有九五五三彩色圖, 有詳細記載, 又有解釋。

***Bulbophyllum trichocephalum* 新改名**

雲南, 思茅, 海拔 6000 呎, 樹上, 花白色, *Henry 12086* (BD)。同上, 海拔 10000 呎, 岩石上, *Henry 12286A* (BD)。

廣東, 信宜縣, 橫坑至分水坳路上, 岩石上, 花淡黃色, 一九三一年四月十四日, 高錫朋 51283 (S)。同上, 錢麻坪, 大鍋坑, 岩石上, 一九三四年十一月二十八日, 黃志 38098 果子標本 (S)。

這種和 *B. congestum* Rolfe, *B. odoratissimum* (J. E. Sm.) Ldl. 的分別為這種的萼片特別較長, 有十二公厘, *B. congestum* 的萼片長四公厘, *B. odoratissimum* 的長六至七公厘。

這三種的分別只在不同長度的萼片而已, 將來如有充足材料或可發現萼片長度是有變異而不可靠, 證明三種確為一種, 亦未可知也。

***Cirrhopetalum annamicum* 新改名**

越南, 安南區, *Ebehardt 209* (P)。

這種和 *C. Wallichii* Ldl. 親緣相近, 但其葉較大, 長八至十一公分, 闊一·五至一·七公分, 假球莖卵形, 光亮, 長二至十一公分, 闊一·五至一·七公分, 花軸長十公分, 中萼片端急尖。和 *C. maculosum* Ldl. 比較, 則這種的花軸和葉一般長, 中萼片端急尖, 而 *C. maculosum* 的花軸比較短, 中萼片端短急尖或短漸尖, 顯明的是不同的兩種。

***Ione Andersonii* King et Pantl. var. *flavescens* 新改名**

緬甸, 維多亞山, 栽培在英國 Glasnevin 植物園, 一九一四年九月開花 (K)。

泰國, 景邁, 海拔 4500—5000 呎, 萼片和花瓣綠色, 唇瓣紫棕色, 一九〇九年五月二日, *Kerr 86* (K)。

雲南西北部, 上泊縣, 海拔 1600 公尺, 樹上, 花黃色, 一九三三年八月五日, 蔡希陶 54775。這變種和模式種的分別為其花黃色, 而模式種的唇瓣和花瓣之端為紫色。

***Sunipia racemosa* 新改名**

上尼泊爾, *Buchanan*。尼泊爾, *Wallich Cat. 7373* (K)。

泰國, 景邁周圍山中, *Kerr* (K), 引入愛爾蘭, 都伯林, Trinity 大學植物園栽培一九〇八年開花。

越南, 老撾區, 海拔 1500 公尺, 石灰岩山中樹上, 一九三二年四月十六日開花, *Kerr* (K)。

雲南, 北緯二十五度五十分, 東經九十八度四十八分, 海拔 8000 呎, 一九二五年六月, *Forrest 36732* (K)。川江各地, 北緯二十五度, 海拔 5000 呎, 一九一二年六月, *Forrest 8305* (K)。

Stelis racemosa J. E. Smith 的模式, 據 Smith 的原文 (Rees, *Cyclop.* 34: no. 10. 1819) 係 *Buchanan* 採自上尼泊爾。但在邱園標本室中, 有 J. E. Smith 收藏的一張標本,

沒有學名，上寫有“尼泊爾，一八一八年，*Wallich*”。這因為 *Wallich* 的標本初為東印度公司所有，現亦藏在邱園標本室內，確實包括 *Buchanan* 的採集也（見 *Kew Bull* 1913: 259）。所以當年 *Wallich* 寄給 J. E. Smith 標本的時候，或許把採集人名漏了。不論怎樣，作者把各處的模式標本和模式種記載校對過，認為以上所列標本都是一種，因此成立這新改名。這屬就現在所知僅有一種。

分佈於喜馬拉雅，阿薩密區，上緬甸，下緬甸，尼泊爾，泰國，越南和雲南西北部。

Cymbidium ensifolium (L.) Sw. var. *Munronianum* 新改名

喜馬拉雅，錫金區，一八九六年，*Pantling* 256 (K)；一八九六年，*Haines* 595 (K)。

廣東，廣州，花暗紅棕色，唇瓣綠色有帶紅色的斑塊，*Metcalf* (L)。香港，野生兼栽培，*Herklots* (K)。

變種和模式種的區別為變種的葉較闊，闊十七至二十六公厘，模式種的葉闊只十至十三公厘。

Thrixspermum Fleuryi 新改名

越南，東京區，*Fleury* 32129 (CH), *Rives* (P)。

這種和其相近的種 *T. Histrix* (Bl.) Rchb. f., *T. formosanum* (Hayata) Schltr., 和 *T. Poilanei* (Gagnep.) Tang et Wang 不同之點，在其葉圓柱形，萼片較長，七至九公厘，無莖，唇瓣半圓形，距矩形。

Thrixspermum Poilanei 新改名

越南，安南區，*Poilane* 1345 (P)。

這種無莖，葉端全緣，這兩點和 *T. formosanum* (Hayata) Schltr. 一樣，但這種的萼片特別較長，有六公厘，而 *T. formosanum* 的萼片長約二公厘，這種尚有和其他種不同之點，為唇瓣腎形，幾三裂，長四公厘，闊八公厘，被緣毛，有一橫矩形的褶片，幾球形唇瓣囊的前面被長柔毛。

Thrixspermum sutepense 新改名

泰國，景邁，海拔 5000—5500 呎，一九〇九年六月四日，*Kerr* 183 (K)。

這種和 *T. japonicum* (Miq.) Rchb. f. 關係相近，但這種的葉特大，長十五公分，闊二·二公分，唇瓣有褶片，側裂片三角形，端鈍，顯和後種不同。

Sarcochilus difformis 新改名

尼泊爾，*Wallich* (K)。

喜馬拉雅，錫金區，海拔 4000—5000 呎，*J. D. Hooker* 204 (K)。

廣東，增城縣，羅浮山，一八八三年八月，*Ford* 22249 (B)。同上，*Ford* 92 (K)。同上，*陳念劬* (S)。

越南，安南區，*Poilane* 4237 (P)。

雲南，思茅，*Henry* 11812, 12199, 12199 A (K)。

分佈於寇莽，緬甸，泰國，尼泊爾，錫金，廣東，雲南。

這種和他種的分別，在其唇瓣戟狀圓形，緣有裂條，連短爪全長四·五公厘，闊連邊緣裂條六公厘。

Stauropsis alpina 新改名

喜馬拉雅, 阿薩密區, *Gibson* (K)。同上, 海拔 5—6000 呎, *Hooker & Thomson 174* (K)。

不丹, 地點不詳, *Griffith* (K)。

分佈於尼泊爾, 不丹, 錫金, 西龍, 寇莽, 阿薩密。

這種和 *S. undulata* (Ldl.) Benth. ex Hook. f., *S. polyantha* W. W. Smith 關係較近, 但其體格較矮, 高五至十五公分, 葉密, 覆互狀排列, 花序較葉短, 有一至三花, 都和那二種不同。

Stauropsis Championi 新改名

香港, *Champion 277* (K)。Kellett 山, 一九三五年四月四日, *Whiting* 和 *Stewart 296* (K)。地點不詳, 左景烈 *21695* (S)。

錫蘭島, *Thwaites 3494* (K)。

臺灣, 台南, 萬金莊附近山上, *Henry 898* (K)。台北, 烏來社, 北山山谷, 一九一二年五月三日, *Price 424* (K)。

雲南, Puteng, 海拔 3000 呎, 樹上 *Henry 13610* (K)。

廣西, 地點不詳, 黃志 *39138* (S)。

海南, 地點不詳, 劉心祈 *21695* (S)。

分佈於錫金, 阿薩密, 下緬甸(摩爾門), 泰國(景邁, Doi Sutep), 錫蘭島, 香港, 廣東, 廣西, 台灣, 雲南。

和 *S. kusukusensis* (Hayata) Tang et Wang 很相近, 但這種的唇瓣囊無耳, 顯然和後種不同。

Stauropsis kusukusensis 新改名

Diploprora kusukusensis Hayata 是本種的原學名, 原產於台灣。

台灣台南, 南角, 石灰岩上, 一九一二年五月, *Price* 從該島引入英國 Chepstow 栽培, 一九一四年三月開花 (K)。作者在邱園標本室曾見到 *Price* 的標本, 但 *Diploprora kusukusensis* 的模式則未見。觀察 *Diploprora kusukusensis* 的插圖, 覺得這種和 *S. Championi* (Ldl.) Tang et Wang 並無二樣。早田文藏認為前者和後者的分別, 在其唇瓣的錐狀裂片較長, 但作者認為這點似乎不很可靠。假如 *Price* 的標本確能代表 *D. kusukusensis* Hayata, 那確是另外一種, 其和關係最親密的 *S. Championi* 的區別, 在其唇瓣囊有耳狀裂片, 這裂片三角形, 端急尖。

Stauropsis truncata 新改名

泰國, 景邁, 海拔 5500 呎, 一九一一年二月二十五日, *Kerr 270* (K)。

這種的特點在其形態特別較矮, 莖高十公分, 葉端無二淺裂, 花序特短, 長十公分, 生十二花, 唇瓣特短, 長八公厘, 前端有一個三角形, 平坦而前面截形的附屬物, 萼片和花瓣匙形。

Micropera cochinchinensis 新改名

Camarotis cochinchinensis Rchb. f. 是本種的原學名。

Sir Trever Lawrence 由越南引入英國栽培, (模式未見到)。越南, 安南區, *Poilane 10561* (P)。

下緬甸, 東部忘那塞鱗, 海拔約 50 公尺, 一九三二年五月二十九日, *Kerr 2000* (K)。

泰國, *Kumpena Pet*, 海拔 350 呎, 一九一九年五月二十五日, *Kerr 308* (K)。

在維也納博物館無 *Camarotis cochinchinensis* Rchb. f. 的模式標本, 這種和 *M. obtusa* 和 *M. Mannii* 的分別, 在其唇瓣爪上有半圓形的耳狀裂片, 而後兩種的耳狀裂片為三角形生在距的口處。

Micropera Mannii 新改名

喜馬拉雅, 阿薩密區, *Khasia* 山, 海拔 2—3000 呎, 一八七八年六月, *Mann 11/08* (K)。

和 *M. obtusa* (Ldl.) Tang et Wang 關係最近, 但其距只有極微的隔膜而 *M. obtusa* 的距則有高的隔膜。

Micropera obtusa 新改名

Camarotis obtusa Ldl. 是本種的原學名。

原產印度, *Bateman* 寄給英國 *Loddiges* 園藝公司(模式, 未見)。

下緬甸, 忘那塞鱗, 摩爾門, *Griffith, Parish* (K)。

分佈於喜馬拉雅錫金區, 下緬甸。

邱園無這種模式標本, 但作者把 *Griffith* 和 *Parish* 二氏在下緬甸忘那塞鱗和摩爾門二處採的標本和 *Camarotis obtusa* 的模式種記載校對完全一樣。

Micropera secunda 新改名

原產緬甸, 由英國 *Hugh Low & Co. Enfield* 園藝公司輸入栽培, 一八九〇年五月開花。後來 *F. W. Morre* 又把這種植物從 *Glasnevin* 的皇家植物園送到邱植物園栽培, 這是模式標本 (K)。

這種和作者所見到的屬中各種的區別, 在其唇瓣無爪, 距的後面有硬瘤, 前面則無, 距無隔膜。

Biermannia decumbens (Griff.) Tang et Wang apud Merr. et Metc. in *Lingn. Sc. Journ* 21: 7 (1945) (見嶺南科學雜誌二十一卷 七頁)。

上緬甸, 近孟拱, 林中樹上, 一八三七年四月, *Griffith* (K)。

Wight 標本室標本 (K)。

錫蘭島, *Saffragam District & Hinidoon Patto*, 一八六三年, *Thwaites* (K)。

海南島, 一八九三年七月, *Ford 475* (K)。張維德 264 (嶺南大學標本室號數 15763) (L), 張維德 774 (嶺南大學標本室號數 17523) (L); 劉心祈 431 (S)。崖縣, 大抱扛, 岩石上, 花白色, 一九三三年七月二十三日, 黃志 33300 (S)。同上, 黃志 33370 (S)。同上, 抱扛北村, 樹上, 花被有紅色條紋, 一九三三年七月九日, 梁向日 62037 (S)。同上, 小抱扛, 樹上, 花白色, 一九三三年七月十九日, 梁向日 62188 (S)。同上, 羅蓬, 灌木上, 花粉紅色, 一九三三年七月九日, 侯寬昭 71013 (S)。感恩縣, 三模峇往黃婆坡, 樹上, 花白色, 沿邊上有紅條, 一九三三年十月三十一日, 梁向日 63954 (S)。

和 *B. taenialis* (Ldl.) Tang et Wang 比較, 這種花和葉同時開放, 唇瓣中裂片橢圓形, 頂端有二線裂, 唇瓣囊較淺, 直徑四公厘, 生在後面的硬瘤其末端全緣而位在囊的口處。

Biermannia taenialis 新改名

尼泊爾, 一八二一年, *Wallich* (K)。

雲南, 地點不詳, *Forrest 15794, 17543, 17977, 18544* (K)。

分佈於不丹, 尼泊爾, 寇莽, 錫金, 阿薩密, 緬甸, 雲南。

這種和 *B. decumbens* 的區別在其花較葉先放, 唇瓣中裂片匙形, 不裂, 囊較長, 長九公厘, 生在囊口後面的硬瘤, 其末端分離。

Arachnis cannaeformis 新改名

越南, 交趾越南區, 平順, *Regnier* (P)。

和 *A. Evrardii* 關係較近, 但其不同之點, 在其葉特短, 總狀花序特小, 長九至二十公分, 萼片和花瓣無斑點, 唇瓣前唇不裂且無附屬物,

Arachnis siamensis 新改名

泰國, 一九〇四年由 *Hosseus* 輸入德國 (BD)。景邁, 海拔 5000—5500 呎, 一九〇九年六月六日, *Kerr 99* (K)。

和這種關係較近的種 *A. labrosa* (Ldl.) Rchb. f. 的分別, 在其唇瓣中裂片闊卵形, 長四公厘, 闊三·五公厘, 端圓形, 側裂片 (或耳) 矩形, 頂端圓形, 長三·五公厘, 闊一公厘。

Arachnis Evrardii 新改名

越南, 安南區, 一九二四年五月二十四日, *Evrard 907* (P)。

和 *A. Flos-aeris* (Sw.) Rchb. f. 親緣很近, 但其葉狹帶形, 花的構造也不同。

Saccolabium bambusarum 新改名

喜馬拉雅, 錫金區, 海拔 1500 呎, 一八九四年五月, *Pantling 211* (K)。

這種的距圓筒狀, 前面突起, 就這點論, 它和 *S. fragrans* Par. et Rchb. f. 很近, 但其體特別高壯, 高六至十三公分, 葉厚, 半圓柱形, 直徑二至三公厘, 唇瓣有耳, 耳三角形, 端鈍, 距特別駝凸, 都和後種不同。

Saccolabium pilpsulum 新改名

越南, 柬埔寨區, *Poilane 17742* (P)。

和 *S. lanatum* (Ldl.) Hook. f. 很近, 其分別之點, 只在唇瓣頂端截形且幾成二淺裂, 這或許是一種變態。但經過五朵花的解剖, 似乎沒有變態現象。*S. lanatum* 的唇瓣則是幾錐狀二淺裂。模式標本只有一本, 且其花都在花蕾時期。

Saccolabium taiwanianum 新改名

台灣一八九九年, *Uchiyama* (K)。

就有褶的唇瓣看來, 這種和 *S. Helferii* Hook. f. 的關係相近, 但實在這兩種親緣很遠, 這種的形態特別高壯, 唇瓣闊度大於長度, 長二·五公厘, 闊四公厘, 有一小褶片在距的口處, 距長四公厘, 闊二公厘, 每邊有一齒。*S. Helferii* 高約十四公分, 唇瓣長等於闊, 長一·五公厘, 距長二公厘, 闊一·五公厘, 無齒。

Saccolabium yunpeense 新稱

雲南, 永北縣, 一九二〇年六月, 張牧師 23, *Herb. S. Ten* (BD)。賓川縣妙高山區, 樹上, 一九一一年五月, *Duclox 7170* (P)。

這種蘭無莖, 總狀花序比半圓柱形或三角形的葉短, 唇瓣無褶片, 卵形, 端截形, 是這種的特徵。

Sarcanthus Eberhardtii 新改名

越南, 安南區, *Eberhardt* (P)。

這種的特徵, 葉長五至九公分, 闊一·五公厘, 唇瓣距長四·五公厘, 略向後彎, 中無隔膜, 位在後面的硬瘤基部二淺裂, 長一·二五公厘, 唇瓣側裂片三角形, 不為鑷形。

就無隔膜的唇瓣距看來, 似乎仍歸在 *Saccolabium* 屬為宜, 但其圓柱形的葉及唇瓣的式樣指出是 *Sarcanthus* 屬的一種。

Sarcanthus hirtus 新改名

喜馬拉雅, 阿薩密區, 海拔 5000 呎, *Hooker & Thomson* 177 (K)。

原產下緬甸, 摩爾門, Low 園藝公司輸入英國, 一八六四年 (W)。後又在 Bullen 園藝公司栽培(標本已不存在)。Parish 149 花的圖 (W)。英倫東北區, Hugh Low & Co. 公司的 Clapton 園藝公司, 一八九〇年十一月開花 (K)。

這種很和 *S. crassifolius* Rolfe 相近, 因為這二種的葉都是厚而端鈍, 但這種的葉末端二淺裂, 長三至十公分, 花序被長剛毛, 有數花, 子房亦被長剛毛, 唇瓣側裂片非鑷形, 外緣有一至二齒, 後種的葉長三至四公分, 無毛花序生三花, 唇瓣側裂片鑷形而全緣。

Sarcanthus khasiaensis 新稱

喜馬拉雅, 阿薩密區, 海拔 2—3000 呎, 一八八四年七月, *Mann* 34/1884 (K)。喜馬拉雅, 錫金區, 一八九六年八月, *Pantling* 178 (K)。

這種和 *S. Smithianum* 的區別, 在其正常大的蕊柱, 不像後種那樣大, 唇瓣距的隔膜很低。

Pomatocalpa densiflorum 新改名

喜馬拉雅, 阿薩密區, 和檳榔嶼, *Wallich* Cat. 7311 (K)。

婆羅洲, 英國 Rollinsons 園藝公司栽培 (K)。

越南, 安南區, *Poilane* 16747 (P); 柬埔寨區, *Pierre*, (P)。文趾越南區, *Regnier* 222, *Hammand* (P)。

海南島, 陵水縣, 銅甲文化之間, 海拔 1700 公尺, 樹上, 花黃色, 花被有二條紅線, 一九三二年八月二十四日, 左景烈和陳念劬 43657 (S)。感恩縣, 黃婆坡, 樹上, 花粉紅色, 一九三三年十一月六日, 梁向日 63651 (S)。同上, 毛祥山之西, 溪邊林中樹上, 一九三四年一月十六日, 梁向日 64724 (S)。崖縣, 羅蓬林中灌木上, 花紅色, 略帶黃色, 一九三三年七月九日, 侯寬昭 71014 (S)。無詳細野外記載, 侯寬昭 71731 (S)。保亭縣, 一九三五年八月十四日, 侯寬昭 73459 (S)。無詳細野外記載, 黃志 34401 (S)。嶺南大學標本室號數 15888 (L)。

Pomatocalpa luchuense 新改名

原產琉球島, 很久在東京植物園栽培, 一九〇六年十一月一日, 松村仁三贈給英國邱皇家植物園栽培 (K)。

台灣, 台北植物園, 一九一二年四月一日, *Price* 348 (K)。近 Togum, 河邊, 岩壁上, 烏來社, 北山山谷, 一九一二年五月三日, *Price* 270 (K)。

這種和 *P. densiflorum* 關係很近, 因這兩種的唇瓣上面都是龍骨狀, 但這種的苞片半圓三角形, 端急尖, 花特較小, 萼片長十五公厘, 唇瓣有褶片一條, 長四·五公厘, 被長柔毛, 端

幾鈍, *P. densiflorum* 的苞片卵披針形, 端急尖, 常急反彎, 萼片長三·五公厘, 唇瓣有褶片二條, 無毛, 三角形, 硬瘤狀, 長不到〇·五公厘。

Pomatocalpa armigerum 新改名

喜馬拉雅, 錫金區, *Pantling 252 (K)*。

在邱園標本室未見到模式標本, 但 King 和 Pantling 兩氏在 *Ann. Roy. Bot. Gard. Calcutta 8: 231* 中述及 *Cleisostoma armigerum* 時, 曾把 *Pantling 252* 引入, 這是可靠的標本無疑。

這種和 *P. latifolium*, *P. Poilane*, *P. undulatum* 和 *P. Wendlandorum* 相近, 因它們的距都是圓筒狀, 但其葉半圓形, 端急尖, 而那幾種的葉都是平坦, 端二淺裂, 顯然不同。

Pomatocalpa latifolium (Ldl.) J. J. Smith var. **siamense** 新改名

泰國, 近 Lam-pang, Me Tan, 海拔 1200 呎, 一九一二年五月八日, *Kerr 301 (K)*。

變種和模式種的區別, 在其較窄的葉, 闊二至二·五公分, 模式種的葉闊三·五至四公分。

Pomatocalpa Poilanei 新改名

越南, 柬埔寨區, 一九三〇年六月十一日, *Poilane 17535 (P)*。

這種很和 *P. latifolium* (Ldl.) J. J. Smith 相近因為這兩種都是花序比葉高, 葉平坦, 端二淺裂, 但這種的唇瓣褶片頂端二淺裂, 有齒咬狀細齒牙, 而後種褶片端截形, 顯然不同, 這種的唇瓣腎形, 端圓形, 長二公厘, 闊三公厘, 距圓筒狀, 頂端駝凸, 被長柔毛, 長三·五公厘。

Pomatocalpa ramosum 新改名

印度, 無詳細野外記載, *Wallich Cat. 7733 (K)*。

這種和 *P. loratum* (Rolfe) J. J. Smith 的分別在其唇瓣無小耳, 不裂, 且無爪。它和 *P. armigerum* (King et Pantl.) Tang et Wang, *P. latifolium* (Ldl.) J. J. Smith, *P. Poilanei* (Gagnep.) Tang et Wang, *P. undulatum* (Ldl.) Tang et Wang 和 *P. Wendlandorum* (Rchb. f.) J. J. Smith 這幾種的分別在其圓錐形的距, 而那幾種的距都是圓筒狀。

Pomatocalpa undulatum 新改名

喜馬拉雅, 錫金區, *Wallich Cat. 7301 (K)*。上緬甸, 吉大港山區, *Gamble (K)*。

就幾無花軸, 花序比葉短而論, 這種和 *P. Wendlandorum* (Rchb. f.) J. J. Smith 親緣相近, 但其花序連其序柄長二公分, 唇瓣三角腎形, 長二公厘, 闊二·五公厘, 有二淺裂的褶片, 而後種的花序長五至九公分, 唇瓣也是三角腎形, 但較小, 長一·五公厘, 闊一·五公厘, 褶片端截形, 有三至四齒牙。

Pelatantheria bicuspidata 新改名

泰國, 景邁, 海拔 1000 呎, 萼片綠色, 有五棕色線條, 花瓣白色而帶暗紫色, 唇瓣黃色, 蕊柱白色, 一九一二年八月八日, *Kerr 151 (K)*。

就這樣的褶疊葉看來它和 *P. Ctenoglossum* Ridl. 較近, 但這兩種唇瓣上的硬瘤完全兩樣, *P. Ctenoglossum* 的唇瓣上硬瘤位在唇瓣的後部, 端十分收縮, 收縮部分帶形, 闊約〇·五公厘, 而這種唇瓣上硬瘤端略收縮, 方形, 闊一公厘。

***Pelatantheria Rivesii* 新改名**

越南, Chomoi, *Rives* (P)。東京區, *Bon 3333; 3904* (P)。Tankeuin, *Balansa 315, 2014* (P)。

雲南, 他郎(即今墨江縣), 海拔 5000 呎, 附生於樹上, 花帶黃色, *Henry 13406* (K)。

這種和 *P. insectifera* (Rchb. f.) Ridl. 親緣很近, 但其唇瓣後部的瘤之端有喙, 長一公厘, 闊 0.5 公厘, 則和後種不同。

***Trichoglottis bipunctata* 新改名**

下緬甸, 摩爾門, *Parish 28* (K)。

泰國半島, Klong Bagatae, *Kloss 6561* (K)。

這種和 *T. tenuicaulis* (King et Pantl.) J. J. Smith 的區別, 在其葉較小, 長七.五至八公分, 闊一公分, 花較小, 萼片長三.五公厘, 闊一公厘, 唇瓣基部無二小裂片, 圓錐形距長 0.5 厘公, 而後種的葉長八.五至十.五公分, 闊一.五至二.五公分, 萼片長七公厘闊三公厘, 唇瓣有二小裂片位在二側裂片之下, 圓筒狀距長五公厘。

* * *

The present paper is the continuation of the previous one published in the Bulletin of the Fan Memorial Institute of Biology **10**: 23-46 (1940), which, as the previous one, is actually extracted and put in form from the writers' manuscripts made during 1935-1938 in different herbaria in Europe where copious types and authentic specimens from this country and her adjoining regions were at their disposal for a thorough and close systematic study. At the same time a large number of specimens of Chinese orchidaceous plants kept in different herbaria in the U.S.A. were also carefully examined. They were kindly sent on loan through the generosity of Dr. E. D. Merrill, formerly Director of the Arnold Arboretum. Again, a great deal of material recently gathered by Chinese collectors and preserved in different herbaria of this country which were taken with the writers to Kew for comparison with types, are here, with a few exceptions, represented only by new species. It is to be noted here that rather a number of transfers were made as new combinations or new names so as to show the possible relationships of these transferred species in a clearer and more natural order and to throw some light on our knowledge of Eastern Asiatic orchids.

As stated above the writers' knowledge of orchids was greatly enriched by the advantage of reviewing the types and authentic specimens in different European herbaria. Among them are the three most eminent orchidologists' herbaria, representing the advance and the work of the family during the last hundred years. John Lindley's herbarium bestowed as a donation to the Herbarium of the Royal Botanic Gardens, Kew, in which his specimens are kept in separate cabinets, contains many types and generic types including a considerable amount of Himalayan, Chinese and Japanese orchids. Another is Heinrich Gustav Reichenbach's herbarium which according to the terms of his will, was given to the botanical department of the Natural History Museum in Vienna, under the condition that his specimens and drawings of orchids should be sealed up and not be exhibited until twenty five years from the date of his death. As the bequest thus limited was accepted by the museum in Vienna and after

the expiration of twenty five years his specimens and drawings were at last unsealed on 16th May, 1914. They were found in good condition and made available for study at the end of that year. His specimens, unlike Lindley's at Kew to be kept in separate cases, represent chiefly types of Himalayan and Malayan orchids, a few generic types and still fewer Chinese and Japanese orchids, most of which are rather fragmentary. The third one is Rudolf Schlechter's herbarium. In his later years this author worked at the Herbarium of the Botanical Garden and Botanical Museum at Berlin-Dahlem, where his herbarium is situated. His specimens consisting mostly of the types of genera and species from Malay Archipelago, China and Japan are deposited in special cases in a special room.

Since 1940, the writers' work has been interrupted for nearly ten years owing to the long war-years and unsettled living conditions which rendered them unable to work together in the same institute. The inaccessibility of the specimens being another reason which caused the writers' work to be long suspended. During the war-years the specimens which had been compared with the types and the manuscripts thus written were removed several times with great difficulty and the last removal was effected under most difficult conditions, as several hours' delay in the suburbs of Peking, in the spring of 1949 in taking out the specimens, might have caused their destruction but luckily they were removed to safety and escaped damage.

The abbreviations here used in designating the herbaria in which the cited specimens are deposited and they, except otherwise stated, were examined by the writers, whereas the cited specimens kept in the herbarium of this institute are not denoted, are as follows:

- B** British Museum of Natural History, London
- BD** Botanischer Garten und Botanisches Museum, Berlin-Dahlem
- C** Royal Botanic Garden, Calcutta
- CA** Herbarium of the University of California
- CH** Herbarium of Chevalier, France
- CU** Herbarium of Columbia College (at New York Botanical Garden)
- E** Royal Botanic Garden, Edinburgh
- G** Gray Herbarium, Harvard University
- K** Royal Botanic Gardens, Kew
- KE** Herbarium of Kerr, England
- L** Lingnan University (formerly Canton Christian College or C. C. C.), Canton
- N** University of Nanking, Nanking
- NY** New York Botanical Garden
- P** Herbarium et Laboratoire de Phanérogamie, Muséum national d'histoire naturelle, Paris
- S** Botanical Institute, Sunyatsen University, Canton
- T** Torrey Herbarium (at New York Botanical Garden)
- US** United States National Herbarium, Smithsonian Institution, Washington
- W** Botanische Abteilung des Naturhistorischen Museums, Wien
- WU** Universität Botanischer Garten und Institut, Wien

Grateful acknowledgements are due to the Directors, Keepers, Curators and staff-members of different herbaria either listed above or not for their kindness in placing

at the writers' disposal the library facilities and the herbarium specimens. To Dr. E. D. Merrill the writers wish to express their sincere thanks for kindly gathering and loaning them an ample number of specimens preserved in various herbaria in the U.S.A. To Professor H. Humbert, Director of the Phanerogamic Laboratory of the National Museum of Natural History, Paris, they are much obliged for the generosity in not only permitting the writers to review the specimens, but at the same time giving them many valuable specimens for exchange. Lastly, the writers must tender their deep gratitude to the late Director, Sir Arthur W. Hill, the retired Keeper, Dr. A. D. Cotton and the staff-members of the Royal Botanic Gardens, Kew, for their help in various ways during their stay of nearly three years at Kew, and particularly for their sending back, at the expense of Gardens' budget, five cases of plant specimens, which the writers left at the Kew Herbarium. To the present Director, Sir Edward J. Salisbury and the Keeper of the herbarium and library, Dr. W. B. Turrill the writers owe a great deal of indebtedness for sending back the remainder of specimens packed in ten parcels after the war in 1948. Particular acknowledgement is due to Mr. V. S. Summerhayes, orchidologist at Kew Herbarium for his valuable suggestions and criticisms during the course of their study.

Paphiopedilum Chiuwanum Tang et Wang, *sp. nov.*

Terrestre, erectum, 13 cm. altum; radicibus crassis, villosis; foliis 7, ligulato-linearibus, apice bidentatis, coriaceis, utrinque glabris, costa media subtus carinata, 21×1.8 , 31×1.8 41×2 cm.; scapo erecto, unifloro, dense strigoso, pilis rufobrunneis, nodosis; bractea ovata, extus pilis ut in scapo, sed sparsioribus, intus glabra, ovario subaequilonga; sepalo intermedio elliptico-ovato, apice obtuso, extus strigoso, pilis nodosis, margine ciliato, intus glabro, 15-nervio, 2.3 cm. longo, infra medium 1.3 cm. lato; lateralibus ad apicem in laminam, extus pilis ut in intermedio, intus glabram, ovatam, 24 mm. longam, infra medium 17 mm. latam connatis; petalis sepalis paullo longioribus, extus strigosis, intus sparsius strigosis, basin versus dense strigosis, margine ciliatis, ligulatis e basi angustiore sensim paullo dilatatis, 26 mm. longis, infra apicem 9 mm. latis; labello calceolari, extus sparsim strigoso, 19 mm. longo, antice 9 mm. alto, lobis inflexis lunatis, apice rotundatis, auriculis obsoletis, staminodio suborbiculari, apice apiculato, extus glabro, intus sparsissime strigoso, gibbis 2 supra basin ornato, basi biauriculato, 7 mm. longo, 5 mm. lato; ovario dense strigoso, pilis ut in scapo, cylindraco-fusiforimi, 1.4 cm. longo.

South-east Yunnan: Foo-ning Hsien, Ban-loun, rocky hill, on rocks, alt. 700 m., fl. purple, April 15, 1940, C. W. Wang no. 88525 (*type*).

It is near akin to *P. micranthum* in respect of the scape bearing a single small flower, but differs greatly from the latter in its ligulate-linear much longer leaves and its detailed floral structure.

Paphiopedilum micranthum Tang et Wang, *sp. nov.*

Terrestre, erectum, 4 cm. altum; rhizomate valde elongato; radicibus crassis, villosis; foliis 4-5, oblongo-ligulatis, apice obtusis, coriaceis, utrinque glabris subtus grosse punctatis, 5×2 , 7×1.5 , 7×1.7 , 9×2 cm.; scapo erecto, unifloro, dense strigoso, pilis brunneis, nodosis; bractea orbiculari-cucullata, apice obtusa, extus pilis ut in scapo, sed valde sparsis, intus glabra, ovario 3-plo longiore; sepalo intermedio, ovato, apice obtuso

extus strigoso, pilis nodosis, margine ciliato, intus glabro, circiter 7-nervio, 1 cm. longo, supra basin 7 mm. lato; lateralibus ad apicem in laminam extus pilis ut in intermedio, intus glabram, suborbicularem, 8 mm. in diam. connatis; petalis sepalis subaequilongis, extus breviter strigosis, orbicularibus, 7.5 mm in diam.; labello calceolari, extus glabro, 7 mm. longo, antice 4 mm. alto, lobis triangularibus, apice rotundatis, auriculis parvis, triangularibus, antheris globosis, 3 mm. in diam., staminodio suborbiculato-elliptico, apice rotundato, glabro, supra basin uniumbonato, umbone carnosio, triangulari, basi leviter biauriculato, 3 mm. longo; ovario dense strigoso, pilis ut in scapo, 3 mm. longo.

South-east Yunnan: Mar-li-po, *C. W. Wang* no. 86182 (**type**).

This species is unique ever known to us among the Eastern Asiatic members of *Paphiopedilum*. It can be readily distinguished from all others by its exceedingly dwarf stature with scape only 4 cm. high, bearing a single very small flower.

Orchis Chusua D. Don var. **pulchella** (Hand.-Mzt.) Tang et Wang, **comb. nov.**

Orchis pulchella Hand.-Mzt., Symb. Sin. 7: 1325 (1936).

Yunnan: Ma eul chan, 9 juillet, 1889, *Delavay*, (12 specimens seen, **P**); North-west Yunnan, im Tale unter dem Gomba-la zwischen Salwin u. Irrawadi ober Tschamputong, Granit 3150 m., v. E., 14-17. VIII. 1916. *Handel-Mazzetti* no. 9929 (**type** of *Orchis pulchella*, **WU**).

The variety differs from the type in its lower stature, being 4-7.5 cm. high, each stem bearing a single leaf with dimensions of 1.5×0.3 , 2×0.4 , 2×0.5 , 2.5×0.4 cm., and its 1-2-flowered inflorescence.

Amitostigma Beesianum (W. W. Smith) Tang et Wang, **comb. nov.**

Orchis Beesiana W. W. Smith in Not. Roy. Bot. Gard. Edinb. 8: 193 (1914).

Yunnan: Eastern flank of the Lichiang Range, Lat. $27^{\circ} 25' N.$, alt. 11000-12000 feet, sandy mountain meadows, plant of 9-20 inches, flowers rose, Aug. 1910, *G. Forrest* no. 6464 (**type**, **E**; **cotypes** **K**, **BD**); near Lichiang, *C. Schneider* no. 3584 (**K**, **US**).

Amitostigma monanthum (Finet) Schltr. var. **Forrestii** (Schltr.) Tang et Wang, **comb. nov.**

Amitostigma Forrestii Schltr. in Fedde, Repert. 20: 379 (1924).

Western Tibet: Mekong-Salwin Divide, open moist meadows by streams on Donker-la, Lat. $28^{\circ} 20' N.$, Long. $98^{\circ} 40' E.$, alt. 12-13000 feet, Aug. 1921, *G. Forrest* no. 20776 (**type**, **BD**; **cotypes**, **K**, **E**, **CA**).

The variety differs from the type in its papillose-pubescent stem.

Amitostigma puberulum (King et Pantl.) Tang et Wang, **comb. nov.**

Orchis puberula King et Pantl. in Ann. Roy. Bot. Gard. Calcutta 8: 304, t. 403, fig. 1-4 (1898).

Sikkim Himalaya: Lachong Valley, alt. 10000 ft., flowers white, July, *Pantling* no. 478 (**cotype**, **K**).

A species closely allied to *A. basifoliatum* (Finet) Schltr., differing in its falcate-elliptic petals, and its unguiculate mid-lobe of the lip.

Platanthera elachyantha Tang et Wang, **nom. nov.**

Habenaria oligantha (non Turcz.) Hook. f., Fl. Brit. Ind. **6**: 154 (1890).

Sikkim: in interior valleys, alt. 10-12000 feet, J. D. Hooker (**type, K**).

Western Szechuan: without precise locality, S. M. Liu no. 969.

A species closely related to *P. contigua* Tang et Wang and *P. opsimantha* Tang et Wang, differing from them in its flower structure.

The new name is proposed here owing to an earlier homonym [*Platanthera oligantha* Turcz. in Fl. Baic.-Dah. **11.2**: 182 (1856)] given by Turczaninow to a plant from Dahuria.

Platanthera herminioides Tang et Wang, **sp. nov.**

Terrestris, erecta, 12 cm. alta; caule glabro, basi bivaginato, vaginis magnis, laxe amplexicaulibus, supra basin bifoliato; folio superiore bracteiformi, inferiore normali, elliptico, apice rotundato, basi attenuato caulem amplectente, utrinque glabro, 3.5 cm. longo, medio 1.6 cm. lato; spica dense 7-flora, 3 cm. longa; bracteis lanceolatis ovario longioribus, utrinque glabris; sepalis intermedio reniformi-ovato, apice rotundato, trinerviis, glabro, 2.5 mm. longo, infra medium 3 mm. lato; lateralibus oblongis, apice valde obtusis, margine anteriore supra basin dilatatis, glabris, tri-nerviis, 3 mm. longis, 1.5 mm. latis; petalis rhombico-ovatis, apice obtusis, uni-nerviis, glabris, 2 mm. longis, supra basin 1.5 mm. latis; labello ligulato, basi dilatato, glabro, 2.5 mm. longo, 1 mm. lato; calcare cylindraceo-ovoideo, infra apicem leviter geniculato, apice obtuso, glabro, 2 mm. longo, 1 mm. lato; gynostemio circiter 1 mm. alto; ovario cylindraceo-fusififormi, 4 mm. longo.

North-west Yunnan: Salween-Chiukiang Divide, T. T. Yü no. 19763 (**type**).

It is comparatively more related to *P. roseotincta* (W. W. Smith) Tang et Wang, but differs from the latter very strongly by the shape of its flowers which resembles *Herminium* rather than *Platanthera*.

Platanthera leptocaulon (Hook. f.) Tang et Wang, **comb. nov.**

Habenaria leptocaulon Hook. f., Fl. Brit. Ind. **6**: 154 (1890).

Platanthera silaensis Hand.-Mzt., Simb. Sin. **7**: 1331, Abb. 41, Nr. 6 (1936), **syn. nov.**

Sikkim Himalaya: Lachen Valley, J. D. Hooker (**type of H. leptocaulon, K**).

Tibet: Yatung, H. E. Hobson (**K**).

North-west Yunnan: Shi-gi-tung, Champutung, grassy mountain slope, water side, alt. 3000 m., October 1935, C. W. Wang no. 67259; In der Ktp. St. des birm. Mons. im obersten Saa-lumba zwischen Mekong und Salwin, 28°, Glimmerschiefer, 3550 m., 27.8. 1916, H. Handel-Mazzetti no. 9965 (**type of P. silaensis, WU**).

Platanthera likiangensis Tang et Wang, **sp. nov.**

Terrestris, erecta, 28 cm. alta, tubere anguste ellipsoideo, 17 mm. longo, 4 mm. lato; radicibus crassis, elongatis; caule glabro, basi trivaginato, vaginis laxe amplexicaulibus, infra medium tri-foliato, supra medium uni-bracteato; foliis spathulatis, apice acutis, basi in petiolum vaginantem sensim angustatis, lamina 13-19 cm. longa, supra medium 2.8-5.3 cm. lata, glabra; spica laxe 9-12-flora, 5-8 cm. longa; bracteis lanceolatis ovario

longioribus, utrinque glabris; sepalo intermedio cordato-ovato, 7-nervio, apice obtuso, glabro, 5 mm. longo, 5 mm. lato; lateralibus oblique ovato-lanceolatis, 3-nerviis, apice obtusis, glabris, 7.5 mm. longis, supra basin 3.5 mm. latis; petalis oblique lanceolato-linearibus, obtusis, glabris, uninerviis, 6 mm. longis, supra basin 1.5 mm. latis; labello lineari, apice obtuso, glabro, 10 mm. longo, 1 mm. lato; calcare cylindraceo, apice obtuso, infra apicem dilatato, glabro, 21 mm. longo, 1 mm. lato; ovario cylindraceo-fusiforimi, 13 mm. longo.

North-west Yunnan: Likiang Hsien, under woods, alt. 2800 m., flowers greenish yellow, July 1935, *C. W. Wang no. 71682 (type)*.

It is closely related to *P. japonica* (Thunb.) Ldl. and *P. Finetiana* Schltr., but differs readily from them in its much lower stature, and its cordate-ovate dorsal sepal. Like *P. japonica*, the lip of this new species is eauriculate at the base.

Platanthera shensiana (Kränzl.) Tang et Wang, **comb. nov.**

Habenaria shensiana Kränzl. in Engl., Bot. Jahrb. **36**: Beibl. **82**: 24 (1905).

Perularia shensiana Schltr. in Fedde, Repert. Beih. **4**: 98 (1919).

Southern Shensi: Tun-u-tse, *Giraldi no. 6902 (type of H. shensiana, BD)*.

Platanthera sinica Tang et Wang, **sp. nov.**

Terrestris, erecta, 47 cm. alta; tuberibus cylindraceis, ad 4 cm. longis, radicibus crassis, filiformibus, sparsim villosis; caule glabro, basi trivaginato, vaginis laxe amplexicaulibus, alto folioso; foliis majoribus 3, oblongis vel ellipticis, apice acutis, vel imo apice rotundato, basi cuneatis caulem vaginantibus, 8-11 cm. longis, 3-4.5 cm. latis, superiore in bracteam decrescente; spica subdense circiter 10-flora, 10 cm. longa; bracteis lanceolatis, acuminatis, inferioribus flores superantibus, superioribus floribus leviter brevioribus, glabris; sepalo intermedio elliptico, apice obtuso, tri-nervio, glabro, 6.25 mm. longo, 3.25 mm. lato; lateralibus oblique ovatis, apice obtusis, tri-nerviis, glabris, 6.5 mm. longis, 4.25 mm. latis; petalis oblique ligulatis, apice truncato-emarginatis, uninerviis, 6 mm. longis, 1.5 mm. latis; labello lineari-subulato, 14 mm. longo, medio 1 mm. lato, apice retuso, basi paullo dilatato, 1.8 mm. lato, glabro; calcare cylindraceo, infra apicem paullo dilatato, 16 mm. longo, 1.5 mm. lato; ovario cylindraceo, glabro, 14 mm. longo.

North-west Yunnan: Wei-si Hsien, under forest, alt. 3500 m., flowers greenish white, June 1935, *C. W. Wang no. 63999 (type)*; no precise-locality, *Forrest no. 2586 (K)*; Likiang, eastern slope of Likiang Range, May-Oct. 1912, *Rock no. 4678 (US)*.

It resembles very much *P. Finetiana* Schltr., from which it differs in the shape of its dorsal sepal and petals.

Platanthera stenophylla Tang et Wang, **sp. nov.**

Terrestris, erecta, 17.5 cm. alta; caule glabro, basi univaginato, infra medium unifoliato; folio elongato-oblongo, apice obtuso, basi attenuato caulem alte amplectente, utrinque glabro, 4.5 cm. longo, 8 mm. lato; spica laxe 4-5-flora, 4 cm. longa; bracteis lanceolatis ovario paullo longioribus, utrinque glabris; sepalo intermedio ovato-lanceolato, apice obtuso, tri-nervio, 6 mm. longo, infra medium 1.8 mm. lato, glabro; lateralibus oblique lanceolatis, apice obtusis, glabris, uninerviis, 5.5 mm. longis, infra medium 1.25 mm. latis; petalis oblique ovato-lanceolatis, apice obtusis, glabris, 5 mm. longis, supra

basin 1.8 mm. latis, uninerviis; labello lanceolato-ligulato, apice obtuso, carnosus, 5 mm. longo, supra basin 1.4 mm. lato; calcar dependente, cylindraco, apice obtuso, infra medium leviter ampliato, 9.5 mm. longo, 1 mm. lato; gynostemio 1.5 mm. alto; ovario cylindraco-fusiforini, 8 mm. longo calcar paullo brevioro.

North-west Yunnan: Chiu-Kiang, west of Champutung, mountain slope, alt. 2500 m., October 1935, *C. W. Wang no. 67106 (type)*.

The appearance of *P. stenophylla* is rather like *P. leptocaulon* (Hook. f.) Tang et Wang, but they differ greatly from each other. In *P. leptocaulon*, there is a single bract-like small leaf above the large leaf, while in *P. stenophylla*, the stem possesses only a single leaf which is manifestly broader than that of the former species, but destitute of a bract-like leaf. The spur of *P. stenophylla* is about twice as long as the sepals, petals and lip, but that of the latter species is thrice as long as the sepals, petals and lip.

***Hemipilia quinquangularis* Tang et Wang, sp. nov.**

Terrestris, erecta, 37 cm. alta; foliis basilaribus duobus, inferiore magno suborbiculari-ovato, apice breviter acuminato, glabro, 5.6 cm. longo, 4.1 cm. lato, superiore parvo, cordato-ovato, apice acuminato, glabro, 2.2 cm. longo, 1.6 cm. lato; scapo vaginulis duabus, lanceolatis, acuminatissimis, glabris, 14 mm. longis donato, tereti, glabro; racemo sublaxe multifloro, 16 cm. longo; bracteis lanceolatis, longe acuminatis, glabris, ovarium dimidium aequantibus; sepalo intermedio anguste elliptico, obtuso, 8 mm. longo, 3 mm. lato, lateralibus oblique ovatis, obtusis, 8.5 mm. longis, 4 mm. latis; petalis oblique ovatis, obtusis, 7 mm. longis, 3.5 mm. latis; labello subquinquangulari-orbiculari, apice subretuso, basi cuneato, margine crenato, 10 mm. longo latoque; calcar dependente e basi ampliata, cylindrico, apice obtuso, ovario subaequilongo, 2 cm. longo; connectivo apice rotundato; ovario cylindraco.

North-west Yunnan: Chi-na-tung, Cham-pu-tung, on rocks, alt. 2500 m., flowers light red, Sept. 1935, *C. W. Wang no. 66649 (type)*.

A species closely related to *H. Forrestii* Rolfe, from which it differs in its nearly five-angled circular lip and its round-tipped connective.

***Hemipilia sikangensis* Tang et Wang, sp. nov.**

Terrestris, erecta, 10-20 cm. alta; tubere oblongoideo, radicibus crassis, filiformibus, villosis; folio basilari singulo, reniformi, basi cordato, utrinque glabro, 1.3-3 cm. longo, 2.4-4.8 cm. lato, infra folium vagina una tubiliformi caulem laxo amplectanti; scapo vagina una bractaeiformi, lanceolata, longe acuminata, glabra, 10-13 mm. longa donato, tereti, glabro; racemo sublaxe paucifloro, 3.5-5.5 cm. longo; bracteis lanceolatis, longe acuminatis, glabris, ovarium dimidium aequantibus; sepalo intermedio elliptico, obtuso, trinervio, sparsissime puberulo, 4.5 mm. longo, 3 mm. lato; lateralibus oblique ovatis, obtusis, tri-nerviis, extus sparsissime puberulis, 5.5 mm. longis, 3.5 mm. latis; petalis oblique ovatis, obtusis, extus sparsissime puberulis, 4 mm. longis, 2.5 mm. latis; labello circulari, apice truncato, basi attenuato, margine irregulariter crenato, supra dense puberulo, subtus sparsius puberulo, 6.5 mm. longo, 5.75 mm. lato; calcar dependente e basi ampliata, cylindraco, apice obtuso, ovario brevioro; ovario cylindraco, 12 mm. longo.

Sikang: Tan-pa Hsien, July 18, 1929, *T. H. Tu no. 1471 (type)*.

It is closely allied to *H. quinquangularis*, from which it differs in its lower stature, few-flowered raceme, scape bearing a single bract-like small sheath and markedly smaller flowers.

***Herminium angustifolium* Benth. var. *brevilabre* Tang et Wang, var. nov.**

A. typo differt labello brevior, lobis 3 inter se subaequilongis.

Yunnan: Ping-pien Hsien, alt. 1100 m., on rocks, in woods, flowers green, Sept. 11, 1934, *H. T. Tsai no. 61889 (type)*; Yang-pi Hsien, *K. K. Tsoong no. 9696*.

Siam: Chungioni, *A. F. G. Kerr no. 191 (K)*.

***Herminium liguliforme* Tang et Wang, sp. nov.**

Terrestre, erectum, 15-21 cm. altum; radicibus filiformibus, villosis; caule glabro, basi 2-3-vaginato, vaginis tubularibus, laxe amplexicaulibus, supra basin bi-foliato, parte dimidia superiore squamis 1-2 lanceolatis, 15-21 mm. longis obsesso; foliis ellipticis, elliptico-lanceolatis, apice rotundatis acutisve, basi attenuatis caulem involventibus, utrinque glabris, 4.3×1.2 , 5.2×0.9 , 5.6×1 , 6.4×1.6 , 7.4×1.2 , 9.5×2.2 cm.; racemo laxe 6-13-floro, tempore fructifero 4.2-7 cm. longo; bracteis lanceolatis; sepalo intermedio rhombico-ovato, apice obtuso, trinervio, 2.2 mm. longo, infra medium 3 mm. lato, lateralibus oblique ovatis, apice obtuso, trinerviis, 2.5 mm. longis, 1.75 mm. latis; petalis oblique ovatis, apice obtusis, uni-nerviis, 2 mm. longis, 1.5 mm. latis; labello ligulato, apice obtuso, e basi ampliato, 3 mm. longo, 1.5 mm. lato; calcare oblongo, apice obtuso, leviter curvato, 2 mm. longo, 1 mm. lato; ovario cylindraceo, glabro, carcare tri-plo longiore.

South-west Sikang: Nee-chou, Tsa-wa-rung, in *Abies* forest, alt. 3600 m., Aug. 1935, *C. W. Wang no. 66089 (type)*.

This species is near *H. forceps* (Finet) Schltr., but differs greatly from the latter in its glabrous stem, its few-flowered raceme, and its detailed floral structure.

***Herminium longicuris* (C. Wright) Tang et Wang, comb. nov.**

Aceras longicuris C. Wright in Mem. Amer. Acad. ser. 2. 6: 411 (1858-59).

Herminium angustifolium (Ldl.) Benth. var. *longicuris* Makino in Bot. Mag. Tokyo 10: 109 (1896); Schltr. in Fedde, Repert. Beih. 4: 100 (1919).

Japan: Katonasima, *C. Wright (type of *Aceras longicuris*; T)*; Nippon, 1865, *Tschonoski (K, CU)*; Kü, 1883 (ex Sc. Coll., Imp. Univ., Japan); Central Japan, *Maries (K)*; Tosa, *Elwes (K)*; Nagasaki, 1862, *R. Oldham nos. 809, 848 (K)*.

Formosa: *Oldham no. 560 (K)*; Urai, N. Mountain Valley, *W. R. Price no. 320 (K)*; Tattaka, Musha District, *W. R. Price no. 763 (K)*.

Kweichow: Si-tung Hsien, open slope, flowers yellowish green, July 1, 1936, *S. W. Teng no. 90469 (S)*; Tsing-chen Hsien, Mou-po-sich, open slope, flowers green, June 11, 1935, *S. W. Teng no. 648 (S)*.

Yunnan: Yunnan Fu, *C. Schoch no. 265 (US)*; Likiang, *Rock no. 5671 (US)*; same locality, *Schneider no. 2061 (K)*; Tengyueh, *Forrest no. 8364 (K)*; no precise locality, *Forrest nos. 6315, 14729, 15990, 19036 (K)*; Chung-tien, *Schneider no. 3392*

(**K**); *J. Cavalerie* no. 2451 (**K**); Mengtze, *Henry* nos. 9684, 11124 (**NY**); no precise locality, *E. E. Maire* no. 850 (**NY**); no exact locality, *Y. Tsiang* no. 11389 (**S**).

Hupei: *Henry* no. 6421 (**K**); W. Hupei, *Wilson* no. 2248 (**K**); Nanto, *Henry* nos. 2040, 3912 (**K**); Chang-yang, *Henry* no. 6202 (**K, CU**); Patung, *Henry* nos. 856, 7383 (**K**);

W. China: *Wilson* nos. 2236, 4617, for James Veitch & Sons, Collection (**K**).

Chekiang: Ting-hai Hsien, June 8, 1920, *K. K. Tsoong* no. 221 (**S**).

Makino has reduced *C. Wright's* *Aceras longicuris* as a variety of *Herminium angustifolium* (Ldl.) Benth., but we consider that it should be a distinct species, hence the new combination.

It can easily be separated from *Herminium angustifolium* Benth. by its papillose lip with lateral lobes about 5-8 mm. long and its elongate staminodes as long as or longer than the anther; while the lip of the latter species is glabrous with lateral lobes about 1 mm. long and its staminodes are shorter than the anther.

Herminium spiranthiforme (Ames et Schltr.) Tang et Wang, **comb. nov.**

Habenaria spiranthiformis Ames et Schltr. in Fedde, *Repert. Beih.* 4: 52, 134 (1919).

Yunnan: *E. Maire* no. 2616 (**type; BD**).

A species closely related to *H. Elizabethae* (Duthie) Tang et Wang, but differs from the latter in its linear leaves and ovate-lanceolate petals.

Pecteilis bassacensis (Gagnep.) Tang et Wang, **comb. nov.**

Habenaria bassacensis Gagnep. in Bull. Soc. Bot. Fr. 78: 67 (1931).

Laos: Kong, Bassac, *Thorel* no. 2309 (**type, P**); Sancia, prov. de Saravane, *Poilane* no. 15504 (**P**); Annam: a L'o. de Muông-men, *Evrard* no. 1562 (**P**).

A species closely related to *P. Henryi* Schltr., from which it differs in its linear petals being 1-toothed on the anterior side or only slightly dilated.

Pecteilis Lacei (Rolfe) Tang et Wang, **comb. nov.**

Platanthera Lacei Rolfe ex D. G. Downie in Kew Bull. 1925: 422.

Habenaria Lacei Gagnep. in Lecomte, *Fl. Gen. Indo-Chine* 6: 623 (1934).

Siam: Doi Sutep, alt. 660 m., open marshy ground, flowers pure white, June 12th, *Kerr* no. 247 (**type of Platanthera Lacei, K**).

This species is closely allied to *Pecteilis Henryi* Schltr. from which it differs in its lacerate lanceolate petals.

Pecteilis triflora (D. Don) Tang et Wang, **comb. nov.**

Habenaria triflora D. Don, *Prod. Fl. Nepal.* 25 (1825).

Orchis uniflora Buch.-Ham. ex D. Don, *Prod. Fl. Nepal.* 25 (1825).

Habenaria uniflora D. Don, *Prod. Fl. Nepal.* 25 (1825), **syn. nov.**

Platanthera candida Ldl. in Wall., *Cat. no. 7035* (1832) et *Gen. & Sp. Orchid.* 295 (1835).

Platanthera uniflora Ldl., *Gen. & Sp. Orchid.* 295 (1835).

Napalia et Kumaon, *Wallich. Cat. no. 7035* (type of *Habenaria triflora* and *Platanthera candida*, **K**); Napalia, 1806, *Buchanau* (type of *Habenaria uniflora* D. Don also *Orchis uniflora* Buch.-Ham., **B**).

It is characterized by its very broad connective of the anther, and its flabellate denticulate lateral lobes of the lip in contrast with its associates, *P. Lacey* (Rolfe) Tang et Wang, *P. Henryi* Schltr. and *P. bassacensis* (Gagnep.) Tang et Wang possessing much narrower connective and lacinate lateral lobes of the lip.

Habenaria chiloglossa Tang et Wang, **sp. nov.**

Terrestris, erecta, circiter 31 cm. alta; tubere elongato, carnosio; caule glabro, basi bi-vaginato, vaginis tubiformibus laxe amplexicaulibus, alte bifoliato; folio inferiore multo majore, oblongo, apice acuto, basi attenuato caulem involventi, glabro, 10 cm. longo, 3.6 cm. lato, superiore minore, lanceolato, acuto, glabro, 5.6 cm. longo, 1.4 cm. lato; racemo laxe 9-floro, circiter 10 cm. longo; bracteis lanceolatis, acuminatis, glabris, inferioribus florem superantibus, superioribus ovarium aequantibus; sepalo intermedio anguste elliptico, apice obtuso, trinervio, 6 mm. longo, 2 mm. lato, lateralibus oblique lanceolatis, apice leviter acuminatis, uni-nerviis, intermedio aequilongis, 1.5 mm. latis; petalis oblique lanceolatis, apice obtusis, 5 mm. longis, supra basin 2.5 mm. latis; labello ligulato, apice obtuso, 6.5 mm. longo, infra medium 1.5 mm. lato; calcare cylindraco, infra apicem leviter ampliato, apice obtuso, 16 mm. longo; ovario fusiformi, 9 mm. longo.

Sikang: Chi-ja-tung, Tsa-wa-rung, alt. 2800 m., flower white a little bit greenish, Aug. 1935, *C. W. Wang no. 65326* (type).

This species is closely allied to *H. platantheroides* Tang et Wang from which it can be easily distinguished by its oblong leaves, its dorsal sepal being as long as the lateral ones, and its cylindrical spur.

Habenaria Passerina (Gagnep.) Tang et Wang, **comb. nov.**

Glossula Passerina Gagnep. in *Lecomte, Fl. Gen. Indo-Chine* 6: 627 (1934).

Cambodge: prov. de Kampot, juin 1874, *Pierre* (type, **P**).

It possesses the appearance of *Herminium*. Its stems are 16-36 cm. high. Its leaves are 3-4 in number, sparsely arranged, gradually passing into bracts; while in its closely related species *Habenaria dankiaensis* Gagnep., stems are 50-60 cm. high, leaves 6-7 in number, crowded above the base of the stem, sharply differentiated from the bracts and its inflorescence 15-25 cm. longo.

Peristylus australis (Gagnep.) Tang et Wang, **comb. nov.**

Herminium australe Gagnep. in *Bull. Mus. Nat. Hist. Natur. ser. 2.* 3: 324 (1931).

Cambodge: montagne de l'Elephant, 1000 m. en sol. argileux-tourbeux, *Poilane no. 312* (type of *Herminium australe*, **P**).

Compared with *P. langbianensis*, it possesses larger flowers with lip 11 × 14 mm., lateral lobes of the lip 7 × 3, 9 × 5, mm., petals obtuse at the apex, not acuminate, 10 × 4 mm., lateral sepals 10 × 3 mm., and dorsal sepal 10 × 3 mm.

Peristylus ecalcaratus Tang et Wang, **nom. nov.**

Herminium latifolium Gagnep. in Bull. Mus. Nat. Hist. Natur. ser. 2. **3**: 325 (1931).

Yunnan: environs de Yunnan-sen, talus des canaux d'irrigation, *Ducloux no. 3971* (**type, P.**).

It can be easily distinguished from others by its ecalcarate lip which is ovate, rounded at the apex, and non-lobed.

An earlier homonym, *Peristylus latifolius* was in existence, so a new name is here proposed.

Peristylus langbianensis (Gagnep.) Tang et Wang, **comb. nov.**

Habenaria langbianensis Gagnep. in Bull. Soc. Bot. Fr. **78**: 71 (1931).

Herminium annamense Gagnep. in Bull. Soc. Bot. Fr. **79**: 36 (1932), **syn. nov.**

Annam: Lang-bian, montagne de l'Elephant, vallee du ruisseau de Prenn, *Evrard no. 1219* (**type of *Habenaria langbianensis*, P**); same locality, *Eberhardt no. 1901* (**type of *Herminium annamense*, P**); Dalat, *Lecomte et Finet no. 1534* (**type of *Herminium annamense*, P**).

It is distinguishable from its allied species, *P. australis* (Gagnep.) Tang et Wang in its smaller flowers with lip 4×5 mm., lateral lobes of the lip 3×1.5 mm., petals acuminate, sub-obtuse at the apex, 4×2 mm., lateral sepals 5×2 mm., and dorsal sepal 4.5×2 mm.

Peristylus sphaerocentron Tang et Wang, **sp. nov.**

Terrestris, erectus, 33 cm. altus; tuberibus 2, ellipsoideis, ad 2.6 cm. longis, 1.1 cm. latis, radicibus filiformibus, villosis; caule glabro, basi 4-vaginato, vaginis tubiformibus, laxe amplexicaulibus, infra medium quadrifoliato, supra medium folio uno, parvo, ovato, acuminato, basi laxe amplexicauli, 2.6 cm. longo, 1.6 cm. lato, infra racemum squamis duabus, lanceolatis, acuminatis, 12-14 mm. longis donato; foliis ellipticis, apice acutis, basi attenuatis, laxe amplexicaulibus, glabris, margine discoloribus, 3.3×2.5 , 5.4×3.6 , 6.3×3.8 , 6.6×3.9 cm.; racemo dense multi-floro, 7.2 cm. longo, 2.2 cm. lato; bracteis lanceolatis, longe acuminatis, glabris, ovario fere aequilongis; sepalo intermedio ovato, obtuso, uni-nervio, 5.75 mm. longo, 3.75 mm. lato, lateralibus oblique anguste ovatis, uni-nerviis, apice obtusis, 5 mm. longis, 2.5 mm. latis; petalis rhombico-ovatis, apice obtusis, 5.5 mm. longis, medio circiter 5 mm. latis; labello circuitu obovato, antice trilobato, porrecto, basi attenuato, lobis lateralibus oblongis, obtusis, intermedio leviter longioribus, sed satis angustioribus, 2.2-75 mm. longis, intermedio late ovato, toto 6.25 mm. longo, medio 4 mm. lato; calcare subgloboso, 2 mm. longo, 1.5 mm. lato; ovario fusiformi, 8 mm. longo.

Yunnan: without precise locality, *2390* (**type**).

It resembles *P. constricta* Ldl., from which it is distinguishable by its much lower stature, its much smaller leaves, its ovate dorsal sepal and its rhombic-ovate petals.

Listera brachybotryosa Tang et Wang, **sp. nov.**

Terrestris, erecta, circiter 12 cm. alta; rhizomate abbreviato; radicibus filiformibus, villosulis; caule basi univaginato, parte $1/4-1/3$ superiore foliis 2 oppositis donato, supra

folia nudo vel unibracteato, infra folia glabro, supra folia papilloso-pilosulo; foliis sessilibus, sub-aequilateraliter triangulatis, basi truncatis, apice acutis, utrinque glabris, 13-16 mm. longis, supra basin 15-20 mm. latis; racemo laxe 3-4-floro, 10-15 mm. longo; bracteis lanceolatis ovario brevioribus; sepalo intermedio oblongo, apice retuso, uninervio, glabro, 4 mm. longo, 1.5 mm. lato, lateralibus anguste falcato-ellipticis, apice obtusis, uninerviis, glabris; petalis linearibus, apice obtusis, uninerviis, glabris, 4.2 mm. longis, 0.6 mm. latis; labello elongato-obovato, quintana parte apicali bifido cum dente obtuso interjecto, lobis oblique ovatis, apice valde obtusis, medie obtuse carinato, carina una e basi lata sensim angustata, utrinque tertia parte ima hujus uni-lamellata, 7.5 mm. longo, infra apicem 3.3 mm. lato; columna 2 mm. alta; ovario pedicellato, clavato, glabro, 9 mm. longo.

Sikang: Chi-na-tung, Tsa-wa-rung, alt. 2800 m., in dense woods, flowers greenish yellow, Aug. 1935, *C. W. Wang no. 65223 (type)*.

It seems near *L. Savatieri* Maxim. ex Komarov from which it is distinguishable by its short raceme, its oblong dorsal sepal, and its lip bearing an obtuse conspicuous keel which is broad at the base and then gradually narrowed upwards, and on each side to the lower third part of the keel a lamella being provided.

Listera Savatieri Maxim. ex Kom. var. **maculata** Tang et Wang, var. nov.

A typo recedit foliorum costa media et nervis lateralibus 1-3 coloratis.

Szechuan: Heou-pin, pres de Tchen-keou, 2200 m., about 1892, *R. P. Farges no. 927 (type of the variety, P)*; same locality, 2000 m., *Farges no. 334 (P)*.

Listera Yüana Tang et Wang, sp. nov.

Terrestris, erecta, 22-23 cm. alta; radicibus filiformibus, villosulis; caule basi bivaginato, infra medium foliis 2, oppositis donato, supra folia nudo vel unibracteato, papilloso, infra folia glabro; foliis sessilibus, sub-aequilateraliter triangulatis, basi subcordatis, apice acutis, utrinque glabris, 2-2.2 cm. longis, supra basin 2.2-2.6 cm. latis; racemo laxe pauci-floro, ad 9 cm. longo; bracteis lanceolatis, pedicello dimidio aequilongis; sepalo intermedio anguste elliptico, apice obtuso, uninervio, glabro, 4 mm. longo, 1.2 mm. lato, lateralibus anguste obliquo-ovatis, apice obtusis, uninerviis glabris, 4 mm. longis, 1.6 mm. latis; petalis linearibus, margine anteriore medio leviter ampliatis, apice obtusis, uninerviis, glabris, 3.7 mm. longis, 0.7 mm. latis; labello obovato, glabro, tertia parte bilobulato, lobis oblongis, rotundatis, margine ciliatis, 9 mm. longo, 4 mm. lato; columna 3.5 mm. alta; ovario cum pedicello 7 mm. longo, clavato, glabro; pedicello 4 mm. longo.

North-west Yunnan: Upper Kiukiang Valley (Culung), Singolila, alt. 2500 m., under mixed forest in moist and shady places, flower pale green, *T. T. Yü no. 19644 (type)*.

This novelty is similar to *Listera Smithii* Schltr., but differs from the latter species in its larger stature, larger leaves and larger flowers.

Neottia brevilabris Tang et Wang, sp. nov.

Saprophytica, erecta, ad 40 cm. alta; caule crasso, apicem versus papilloso, vaginis ad 6, alte amplexentibus obsessis; racemo dense pauci-floro, ad 4 cm. longo; bracteis lineari-lanceolatis, floro sub-aequilongis, glabris; sepalo intermedio elliptico, apice obtuso,

uni-nervio, glabro, 3 mm. longo, 1.8 mm. lato, lateralibus oblique ellipticis, apice obtusis, uninerviis, glabris, 3 mm. longis, 1.6 mm. latis; petalis oblique ellipticis, apice obtusis, uni-nerviis, glabris, 2.8 mm. longis, 1.2 mm. latis; labello circuitu cuneato-obcordato, antice bilobato cum dente obtuso interjecto, 2 mm. longo, apice fere 3 mm. lato, basi concavula, lobis 2 oblique ovatis, divergentibus, apice obtusis; columna 1.5 mm. alta; ovario cum pedicello 7.5 mm. longo, clavato.

Szechuan: Chen-kou-tin, 1800 m., 16 juin, 1900, *R. P. Farges no. 1500 (type)*; same locality, *R. P. Farges*, in young fruiting stage (**P**).

This species is more related to *Neottia Nidus-avis* (L.) Rich., in having tall stature, and ecallose lip with 2 divergent lobes, but differing in its smaller flowers with shorter lobes of the lip.

Neottia oblonga Tang et Wang, **sp. nov.**

Saprophytica, erecta, ad 22 cm. alta; caule glabro, vaginis ad 5, alte laxaque amplectentibus; racemo subdense multi-floro, 7 cm. longo; bracteis suboblongis, apice erosis, acutiusculis, pedicello brevioribus; sepalo intermedio, lineari-lanceolato, apice longe acuminato, uni-nervio, glabro, 4.5 mm. longo, fere 1 mm. lato, lateralibus intermedio similibus; petalis lineari-subspathulatis, apice attenuato-acutis, uninerviis, glabris, 2.5 mm. longis, 0.8 mm. latis; labello oblongo, apice acuto, carnosio, margine tenui, leviter colorato, 2.3 mm. longo, 1 mm. lato; columna humili; ovario clavato, glabro, cum pedicello 6 mm. longo.

North-west Yunnan: Mekong Ravine, Me-ting, Tsa-wa-rung, Cheh-na, alt. 3000 m., under forest, flowers light yellow, Sept. 11, 1935, *C. W. Wang no. 66312 (type)*.

The lip of this new species is oblong in outline, while its closely related species *Neottia micrantha* Ldl. possesses an ovate-acute or ovate-acuminate lip.

Neottia Pantlingii (W. W. Smith) Tang et Wang, **comb. nov.**

Aphyllorchis Pantlingii W. W. Smith in Rec. Surv. Bot. Ind. 4: 243 (1911).

Sikkim Himalaya: Lachen and Zemu Valley, *W. W. Smith & Cave nos. 1020, (cotype, K)*, 2657 (**type-drawing, K**).

It is closely allied to *Neottia Smithiana* Schltr., from which it differs in its subspathulate petals, its falcate-oblong lateral sepals and its slightly divergent lobes of the labellum in comparison with linear petals, oblong-ovate lateral sepals and sub-parallel lobes of the labellum of *N. Smithiana*.

Aphyllorchis pusilla (Hook. f.) Tang et Wang, **comb. nov.**

?*Galeola pusilla* Hook. f., Fl. Brit. Ind. 6: 89 (1890).

Lower Burma: Pegu, on the Pookee ridges, *Kurz (type drawing, C)*.

Indochine: Laos, Pu-mu-ten, Chienglawang, alt. 1500 m., April 20, 1932, fls. white, *A. F. G. Kerr no. 1024 (K)*.

There is no type preserved in the Kew Herbarium, but a drawing kept in the herbarium of the Royal Botanic Garden, Calcutta. *Kerr no. 1024* matches in all respects the type drawing, except the lip is lobulate, while both the type-drawing and Hooker's description indicate that the lip is simple. It might be due to Hooker's negligence,

for the lip is so delicate that unless dissection is carefully made the real feature of the lip can not be ascertained. The loose sheaths, the wiry roots and the concave stigma are typical of the present genus.

Aphyllorchis pusilla may be compared with *A. montana* Rchb. f. in their 3-lobed lips, differing from the latter in the exceedingly lower stature and 1-2-flowered inflorescence.

***Aphyllorchis simplex* Tang et Wang, sp. nov.**

Saprophytica, erecta, 47-53 cm. alta; rhizomate crasso, subligneo; radicibus filiformibus, glabris; caule glabro, vaginis 9, tubiliformibus, laxe amplectentibus; racemo laxe paucifloro, 20 cm. longo; bracteis deflexis, lineari-lanceolatis, apice acutis, glabris, ovario 3-plo brevioribus; sepalo intermedio, anguste oblongo, apice acuto, tri-nervio, glabro, 10.6 mm. longo, 3 mm. lato, lateralibus anguste oblongis, apice acutis, trinerviis, glabris, 10 mm. longis, 2.2 mm. latis; petalis tenuibus, anguste oblongis, acutis, tri-nerviis, glabris, 10 mm. longis, 2.5 mm. latis; labello tenui, anguste oblongo, apice obtuso, revoluto, uninervio, glabro, 10 mm. longo, supra basin 3 mm. lato; columna elongata, 7 mm. longa; ovario cum pedicello 17 mm. longo, elongato-clavato, glabro.

North-east Kwangtung: Mei Hsien, Yin-na-shan, steep rocky slope, flower white, Aug. 4-31, 1932, *W. T. Tsang no. 21504* (**type**).

It differs from its allied species *Aphyllorchis montana* Rchb. f. in its narrow oblong lip being similar to the petals, while *A. montana* possesses ovate lip contracted at the middle into epichilum and hypochilum. In respect of elongate column and much shorter floral bracts in comparison with the ovaries this new species is entirely similar to *A. montana*.

***Epipactis Mairei* Schl. var. *humilior* Tang et Wang, var. nov.**

A typo differt planta humiliori foliis ovato-lanceolatis.

Sikang: without precise locality, *S. M. Liu no. 1107* (**type**).

***Epipactis Thunbergii* A. Gray var. *manshurica* (Maxim.) Tang et Wang, comb. nov.**

Epipactis gigantea Dougl. ex Hook. var. *manshurica* Maxim. ex Komarov in Act. Hort. Petrop. **20**: 524 (1901).

In provinciis Ussuriensi et Mukdensi in pratis paludosis solo turfoso hic inde crescit (**type** not seen).

Korea: *W. R. Carles no. 150* (**K**).

The variety differs from the type species in the ecallose front-lobe of the epichilum.

***Cephalanthera ensifolia* (Sw.) L. C. Rich. var. *acuminata* (Ldl.) Tang et Wang, comb. nov.**

Cephalanthera acuminata Ldl. in Wall. Cat. no. 7405 (1832) et Gen. & Sp. Orchid. 412 (1840).

Cephalanthera Mairei Schltr. in Fedde, Repert. Beih. **4**: 151 (1919).

Napalia, *Wallich, Royle* (**type** of *C. acuminata*, **K**).

Yunnan: Sous bois de Tcheou-kia-tse-tang, 2550 m., *E. E. Maire* (**type** of *C. Mairei*, **BD**); Kai tcheon, *Cavalerie nos. 3848B, 8108* (**K**); Likiang, *Rock nos. 3589, 3620* (**US**); Yungpeh, *C. Schneider no. 3502* (**K**).

Sikang: Tatsienlu, *E. H. Wilson no. 4606; A. E. Pratt no. 51 (K)*.

This variety differs from the type species in its lanceolate leaves attenuate toward the apex. The type species was from northern Europe. Among the Chinese species it is near *Cephalanthera yunnanensis* Hand.-Mzt. from which this variety differs in its smaller flowers, non-leafy bracts being as long as the ovaries or shorter than the flowers and semirovate epichilum rounded at the apex with the dimension, 3.5 mm. by 6 mm.

Bletilla chartacea (King et Pantl.) Tang et Wang, **comb. nov.**

Cephalanthera chartacea King et Pantl. in Journ. As. Soc. Beng. **66**: 598 (1897).

Bletilla burmanica Rolfe, nom. nud. in Herb. Kew.

Upper Burma: Southern Shan States, at Tungyi (**type of *Cephalanthera chartacea***, not seen); same locality, *W. A. Robertson no. 342 (type of *Bletilla burmanica*, K)*.

No type specimen of *Cephalanthera chartacea* is preserved in the Kew Herbarium, nevertheless, *Robertson no. 342* from the type locality matches well its original description. In the characters the plant conforms to *Bletilla* as Rolfe so suggested, hence the new combination. *Bletilla chartacea* is distinguishable from its related species *Bletilla striata* (Thunb.) Rehb. f. by its smaller flowers, 15-20 mm. long, and its undulate lamellae throughout the epichilum and hypochilum of the lip.

Bletilla foliosa (King et Pantl.) Tang et Wang, **comb. nov.**

Pogonia foliosa King et Pantl. in Journ. As. Soc. Beng. **66**: 598 (1897).

Upper Burma: At Fort. Stedman, 1893, *Abdul Khalil (type, C)*.

Bletilla sinensis (Rolfe) Schltr. may be placed under this species as their leaves are similar, but the flowers of the present species are unavailable for dissection, so the decision can not be made until more Burmese material is examined.

Nervilia flabelliformis (Ldl.) Tang et Wang, **comb. nov.**

?*Epipactis flabelliformis* Hamilt. in Wall. Cat. no. 7400A (1832).

Pogonia flabelliformis Ldl. in Wall. Cat. no. 7400A (1832) et Gen. & Sp. Orchid. 415 (1840), excl. synonym.; in Journ. Linn. Soc. Bot. **3**: 45 (1859); Hook. f., Fl. Brit. Ind. **6**: 121 (1890), excl. synonym; King et Pantl. in Ann. Roy. Bot. Gard. Calcutta **9**: 158, t. 125 (1906), excl. synonym.

Napalia: ad Sukanagam, Junio, *Hamilton*, in *Wall. Cat. no. 7400A (type of *Pogonia flabelliformis*, K)*.

This species is more related to *Nervilia tibetensis* Rolfe and *N. Fordii* (Hance) Schltr., from both of which it differs in its leaves truncate-acute at the base, many-flowered inflorescence, longer sepals and petals (2 cm. long), and oblong villose mid-lobe of the lip.

Goodyera repens (L.) R. Br. var. **marginata** (Ldl.) Tang et Wang, **comb. nov.**

Goodyera marginata Ldl. in Wall. Cat. no. 7394 (1832) et Gen. & Sp. Orchid. 493 (1840).

Orchiodes marginata O. Ktze., Rev. Gen. 675 (1891).

Northern India: Kumooan, *Wallich no. 7394 (type of *G. marginata*, K)*; no precise locality, *Royle (type of *G. marginata*, K)*; N. W. Himalaya, 8000 ft., *T. Thomson (K)*.

Yunnan: Mekong-Salwen Divide, 28° 10' N., 10,000 ft., Aug. 1917, *Forrest no. 14505* (K); precise locality unknown, *Forrest no. 25128* (K).

The variety differs from the type species in its robust stature, and compact, second-flowered spike.

Goodyera Wuana Tang et Wang, *sp. nov.*

Terrestris, erecta, 12 cm. alta; rhizomate decumbente, cauliformi; caule basi foliato, superne papilloso, inferne glabro; foliis 7, ovatis, apice acutis, basi in petiolum cuneatis, utrinque glabris, 13-15 mm. longis, infra medium 6-7 mm. latis, petiolo basi dilatato vaginato, ad 8 mm. longo, supra folia squamis 3, lanceolatis, longe acuminatis, glabris, 9-14 mm. longis; racemo 9-floro, secundo, ad 3 cm. longo; bracteis lanceolatis acuminatis, ovarium aequantibus; sepalo intermedio elliptico-oblongo, apice obtuso, uni-nervio, glabro, 4.2 mm. longo, 1.8 mm. lato, lateralibus oblique ovatis, apice obtusis, uni-nerviis, glabris, 4 mm. longis, 2.3 mm. latis; petalis oblique spathulatis, apice obtusis, uni-nerviis, glabris; labello semigloboso-cucullato, antice triangulo, obtuso, producto, 3.8 mm. longo, explanato infra medium 4 mm. lato, intus bilamellato; columna brevi, cum antheris 2.5 mm. longa; ovario fusiformi-cylindraco, sparsim papilloso, 5.5 mm. longo.

Sikang: Tien-chuan Hsien, under forest, flower white slightly pinkish, Aug. 30, 1940, *C. L. Wu no. 12420* (type).

The novelty is closely related to *G. repens* (L.) R. Br. from which it can be easily separated by its ovate-acute leaves being not crowded at the base of the stem, and its glabrous flowers with asymmetrical petals, and with obtusely cucullate lip being bilamellate inside.

Erythrodes herpysmoides (King et Pantl.) Tang et Wang, *comb. nov.*

Physurus herpysmoides King et Pantl. in Journ. As. Soc. Beng. **65**: 124 (1896).

Bhotan; above Engo, elevation 5000 ft., in flowers during April, *Pantling no. 255* (cotype, K).

This species is characterized by its shorter spur being 2 mm. long and elamellate lip with even epichilum.

Myrmechis pumila (Hook. f.) Tang et Wang, *comb. nov.*

Odontochilus pumilus Hook. f., Fl. Brit. Ind. **6**: 99 (1890).

Zeuxine pumila King et Pantl. in Ann. Roy. Bot. Gard. Calcutt. **8**¹: 291 et **8**⁴: t. 389 (1898).

Cheirostylis pusilla Ldl. in Journ. Linn. Soc. **1**: 188 (1857), prō minora parte [non Ldl., Gen. & Sp. Orchid. 489 (1840)].

Cheirostylis Franchetiana King et Pantl. in Journ. As. Soc. Beng. **64**²: 341 (1895).

Zeuxine Franchetiana King et Pantl. in Ann. Roy. Bot. Gard. Calcutt. **8**¹: 292 et **8**⁴: t. 398 (1898).

Myrmechis Franchetiana Schltr. in Fedde, Repert. Nov. Sp. Beih. **4**: 174 (1919).

Sikkim: alt. 8,000-10,000 ft., *J. D. Hooker no. 325A* (type of *Odontochilus pumilus*, K); above Sureil, alt. 6,500 ft., flowering in August, *R. Pantling no. 338* (cotype of *Cheirostylis Franchetiana* K).

It is distinguished from others by its longer clawed lip and lanceolate petals.

Odontochilus abbreviatus (Ldl.) Tang et Wang, **comb. nov.**

Etaeria abbreviata Ldl. in Wall. Cat. no. 7885 (1832); Gen. & Sp. Orchid. 491 (1840); Rchb. f. in Trans. Linn. Soc. **30**: 142 (1873).

Hetaeria cristata Bl. var. *minor* Rendle in Journ. Bot. **11**: 310 (1902).

Hetaeria cristata Dunn in Kew Bull. Add. Ser. **10**: 268 (1922), non Bl.

Goodyera pogonorrhyncha Hand.-Mzt. in Beih. Bot. Centralbl. **56 B**: 473 (1937),

syn. nov.

Napalia: Wallich Cat. no. 7385 (**type** of *Et. abbreviata* **K**).

Kwangtung: no precise locality, 5 IX. 1917, *Rud. Mell* no. 728 (**type** of *G. pogonorrhyncha*, **WU**); Chü-kiang Hsien, under forest, Dec. 19, 1931, *S. P. Ko* no. 51989 (**S**); Ying-te Hsien, on shaded rock, stream side, Sept. 7, 1931, *Y. H. Liang* no. 60864 (**S**); Yongyuen Hsien, Sept. 2, 1935, *S. K. Lau* no. 24235 (**S**).

Hainan: Poting, Sept. 3, 1935, *F. C. How* no. 73619 (**S**).

It is characterized by its smaller flowers, 4 mm. long, with claw of the lip 0.5 mm. long, by its non-lobed but dilated smaller lamellate epichilum and by its even columnar appendage. It is similar to its associate species, *O. crispus* (Ldl.) Hook. f., *O. moulmeinensis* (Par. et Rchb. f.) Tang et Wang, *O. Petelotii* (Gagnep.) Tang et Wang, and *O. longifolius* (Ldl.) Tang et Wang in the non-fringed claw of the lip.

Odontochilus densiflorus (Mansf.) Tang et Wang apud Merr. et Metc. in Lingn.

Sc. Journ. **21**: 12 (1945).

Anoectochilus densiflorus Mansf. in Fedde, Repert. **27**: 294 (1929-30).

Kwangsi: Yao shan, water side, Dec. 1928, *S. S. Sin* no. 3856 (**type**, **BD**).

The species is akin to *O. repens* Downie, differs in the detailed floral structure.

Odontochilus longifolius (Ldl.) Tang et Wang, **comb. nov.**

Rhomboda longifolia Ldl. in Journ. Linn. Soc. Bot. **1**: 181 (1857).

Zeuxine longifolia Hook. f., Fl. Brit. Ind. **6**: 109 (1890) et Ic. Pl. 4th Ser. **2**: t. 2180 (1894).

Sikkim Himalaya: in hot valleys, *J. D. Hooker* no. 335 (**type** of *Rhomboda longifolia*, **K**).

Species more related to *O. moulmeinensis* (Par. et Rchb. f.) Tang et Wang and *O. Petelotii* (Gagnep.) Tang et Wang, but differs from both of them in the longer leaves being 14-16 cm. long, and longer claw of the lip which is 2.5 mm. long.

Odontochilus moulmeinensis (Par. et Rchb. f.) Tang et Wang, **comb. nov.**

Physurus moulmeinensis Par., ined.

: *Etaeria moulmeinensis* Par. et Rchb. f. in Trans. Linn. Soc. **30**: 142 (1873).

Zeuxine moulmeinensis Hook. f., Fl. Brit. Ind. **6**: 109 (1890); Ic. Pl. 4th Ser. **2**: t. 2179 (1894).

Anoectochilus multiflorus Rolfe apud Downie in Kew Bull. **1925**: 412, **syn. nov.**

Odontochilus multiflorus Tang et Wang in Bull. Fan Mem. Inst. Biol. Bot. Ser. **7**: 7 (1936).

Burma: Moulmein, *Parish no. 237* (**type** of *Etaeria moulmeinensis*, **K**).

Siam: Doi Sutep, *Kerr no. 197* (**type** of *Anoectochilus multiflorus*, **K**).

Yunnan: Szemao, eastern mountains, alt. 5,000 ft., fls. pink, *Henry no. 12724* (**K, NY**).

O. moulmeinensis is closely allied to *O. Petelotii* (Gagnep.) Tang et Wang in the shorter leaves and shorter claws of the lip, but differs readily from the latter in the smaller basal lobes of the lip, 3.5 mm. high including the sac, smaller epichilium (3.25 mm × 9 mm.), and shorter (1.5 mm. long) and undulate columnar appendage; while the basal lobes of *O. Petelotii* are measured 5 mm. high including the sac; epichilium, 4.5 mm. by 10 mm. and columnar appendage 2.5 mm. long, non-undulate.

Odontochilus Petelotii (Gagnep.) Tang et Wang, **comb. nov.**

Haemaria Petelotii Gagnep. in Bull. Soc. Bot. Fr. **80**: 349 (1933); in Lecomte, Fl. Gen. Indo-Chine **6**: 563 (1933).

Tonkin: Chapa, 1500-1600 m. alt., *Petelot nos. 5151, 5166* (**type** of *H. Petelotii*, **P**).

Hetaeria Poilanei (Gagnep.) Tang et Wang, **comb. nov.**

Evrardia Poilanei Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 596 (1932).

Annam: Dalat, arboretum, *Evrard no. 1807* (**type, P**); montagne Mamray, prov. Kontum, *Poilane no. 18204* (**type, P**).

It relates to *Hetaeria inverta* (W. W. Smith) Schltr. in the likeness of their comparatively larger flowers and bilobed lips. Their difference is very remarkable. The lobules of the labellum of *H. Poilanei* are irregularly incised-dentate and fimbriate and claw of the lip is also incised-dentate along the margin, 5-6 mm. long, while the lobules of *H. inverta* is irregularly erose and the claw is 3 mm. long with entire margin. Like *H. inverta* (W. W. Smith) Schltr. and *H. exigua* (Rolfe) Schltr., it is an epiphyte.

Malaxis aphylla (King et Pantl.) Tang et Wang, **comb. nov.**

Microstylis aphylla King et Pantl. in Ann. Roy. Bot. Gard. Calcutt. **8**: 18, t. 22 (1898).

Sikkim Himalaya: Valley of Testa, alt. 1000 feet, flowering in June, *R. Pantling no. 455* (**cotype, K**).

Malaxis bahanensis (Hand.-Mzt.) Tang et Wang, **comb. nov.**

Microstylis bahanensis Hand.-Mzt., Symb. Sin. **7**: 1350 (1936).

N. W. Yunnan: In Pteridium-Wiesen der wtp. St. des birm. Mons. bei Bahan (Pehalo) über dem Salwin, 27° 58', Schiefer, 2600 m., 21. VII. 1916, *Handel-Mazzetti no. 9574* (**type, WU**); Djon Kou la pres Pin-tchouan, Yean Py, *Ducloux no. 6702*.

Species closely related to *M. acuminata* and *M. Pierrei* differing in its smaller flowers and smaller leaves.

Malaxis calophylla (Rchb. f.) Ktze. var. **brachycheila** (Hook. f.) Tang et Wang, **comb. nov.**

Microstylis Wallichii Ldl. var. *brachycheila* Hook. f., Fl. Brit. Ind. **5**: 686 (1888).

Burma: Moulmein, *Rev. C. Parish no. 191* (**type, K**).

Siam: Doi Sutep, *Kerr no. 276* (**K**).

This variety can be distinguished from the type by its leaves maculate throughout, while the leaves of the type only maculate along the margins.

Malaxis Finetii (Gagnep.) Tang et Wang, **comb. nov.**

Microstylis Finetii Gagnep. in Bull. Soc. Bot. Fr. **79**: 127 (1932).

Annam: Tourane, route de Rue, dans les sables humides, *Lecomte et Finet no. 1161* (**type, P**).

Hainan: precise locality unavailable, *F. C. How no. 71036* (**S**).

It is closely related to *M. latifolia* J. E. Smith, a rather widely distributed species from which it differs in its non-lobed ovate-triangular lip, non-verruculose ovary and usually smaller leaves. The lip of *M. latifolia* is 3-lobed and its mature ovary is verruculose.

Malaxis liparidioides (Schltr.) Tang et Wang, **comb. nov.**

Microstylis liparidioides Schltr. in Fedde, Repert. Beih. **4**: 62 (1919).

Yunnan: Szemao, marshy glens, alt. 5500 ft., fls. pink, *A. Henry no. 13131* (**type, BD; cotype, K**).

M. liparidioides seems closely related to a western Himalayan species, *M. Makinnoni* (Duthie) Ames in their entire lips (i.e. no teeth nor fringes at the apex of the lateral lobes and on either side of the apical lobes of the lip), but it can be easily discriminated from the latter by its leaves more than 2 in number, and alternate one to another and by its lip being 1 cm. long. The leaves of *M. Makinnoni* are 2 in number and opposite and its lip including auricles being 5 mm. long.

Malaxis macrochila (Rolfe) Tang et Wang, **comb. nov.**

Microstylis macrochila Rolfe in Kew Bull. **1895**: 6; Ridl. in Journ. Linn. Soc. Bot. **32**: 223 (1896).

Hort. Bart. Burford, Dorking, May 1894, *Sir Trevor Lawrence* (**type, K**).

Rolfe stated that this orchid flowered in the collection of Sir Trevor Lawrence in May 1894, and suggested its native home as Pulau Aar, a small island just off the east coast of Johore, Malaya, but Ridley mentioned that it was brought with *Microstylis Prasina*, from Siam and sent to England by Mr. Curtis, not from Pulau Aor. On the type in the Kew Herbarium, however, the label reads "Hort. Bart. Burford, Dorking, May 1894, *Sir Trevor Lawrence*"

It is closely allied to *M. orbicularis* (W. W. Smith) Tang et Wang, differs from the latter in its larger flowers.

Malaxis Maximowicziana (King et Pantl.) Tang et Wang, **comb. nov.**

Microstylis Maximowicziana King et Pantl. in Journ. As. Soc. Beng. **64**: 329 (1895); in Ann. Roy. Bot. Gard. Calcutt. **8**: 21, t. 26 (1898).

Sikkim Himalaya: on the Mungpoo Cinchona Plantation, alt. 2500 ft., July 1892, *R. Pantling no. 226* (**cotype, K**).

Species closely allied to *M. Josephiana* (Rchb. f.) Ktze., from which it is distinguish-

able by the higher attachment of the leaves to the stems, being 14 cm. from the base, by the many-flowered inflorescence, with green flowers and by the lip not lobed at the apex but suberosed-crenulate, crenules being a few in number; lip being 3 mm. long, 2.5 mm. broad. In *M. Josephiana* the leaves attach to the stems at 3-6 cm. from the bases, inflorescence bears 6-12-flowers, which are yellow in colour as shown in the original drawing, but brown in the plate in Ann. Roy. Bot. Gard. Calcutta and the lips are bilobulate at apex with the dimension 9 mm. by 15 mm.

Malaxis microtatantha (Schltr.) Tang et Wang, **comb. nov.**

Microstylis microtatantha Schltr. in Fedde, Repert. Beih. **4**: 192 (1919).

Microstylis minutiflora Rolfe in Journ. Linn. Soc. Bot. **38**: 367 (1908), nec Schltr.

Microstylis pusilla Rolfe in Orch. Rev. **19**: 229 (1911), **syn. nov.**

Fukien: Yuen Fu Gorges, damp rocks in shade, alt. 1800 ft., *Hongkong Herb. no. 3545* (**type** of *Microstylis minutiflora*, **K**).

Owing to the earlier homonyma, *Malaxis pusilla* Ames et Schweinf. and *Malaxis minutiflora* Ames., hence Schlechter's specific name is adapted.

Malaris microtatantha belongs to the group in which *M. cylindrostachya* (Ldl.) Ktze., *M. muscifera* (Ldl.) Ktze. and *M. yunnanensis* (Schltr.) Tang et Wang are included. The characters of this group are that the lip is cauriculate at the base, pollinia 2 in number, bracts erect and leaves 1-2. The present species differs from all the members in the group in its distinctly 3-lobed lip. The basal lateral lobes are rather large in comparison with the whole lip.

Malaxis Miyakei (Schltr.) Tang et Wang, **comb. nov.**

Microstylis Miyakei Schltr. in Fedde, Repert. **9**: 437 (1911).

Formosa: Insel Kotosho, bluhend am 24 November, 1899, *K. Miyake no. 129* (**type**, **BD**); South Cape, *A. Henry no. 1342* (**K**).

Malaxis muscifera (Ldl.) Ktze. var. **stelostachya** Tang et Wang, **var. nov.**

Microstylis yunnanensis in Not. Roy. Bot. Gard. Edinb. **17**: 163 (1930), nec Schltr., **syn. nov.**

A typo differt floribus majoribus, labello 3.5 mm. longo.

N. W. Yunnan: Without precise locality, Aug. 1917, *G. Forrest no. 15867* (**type**, **K**).

Szechuan: mountains west of Mt. Omei, on Tung trunk &c., in woods, alt. 4000-8000 ft., a common plant, flowers green, *E. H. Wilson no. 4628* (**K**).

Sikang: Tatsien lou (principaute de Kiala), *J. A. Soulie no. 633* (**K**).

Malaxis orbicularis (W. W. Smith) Tang et Wang, **comb. nov.**

Microstylis orbicularis W. W. Smith et Tef freys in Not. Roy. Bot. Edinb. **9**: 111 (1916).

Microstylis tenebrosa Rolfe apud Downie in Kew Bull. **1925**: 369, **syn. nov.**

Yunnan: Tengyueh, *E. B. Howell no. 334* (**type** of *M. orbicularis*, **E**); no precise locality, *G. Forrest no. 18446* (**K**); *H. T. Tsai no. 62861*.

Siam: Doi Sutep, alt. 5200 ft., Aug. 7, 1911, fls. dark purple, *A. F. G. Kerr no. 209* (**type** of *M. tenebrosa*, **K**); Mechen, Chanijmai, alt. about 1300 m., July 15, 1922, in evergreen forest, fls. purple-black, *A. F. G. Kerr no. 490* (**K**).

It differs from *M. Parryae* Tang et Wang in its higher stature, up to 30 cm. high, in its lip rounded at the apex with longer and regular teeth and in its auricles being as long as the front part of the lip.

Malaxis Parryae Tang et Wang, **sp. nov.**

Herba 9-11 cm. alta; radicibus filiformibus, flexuosis, villosulis; caule brevi, 3-4-foliato; foliis ellipticis vel ovato-ellipticis vel oblongo-lanceolatis, 1.5×0.7 , 4.5×1 , 6.5×2 cm., petiolo basi breviter vaginante scapum amplexante; scapo 9-9.5 cm. longo; racemo subdense pluri-floro, 3.5-4 cm. longo, 1 cm. lato; bracteis lineari-lanceolatis ovarium pedicellatumque paullo superantibus; floribus inversis, atropurpureis; sepalo intermedio ligulato, obtuso, 4 mm. longo; lateralibus oblique ellipticis, obtusis, 2.5 mm. longis; petalis linearibus, obtusis, 3.5 mm. longis; labello circuitu ovato, 5 mm. longo, apice subtruncato, 4 mm. lato, irregulariter dentato, auriculis basilaribus amplis, oblique ovato-lanceolatis, 3 mm. longis, lamina anteriore subduplo longioribus; ovario cum pedicello 2.5 mm. longo.

Assam: Lushai Hills, Aijal, Saiep, 5000 ft., small orchid on moss-covered tree, fls. dark scarlet, July 1926, *Miss A. D. Parry no. 19* (**type**, **K**).

It is probably more related to *M. orbicularis* (W. W. Smith) Tang et Wang, in their purple flowers with dentate lip, but differs very greatly from the latter species in its low stature, smaller flowers with irregularly few-toothed lip, the apex of which is almost truncate, the basal auricles being nearly twice longer than the front (or anterior) part of the lip. *Malaxis acuminata* D. Don, generally known as *Microstylis Wallichii* Ldl., a rather variable species, can be discriminated very readily from this species by its edentate front part of the lip which equals in length to the auricles.

Malaxis Pierrei (Finet) Tang et Wang, **comb. nov.**

Microstylis Pierrei Finet in Bull. Soc. Bot. Fr. **59**: 534, t. xii, fig. 1-12 (1907).

Microstylis trigonocardia Schltr. in Fedde, Repert. Beih. **4**: 62 (1919), **syn. nov.**

Microstylis siamensis Rolfe apud Downie in Kew Bull. **1925**: 368, **syn. nov.**

Java: *Zollinger no. 2536*. (not seen).

Indo-Chine: Cochinchine, Caicong, *Auguste Regnier no. 360* (**P**); monts Dinh, sept. 1867, *Pierre* (**P**); Déon-ba, 28 avril 1866, *Pierre* (**P**). Camboge, monts Knang-Krépeuh, mai 1870, *Pierre* (**P**).

China: Yunnan, Szemao, alt. 4000 ft., *A. Henry no. 12284A* (**type** of *M. trigonocardia*, **BD**, **cotype**, **K**); same locality, alt. 4500 ft., fls. vary from yellowish-green to dull red, *A. Henry no. 12284* (**K**).

Siam: Doi Sutep, evergreen jungle, near a stream, alt. 2400-2700 ft., June 5-7, 1909, *Kerr no. 100* (**type** of *M. siamensis*, **K**).

Finet referred *Zollinger no. 2536*, *Auguste Regnier no. 360* and three gatherings collected by *Pierre* from Cochinchine to this species, so all of those specimens might be regarded as the types. They are all in the Museum d'Histoire Naturelle, Paris, except *Zollinger no. 2536*.

The discrimination between *M. acuminata* D. Don and the present species is rather slight and seems only in their vegetative parts, so if ample materials were available, they may be proved to be conspecific or *M. Pierrei* being merely a variety of *M. acuminata*. As far as the specimens we have seen, the leaves of *M. acuminata* are more attenuate above the middle, and broadest below the middle with wavy margins, while in *M. Pierrei* the leaves are oblong-elliptical, broadest near the middle and less narrow towards the apex with even margins.

Malaxis saprophyta (King et Pantl.) Tang et Wang, **comb. nov.**

Microstylis saprophyta King et Pantl. in Journ. As. Soc. Beng. **65**: 118 (1896).

Himalaya: Choongthang, R. Pantling no. 394 (**cotype, K**).

It is similar to *M. aphylla* (King et Pantl.) Tang et Wang in their epiphytic habit, small flowers with blunt-tipped lips, but the corm of *M. saprophyta* is orbicular, the scape is 7-15 cm. high, and the lip possesses one convex fold on the upper surface, while the corm of *M. aphylla* is irregularly oblong, scape attains 17-23 cm. high and the lip possesses no fold.

Malaxis szemaoensis Tang et Wang, **sp. nov.**

Herba 9-13 cm. alta; caule cylindraco, glabro, 1-2 cm. alto; foliis 2-3, approximatis, erecto-patentibus, petiolo basi dilatato vaginante, 2 cm. longo, lamina oblique ovata vel elliptica, apice acuta, basi cuneata, utrinque glabra, 2×1.2 cm., 4×2 cm., 6×2.5 cm., 6×3.5 cm., 6.5×3 cm.; scapo angulato, glabro, racemo incluso 8-12 cm. longo; racemo laxo pauci-floro, 2.5-6 cm. longo, 1 cm. lato; bracteis deflexis, lanceolatis ovario cum pedicello paullo longioribus vel aequilongis. Sepalum intermedium oblongum obtusum, 3.5 mm. longum, lateralibus oblique ellipticis, obtusis, 3 mm. longis. Petala linearia, obtusa, sepalo intermedio aequilonga. Labellum e basi sagittato-auriculata, ambitu ovatum, 5 mm. longum, apice 3.5 mm. latum, trilobatum, lobis lateralibus angulo externo late triangulo, dente 1 triangulo acuto ornatis, lobo intermedio cum lobulis lunato, 0.75 mm. longo, basi 1 mm. lato, dentibus loborum lateralium paullo longiore, auriculis parallelis, subfalcato-lanceolatis, 2.5-3 mm. longis. Ovarium cum pedicello 4 mm. longum.

Yunnan: Szemao, north-western mountains, alt. 5000 ft., fls. yellow, *A. Henry* no. 13128 (**type, K**).

M. szemaoensis seems isolated in relationship among the Chinese species as well as those recorded in her neighbouring regions. In respect of the teeth on the lateral lobes of the lip recalls of *M. Miyakei* (Schltr.), which however possesses 2 linear fringes on each of the lateral lobes instead of one triangular tooth as in the present new species. The mid-lobes of their lip differ also greatly. In *M. szemaoensis* the mid-lobe is lunate, while that of *M. Miyakei* is oblong.

Malaxis yunnanensis (Schltr.) Tang et Wang, **comb. nov.**

Microstylis yunnanensis Schltr. in Not. Roy. Bot. Gard. Edinb. **5**: 109, t. 83 (1912).

Yunnan: mountain meadows on the eastern flank of the Likiang Range, Lat. $27^{\circ} 15'$ N., alt. 11-12000 ft., fls. greenish-yellow, faintly fragrant, July, 1906, *G. Forrest* no. 2627 (**type, E**); same locality, *C. Schneider* no. 3438 (**K**); without precise locality, *G. Forrest* nos. 6223, 10627 (**K**).

Malaxis yunnanensis (Schltr.) Tang et Wang var. **nematophylla** Tang et Wang, var. **nov.**

A typo differt pedicellis longioribus, tenuioribus; petalis angustioribus.

Shensi: Ning-shen Hsien, Pingholiang, alt. 2400 m., in bamboo jungle, July 26, 1933, *H. W. Kung no. 3249*.

Szechuan: Omei Hsien, Mt. Omei, alt. 3000 m., July 22, 1931, fls. green, *F. T. Wang no. 23411 (type)*; same locality, *Faber no. 958 (K)*; Cheng-kow-ting, *R. P. Farges no. 32 (P)*.

Hupeh: Fang Hsien, *A. Henry no. 6869 (K)*; without precise locality, *A. Henry no. 6875 (K)*.

Oberonia myriantha Ldl. var. **pavula** (King et Pantl.) Tang et Wang, **comb. nov.**

Oberonia parvula King et Pantl. in Journ. As. Soc. Beng. **64**: 330 (1895); in Ann. Roy. Bot. Gard. Calcutt. **8**: 11, t. 6B (1898).

Oberonia Croftiana King et Pantl. in Ann. Roy. Bot. Gard. Calcutt. **8**¹: 7, **8**²: t. 6 (1898), **syn. nov.**

Sikkim Himalaya: Valley of the Teesta, alt. 1500 ft., February, 1892, *R. Pantling no. 203. (cotype of O. parvula, K)*; Tropical valleys, October, 1893, *R. Pantling no. 254 (cotype of O. Croftiana, K)*.

The variety differs from the type in its much shorter inflorescence being 2.5-8 cm. long and much smaller leaves, being 1-4 cm. long.

Liparis khasiana (Hook. f.) Tang et Wang, **comb. nov.**

Liparis bituberculata Ldl. var. *?khasiana* Hook. f., Fl. Brit. Ind. **5**: 696 (1890).

Khasia mountains: Myrung, alt. 4-6000 ft., *Griffith no. 5068*, in fruit (**type, K**); Panwang, *J. D. Hooker & T. Thomson (type, K)*; Nungbru, *J. D. Hooker & T. Thomson (type, K)*.

Yunnan: Divide between Shweli and Tengyueh valleys, in thickets and rocky shady situations, lat. 25° 10' N., alt. 6-7000 ft., July 1912, *G. Forrest no. 8627 (K)*.

It is very closely related to *L. macrocarpa* Hook. f. from which it differs in its manifestly shorter column, being 3 mm. long.

Mischobulbum megalanthum Tang et Wang, **nom. nov.**

Nephelaphyllum grandiflorum King et Pantl. in Ann. Roy. Bot. Calcutt. **8**: 104, t. 144 (1898), nec Hook. f.

Mischobulbum grandiflorum Rolfe in Orch. Rev. **20**: 127 (1912), nec Schltr.

Sikkim Himalaya: tropical valley, March 1896, *R. Pantling no. 206 (cotype, K)*.

An earlier homonym was made by Schlechter for a New Guinean orchid, hence a new name is here proposed.

This species is similar to a Malayan species, *Mischobulbum Wragana* (Hook. f.) Rolfe in the shorter mentum (7-8 mm. long) and the attenuate-acute lip, but differs from the latter in its non-lobed lip with dimension 15 mm. × 13 mm.

Nephelaphyllum Evrardii (Guillaum.) Tang et Wang, **comb. nov.**

Eulophia Evrardii Guillaum. in Bull. Soc. Bot. Fr. **77**: 337 (1930).

Annam: signal de 1200 m., a L'ouest de Cana, 2 nov. 1925, *Evrard no. 2387* (**type, P**).

This species is characterized by its 5-linear-lamellate lip.

Diglyphosa Evrardii (Gagnep.) Tang et Wang, **comb. nov.**

Tainia Evrardii Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2, **4**: 709 (1932).

Annam: Dalat, *Evrard no. 1250* (**type, P**); ruisseau de Prenh, *Evrard no. 1943*, sterile (**P**).

Chrysoglossum chapaense (Gagnep.) Tang et Wang, **comb. nov.**

Tainia chapaensis Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2, **4**: 707 (1932).

Tonkin: Chapa, 1500 m., avut 1929, epiphyte, *Petelot no. 5148* (**type, P**); juillet, 1928, *Petelot no. 5165* (**type, P**).

It differs from others in its smaller leaves with much shorter petioles and the short and inconspicuous mid-lamella of the lip.

Chrysoglossum chloranthum (Gagnep.) Tang et Wang, **comb. nov.**

Calanthe chlorantha Gagnep. in Bull. Soc. Bot. Fr. **79**: 162 (1932).

Annam: Lang-bian, 12 km. au N. de Dankia, *Poilane no. 18731* (**type, P**).

It differs from *C. Delavayi* in its incised-dentate lip with 3 lamellae of which the middle one is incised-dentate.

Chrysoglossum Delavayi (Gagnep.) Tang et Wang, **comb. nov.**

Tainia Delavayi Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2, **4**: 708 (1932).

Yunnan: sans localite, ni numero, *Delavay* (**type, P**).

It is characterized by its entire lip with lateral lobes alone denticulate at the apices and entire lamellae.

Collabium Balansae (Gagnep.) Tang et Wang, **comb. nov.**

Tainia Balansae Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2, **4**: 706 (1932).

Tonkin: forest du mont Bavi, vers 800 m., dans le terreau, *Balansa no. 1998* (**type, P**).

It is characterized by its larger maculate leaf-blades (13×5.5 cm., 15×6 cm., 17×6.5 cm.), by its different lip of which the mid-lobe is 5 mm. \times 12 mm. and retused at apex and lateral lobes are triangular obtuse at apex and by its longer spur (7 mm. long).

Pholidota chinensis Ldl. var. **cylindracea** Tang et Wang, **var. nov.**

A type differt pseudobulbis cylindraceis, 5-6 cm. longis.

Kwangsi: Lu-cheng, Chu Feng Shan, 30 li S. W. of Shan Fan, alt. 2000 ft., on shaded cliff, tufted herb, very common, *R. C. Ching no. 5790* (**type**).

Yunnan: Mengtze, *A. Henry no. 13586* (**K**).

Coelogyne leucantha W. W. Smith var. **heterophylla** Tang et Wang, **var. nov.**

A typo differt pseudobulbis oblongis.

Yunnan: South of Red River from Mengtze, on tree, fls. yellow, *A. Henry no. 13703* (**type, K**); epiphytic plant of 4-8 in., on rocks and trees in side valleys, alt. 6,000 ft., *G. Forrest no. 24515*, fls. only (**K**).

Upper Burma: Epiphytic plant of 10-14 in., fls. white, on trees in forests on the lower ridges of divide, Lat. 26° 17' N., Long. 98° 46' E., alt. 7000 ft., July 1925, *G. Forrest no. 27098* (**K**).

Coelogyne punctata Ldl. var. **conferta** (Par. et Rchb. f.) Tang et Wang, **comb. nov.**

Coelogyne ochracea Ldl. subsp. *conferta* Par. et Rchb. f. in Trans. Linn. Soc. **30**: 146, t. 30 B6-8 (1874).

Burma: Moulmein, *Parish no. 150* (**type, K**).

Yunnan: no precise locality, *G. Forrest no. 26625* (**K**).

This variety differs from the type species in its elliptical leaves, 5 × 1.5 cm., 5.5 × 2.5 cm., 6 × 2 cm., 7 × 2 cm., while in the type species the leaves are narrow elliptical, 6 × 1.2 cm., 12 × 1.5 cm., 12 × 2.2 cm., 13 × 1.7 cm., 17 × 2.3 cm.

Coelogyne punctata Ldl. var. **hysterantha** Tang et Wang, **var. nov.**

A typo differt scapo foliisque e pseudobulbo eodem emissis.

Yunnan: Lat. 25° 40' N., Long. 98° 50' E., alt. 9000 ft., on trees in open forests and on rocks, epiphytic, 4-7 in. high, fls. creamy white, fleshy, labellum deep velvety brown, Nov. 1924, *G. Forrest no. 26146* (**type, K**).

N. India: Mismess Hills, *Griffith* (**K**); without precise locality, *Griffith no. 19* (**K**).

The leaves and scape of this new variety are from the same pseudobulb, while those of the type and var. *conferta* are from different pseudobulbs.

Pleione Chiwuana Tang et Wang, **sp. nov.**

Terrestris, erecta, florifera ad 7.5 cm. alta; pseudobulbo globoso-ovoideo, 1.2 cm. in diam., vaginis in fibros solutis oblecto; foliis nondum notis; scapo vaginis 3 tubiliformibus laxe alteque amplectanti, unifloro; bractea anguste oblonga, apice obtusissima, glabra, ovarium leviter superanti; sepalo intermedio anguste elliptico, apice acuto, glabro, plurinervio 27 mm. longo, 4 mm. lato, lateralibus oblique ellipticis, intermedio aequilongis, fere aequilatis; petalis spathulatis, apice acutis, glabris, plurinerviis, 25 mm. longis, supra medium 4.5 mm. latis; labello circuito obovato-elliptico, e basi attenuata sensim bene dilatato, tertia parte anteriore trilobato, lobo intermedio multo majore subquadrato antice exciso, margine lacerato, lobis lateralibus rotundatis abbreviatis, antice margine laceratis, carinis 5 marginibus superioribus undulatis, mediano e basi in nervo incrassato apicem versus sensim dilatatis, usque ad dimidium lobi intermedii terminanti, exterioribus 2 mediano similibus, sed brevioribus, extremis 2 supra basin labelli ad basin lobi intermedii terminantibus donato, toto 2.6 cm. longo, supra medium 1.7 cm. lato; columna cum antheris 1.8 cm. alta; ovario gracili, 1.7 cm. longo.

Yunnan: Kunming, Tama shan, grassy slope, sepals and petals light purplish, lip white with dark purple blotches and dots, April 7, 1935, *C. W. Wang no. 62698* (**type**).

This species is more related to *P. maculata* Ldl., from which it differs greatly in its smaller flower with lacerate lobes and undulate keels of the lip.

Neogyne Gardneriana Rchb. f. var. **basi-quinquelamellata** Tang et Wang, **var. nov.**

A typo differt labello basi quinquelamellato.

Siam: Doi Sutep, alt. 5500 ft., on trees in damp evergreen jungle, flower white, lip with yellow margins and mid-lobe, Dec. 24, 1912 (**type, K**).

Neogyne Gardneriana Rchb. f. var. **basi-trilamellata** Tang et Wang, **var. nov.**

A typo differt labello basi trilamellato.

Yunnan: Between Tengyueh and the Burmese border, en route to Sadon, *J. F. Rock no. 7280* (**type, B**).

Burma: Between Sadon and the Chinese border at Changtifang and Kambaiti, *J. F. Rock no. 7456* (**type, B**).

Panisea Bia (Kerr) Tang et Wang, **comb. nov.**

Sigmatogyne Bia Kerr in Journ. Siam. Soc. Nat. Hist. Suppl. **9**: 236 (1933).

Laos: Pu Bia, alt. 1500 m., on evergreen tree, fls. yellowish white, with true brown calli on lip, April 12, 1932, *A. F. G. Kerr no. 971* (**type, K**).

It is closely related to *P. Cavaleriei* Schltr., from which it differs in its truncate apiculate lip. The lip in *P. Cavaleriei* is acute or subrotundate at apex.

Pholidota articulata Ldl. var. **obovata** (Hook. f.) Tang et Wang, **comb. nov.**

Pholidota obovata Hook. f., Fl. Brit. Ind. **5**: 845 (1890).

Khasia Hills, *Simons* (**type drawing, C**).

E. Himalaya. *Herb. Griffith no. 5034*, in fruit (**K**).

Winchmae Hill, Oct. 1, 1891, *W. C. Walker*, flowering specimen (**K**).

Yunnan: Szemao, *A. Henry no. 12994*, in fr. (**K, NY**); Puerh, alt. 5000 ft., *A. Henry no. 13619*, in fr. (**K**).

Hooker indicated in Fl. Brit. Ind. vol. 5, p. 845 that the type was based upon a rude drawing (kept in Herb. Roy. Bot. Gard. Calcutta) of a flowering specimen from Khasia collected by Mr. Simons of Assam. Hooker also mentioned Griffith's fruiting specimen as the material of this species. In Kew Herbarium there is a rough drawing referred to this species, and a fruiting specimen of *Herb. Griffith no. 5034*, from eastern Himalaya which is probably the same specimen quoted by Hooker as from Bhotan.

The variety differs from the type in its obovate leaves, with acute-rounded tips.

Pholidota imbricata Ldl. var. **Henryi** (Kränzl.) Tang et Wang, **comb. nov.**

Pholidota Henryi Kränzl. in Hans Schinz, Alab. divers. Mitt. Bot. Mus. Univ. Zür. **71**: 427 (1915).

Yunnan: I-Wu, *A. Henry* no. 13488 (**cotype, K**); Szemao, *A. Henry* no. 12973 (**K**); no precise locality, *G. Forrest* no. 17149, in fr. (**K**), 18791, sterile (**K**).

This variety differs from the type in its smaller leaves and smaller floral bracts.

Thunia alba (Ldl.) Rchb. f. var. **Bensoniae** (Hook. f.) Tang et Wang, **comb. nov.**

Thunia Bensoniae Hook. f. in Bot. Mag. **94**: t. 5694 (1868).

Burma: Rangoon, Colonel Benson, Hort. Kew., July 1867 (**K**).

The variety differs from the type in its rose-coloured flowers.

Dendrobium acinaciforme Roxb. var. **minus** Tang et Wang, **var. nov.**

A species typica differt foliis minoribus, 13×2.5 mm., 18×3 mm.

Kwangsí: without precise locality, *R. C. Ching* no. 7582 (**type**).

Hongkong: Lan-t'au Islands, on rocks, alt. 1500 ft. *G. A. C. Herklots* (**K**): Tai-o, *G. A. C. Herklots* (**K**).

Dendrobium aduncum Wall. ex Ldl. var. **Faulhaberianum** (Schltr.) Tang et Wang, **comb. nov.**

Dendrobium Faulhaberianum Schltr. in Orchis **5**: 58, t. 5, (A), 1-9 (1911).

Hainan: Importiert durch Herrn Unger, Blühte in der Sammlung des Herrn Dr. Haus Goldschmidt in Eassen a. d. Ruhr (**type, BD**); Paak shek Shan, June 19, 1928, *Tsang Wai-Tak* no. 767, ex *Herb. Lingnan Univ.* no. 17516 (**L**); same locality, *Tsang Wai-Tak* no. 645, ex *Herb. Lingnan Univ.* no. 17394 (**L, S**); Pao-ting Hsien, epiphytic on trees in woods, Aug. 11, 1935, *F. C. How* no. 73436, in fruit (**S**); no precise locality, 1935, *F. C. How* no. 72238, in flower (**S**); Pao-ting Hsien, May 17, 1935, *F. C. How* no. 72398, in flower (**S**); same locality, April 25, 1935, *F. C. How* no. 72144, sterile; Ya Hsien, epiphytic on shrubs in woods, flowers pink, July 12, 1933, *F. C. How* no. 71020, in flower (**S**); Journey from Tungchia leading to Mao-shang, epiphytic on trees by streams, alt. 1700 m., Aug. 18, 1932, *C. L. Tso* and *N. K. Chun* no. 43552, in fruit (**S**); Baksha, April 10, 1936, *S. K. Lau* no. 26200, sterile (**S**);

Kwangtung: no precise locality, *C. Wang* nos. 33583, in flower, 33513, sterile (**S**).

The variety differs from the type in its broader leaves and the shape of its lateral sepals.

Dendrobium clavatum Ldl. var. **aurantiacum** (Rchb. f.) Tang et Wang **comb. nov.**

Dendrobium aurantiacum Rchb. f. in Gard. Chron. **2**: 98 (1887); Hook. f., Fl. Brit. Ind. **5**: 751 (1890); Schltr. in Fedde, Repert. Beih. **4**: 206 (1919).

Dendrobium chryseum Rolfe in Gard. Chron. **1**: 233 (1888); Ridl. in Journ. Linn. Soc. Bot. **26**: 392 (1888); Hook. f., Fl. Brit. Ind. **5**: 748 (1890).

Dendrobium flaviflorum Hay. in Journ. Coll. Sc. Tokyo **30**: 312 (1911), **syn. nov.**

Dendrobium Denneanum Kerr in Journ. Siam. Soc. Nat. Hist. Suppl. **9**: 229 (1933), **syn. nov.**

Assam: *G. Mann* no. 7 (**type** of *D. aurantiacum*, **W**).

Hort. *Kammerrath*, named as *D. aurantiacum* (K); Hort. *W. Bull*, named as *D. aurantiacum* (K); Hort. *Mrs. Low*, named as *D. aurantiacum* (K).

Burma, *Hildebrandt*, named as *D. aurantiacum* (K).

Hort. Messrs. *James Veitch & Sons* (type of *D. chryseum*, K).

Hort. Messrs. *James Veitch & Sons* (type of *D. chryseum*, K).

Laos: Muang Cha, Chieng Kwang, alt. about 1100 m., on trees by stream, fls. yellow, base of the lip deeper, *A. F. G. Kerr* no. 965A (type of *D. Denneanum*, K).

Yunnan: Mekong-Yangtze Divide, east of Weishi, *Rock* no. 9401 (K); without precise locality, *G. Forrest* no. 24797; *E. E. Maire* no. 1680 (K); middle western part of Yunnan, *G. Forrest* no. 26749 (K, NY); Ping-pien Hsien, on trees, in woods, flowers yellow, June 2, 1934, *H. T. Tsai* no. 62173.

Sikang: Tachienlu, *A. E. Pratt* no. 26 (K).

Formosa: July 1907, *Hayata*, named as *D. flaviflorum* (K); Bukai, alt. 1400 m., May-Aug. 1934, *T. Linsley Gressitt* no. 319 (K).

The lip in this variety is emaculate, while that of the type possesses either a single purple lunate macula or two maculae.

***Dendrobium ellipsophyllum* Tang et Wang, sp. nov.**

Dendrobium revolutum Hook. f. in Bot. Mag. 109: t. 6706 (1883), nec Ldl.

Species proxima *D. revoluti* Ldl. a quo foliis ovato-ellipticis, labelli lobis lateralibus parvis triangularibus differt.

Hort. Kew. July 17, 1883 (K), originally from Burma, Moulmein, 1882, collected by *C. Peche*, Esq. (type, K).

Burma: Mandalay District, 1926, *Swinhoe* no. 60 (K).

Siam: Kao Sabap, Chantabun, July 8, 1927; Me Mue Muang Tak, c. 300 m., June 19, 1922, *Kerr* no. 477 (K); Pu Tong Joi, c. 1000 m., March 29, 1924, *Kerr* no. 163 (K).

***Dendrobium fimbriatum* Hook. var. *bimaculosum* Tang et Wang, var. nov.**

A typo differt labello 2-orbiculari-maculoso.

Yunnan: Middle-western part, alt. 6000-7000 ft., fls. light clear orange, June, 1925, *G. Forrest* no. 26786 (type, K; cotype, NY); without precise locality, alt. 8000 ft., Aug. 1924, *G. Forrest* no. 24791 (K, NY).

Dendrobium fimbriatum Hook. var. *oculatum* Hook. differs from the present variety in the lip possessing a single reinform macula.

***Dendrobium Loddigesii* Rolfe var. *album* Tang et Wang, var. nov.**

A typo differt foliis longioribus apicem versus attenuatioribus et sepalis petalisque albis vel flavis.

Yunnan: Szemao, east mountains, alt. 4500 ft., on tree, fls. white, *A. Henry* no. 12382 (K, NY); same locality, fls. yellow, *A. Henry* no. 12383 (K, NY).

Kweichow: Kwanlin, Da-wha-de, Ba-s-Dan, epiphytic on trees, Nov. 30, 1935, *S. W. Teng* no. 1684A (type, S).

Dendrobium lohohense Tang et Wang, **sp. nov.**

Terrestre, erectum, 25-27 cm. altum, pauci-ramosum; radicibus filiformibus, glabris; caulibus gracilibus, cylindraceis, sulcatis, pluri-nodosis, internodiis 1.3-2.3 cm. longis, plurifoliatis; foliis elliptico-oblongis, apice acutis, basi in vaginam contractis, vaginis obscuris, postremo distinctis, membranaceis tubiliformibus, omnia amplectentibus, textura chartaceis, 3.5-6 cm. longis, 1-1.5 cm. latis, utrinque glabris, distichis; inflorescentiis in caulibus nondum defoliatis terminalibus, erectis, unifloris, pedunculo brevi basi laxe bivaginato; bracteis minutis, late ovatis, apice obtusis, glabris ovario multo brevioribus; sepalo intermedio elliptico, apice rotundatis 7-nervio, glabro, 15 mm. longo, 9 mm. lato, lateralibus oblique ellipticis, apice rotundatis, 7-nerviis, glabris, cum mento 23.5 mm. longis, 8 mm. latis, basi antice producta cum pede columnae, mentum ovoideum apice rotundatum, 4.5 mm. longum formantibus; petalis ellipticis, apice rotundatis, 7-nerviis, glabris, 17 mm. longis, 10 mm. latis; labello e basi cuneata obovato, margine antice irregulariter serrulato, concavo, explanato 2 cm. longo, 1.7 cm. lato, parte dimidia superiore carnosopapillosa; columna brevi 3.5 mm. alta, pede 7 mm. longo; ovario clavato, glabro, 2.2 cm. longo.

Kwangsì: Loh Hoh Tsuen, Ling Yün Hsien, rocky valley, on rocks alt. 1150 m., fls. yellow, June 6, 1933, *A. N. Steward & H. C. Cheo no. 595 (type)*.

It can be distinguished from its related species *D. Henryi* Schltr., by the smaller lip (2×1.7 cm.) being papillose on the front half part above and the petals being nearly as broad as the dorsal sepal.

Dendrobium tortile Ldl. var. **Hildebrandii** (Rolfe) Tang et Wang, **comb. nov.**

Dendrobium Hildebrandii Rolfe in Kew. Bull. **1894**: 182; Orch. Rev. **3**: 49, fig. 3 (1895); Gard. Chron. **2**: 93, f. 18 (1895); J. D. Hooker in Bot. Mag. **122**: t. 7453 (1896).

Upper Burma: Shan States, alt. 1500 ft., *A. H. Hildebrand (type, K)*; South Shan States, *W. A. Robertson no. 272 (K)*.

The variety differs from the type in its white coloured flowers with yellow lips, while the colour of the flower in the type species is rose.

Dendrobium Wildianum (Rolfe) Tang et Wang, **comb. nov.**

Eria Wildianum Rolfe ex Downie in Kew Bull. **1925**: 377.

Siam: Doi Chieng Dao, 1650-1800 m., flowered on May 14, 1913 in Trinity College Botanic Garden, from a plant collected on Doi Chieng Dao in the preceeding January, *Kerr no. 331 (type of E. Wildianum, K, E)*.

Though we have not seen the number of the pollinia of this plant, we are sure that *Dendrobium* is the right genus for it. Its leaves turn red in dry state and its inflorescence is terminal. These characteristics are in common with *D. ciliatum* Par., *D. pygmaea* Ldl., *D. Dixonianum* Rolfe, *D. cuspidatum* Ldl., *D. barbatulum* Ldl. and *D. Eytchianum* Batem., but the present species is quite unique in having solitary flower and the scape with two opposite sterile bracts below the flower, sometimes with one additional below the two opposite ones.

Sarcopodium cacuminis (Gagnep.) Tang et Wang, **comb. nov.**

Dendrobium cacuminis Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **2**: 230 (1930).

Annam: montee des Piers Lang-bian, 2100 m., 27. 8. 1920, *Evrard no. 378* (**type, P**).

It is more related to *S. elongatum* (Bl.) Kränzl. which differs readily from the present species in the longer pedicels, 3-4 cm. long and different flowers.

Sarcopodium chapaense (Gagnep.) Tang et Wang, **comb. nov.**

Epigeneium chapaense Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 596 (1932).

Tonkin: col de Lo-qui-ho, pres Cha-pa, *Poilane nos. 12605, 12607* (**type, P**).

It is distinguishable from *S. Fargesii* (Finet) Tang et Wang by the smaller lip (2×1.1 cm), retused at apex with epichilum much broader than hypochilum.

Sarcopodium Clemensiae (Gagnep.) Tang et Wang, **comb. nov.**

Epigeneium Clemensiae Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 595 (1932).

Epigeneium Delacourii Gagnep., l. c., **syn. nov.**

Annam: mt Bana, epiphyte an sommet des arbres, assez commun, *Mrs. Clemens no. 4327* (**type of E. Clemensiae, P**).

Laos: environs de Nape, *Delacour* (**type of E. Delacourii, P**).

This species differs from *S. Fargesii* and *S. chapaense* in the larger leaves (3.5×1.2 cm., 5×1.1 cm., 5.5×1.8 cm.) and the subrotundate, notched epichilum. Like *S. Fargesii* the hypochilum in this species is of the same width of the epichilum. The lip of this species is measured 2.2 cm. by 0.9 cm. The epichila of *S. Fargesii* and *S. chapaense* are either transversely oblong or subreniform.

Sarcopodium Fargesii (Finet) Tang et Wang, **comb. nov.**

Dendrobium Fargesii Finet in Bull. Soc. Bot. Fr. **50**: 374, t. 12, fig. 11-18 (1903); Schltr. in Fedde Repert. Beih. **4**: 208 (1919).

Desmotrichum Fargesii Kränzl. in Engler, Pflanzr IV. 50. II. B. **21**: 358 (1910).

Epigeneium Fargesii Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 595 (1932), in clavi.

Szechuan: Tchen-keou-tin, 1200 m., 4 juin 1900, fl. rouges i labelle blanc, *R. P. Farges no. 1506* (**type, P; cotypes, K, NY**).

It differs from *S. chapaense* (Gagnep.) Tang et Wang in the larger lip which is 2 cm. by 1.5 cm., notched at apex with epichilum as broad as hypochilum.

Desmotrichum nodosum (Dalz.) Tang et Wang, **comb. nov.**

Dendrobium nodosum Dalz. in Hook., Kew Journ. **4**: 292 (1852).

India: Malabar, Concan &c., *Stocks, Law &c. Orchidaceae no. 30* (**type, K**).

Hab. in arboribus ad Ram Ghat, fl. augusto (**K**).

The species is closely allied to *D. fugax* Rchb. f. in the similarity of their semicircular epichila, but it can be readily distinguished from the latter species by the porrecting entire lateral lobes of the lip, while the lateral lobes of *D. fugax* are spreading and retused on the anterior margin and subdenticulate along both sides.

Desmotrichum stenoglossum (Gagnep.) Tang et Wang **comb. nov.**

Dendrobium stenoglossum Gagnep. in Bull. Soc. Bot. Fr. **79**: 165 (1932).

Annam: Dalat, chemin circulairez, *Evrard no. 2028* (**type, P**).

A species closely related to *D. Poilanei* Gagnep., differing in the larger lip (18 × 7 mm.), with mid-lobe being lamellate, cleft to the middle, and lobules of the mid-lobe being parallel.

Eria Boniana (Gagnep.) Tang et Wang, **comb. nov.**

Dendrobium Bonianum Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **2**: 233 (1930), pro parte.

Eria Petelotii Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **2**: 309 (1930), **syn. nov.**

Indochine: Tonkin, region de Hanoi, a Vo-xa (Chung-gang), 21. 8. 1866, *R. P. Bon no. 2844* (**sectotype** of *D. Bonianum*, **P**); Chapa? Pres de la cascade, 1000 m., juillet 1928, *Petelot no. 5141* (**type** of *Eria Petelotii*, **P**).

The general appearance of this species is extremely similar to that of *E. clausa* King et Pantl., except the pseudobulbs in *E. Boniana* are aggregate, the foot is shorter and the mid-lobe of the lip possesses sublacinate lamellae. *E. Boniana* is also closely related to *E. Corneri* Rehb. f., from which it differs in the 5-lamellate mid-lobe of the lip, while in *E. Corneri* the mid-lobe is 7-lamellate. In *Bon no. 2844* the leaves are much smaller than those of typical *E. Corneri*, but the leaves and the pseudobulbs in *Petelot no. 5141* are quite similar to *E. Corneri*.

The sectotype of *D. Bonianum* (*Bon no. 2844*), mixed with two detached leaves which are probably referred to *E. Corneri*, consists of a single plant with one old pseudobulb by the side of present year's pseudobulbs and a flowering inflorescence. Under *Bon no. 2844* there are still two specimens (named by Gagnepain as *D. Bonianum*): one with three detached leaves only; the other is a complete specimen with leaves and infructescence but destitute of flowers. *Bon no. 3062* is a leafy specimen without flowers and fruits. These three specimens may be referred to *E. Corneri*. *Petelot no. 5141*, type of *E. Petelotii*, which consists of only one complete flowering specimen with detached leaves, is of typical *E. Boniana*.

Eria major Ridl. apud Stapf in Trans. Linn. Soc. ser. 2. **4**: 237 (1894), in syn.; in Journ. Linn. Soc. Bot. **31**: 280 (May, 1896); nec Ridl. in Journ. Linn. Soc. Bot. **32**: 288 (1896); nec Ridl., Mat. Fl. Mal. Pen. Pt. **1**: 90 (1907).

Eria Scortechinii (non Hook. f.) Stapf in Trans. Linn. Soc. ser. 2. **4**: 237 (1894), excl. syn. *E. Kingii* Hook. f.

N. E. Borneo: Mount Kinabalu, alt. 6000 feet, *G. D. Haviland no. 1250* (**type** of *E. major*, **K**).

Eria Ridleyi Rolfe in Journ. Linn. Soc. Bot. **42**: 150 (1914); Ridl., Fl. Mal. Pen. **4**: 87 (1924).

Eria Kingii (non F. Muell.) Hook. f., Fl. Brit. Ind. **5**: 790 (1890); Ic. Pl. ser. 4. **1**: t. 2006 (1890).

Eria major Ridl. in Journ. Linn. Soc. Bot. **32**: 288 (Nov., 1896); Mat. Fl. Mal. Pen. Pt. **1**: 90 (1907), excl. syn. *E. Scortechinii* Stapf.

Malay Peninsula: Perak, 3-4000 ft., Aug. 1885, *King's collector nos. 6491, 8513*

(type of *E. Kingii*, K); same locality, without detailed data, *Father Scortechini*, in fruit (type of *E. Kingii*, K).

Eria major Ridl. and *E. Ridleyi* Rolfe are two widely dissimilar species. They can be easily discriminated even at a glance. The rachis of the inflorescence and the flowers of *E. major* are clothed with brown-tomentose indumentum, while those of *E. Ridleyi* with white-tomentose indumentum. The mid-lobe of the lip is ovate and denticulate in the former in comparison with the rhombic-reniform and entire one in the latter. Yet the two orchids had been remained unseparated for some twenty years until in 1914 R. A. Rolfe, while working on the Orchidaceae of Miss L. S. Gibbs' collection from Britian North Borneo¹, marked out the difference between them and a new name *E. Ridleyi* (with syn. *E. Kingii* Hook. f.) was then proposed for the Perak orchid and *E. major* Ridl. retained for the Bornean plant. But Rolfe gave no full citations nor full synonyms, nor any account of the confusion in the past. It is the writers' purpose to provide these two species with citations and synonyms together with an historical account to the clarification of the confusion of the two species. The confusion arose from O. Stapf's paper "On the Flora of Mount Kinabalu"² in 1894 in which the orchids were actually described and determined by H. N. Ridley. He named *Haviland no. 1250* as *Eria Kingii* Hook. f. var. *major*³, but Stapf, realizing the appellation *E. Kingii* preoccupied by F. von Mueller's homonym⁴ for an Australian species, substituted *E. Scortechinii* Stapf for *E. Kingii* Hook. f. var. *major* Ridl. which was accidentally printed as *E. major*³ Ridl. and placed as a synonym together with *E. Kingii* Hook. f. However, he overlooked the fact that *E. Scortechinii* was also antedated by J. D. Hooker's earlier homonym⁵ for an entirely different Perak orchid. Nevertheless, Stapf used a new name *E. Scortechinii* in place of *E. Kingii* Hook. f. var. *major* without altering Ridley's note, viz. "Rather bigger than the Perak plant and with a slightly different lip, but apparently specifically the same," that undoubtedly alludes to the varietal name *major* of Ridley. Thus, it is obvious that Ridley considered the Bornean orchid a mere variety to the Perak one or the two being conspecific. It can be further convinced by the fact that in his two later papers,^{3,6} based upon the Malayan material, he used the name *E. major* Ridl. ex Stapf or *E. major* Ridl. (with synonyms *E. Kingii* Hook. f. and *E. Scortechinii* Stapf) which has been known as *E. Ridleyi* Rolfe to later botanists. About six months earlier than his paper "On Orchidaceae and Apostaceae of the Malay Peninsula,"³ Ridley published "An Enumeration of Orchidaceae recorded from Borneo"⁷ in which the name *Eria major* Ridl. was repronounced as valid, but no synonyms nor field data were given by him. It is, thus, apparent that *E. major* Ridl. should be accepted as a legitimate name established by Ridley for the Bornean Orchid, although, judging from his later publications, his conception of the two widely distinct species remained dim. As stated above the two species had not been clarified till the appearance of Rolfe's

1) Rolfe, Gibbs, Fl. Mt. Kinabalu in Journ. Linn. Soc. Bot. **42**: 150 (1914).

2) Ridley apud Stapf, Fl. Mt. Kinabalu in Trans. Linn. Soc. ser. 2. **4**: 237 (1894).

3) Ridley, On Orchid. & Apostac. Mal. Penins., in Journ. Linn. Soc. Bot. **32**: 288 (Nov. 1896).

4) *Eria Kingii* F. von Muell. in Wing, South Sc. Record **2**: 71 (1882).

5) J. D. Hook., Fl. Brit. Ind. **5**: 809 (1890); Ic. Pl. ser. 4. **1**: t. 2082 (1890)

6) Ridl., Mat. Fl. Mal. Pen. pt **1**: 90 (1907).

7) Ridl., Enum. Orchid. Rec. Borneo in Journ. Linn. Soc. Bot. **31**: 280 (May 1896).

paper¹ in 1914. Hence it appeared that in 1924 Ridley in his Flora of the Malay Peninsula 4: 87, adopted Rolfe's new name *E. Ridleyi* for the Malayan orchid, having definitely given the proper citations and synonyms.

E. Ridleyi is really akin to *E. paniculata* Ldl. from which it can be distinguished by the thinner oblong-lanceolate leaves and the rhombic-reniform entire mid-lobe of the lip, whereas in the latter species the leaves are thicker and linear and the mid-lobe is reniform and denticulate. The true close associate of *E. major* Ridl., as Rolfe noted, is probably *E. villosissima* Rolfe which the writers, however, overlooked at the Kew Herbarium.

***Eria rhomboidalis* Tang et Wang, sp. nov.**

Saxicola; rhizomate repente, gracili, inter pseudobulbos 1.7-4.1 cm. longo; radicibus filiformibus, dense villosis; pseudobulbis oblongo-cylindraceis, apice bifoliatis, 0.9-1.3 cm. longis, basi 4-5 mm. latis; foliis anguste ellipticis, apice acutis, in acumina apiculata projectis, basin versus sensim paullo angustatis, 3-6 cm. longis, 6-15 mm. latis; scapo terminali ex axilla cataphylli oriente, unifloro, 8-13 mm. longo; bracteis minutis, subrotundatis, apice acuminatis, 1.5 mm. longis; sepalo intermedio anguste elliptico, apice acuto, 5-nervio, glabro, 11.5 mm. longo, 4 mm. lato, lateralibus in circuitu lunatis, apice acutis, 5-6-nerviis, glabris, margine anteriore 18 mm. longis, posteriore 12 mm. longis, 4.5 mm. latis, basi antice longe producta cum pede columnae mentum oblique oblongum obtusum 10 mm. longum formantibus; petalis sub-spathulatis, apice acutis, 3-nerviis, glabris, 12 mm. longis, 3 mm. latis; labello in circuitu rhomboideo e medio attenuato supra medium dilatato, tertia parte anteriore inciso, lobo intermedio inconspicuo apice truncato intus barbato, carinis 2, longis, parallelis, supra medium exceptum nudo, 17 mm. longo, explanato 8 mm. lato; columna brevi, 3.5 mm. alta, pede 9 mm. longo; ovario pedicellato, glabro, clavato, 10 mm. longo.

Hainan: Ling Shui Hsien, Fan Maan Tsuen, Chim Shan, alt. 1500 ft., on face of rock in low forest, on mountain side, fls. cream and lavender May 4-20, 1932, *F. A. McClure no. 20064 (type)*.

It is related to *E. setschuanica* Schltr. and *E. reptans* (Franch. et Sav.) Makino differs from both of them in the non-aggregate pseudobulbs setting at long distance, the solitary and larger flowers with lip 17 × 9 mm., being subrhombic in outline, non-lobed. The inconspicuous mid-lobe of the lip is barbate, truncate at apex and incised along the margin; the disk possesses two parallel keels.

***Cheirostylis bhotanensis* Tang et Wang, sp. nov.**

Terrestris, erecta, humilis; rhizomate cauliformi, repente; foliis breviter petiolatis, ovatis, apice breviter acuminatis, utrinque glabris, 6-7 mm. longis, 4-5 mm. latis, petiolo basi valde dilatata vaginante; scapo villosa, vaginis 3, spathaceis, apice longe acuminatis obtecto, apice pauci-floro; bracteis ellipticis, longe acuminatis, glabris, concavis, ovario sub-aequilongis; sepalis lanceolatis supra medium in tubum cylindraceum connatis, 3.5 mm. longis, glabris, uninerviis, apicibus libris anguste triangulis,

1) see foot-note (1) page 85.

obtusis, lateralibus obliquis, petalis oblique ligulatis, obtusis, uninerviis sepalo intermedio margine agglutinatis, glabris et illo aequilongis; labello e basi in unguem concavum supra basin in nerviis 2 lateralibus appendicibus 2 vel 3 papilliformibus ornatum, antice in laminam circuitu reniformem bipartitam, partitionibus sub-quadratis, grosse laciniatis, labello toto partitionibus inclusis 5.5 mm. longis, inter margines exteriores partitionum 4 mm. latis; ovario cylindraceo-oblongo, glabro, 4.5 mm. longo.

Bhotan: *Griffith no. 679 (type, K)*; *Herb. Griffith no. 5239. (K)*.

It is closely allied to *C. chinensis* Rolfe from which it differs in its divergent lobes of the lip.

***Cerastylis caespitosa* (Rolfe) Tang et Wang, comb. nov.**

Eria caespitosa Rolfe in Kew Bull. **1896**: 193; Schltr. in Fedde, Repert. Beih. **4**: 216 (1919).

Trichotosia caespitosa Kränzl. in Engler, Pflanzenr. IV. 50. II. B. **21**: 157 (1911).

Hainan: Hort. Kew. Aug. 1894 (**type of *E. caespitosa*, K**); Poting, alt. 2800 ft., epiphytic on tree in forest, fls. white, June 14, 1935, *F. C. How no. 72894 (S)*; Hung Mo Shan and vicinity, July 24, 1929, *Tsang & Fung no. 558, Lingn. Univ. no. 18092 (L)*.

It is similar to *C. siamensis* Rolfe and *C. Eppardii* Gagnep. in their caespitose habit, differs from the former in the large leaves, 40-70 mm. long, 2.5-4 mm. broad, the clawed lip, 4 × 3 mm., 4.5 × 3.5 mm. (excl. claw). Like *C. siamensis* the tip of the lip is thickened but not decurved. From the latter it differs in the larger leaves, and the distinctly 3-lobed broad ovate lip. The lip in *C. Eppardii* is clawed with rather thick non-decurved tip. In these respects *C. Eppardii* is similar to *C. caespitosa*.

***Calanthe sacculata* Schltr. var. *tchenkeoutinensis* Tang et Wang, var. nov.**

A typo differt labello lamellis 3.

Szechuan: Tchen-keou-tin, *R. P. Farges (type, P, K, NY)*.

***Calanthe trifida* Tang et Wang, sp. nov.**

Terrestris, erecta, 75 cm. alta; rhizomate abbreviato; radicibus filiformibus, longis, dense villosis; foliis annotiniis, ellipticis, apice acuminatis basi in petiolum 30-37 cm. longum angustatis, glabris, tenuibus, lamina, 32 cm. longa, 10 cm. lata, hornotinis nondom bene evolutis; scapo erecto, angulato, sulcato, glabro, parte florifera puberula, squamis 2, late ovatis apice acuminatis glabris obsesso; racemo circiter 30 cm. longo, pluri-floro; bracteis lanceolatis, apice acutis, ovario multo brevioribus; sepalo intermedio, elliptico, apice breviter acuminato, 5-nervio, extus puberulo, 10 mm. longo, 4 mm. lato, lateralibus oblique ellipticis, apice breviter acuminatis, 5-nerviis, extus puberulis, 9 mm. longis, 4 mm. latis; petalis anguste ellipticis, apex obtusis, 5-nerviis, extus puberulis, 7 mm. longis, 2.2 mm. latis; labello unque lato columnae adnato, lamina circuitu sub-flabellata, 5.5 mm. longa, inter apices loborum lateralium 7 mm. lata, nervo intermedio e basi apicem versus incrassato, lateralibus 2 intermedio brevioribus tenuioribusque, lobis lateralibus porrectis intermedio paulo brevioribus, late oblongis, apice obtusis, intermedio oblongo, apice acuminato, 3.5 mm. longo; calcare cylindraceo, medio leviter contracto,

apice bilobulato, puberulo, 6.5 mm. longo; columna 4 mm. longa; ovario pedicellato, gracili, puberulo, ad 13 mm. longo.

West Yunnan: Lungling Hsien, Hwa-tao-ling, alt. 1700 m., fl. pink, March 17, 1934, *H. T. Tsai no. 55503 (type)*.

Burma: Nankyin Res-Mansi Du, Distr. Upper Chindwin, alt. 5600 ft., fls. yellowish, fr. grey, 23. 2. 1929, *Burmese collector no. 9045 (K)*.

Closely related to *C. Limprichtii* Schltr., differing in much smaller flowers with differently shaped lip and shorter and bilobulate spur.

***Calanthe Tsoongiana* Tang et Wang, sp. nov.**

Terrestris, erecta, 32 cm. alta; rhizomate abbreviato; radicibus filiformibus, longissimis, dense villosis; foliis annotiniis elliptico-oblongis, basi in petiolum 8 cm. longum angustatis, apice obtusis, supra glabris, subtus puberulis, tenuibus, lamina 34 cm. longa, 5.5 cm. lata, hornotinis 3 nondom bene evolutis, infra folia hornotina vaginis 4 laxe amplexentibus; scapo erecto, sulcato, sparsim pubescenti, squama una ovata, apice acuta glabra obsesso; racemo laxe pluri-floro, ad 14 cm. longo; bracteis ovatis, apice acutis, glabris, ovario pedicellato multo brevioribus; sepalo intermedio oblongo, apice obtuso, 3-nervio, glabro, 6 mm. longo, 2 mm. lato, lateralibus oblique oblongis apice obtusis, 5-nerviis, glabris, 6 mm. longis, 2.5 mm. latis; petalis spathulatis, apice obtusis, 3-nerviis, glabris, 5 mm. longis, 1.5 mm. latis; labello unque lato columnae adnato, lamina circuitu late obovata 3.2 mm. longa, inter apices loborum lateralium 3 mm. lata, lobis 3, oblongis subaequilongis, 1.5 mm. longis, intermedio apice truncato, leviter retuso cum apiculo projecto, lateralibus porrectis, apice rotundatis; calcare abscenti; columna 3.5 mm. longa; ovario cum pedicello gracili, puberulo, 10.5 mm. longo.

Chekiang: West Tien-mu-shan, April 24, 1929, *K. K. Tsoong no. 212 (type)*.

Kweichow: without precise locality, *J. Cavalerie no. 7464 (K)*; Lou-tsong-kouan, 1450 m., avril 1910, *Joseph Esquirol no. 2010 (P)*; Petsen, *Cavalerie (P)*.

Of *Esquirol no. 2010* from Kweichow the scape is 37 cm. high, including raceme of 14 cm. long; leaves are 17×4 cm., 13×2 cm., without petioles; lateral sepals are shorter. Of specimen collected by *Cavalerie* at Petsen, Kweichow, scape is 55 cm. high including raceme 24 cm. long; leaf-blades 37×6 cm. with petiole 19 cm. long and 30×7 cm. with petiole 18 cm. long.

It can be compared with *C. Mannii* Hook. f. owing to the exceedingly smaller flowers with segments 6 mm. long, but they are markedly different. The mid-lobe of the lip in the present species is oblong, truncate, slightly retused and apiculate, the lateral lobes are porrect, nearly equaling the mid-lobe, the lip is destitute of lamellae and spur and the inflorescence is loosely flowered; while the mid-lobe of the lip in *C. Mannii* is reniform sub-bilobulate, the lateral lobes are much more divergent, the lamellae are three in number, and the spur is 1-2 mm. long. *C. Mannii* possesses loosely flowered inflorescence. In this respect it is similar to *C. Tsoongiana*.

***Ania hongkongensis* (Rolfe) Tang et Wang, comb. nov.**

Tainia hongkongensis Rolfe in Kew Bull. 1896: 195.

Ascotainia hongkongensis Schltr. in Fedde, Repert. Beih. **4**: 246 (1919), excl. syn. *Ania angustifolia*.

Hongkong: In Happy Valley, woods, April 7, 1879, *C. Ford no. 11* (**type, K; cotype, NY**); Ravine on Mt. Parker, May 1858, *C. Wilford no. 384* (**type, K**); no precise locality, *C. Wright no. 522* (**type, K; cotype, T**).

Kwangtung: Tin-wo shan, on shaded slope, April 14, 1921, *C. C. Levine*; way from Chao-an Hsien leading to Fungwan, road-side, scape green, spotted, flowers green with brown purple streaks and spots, April 5, 1931, *N. K. Chun no. 42576* (**S**).

It is distinguished from all other species known to us by the non-lobed obovate, short-acuminate, and trilamellate lip with dimensions 14 mm. by 7 mm.

Ania Hookeriana (King et Pantl.) Tang et Wang apud Summerhayes in Bot. Mag. **161**: t. 9553 (1939).

Tainia Hookeriana King et Pantl. in Journ. As. Soc. Beng. **64**: 336 (1896); in Ann. Roy. Bot. Gard. Calc. **8**: 103, t. 143 (1898).

Ascotainia Hookeriana Ridl. in Mat. Fl. Malay Penins. **1**: 116 (1907).

Ascotainia siamensis Rolfe ex Downie in Kew Bull. **1925**: 378, **syn. nov.**

Sikkim Himalaya: in the valley of the Teesta, alt. 1000 feet, flowering in March, *R. Pantling no. 204* (**cotype of Tainia Hookeriana, K**); West Duars, *H. H. Haines no. 2839* (**K**).

Siam: Doi Sutep, alt. 2200 feet, Jan. 17, 1911, *Kerr no. 214* (**type of Ascotainia siamensis, K**).

Hort. Kew (**K**).

Hainan: without precise locality, *H. Y. Liang no. 65114* (**S**).

Ania viridifusca (Hook.) Tang et Wang apud Summerhayes in Bot. Mag. **161**: t. 955, in adnot. (1939).

Calanthe viridifusca Hook. in Bot. Mag. **78**: t. 4669 (1852).

Tainia viridifusca Benth., Gen. Pl. **3**: 515 (1880).

Ascotainia viridifusca Schltr. in Fedde, Repert. Beih. **4**: 246 (1919).

Calanthe Eberhardtii Gagnep. in Bull. Soc. Bot. Fr. **79**: 162 (1932); in Lecomte, Fl. Gen. Indo-Chine **6**: 394 (1933), **syn. nov.**

Native of Assam, introduced by Mr. Simon to Kew Gardens (**type of Calanthe viridifusca** Hook., **K**).

Tonkin: Prov. de Ba-kan a Yen-lac, *Eberhardt no. 4673* (**type of Calanthe Eberhardtii** Gagnep., **P**); Prov. Thai-nguyen a Chochu, *Eberhardt no. 3984* (**type of Calanthe Eberhardtii** Gagnep., **P**).

Hort. Kew. (**K**).

Moulmein, *C. Parish* (**K**); Manipur, *G. Watt* (**K**); Burma, without precise locality, *J. H. Luce* (**K**).

Yunnan: Szemao, alt. 5000 feet, *A. Henry no. 11813* (**K, NY**).

Of the type specimens of *Calanthe Eberhardtii* Gagnep., Rives' specimen from Yen-bay, Tonkin, was unavailable to be seen in the Paris Museum.

The species differs from *A. Hookeriana* in the lip possessing five lamellae which

are unequally in thickness and the unstriped perianth-segments as Mr. Summerhayes observed in living plants.

Bulbophyllum trichocephalum (Schltr.) Tang et Wang, **comb. nov.**

Cirrhopetalum trichocephalum Schltr. in Fedde, Repert. Beih. 4: 72, 255 (1919).

Yunnan: Szemao, alt. 6000 ft., on tree, fls. white, *A. Henry no. 12086* (**type, BD**); same locality, on cliffs, alt. 10000 ft., *A. Henry no. 12286A* (**type, BD**).

Kwangtung: Sin-i Hsien, on rocks, flowers light yellow, April 14, 1931, *S. P. Ko no. 51283* (**S**); on rocks, stream-side, Nov. 28, 1934, *C. Wang no. 38098* in fr. (**S**).

B. trichocephalum is closely allied to *B. congestum* Rolfe and *B. odoratissimum* (J. E. Sm.) Ldl. differs from them in its much longer sepals being 12 mm. long. The sepals of *B. congestum* are 4 mm. long, and those of *B. odoratissimum* are 6-7 mm. long.

B. trichocephalum, *B. congestum*, and *B. odoratissimum* may be proved as a single species, if ample materials, showing the gradations of the sepal-length, are available, as their difference solely lays on the dissimilar length of the sepal.

Cirrhopetalum annamicum (Finet) Tang et Wang, **comb. nov.**

Cirrhopetalum maculosum Ldl. var. *annamicum* Finet ex Gagnep. in Lecomte, Fl. Gen Indo-Chine 6: 295 (1933).

Annam: vallee de Djirin massif du Lang-bian, IX, *Ebehardt no. 209* (**type of C. maculosum var. annamicum, P**).

It is allied to *C. Wallichii* Ldl. but differs strongly in the thicker, larger leaves (8×1.7 cm., 11×1.5 cm.), the ovoid, lustrous pseudobulbs (2×1.5 cm., 2×1.7 cm.), the scape being 10 cm. long, and the dorsal sepal being acute at apex. Compared with *C. maculosum* Ldl., the present species is distinguished by the scape as long as the leaves, and the acute-tipped dorsal sepal. In *C. maculosum* the scape is shorter than leaves and the dorsal sepal is apiculate or short-acuminate at apex.

Ione Andersonii King et Pantl. var. **flavescens** (Rolfe) Tang et Wang, **comb. nov.**

Ione flavescens Rolfe in Kew Bull. 1914: 373.

Flowered at the Roy. Bot. Gard. Glasnevin, Sept. 1914, originally from Burma: Mount Victoria, *Mrs. Wheeler Cuffe* (**type of I. flavescens**, no specimen seen, only a type drawing existed, **K**).

Siam: Doi Sutep, Chiangmai, 4500-5000 ft., sepals and petals green, lip purple brown, May 2, 1909, *Kerr no. 86* (**K**).

Yunnan: Shang-pa Hsien, 1600 m., on trees, fls. yellow, Oct. 5, 1933, *H. T. Tsai no 54775*.

This variety differs from the type in the yellow flowers, while in the type the lip and tips of petals are purple in colour.

Sunipia racemosa (J. E. Smith) Tang et Wang, **comb. nov.**

Stelis racemosa J. E. Smith in Rees, Cyclop. 34: no. 10 (1819).

Sunipia scariosa Ldl. in Wall. Cat. no. 7373 (1832); Gen. & Sp. Orchid. 179 (1833); Sert. Orchid. Front. No. 8, fig. 8 (1838); Fol. Orchid. 1 (1853); Hook. f., Fl. Brit. Ind. **5**: 772 (1890), **syn. nov.**

Ione scariosa King et Pantl. in Ann. Roy. Bot. Gard. Calc. **8**¹: 161, t. 219, f. 1-5 (1898).

Ione siamensis Rolfe in Kew Bull. **1908**: 413, **syn. nov.**

Ione scariosa King et Pantl. var. *magnibracteata* Kerr in Journ. Siam. Soc. Nat. Hist. Suppl. **9**: 237 (1933), **syn. nov.**

Upper Nepal: *F. Buchanan* (**type** of *Stelis racemosa*); Nepal: *Wallich Cat. no. 7373* (**type** of *Sunipia scariosa*, **K**).

Hort. Trinity College, Bot. Gard., Dublin, June 1908, originally from Siam, mountains around Chengmai, *Kerr* (**type** of *Ione siamensis*, **K**).

Laos: Chiengkwang, Muang Cha, c. 1500 m., on tree on rocky limestone hill, in flower April 16, 1932, *A. F. G. Kerr no. 979* (**type** of *Ione scariosa* var. *magnibracteata*, **K**).

Yunnan: Lat. 25° 50' N., Long. 98° 48' E., alt. 8000 ft., June 1925, *G. Forrest no. 36732* (**K**); on trees and rocks in the Shweli Valley, Lat. 25° N., alt. 5000 ft., June 1912, *G. Forrest no. 8305*, sterile (**K**).

The type of *Stelis racemosa* J. E. Sm., as stated in the original literature¹, was from Upper Nepal and collected by Francis Buchanan, later Lord Hamilton. In Kew Herbarium there is a specimen, in J. E. Smith's private collection, noted as "Nepal, 1818, Wallich," but without the specific name. As Wallich's Herbarium in the East India Company, now kept at Kew includes the very Buchanan's collection,² thus, it might be a mistake in the name of the collector when Wallich communicated the specimen to J. E. Smith. However, having compared all the type specimens and checked them with the original description, we considered that they are conspecific, hence the new combination.

The genus is monotypic.

Distrib. : also Assam, Khasia, Upper and Lower Burma.

Cymbidium ensifolium (L.) Sw. var. **Munronianum** (King et Pantl.) Tang et Wang, **comb. nov.**

Cymbidium Munronianum King et Pantl. in Journ. As. Soc. Beng. **64**: 338 (1896).

Sikkim: Duars, 1896, *R. Pantling no. 256* (**cotype**, **K**); western Duars, 1896, *H. Haines no. 595* (**K**).

Kwangtung: Canton, fls. dark reddish-brown, lip green with redish blotches, *C. F. P. Metcalf* (**L**); Hongkong: collected in wild state and cultivated, *Dr. Herklots* (**K**).

The variety differs from the type in the comparatively broader leaves, being 17-26 mm. broad. The leaves in the type species are 10-13 mm. broad.

1) Rees, Cyclop. **34**: no. 10 (1819).

2) Kew Bull. **1913**: 256.

Thrixspermum Fleuryi (Gagnep.) Tang et Wang, **comb. nov.**

Thylacis Fleuryi Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 600 (1932).

Tonkin: prov. de Phu-tho, reserve forestiere de Chen-mong, *Fleury no.* 32129 (**type, CH**); Yen-bay, C. sur les Goyaviers, *Rives (type, P)*.

It differs from its associates, *T. Histrix* (Bl.) Rchb. f., *T. formosanum* (Hayata) Schltr. and *T. Poilanei* (Gagnep.) Tang et Wang, in its terete leaves and longer (7-9 mm. long) sepals. It is acaulescent. The lip is semirotundate and the spur is oblong.

Thrixspermum Poilanei (Gagnep.) Tang et Wang, **comb. nov.**

Thylacis Poilanei Gagnep. in Bull. Mus. Hist. Nat. Paris ser. 2. **4**: 600 (1932).

Annam: Lao-bao, prov. Quang-tri, *Poilane no.* 1345 (**type, P**).

The plant is nearly acaulescent, and the leaves are entire at apex. In these respects the present species is similar to *T. formosanum* (Hayata) Schltr., from which it is distinguished by the much longer sepals being about 6 mm. long in contrast with the sepals in *T. formosanum* being about 2 mm. long. It is further characterized by the reniform ciliate subtrilobed lip 4×8 mm. with one lamella transversely oblong in shape and by the subglobose sac pubescent on the anterior side inside.

Thrixspermum sutepense (Rolfe) Tang et Wang, **comb. nov.**

Sarcochilus sutepensis Rolfe ex Downie in Kew Bull. **1925**: 386.

Siam: Doi Sutep, Chiangmai, 5000-5500 ft., June 4, 1909, *A. F. G. Kerr no.* 183 (**type, K**).

It appears very approximate to *T. japonicum* (Miq.) Rchb. f., from which it is distinguished by the lamellate lip with triangular, obtuse lateral lobes and the much larger leaves (15×2.2 cm).

Sarcochilus difformis (Wall.) Tang et Wang, **comb. nov.**

Aerides difforme Wall. ex Ldl., Gen. & Sp. Orchid. 242 (1833).

Ornithochilus fuscus Wall., Ic.; Hook. f., Fl. Brit. Ind. **6**: 76 (1890).

Aerides Hystrix Ldl. in Journ. Linn. Soc. Bot. **3**: 42 (1858), nec Ldl., Gen. & Sp. Orchid. 242 (1833).

Ornithochilus eublepharon Hce. in Journ. Bot. **22** (n.s. **13**): 364 (1884); Schltr. in Fedde, Repert. Beih. **4**: 278 (1919).

Ornithochilus Delavayi Finet in Bull. Soc. Bot. Fr. **43**: 496, t. XI (1896); Schltr. in Fedde, Repert. Beih. **4**: 278 (1919), **syn. nov.**

Ornithochilus difformis Schltr. in Fedde, Repert. Beih. **4**: 277 (1919).

Vanda doritoides Guillaum. in Bull. Soc. Bot. Fr. **77**: 334 (1930), **syn. nov.**

Nepal: Wallich (**type** of *Aerides difforme*, a coloured drawing preserved in Kew Herb., no plant specimen existed).

Sikkim: 4000-5000 ft., *J. D. Hooker no.* 204 (**type** of *Aerides Hystrix, K*).

Kwangtung: Chen-cheng Hsien Lo-fau-shan, Aug. 1883, *C. Ford, Herb. propr. no.* 22249 (**type** of *Ornithochilus eublepharon, B*); same locality, *C. Ford no.* 92. Hort, Hongk. Bot. Gard. (**cotype** of *Ornithochilus eublepharon, K*); same locality *N. K. Chun no.* 41099 (**S**).

Indochine: Annam, Nha trang, *Poilane* no. 4237 (**type** of *Vanda doritoides*, **P**).

Yunnan: Szemao, *A. Henry* nos. 11812, fr., 12199, 12199A, (**K**).

Distrib: also Kumaon, Burma, Siam.

It can be distinguished from others by the hastate-rotundate, lacinate lip, 4.5 mm. long including the short claw above the spur and 6 mm. broad including the lacinate fringes.

Stauroopsis alpina (Ldl.) Tang et Wang, **comb. nov.**

Lusia alpina Ldl. in Bot. Reg. **24**: misc. 101: 56 (1838).

Vanda Griffithii Ldl. in Paxt., Fl. Gard. **2**: sub t. 42: 22 (1851-2), *exclud.* Griffith's citation; Fol. Orchid. **10**: sp. no. 24 (1853).

Vanda alpina Ldl., Fol. Orchid. **10**: sp. no. 25 (1853); Hook. f., Fl. Brit. Ind. **6**: 53 (1890).

Assam: Khasia Hills, Nungklow, *Gibson* (**type** of *Lusia alpina*, **K**); same locality alt. 5-6000 ft., *J. D. Hooker & T. Thomson* no. 174 (**K**).

Bhootan: no precise locality, *Griffith* (**K**).

Distrib.: Nepal, Sikkim, Shillong, Kumaon.

It comes nearer to *S. undulata* (Ldl.) Benth. ex Hook. f. and *S. polyantha* W. W. Smith from them it can be distinguished by the lower stature, being 5-15 cm. high, the closely imbricate leaves, and the inflorescence being lower than leaves, bearing 1-3 flowers.

Stauroopsis Championi (Ldl.) Tang et Wang, **comb. nov.**

Cottonia Championi Ldl. in Hook., Journ. Bot. **7**: 35 (1855); in Journ. Linn. Soc. Bot. **3**: 39 (1858); Benth., Fl. Hongk. 357 (1861).

Lusia bicaudata Thw., Enum. Pl. Zeyl. 302 (1861).

Vanda bicaudata Thw., Enum. Pl. Zeyl. 429 (1864).

Diploprora Championi Hook. f., Fl. Brit. Ind. **6**: 26 (1890).

Diploprora uraiensis Hayata, Ic. Pl. Formos. **4**: 87, fig. 43 (1914), **syn. nov.**

Diploprora bicaudata Schltr. in Fedde, Repert. Beih. **4**: 281 (1919).

Hongkong: *Champion* no. 277 (**type** of *Cottonia Championi*, **K**); Mount Kellett, 4 Apr., 1935, *M. M. Whiting & K. J. Stewart* no. 296 (**K**); no precise locality, *C. L. Tso* no. 21695 (**S**).

Zeylon: Ambagamowa and Saffragam Districts, *Thwaites* C. P. 3494 (**cotype** of *Lusia bicaudata*, **K**).

Formosa: Bankinseng Mountains, *A. Henry* no. 898 (**K**); Rahao, Urai, north mountain valley, May 1912, *W. R. Price* no. 424 (**K**).

Yunnan: Puteng, alt. 3000 ft., on trees, *A. Henry* no. 13610 (**K**).

Kwangsi: exact locality unavailable, *C. Wang* no. 39138.

Hainan: exact locality unavailable, *S. K. Lau* no. 21695 (**S**).

Distrib.: also Sikkim, Khasia, Lower Burma (Moulmein), Siam (Doi Sutep).

Closely related to *S. kusukusensis* (Hayata) Tang et Wang, differing from the latter in the cauriculate sac.

Stauroopsis kusukusensis (Hayata) Tang et Wang, **comb. nov.**

Diploprora kusukusensis Hayata, Ic. Pl. Formos. **4**: 86, fig. 42 (1914).

Originally from Formosa, South Cape, Kuraru, on coral rocks, May 1912, *W. R. Price*, Hort. *W. R. Price*, Chepstow, March 1914 (**K**).

Price's specimen was seen at Kew Herbarium, but we did not see the type of *Diploprora kusukusensis* there. Examining Hayata's figure we were unable to distinguish *S. Championi* (Ldl.) Tang et Wang from the present species. Hayata considered the distinctive character of *D. kusukusensis* as in the longer subulate lobes of the lip in comparison with *S. Championi*. This seems to us unreliable. If Price's specimen did represent the very species of Hayata's *D. kusukusensis*, it is distinct, differing from its nearest relative, *S. Championi* in the auricled sac; the auricles are triangular and acute at apex.

Stauropsis truncata (Rolfe) Tang et Wang, **comb. nov.**

Diploprora truncata Rolfe ex Downie in Kew Bull. **1925**: 385.

Siam: Doi Sutep, alt. 5500 ft., Feb. 25, 1911, *A. F. G. Kerr no. 270* (**type, K**).

The species is characterized by the much lower stature with stem 10 cm. high, the inconspicuously bilobed tips of the leaves, the much shorter inflorescence (10 cm. long), bearing some 12 flowers, the much shorter lip (8 mm. long, including the concave part about 3 mm. long) at the apex possessing a triangular flat appendage, truncate in front, and the spathulate sepals and petals.

Micropera cochinchinensis (Rchb. f.) Tang et Wang, **comb. nov.**

Camarotis cochinchinensis Rchb. f. in Gard. Chron. **6**: 740 (1876).

Sarcanthus Poilanei Guillaum. in Bull. Soc. Bot. Fr. **7**: 330 (1930), **syn. nov.**

Imported from Indochina by Sir *Trever Lawrence* (**type** of *C. cochinchinensis*, not seen).

Annam: province de Quang tri, massif de Dong Che, *Poilane no. 10561* (**type** of *S. Poilanei*, **P**).

Burma: Eastern Tenasserim, c. 50 m., May 29, 1932, *A. F. G. Kerr no. 1000* (**K**).

Siam: Kumpeng Pet, alt. 350 feet, May 25, 1919, *A. F. G. Kerr no. 308* (**K**).

The type of *Camarotis cochinchinensis* Rchb. f. does not exist in Botanische Abteilung des Naturhistorischen Museums, Wien. The species differs from *M. obtusa* and *M. Mannii* in the semi-rotundate auricles attaching to the claw of the lip, while in the latter two species the auricles are of triangular in shape, situated at the mouth of the spur

Micropera Mannii (Hook. f.) Tang et Wang, **comb. nov.**

Sarcochilus Mannii Hook. f., Fl. Brit. Ind. **6**: 36 (1890).

Khasia Hills, alt. 2000-3000 feet, June 1878, *Cunster Mann no. 11/80* (**type, K**).

The species is in close relation to *M. obtusa* (Ldl.) Tang et Wang, differs from the latter in the very slightly septate spur. In the latter species the spur is highly septate.

Micropera obtusa (Ldl.) Tang et Wang, **comb. nov.**

Comarotis obtusa Ldl. in Bot. Reg. new ser. **7**: Misc. 71: 73 (1844).

Sarcochilus obtusus Benth. ex Hook. f., Fl. Brit. Ind. **6**: 36 (1890).

Native of India, given by Mr. Bateman to Messrs. Loddiges (**type** of *Camarotis obtusa*, not seen).

Lower Burma: Tenasserim; Moulmein, *Griffith, Parish* (**K**).

Distrib.: also Sikkim.

No type specimen now exists in the Kew Herbarium. However, we have examined two gatherings by *Griffith* and *Parish* from Tenasserim and Moulmein; they entirely match Lindley's *Camarotis obtusa*.

Micropera secunda (Rolfe) Tang et Wang, **comb. nov.**

Cleisostoma secundum Rolfe in Kew Bull. **1907**: 131.

Burma: Introduced by Messrs. Hugh Low & Co., Enfield, with whom it flowered in May 1890; it was also subsequently sent from the Royal Botanic Garden, Glasnevin, by Mr. *F. W. Moore*, A. L. S. (**type, K**).

The species is distinguished from all others, so far we have examined, by the inconspicuous claw of the lip, by the presence of the posterior callus inside the spur but without the anterior one, and by the non-septate spur.

Biermannia decumbens (Griff.) Tang et Wang apud Merr. et Metc. in Lingn. Sc. Journ. **21**: 7 (1945).

Aerides decumbens Griff., Notul. **3**: 365 (1851); Ic. Pl. As. **3**: t. 320, fig. 1 (1851); Ldl. in Journ. Linn. Soc. Bot. **3**: 42 (1859).

Phalaenopsis Wightii Rchb. f. in Hugo von Mohl und D. F. L. von Schlechtendal, Bot. Zeit. **20**: 214 (1862).

Aerides latifolium Thw., Enum. Pl. Zeyl. 429 (1864).

Dortis Wightii Benth. in Gen. Pl. **3**²: 574 (1883); Hook. f., Fl. Brit. Ind. **6**: 32 (1890).

Dortis latifolia Benth. in Gen. Pl. **3**²: 574 (1883); Schltr. in Fedde, Repert. Beih. **4**: 276 (1919).

Kingiella decumbens Rolfe, Orch. Rev. **25**: 197 (1917).

Upper Burma: in arboribus sylvis versus Magoung, April 1837, *Griffith* (**cotype** of *A. decumbens*, **K**).

Herb. R. *Wight Prop.* (**cotype** of *P. Wightii* **K**).

Ceylon: Saffragam District & Hinidoon Patto, at no great elevation, 1863, *Thwaites* *C. P.* 3495 (**cotype** of *A. latifolium*, **K**).

Hainan: July 1893, *C. Ford* no. 475 (**K**); *Tsang Wai-Tak* no. 264 (*Lingn. Univ. Herb. no. 15763*) (**L**); *Tsang Wai-Tak* no. 774, (*Lingn. Univ. Herb. no. 17523*) (**L**); *S. K. Lau* no. 431 (**S**); Ya Hsien, on rocks, flowers white, July 23, 1933, *C. Wang* no. 33300 (**S**); Ya Hsien, without detailed data, *C. Wang* no. 33370 (**S**); Ya Hsien epiphytic on trees, flower-segments with red streaks, July 9, 1933, *H. Y. Liang* no. 62037 (**S**); epiphytic on trees, flowers white, July 19, 1933, *H. Y. Liang* no. 62188 (**S**); Kan-an Hsien, epiphytic on trees, flowers white, with red lines along the margins, Oct. 31, 1933, *H. Y. Liang* no. 63954 (**S**); Ya Hsien, epiphytic on shrubs, flowers pink, July 9, 1933, *F. C. How* no. 71013 (**S**).

In contrast with *B. taenialis*, the present species can be distinguished by the flowers blooming with leaves, the elliptical mid-lobe of the lip with bilobed tip, the shallower

sac 4 mm. across and the posterior callus being entire at apex and situated at the mouth of the sac.

Biermannia taenialis (Ldl.) Tang et Wang, **comb. nov.**

Aerides taeniale Ldl., Gen. & Sp. Orchid. 239 (1833).

Aerides carnosum Griff., Notul. 3: 365 (1851); Ic. Pl. As. 1: 338A (1851).

Dortis taenialis Benth., Gen. Pl. 3: 574 (1883); Hook. f., Fl. Brit. Ind. 6: 31 (1890); King et Pantl. in Ann. Roy. Bot. Gard. Calcutt. 8: 199, t. 266 (1898).

Dortis Braceana Hook. f., Fl. Brit. Ind. 6: 196 (1890), **syn. nov.**

Kingiella taenialis Rolfe, Orch. Rev. 25: 197 (1917).

Napalia, 1821, Wallich (**type** of *Aerides taeniale*, **K**).

Yunnan: without precise locality, *G. Forrest nos. 15794, 17543, 17977, 18544* (**K**).

Distrib.: Bootan, Kumaon, Sikkim, Khasia, Assam, Burma.

It can be compared with *B. decumbens* (Griff.) Tang et Wang from which it is distinguished by the precocious flowers, the non-lobed, spatulate mid-lobe of lip, the longer sac being about 9 mm. long, and the posterior callus on the mouth of the spur being free at the apex.

Arachnis cannaeformis (Guillaum.) Tang et Wang, **comb. nov.**

Stauropsis cannaeformis Guillaum. in Bull. Soc. Bot. Fr. 77: 326 (1930).

Cochinchine: Ben than, parmi les raseaux des marais, *Regnier* (**type**, **P**).

It seems nearer to *A. Evrardii*, but differs from the latter in the much shorter leaves, the much smaller raceme being 9-20 cm. long, the emaculate sepals and petals and the non-lobed and not appendaged epichilum.

Arachnis siamensis (Schltr.) Tang et Wang, **comb. nov.**

Armodorium siamense Schltr. in Orchis 6: 67, t. 13, fig. 9-18 (1912).

Arachnanthe Moorei Rolfe, nom. nud. in Herb. Kew.

Siam: Von Herrn Dr. C. Hosseus im Jahre 1904 aus Siam importiert (**type** of *Arm. siamense*, **BD**); Doi Sutep, Chiangmai, alt. 5000-5500 feet, June 6, 1909, *Kerr no. 99* (**type** of *Arachn. Moorei*, **K**).

It can be distinguished from *A. labrosa* (Ldl.) Rchb. f., its nearer associate, by the broad-ovate mid-lobe (4 mm. \times 3.5 mm.) of the lip with rounded apex and the oblong, round-tipped lateral lobes (or auricles), 3.5 mm. \times 1 mm.

Arachnis Evrardii (Guillaum.) Tang et Wang, **comb. nov.**

Renanthera Evrardii Guillaum. in Bull. Soc. Bot. Fr. 77: 336 (1930).

Annam: Dalat, 24 mai 1924, *Evrard no. 907* (**type**, **P**).

This species is closely related to *A. Flos-aeris* (Sw.) Rchb. f., from which it differs in the narrowly lorate leaves and the detailed floral structure.

Saccolabium bambusarum (King et Pantl.) Tang et Wang, **comb. nov.**

Sarcanthus bambusarum King et Pantl. in Journ. As. Soc. Beng. 65: 123 (1896).

Sikkim: Rumpta Lake, at Sembree, alt. 1500 feet, May 1894, *R. Pantling no. 211* (**cotype**, **K**).

From their cylindrical spurs gibbose on the anterior side, this species appears near to *S. fragrans* Par. et Rchb. f. but it can be easily distinguished from the latter by the auricled lip, the auricles being triangular and obtuse at apex, by the much gibbose spur, by the thick, semiterete leaves, 2-3 mm. in diam. and by the much higher stature, 6-13 cm. high.

Saccolabium pilosulum (Gagnep.) Tang et Wang, **comb. nov.**

Cleisostoma pilosulum Gagnep. in Bull. Soc. Bot. Fr. **79**: 35 (1932).

Cambodge: Kompong-speu, vers Sra-nam-chrom, *Poilane no. 17742* (**type, P**).

Species closely related to *S. lanatum* (Ldl.) Hook. f., differing only in the truncate and sub-bilobed lip. It may be an anomaly, but the lip, so far as the five flowers were dissected, shows nothing as an anomalous form. In the case of *S. lanatum* the lip possesses two nearly subulate lobes. The type specimen apparently at juvenile stage consists of a single plant with flowers all in buds.

Saccolabium taiwanianum (Hayata) Tang et Wang, **comb. nov.**

Sarcanthus taiwanianus Hayata (Mat. Fl. Formos.) in Journ. Coll. Sc. Tokyo **30**: 337 (1911); Schltr. in Fedde, Repert. Beih. **4**: 294 (1919).

Cleisostoma taiwaniana Hayata, Ic. Pl. Formos. **4**: 98, fig. 51 (1914).

Formosa, 1899, *T. Uchiyama* (**cotype** of *S. taiwanianus*, **K**).

It is allied to *S. Helferii* Hook. f. in the presence of lamellae on the lip, but they are widely remote from each other. In *S. taiwanianum* the lip is broader than long (2.5 × 4 mm.) with one smaller lamella at the mouth of the spur, its spur being 4 × 2 mm. with one tooth on each side, and the plant being much higher. In *S. Helferii* the lip is as long as broad (1.5 × 1.5 mm.); the spur being 2 × 1.5 mm. without teeth, and the plant being about 14 cm. high.

Saccolabium yunpeense Tang et Wang, **nom. nov.**

Aerides flavescens Schltr. in Fedde, Repert. **19**: 382 (1924).

Yunnan: Yunpe, Juni 1920, Rev. Pere Tschang no. 23, *Herb. S. Ten* (**type** of *Aerides flavescens*, **BD**); Meou-ko-chan Region de Pin-tchouan, plante cueillie par Jean-Py, croit sur arbres, 1er mai 1911, *F. Ducloux no. 7170* (**P**).

There is a previous homonym for a plant from Siamese Peninsula described by Ridley, hence the new name is proposed.

It is characterized by its caulescent habit, the raceme being shorter than the semiterete or triqueter leaves and the flat, ecarinate, ovate lip being subtruncate at the apex.

Sarcanthus Eberhardtii (Finet) Tang et Wang, **comb. nov.**

Saccolabium Eberhardtii Finet in Lecomte, Not. Syst. **1**: 158 (1910).

Annam: plateau du Lang-bian, *Eberhardt no. 201* (**type, P**).

It is characterized by the absence of septum in the spur, the posterior callus being bi-lobed at base, 1.25 mm. long, the triangular non-falcate lateral lobes of the lip, the spur being 4.5 mm. long, slightly bending backward and the leaves being slightly bending backward, 5-9 cm. long, 1.5 mm. broad.

In respect of the absence of septum in the spur, it seems better to retain it in *Saccolabium* but the terete leaves and the shape of the lip indicate a typical *Sarcanthus*.

***Sarcanthus hirtus* (Ldl.) Tang et Wang, comb. nov.**

Stereochilus hirtus Ldl. in Journ. Linn. Soc. Bot. **3**: 38 (1859).

Sarcanthus erinaceus Rchb. f. in Hugo von Mohl und D. F. L. von Schlechtendal, Bot. Zeit. **22**: (1864); J. Bateman in Bot. Mag. **93**: t. 5630 (1867).

Sarcophilus hirtus Benth. ex. Hook. f., Fl. Brit. Ind. **6**: 35 (1890).

Khasia Mountains, alt. 5000 feet, *J. D. Hooker & T. Thomson no. 177* (type of *Stereochilus hirtus*, **K**).

Aus Moulmeyne von Herrn Low eingeführt, 1864 (type of *Sarcanthus erinaceus*, **W**); und von Herrn Bullen cultivirt (type of *Sarcanthus erinaceus*, not existed); a flowering drawing, *Parish no. 149* (type of *Sarcanthus erinaceus*, **W**); Messrs. Hugh Low & Co., Clapton Nursery, London, N. E., Nov. 1890 (type of *Sarcanthus erinaceus* Rchb. f. in Bot. Mag. **93**: t. 5630. 1867).

The species appears rather close to *S. crassifolius* Rolfe on account of the similarity of their very thick leaves obtuse at apex, but unlike other species in possessing bilobed-tipped leaves. The inflorescence in *S. hirtus* bears several flowers and is hirsute; the leaves are 3-10 cm. long; the ovary is hirsute; the lateral lobes of lip are not falcate with 1-2 teeth along the outer margin. In *S. crassifolius* the glabrous inflorescence bears 3 flowers; leaves 3-4 cm. long; the lateral lobes of the lip are falcate and entire.

Of the types of *Sarcanthus erinaceus* Rchb. f., the one sent from Mr. Bullen does not exist at Wien. Of *Parish no. 149* we have seen but a drawing at Wien. Kew probably possesses the type specimen but we overlooked.

***Sarcanthus khasiaensis* Tang et Wang, nom. nov.**

Cleisostoma bicuspidatum Hook. f., Fl. Brit. Ind. **6**: 75 (1890).

Stereochilus bicuspidatus King et Pantl. in Ann. Roy. Bot. Gard. Calcutta **8**: 236, t. 314 (1898).

Khasia Hills, alt. 2-3000 feet, July 1883, *Mann 34/1884* (type of *C. bicuspidatum*, **K**).

Sikkim: tropical valley, Aug. 1896, *R. Pantling no. 178* (**K**).

Hooker cited specimens collected by *Mann and Anderson* and a drawing based upon *Parish's* specimen from Tenasserim. We have seen only Mann's specimens, the others are now probably preserved in the Herbarium of the Royal Botanic Garden, Calcutta, which were unavailable to be seen.

The new name is proposed owing to a previous homonym given by Rolfe to a Siamese plant which is entirely different from this species.

It can be distinguished from *S. Smithianus* Kerr by the normal rostellum, not so large as the latter species and by the very low septum of the spur.

***Pomatocalpa armigerum* (King et Pantl.) Tang et Wang, comb. nov.**

Cleisostoma armigerum King et Pantl. in Journ. As. Soc. Beng. **65**: 123 (1896); in Ann. Royl Bot. Gard. Calcut. **8**: 231, t. 308 (1898).

Sikkim: *Pantling no. 252* (**K**).

The type of *C. armigerum* was not seen in the Kew Herbarium. *Pantling no. 252* which was referred to *C. armigerum* in *Ann. Roy. Bot. Gard. Calcutta* **8**: 231, t. 308 by King and Pantling now exists in the Kew Herbarium; it is undoubtedly an authentic specimen of the concerned species.

It is similar to *P. latifolium*, *P. Poilanei*, *P. undulatum*, and *P. Wendlandorum* in the cylindrical spurs, but distinguished readily from those species by its semiterete and acute-terminate leaves. The leaves of its associates are flat and bilobed at the apex.

Pomatocalpa densiflorum (Ldl.) Tang et Wang, **comb. nov.**

Saccolabium densiflorum Ldl. in *Wall. Cat. no. 7311* (1832); *Gen. & Sp. Orchid.* 220 (1833).

Sarcanthus densiflorus Par. et Rchb. f. in *Trans. Linn. Soc.* **30**: 136 (1874).

Cleisostoma spicatum Ldl. in *Bot. Reg. new ser.* **10**: sub t. 32 (1847); *J. D. Hook., Fl. Brit. Ind.* **6**: 72 (1890).

Cleisostoma robustum Guillaum. in *Bull. Soc. Bot. Fr.* **77**: 332 (1930), **syn. nov.**

Saccolabium acutilabrum Gagnep. in *Bull. Soc. Bot. Fr.* **79**: 36 (1932), **syn. nov.**

Silhet and Penang: *Wallich Cat. no. 7311* (**type of *S. densiflorum*, K**).

Borneo: *Hort. Messrs. Rollinsons* (**type of *C. spicatum*, K**).

Annam: Do-luong, prov. Vinh, *Poilane no. 16747* (**type of *S. acutilabrum*, P**)

Cambodge: Samrong tong, *Pierre* in fruit (**type of *C. robustum*, P**); Cochinchine: Provinces de l'Est, *Regnier no. 222* (**type of *C. robustum*, P**); Paulo Condor, *Hammand* (**type of *C. robustum*, P**).

Hainan: Ling-shu Hsien 1700 m., epiphytic on a dead tree, flowers yellow, each segment with 2 red lines, Aug. 24, 1932, *C. L. Tso & N. K. Chun no. 43657* (S); Kan-an Hsien, epiphytic on trees, flowers pink, Nov. 6, 1933, *H. Y. Liang no. 63651* (S); epiphytic on trees, in wood by stream-side, Jan. 16, 1934, *H. Y. Liang no. 64724*, in fruit (S); Ya Hsien, epiphytic on shrubs in forest, flowers red, slightly yellow, July 9, 1933, *F. C. How no. 71014* (S); no detailed data, *F. C. How no. 71731* (S); Poting Hsien Aug. 14, 1935, *F. C. How no. 37459* (S); no precise locality, no detailed data, *C. Wang no. 34401* (S); *Herb. Lingn. Univ. no. 15888* (L).

Pomatocalpa latifolium (Ldl.) J. J. Smith var. **siamense** (Rolfe) Tang et Wang, **comb. nov.**

Cleisostoma siamense Rolfe ex Downie in *Kew Bull.* **1925**: 406.

Siam: near Lam-pang, Me Tan, alt. 1200 feet, May 8, 1912, *A. F. G. Kerr no. 301* (**type, K**).

The variety differs from the type species only in its narrower leaves being 2-2.5 cm. broad, while those in the type are 3.5-4 cm. broad.

Pomatocalpa luchuense (Rolfe) Tang et Wang, **comb. nov.**

Stauroopsis luchuensis Rolfe in *Kew Bull.* **1907**: 131.

Vandopsis luchuensis Schltr. in *Fedde, Repert.* **10**: 196 (1911); in *Fedde, Repert. Beih.* **4**: 284 (1919).

Said to be growing in the Archipelago Loochoo, cultivated in green houses, Tokyo for a long time, presented by Prof. J. Matsumura, Nov. 1, 1906 (**type** of *Stauroopsis iuchensis*, **K**).

Formosa: Botanic Garden, Taihoku, April 1, 1912, *W. R. Price* no. 348 (**K**); epiphyte on rock cliff, by river side, near Togun, *W. R. Price* no. 270 (**K**); Rahao-Urai, North Mountain Valley, May 3, 1912, *W. R. Price* no. 423 (**K**).

It is allied to *P. densiflorum* (Ldl.) Tang et Wang in the similarity of their lips being keeled above, but it can be readily distinguished from the latter species by the semi-circular-deltoid and acute-terminate floral bracts, by the much larger flowers with sepals 15 mm. long, and by the single lamella of the lip being 4.5 mm. long, pubescent and sub-obtuse at the apex. In *P. densiflorum* the floral bracts are ovate-lanceolate, acute at the apex, often reflexed, the flowers much smaller with sepals about 3.5 mm. long and the lamellae 2 in number, glabrous, triangular, callus-like, less than 0.5 mm. long.

Pomatocalpa Poilanei (Gagnep.) Tang et Wang, **comb. nov.**

Cleisostoma Poilanei Gagnep. in Bull. Soc. Bot. Fr. **79**: 34 (1930).

Cambodge: entre Pum-lovea et Pum-rong, prov. Kompong-speu, 11. 6. 1930, *Poilane* no. 17535 (**type**, **P**).

It is closely related to *P. latifolium* (Ldl.) J. J. Smith in the inflorescence being higher than leaves and the flat bilobed leaves, but differs greatly from the latter species in the bilobed-terminate lamella of the lip, the lobules of the lamella being erosed-denticulate. In *P. latifolium* the lamella is truncate at the apex. The lip of *P. Poilanei* is reniform in shape with rounded apex, 2 mm. by 3 mm. The spur is cylindrical, gibbose at the apex, 3.5 mm. long and pubescent.

Pomatocalpa ramosum (Ldl.) Tang et Wang, **comb. nov.**

Saccolabium ramosum Ldl., Gen. & Sp. Orchid. 224 (1833).

Oeceoclades flexuosa Ldl. in Wall. Cat. no. 733 (1832); Gen. & Sp. Orchid. 236 (1833).

Saccolabium flexuosum Ldl. in Journ. Linn. Soc. Bot. **3**: 36 (1859).

Cleisostoma ramosum Hook. f., Fl. Brit. Ind. **6**: 72 (1890).

India Orientali: *Wallich Cat.* no. 7733 (**type** of *Oec. flexuosa*, **K**).

As Lindley noted in his Genera and Species of Orchidaceous Plants, p. 224, *Saccolabium ramosum* was based upon Wall. Ic. no. 654, but the drawing does not exist in the Kew Herbarium.

It can be distinguished from *P. loratum* (Rolfe) J. J. Smith by the auriculate lip being not lobed nor clawed, and from *P. armigerum* (King et Pantl.) Tang et Wang, *P. latifolium* (Ldl.) J. J. Smith, *P. Poilanei* (Gagnep.) Tang et Wang, *P. undulatum* (Ldl.) Tang et Wang and *P. Wendlandorum* (Rchb. f.) J. J. Smith by the conical spur, in these latter species the spur is cylindrical.

Pomatocalpa undulatum (Ldl.) Tang et Wang, **comb. nov.**

Saccolabium undulatum Ldl. in Wall. Cat. no. 7301 (1832); Gen. & Sp. Orchid. 222 (1833).

Cleisostoma undulatum Rchb. f. in Flora **1872**: 274; Hook. f., Fl. Brit. Ind. **6**: 74 (1890).

Silhet: Wallich Cat. no. 3701 (**type of S. undulatum, K**); Chittagong, hill tracts, Gamble (**K**).

In point of the nearly scapeless habit and the inflorescence being lower than the leaves, it appears to be a near relative to *P. Wendlandorum* (Rchb. f.) J. J. Smith, but they are obviously different from each other. In *P. undulatum* the inflorescence including the peduncle is 2 cm. long; the lip is triangular-reniform, 2×2.5 mm. with bilobed lamella, while in *P. Wendlandorum*, the inflorescence is 5-9 cm. long; the lip is also triangular-reniform but a little smaller, being 1.5 mm. long and 1.5 mm. broad, with lamella being truncate and 3-4-dentate at the apex.

Pelatantheria bicuspidata (Rolfe) Tang et Wang, **comb. nov.**

Sarcanthus bicuspidatus Rolfe ex Downie in Kew Bull. **1925**: 391.

Siam: Chiengmai, Me Sur, alt. 1000 feet, August 8, 1912, sepals green with 5 brown lines, petals white with faint mauve tint, lip yellow, column white, *A. F. G. Kerr no. 151* (**type, K**).

It is more related to *P. Ctenoglossum* Ridl. in respect of their folded leaves, but differs from the latter in the different shape of callus. In *P. Ctenoglossum* the callus, situated at the posterior side of the lip, is much contracted at the apex, the contracted part being linear, about 0.5 mm. broad. In *P. bicuspidata* the callus is a little contracted at the apex, square in shape and 1 mm. broad.

Pelatantheria Rivesii (Guillaum.) Tang et Wang, **comb. nov.**

Sarcanthus Rivesii Guillaum. in Bull. Soc. Bot. Fr. **77**: 330 (1930), excl. specim. Pierre.

Sarcanthus tonkinensis Guillaum. l. c., 331, **syn. nov.**

Indo-chine: Chomoi, *Rives* (**type of S. Rivesii, P**); Tonkin, *Bon nos. 3333*, in fr., 3903, in fl. (**types of S. tonkinensis, P**); Tankeuin, *Balansa nos. 315*, in fr., 2014 in fl. (**types of S. tonkinensis, P**).

Yunnan: Talang, alt. 5000 feet, on pine trees, flowers yellowish, *A. Henry no. 13406* (**K**).

A species closely related to *P. insectifera* (Rchb. f.) Ridl., differing in the lip with oblong posterior callus, 1×0.5 mm., beaked at the apex.

Trichoglottis bipunctata (Par. et Rchb. f.) Tang et Wang, **comb. nov.**

Saccolabium bipunctatum Par. et Rchb. f. in Trans. Linn. Soc. **30**: 145 (1874).

Cleisostoma bipunctatum Hook. f., Fl. Brit. Ind. **6**: 73 (1890).

Trichoglottis acutifolia Ridl. in Journ. Fed. Malay States Mus. **10**: 118 (1920), **syn. nov.**

Lower Burma: Moulmein, *Parish no. 28* (**type of Saccolabium bipunctatum, K**).

Siamese Peninsula: Klong Bagatae, *C. B. Kloss no. 6561* (**type of Trichoglottis acutifolia, K**).

It differs from *T. tenuicaulis* (King et Pantl.) J. J. Smith in the smaller leaves (7.5×1 cm., 8×1 cm.), smaller flowers with sepals 3.5×1 mm., destitute of 2 additional lobules at the base of the lip and the conical spur, 1.5 mm. long. In *T. tenuicaulis* the dimensions of the leaves are: 8.5×2.5 cm., 9.5×2 cm., 10×2 cm., 10.5×1.5 cm., the sepals are measured 7×3 mm.; the lip possesses 2 lobules below the lateral lobes; the spur is cylindrical, 5 mm. long.