New taxa on Korean flora (6)

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Nine new Korean plant taxa, six species and three formae were described. Corydalis wandoensis was found from Wando, Chollanamdo. This species shows well developing habit, long rhizome and lineary parted leaflet lobes than those of Corydalis turczaninovii Besser. Euphorbia ebracteolata Hayata for. magna from Soraksan has more robust habit than the type species. Impatiens kojeensis resembled to Impatiens hypophylla or Impatiens hypophylla var, koreana but it was very different since the former had divided lips and pinkish white flower. Viola woosanensis from Ullung Island was widely distributed at the slope of Sunginbong, Ullungdo. This taxon shows similar characters to Viola dissecta var. chaerophylloides or Viola selkirkii. Probably the new taxon, Viola woosanensis, was originated from the hybridization between the Viola dissecta var. chaerophylloides and Viola selkirkii from ancient time. White flowered Elsholtzia splendens for. albiflora was found from Nokodan, Mt. Chirisan. Aster magnus from Cheju Island shows decumbent stem and very large habit and flowers than those of the Aster rupicola. Aster magnus for. albiflorus was also found from the same locality. A wild bamboo species, Arundinaria munsuensis, from Munsukol, Chirisan, Chollanamdo resembled to Sasa borealis, but had only one spikelet at tip of culm and three stamens in a floret and also much slender culms than that of S. borealis. The new taxon, Habenaria chejuensis, is similar to Habenaria flagellifera but shows a significant middle lobe of flower lip, recurved and attached to pistil and the lateral lobes were not as flagelli form and also the plant not changed to black color when they are dried.

Key words; Six new species, three new formae

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The author found six new plant species; Corydalis wandoensis Y. Lee (Papaveraceae) at Wando, Impatiens kojeensis Y. Lee (Balsaminaceae) at Kojedo, Viola woosanensis Y. Lee & J. Kim (Violaceae) at Ullungdo, Aster magnus Y. Lee & C. Kim (Compositae) at Chejudo, Arundinaria munsuensis Y. Lee (Gramineae) at Chirisan and Habenaria chejuensis Y. Lee & K. Lee (Orchidaceae) at Chejudo. Three new forms, Euphorbia ebracteolata Hayata for. magna Y. Lee (Euphorbiaceae) at Soraksan, Elsholtzia splendens Nakai ex F. Maekawa for. albiflora Y. Lee (Labiatae) at Chirisan, and Aster magnus Y. Lee & C. Kim for. albiflorus Y. Lee & C. Kim (Compositae) at Chejudo, were described.

1. Corydalis wandoensis Y. Lee, sp. nov. (Fig. 1, Plate I, Plate II-1)

Herba perennis, 20-30cm longa, complures caules decumbentes de axilla folii axillaris squamiformis. Rhizomate lineari, uno aut tribus segmentis, 7-18cm longis. In fine rhizomatis tuber globosum, intrinsecus album, 2-3cm per medium. Folia unum aut duo e caule florali crescentia, biternata, brevibus petiolis et tribus rachibus longis. Petiolus circiter 1cm longus, rachis 2-3cm longa. Lamina folii glauca. Foliola 3 lobis, lobus lineariter 2-3 partitus. Lobus partitus 2-2.5cm longus, 2-4mm latus. In rhizomate complures caules florales. Inde a junctura rhizomatis et caulis crescunt lanceolata folia radicalia coloris albuli. Inflorescentia racemosa. Bractea dissecta, forma dentium. Flos purpureus, violaceus, bilabiatus, 2cm longus, calcar 7mm longum, pedunculus 1.5-1.7cm longus, petalum inferius 1.1cm longum, 0.5cm latum. Stamina 2, 8.5mm longa. Pistillum 1, stigma anomale capitatum, 1mm latum. Fructus lineares, juncti, torosi, 1.9cm longi, 2mm lati.

Typus est similis speciei, quae appellatur Corydalis turczaninovii Besser, sed est habitu bene evoluto, longo rhizomate, lobis foliorum lineariter partitis.

Hab.: Changtori, Wando, Chollanamdo, Korea

Leg.: Y. Lee, J. Kim and K. Oh s.n., April 27, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Wan-do-hyon-ho-saek (완도현호색)

Perennial herb, 20-30cm tall. Decumbent several stems from axil of axil squamiform leaf. Rhizome linear, one to three segments, 7-18cm long. Tuber

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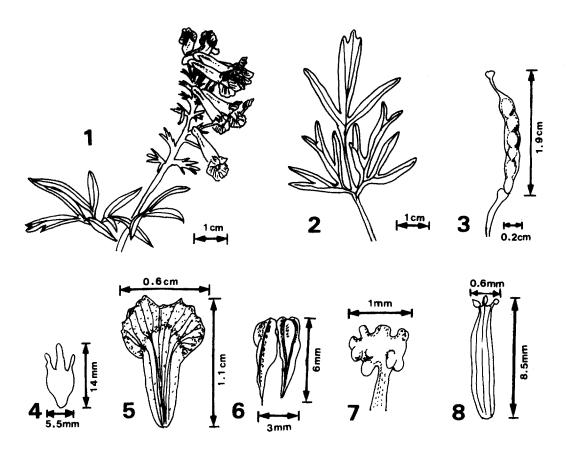


Fig. 1. Corydalis wandoensis Y. Lee
1. Flowers and leaves; 2. Leaf; 3. Fruit; 4. Bract; 5. Lower part of outer petal; 6. Inner petals; 7. Stigma; 8. Stamen

globose, white inside, 2-3cm across. Leaf one or two from floral stem, biternate, with short petiole and long 3 rachis. Petiole about 1 cm long, rachis 2-3cm long. Leaf blade glaucous. Leaflet 3 lobes, the lobe linearly 2-3 parted. Parted lobe 2-2.5cm long, 2-4mm wide. Inflorescence racemose. Bract toothly dissected. Flower purple or violet, bilabiate, 2cm long, spur 7mm long, peduncle 1.5-1.7cm long, lower petal 1.1cm long, 0.5cm wide. Stamen two, 8.5mm long. Pistil one, stigma irregularly head shape, 1mm wide. Fruits linear, torose, 1.9cm long, 2mm wide.

A type species is similar to *Corydalis turczaninovii* Besser, but has well developed habit, long rhizome, and lineary parted leaflet lobes.

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2. Euphorbia ebracteolata Hayata for. magna Y. Lee, for. nov. (Plate II-2)

Herba perennis. Caulis erectus, 70cm longus, 10-12mm per medium. Folia verticillata, in apice ramorum, disposita, glauca, elliptica, 10-12cm longa, 3.5-3. 6cm lata. Foliola involucri triangularia, 3-3.5cm longa, 3-3.5cm lata, ovarium viride, superficies laevis. Haec forma est valde affinis speciei, quae appellatur Euphorbia ebracteolata Hayata, sed ab ea differt caule et foliis maioribus.

Hab.: East side of Sorak-san, Kangwondo, Korea

Leg.: Y. Lee and S. Mun s.n., April, 11, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: So-rak-tae-keuk (설악대극)

Perennial herb. Stem erect 70cm tall, 10-12mm across. Leaves alternate, verticillate on tip of branch, glaucous, elliptical, 10-12cm long, 3.5-3.6cm wide. Involucral leaves triangular, 3-3.5cm long, 3-3.5cm wide, ovary green, smooth surface with three suture.

This form is closely related to *Euphorbia ebracteolata* Hayata but differs in stem and leaves much larger.

3. Impatiens kojeensis Y. Lee, sp. nov. (Fig. 2)

Herba annua, 30-60cm longa. Stipes decumbens, numerose ramificatus. Petiolus brevis 0.5-0.8cm longus. Lamina folii lata et lanceolata, circiter 5.5cm longa, 2cm lata, in utraque superficie folii iuvenilis recta cilia argentea, lamina folii adulti plerumque glabra. Margo folii dentata, apex dentatus marginis folii est punctum brunneolum. Bractea succulenta, basis circumdat pedunculum, 2mm longum, 1.4mm latum, apex acuminatus. Flores racemosi, colore albiroseo, pedunculi et axes glandulis glutinosis, flos florens dependet ex axilla folii. Petiolus 1.8cm longus. Calcar curvatum. Labium divisum in duas partes albas, quibus sunt rosei lobi nitidi. Fructus cylindrici, lineariter lanceolati, 5 carpellis, 1.8cm longi, 2mm lati.

Hoc taxon simile est taxis, quae appellantur *Impatiens hypophylla* Makino et *I. hypophylla* Makino var. *koreana* Nakai, sed labium floris est bipartitum, lobi sunt albirosei.

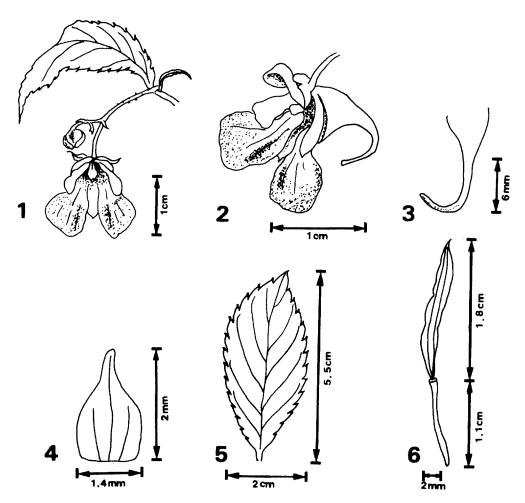


Fig. 2. Impatiens kojeensis Y. Lee

1, 2. Flower; 3. Spur; 4. Bract; 5. Leaf; 6. Fruit.

Hab.: West south side of Isl. Kojedo, Kyongsangnamdo, Korea

Leg.: Y. Lee, S. Cho and J. Kim s.n., Oct. 6, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Ko-je-mul-bong-sun (거제물봉선)

Annual herb. 30-60cm tall. Stem decumbent, numerously branched. Petiole short, 0.5-0.8cm long. Leaf blade broad lanceolate, about 5.5cm long, 2cm wide,

silvery straight cilia on both surfaces when young stage, adult leaf blade usually grabrous. Leaf margin dentate, the tooth apex of leaf margin brownish point. Bract succulent, the base surround peduncle, 2mm long, 1.4mm wide, acuminate apex. Flowers racemose, white with pink, peduncles and axises with sticky glands, when flower blooming, it pendulous from axil of leaf. Petiole 1. 8cm long. Spur curved. Lip divided in two white with bright pink lobes. Fruits cylindrical, linearly lanceolate, 5 carpels, 1.8cm long, 2mm across.

This taxon is similar to *Impatiens hypophylla* Makino and *I. hypophylla* Makino var. *koreana* Nakai, but the former has divided lips and pinkish white flower lips.

4. Viola woosanensis Y. Lee & J. Kim, sp. nov. (Fig. 3)

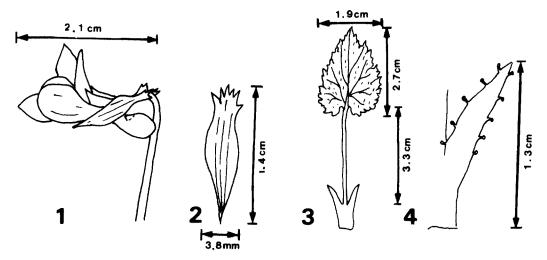


Fig. 3. Viola woosanensis Y. Lee & J. Kim 1. Flower; 2. Sepal; 3. Leaf; 4. Margin of stipule

Herba perennis. Stipula acuta, margine glandulari, 1-1.3cm longa. Petiolus 2.5 -2.8cm longus. Lamina triangularis, ovata, anomale dissecta et serrata, utraque superficies hispida, superficies superior atroviridis, superficies inferior purpurella, 3.6-6.4cm longa, 2.5-4.5cm lata. Scapus fusco-viridis, 3-7.5cm longus. Flosculi violacei, 2-2.2cm longi, stipula 1.5cm longa, 2-2.5mm lata, sepalum lanceolatum, parte basali dentata et apice acuminato, 1.4cm longum, 3.8mm latum. Hoc taxon in insula Ullung late distributum est. Versimiliter exortum est hybridatione specierum, quae sunt: Viola dissecta Ledeb. var. chaerophylloides

(Regel) Makino et V. selkirkii Pursh.

Hab.: Ul-lung-do, Korea

Leg.: Y. Lee and J. Kim s.n., April 10, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Woo-san-che-bi-kkot (우산제비꽃)

Perennial herb. Stipule acute and glandular margin, 1-1.3cm long. Petiole 2.5 -2.8cm long. Leaf blade triangular egg shaped, irregularly dissected and serrate, hispidus both surface, upper surface dark green, lower surface purplish, 3. 6-6.4cm long, 2.5-4.5cm wide, scape brown green, 3-7.5cm long. Flowers violet, 2-2.2cm long, stipule 1.5cm long, 2-2.5mm wide, sepal lanceolate, basal part dentate and acuminate apex, 1.4cm long, 3.8mm wide.

The taxon is widely distributed in Ullung Island, probably originated a long time ago from hybridization between *Viola dissecta* Ledeb. var. *chaerophylloides* (Regel) Makino and *V. selkirkii* Pursh.

5. Elsholtzia splendens Nakai ex F. Maekawa for. albiflora Y. Lee, for, nov.

Haec forma affinis est formae, quae appellatur Elsholtzia splendens Nakai, sed habet flores albos.

Hab.: Nokodan, Chirisan, Chullabukdo, Korea

Leg.: H. Chang s.n., Oct. 13, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Hin-kkot-hyang-yu (흰꽃향유)

This form is similar to Elscholtzia splendens Nakai, but it has white flowers.

6. Aster magnus Y. Lee & C. Kim, sp. nov. (Fig.4)

Herba perennis, 30-60cm longa, glabra. Caulis tenax, ramosus et rubeolus, caulis basalis 3-10mm per medium, rami superiores fiunt tenuiores. Folia crassa et glabra, alternata, folia radicalia spatuliformia, pars superior large

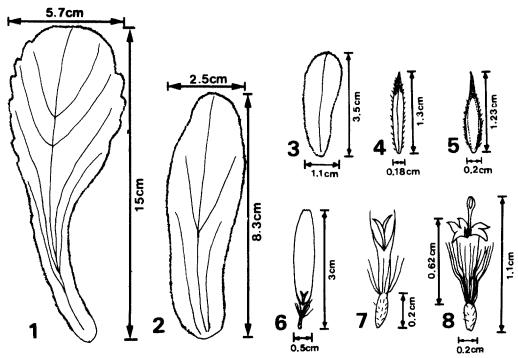


Fig. 4. Aster magnus Y. Lee & C. Kim

1. Radical leaf; 2. 3. Stem leaves; 4, 5. Involucre. 4. Lower bract; 5. Upper bract; 6, 7. Ligulate flower; 8. Disc flower.

dentata, pauci pili in margine, 15cm longa, 5.7cm per medium. Folia caulis lanceolata, folia partium superiorum fiunt minora, 3.2-8.3cm longa, 0.6-2.5cm lata. Inflorescentia capitalis composita e ligulatis floribus purpureo-caeruleis et discoideis floribus flavis, 5-7cm per medium. Involucrum compositum e 4-5 stratis bractearum, bracteae a basi ad stratum superius fiunt minores, apex linearis et punctatus, 1.2-1.3cm longus, 1.8-2mm latus, pauci pili in margine. Ligulati flores lanceolati, 3cm longi, 0.5cm lati, fuscis pilis pappi 4mm longis. Flores discoidei 1.1cm longi, 0.2cm lati, setis 5mm longis, guae similes sunt pilis fuscis pappi. Fructus floris discoidei achaena elliptica, 0.2cm longa, pilis minutis.

Haec species est similis speciei, quae appellatur Aster rupicola Lev. et Van't., sed habet folia longiora et crassiora, caules et flores longiores.

Hab.: South sea side of Chejudo, Korea

Leg.: Y. Lee and C. Kim s.n., Mar. 26, 1997, Oct. 15, 1997. Holotype in herbarium. Korea Plant Research Institute

Korean name: Wang-gaet-ssuk-bu-jang-i (왕갯쑥부장이)

Perennial herb, 30 to 60cm tall, glabrous. Stem decumbent, tough, much branched, and reddish, basal stem 3-10mm across, upper branch become slender. Leaves thick and glabrous, alternate, radical leaves spatula shaped, the upper part largely dentate, few hairs on the margin, 15cm long, 5.7cm wide. Stem leaves lanceolate, upper part leaves become smaller, 3.2-8.3 cm long, 0.6-2.5cm wide. Head inflorescens composed with purplish blue ligulate flowers and yellow disc flowers, 5-7cm across. Involucre composed with 4-5 layer of bracts, basal bract to upper one become smaller, linear, and pointed apex, 1.2-1.3cm long, 1.8-2mm wide, few hairs on margin. Ligulate flowers lanceolate, 3cm long, 0.5cm wide, with 4mm long brown pappus hairs. Disc flowers 1.1cm long, 0.2cm wide, with 5mm long bristle like brown pappus hairs. Fruit of disc flower elliptic achene, 0.2cm long, with minute hairs.

The species is similar to Aster rupicola Lev. et Van't., but has decumbent stem and glabrous and thick and large leaves and also larger flowers.

7. Aster magnus Y. Lee & C. Kim for. albiflorus Y. Lee & C. Kim, for. nov.

Haec forma similis est speciei, quae appellatur Aster magnus Y. Lee & C. Kim sed habet flores albos.

Hab.: Cheju, Chejudo, Korea

Leg.: Y. Lee et C. Kim s.n., Oct. 15, 1997. Holot in herbarium, Korea Plant Research Institute

Korean name: Hin-wang-gaet-ssuk-bu-jang-i (흰왕갯쑥부장이)

This forma is similar to Aster magnus Y. Lee & C. Kim, but it has white flowers.

8. Arundinaria munsuensis Y. Lee, sp. nov. (Plate II -3, 4, 5)

Perennis, caulis erectus, per medium 1.5-3mm, 50-60cm longus, internodium

15cm longum. Rhizoma repens et longum. Vagina folii 5-6cm longa, marginibus pilosis. Folia lanceolata, 8cm longa, 1.2cm lata, strictis setis oralibus et brevibus ligulis membranaceis. Una spicula in terminari caulis, lateribus compressis, 3cm longa, 5mm lata, plerumque 3-5 flosculis. Lemma lanceolatum, 2.2cm longum, 11 nervis, arista apiciformi. Palea bicarinata, hirsuta, 1.9cm longa. Stamina 3, filamentum 1.2cm longum, anthera flava, 0.5cm longa. Lodiculae 3, hyalinae, lanceolatae, hispidae, 4.5-5mm longae, 1-1.2mm latae. Pistillum 3 stigmatibus plumosis.

Typi similes fuerunt speciei, quae appellatur Sasa borealis, sed taxon habet unam spiculam in apice culmi et tria stamina in flosculo.

Hab.: Munsukol, Chirisan, Chollanamdo, Korea.

Leg.: Y. Lee, S. Mun, K. Song and H. Chang s.n., June 18, 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Mun-su-jo-rit-dae (문수조릿대)

Perennial, stem erect, 1.5-3mm across, 50-60cm tall, internode 15cm long. Rhizome creeping and long. Leaf sheath 5-6cm long, hairly margins. Leaves lanceolate, 8cm long, 1.2cm wide, with straight oral bristle and short membranous ligule. Spikelet one on terminal stem, laterally compressed, 3cm long, 5mm wide, usually 3-5 florets. Lemma lanceolate, 2.2cm long, 11 nerves with awn like tip. Palea 2 keeled, hirsute, 1.9cm long. Stamen 3, filament 1.2cm long, anther yellow, 0.5cm long. Lodicule 3, hyaline, lanceolate, hispidus, 4.5-5mm long and 1-1.2mm wide. Pistil with 3 plumose stigmas.

A type species is similar to Sasa borealis, but it has one spikelet at tip of culm and three stamens in a floret.

9. Habenaria chejuensis Y. Lee & K. Lee, sp. nov. (Fig. 5, Plate II-6)

Herba perennis, caulis erectus, fere 20cm longus. Rhizoma tuberosum, ovoideum, plerumque 2. Folia basalia plerumque 3, alternata, arte inter se conexa, lata et lanceolata, 3-6cm longa, 2-3cm lata. Spica 5-7cm longa, multis floribus. Bracteae latae et lanceolatae, 5mm longae, 3mm latae. Flores virides, labia plerumque aequaliter lobata, circiter 2mm longa. Centralis lobus recurvatus et cum brevi pistillo coniunctus. Ovarium columnariter elongatum, 5mm longum. Calcar brevius quam ovarium, 3mm longum. Anthera bicellularis. Haec species

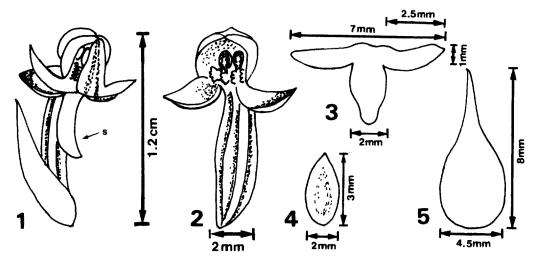


Fig. 5. Habenaria chejuensis Y. Lee & K. Lee 1, 2. Flower (s: spur); 3. Three lobes of lip; 4. Sepal; 5. Bract.

est similis speciei, quae appellatur *Habenaria flagellifera* Makino, sed habet labia florum fere aequaliter trilobata, lobi laterales non sunt forma flagellorum, lobi centrales sunt recurvati et cum pistillo coniuncti. Si herba marcescit, non nigrescit (at *Habenaria flagellifera* Makino nigrescit)

Hab.: Daechongup, Chejudo, Korea

Leg.: Y. Lee, K. Lee and S. Mun s.n., Aug. 24 1997. Holotype in herbarium, Korea Plant Research Institute

Korean name: Che-ju-bang-ul-ran (제주방울란)

Perennial herb, stem erect, about 20cm tall. Tuberous root ovoid, usually 2. Basal leaves usually 3, alternate, closely attached, broad lanceolate, 3-6cm long, 2-3cm wide. Spike 5-7cm long with many flowers. Bracts broadly lanceolate, acuminate apex, 5mm long, 3mm wide. Flowers green, lip almost equally 3 lobed, about 2mm long, central lobe recurved and attached to short pistil, ovary columinarly elongated, 5mm long. Spur shorter than ovary, 3mm long. Anther 2 celled.

This type species is closely related to the *Habenaria flagellifera* Makino, but it has flower lip almost equally 3 lobed, lateral lobe not flagelli form and mid lobes recurved and attached to pistil and also the color of the herbs doesn't change into black even if they are dried.

Acknowledgement

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Plate I. Corydalis wandoensis Y. Lee

1. A type specimen; 2. Rhizome and squamiform leaf

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Plate II. 1. Corydalis wandoensis Y. Lee; 2. Euphorbia ebracteolata Hayata for. magna Y. Lee; 3, 4, 5. Arundinaria munsuensis Y. Lee, 3. Oral bristle; 4. Culms; 5. Spikelet; 6. Habenaria chejuensis Y. Lee & K. Lee.

韓國의 新分類群植物(新種,新變種,新品種)(6)

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摘 要

한국산 신종 6종과 신품종 3종 식물을 기록하였다. 전라남도 완도에서 발견된 현호색속 식물을 완도현호색(Corydalis wandoensis Y. Lee)로, 강원도 설악산에서 채집한 민대극에 비해 줄기와 잎이 훨씬 더 큰 대극속 식물은 설악대극(*Euphorbia ebracteolata* Havata for, *magna* Y. Lee) 로, 거제도에서 채집한 분홍빛을 띤 흰색의 잎술꽃잎이 2개의 열편으로 갈라지는 물봉선속 식물 은 거제물봉선(Impatiens kojeensis Y. Lee)로, 울릉도에서 채집한 남산제비꽃과 뫼제비꽃의 잡 종형인 제비꽃속 식물은 우산제비꽃(Viola woosanensis Y. Lee & J. Kim)으로, 지리산에서 밤 견한 꽃이 흰 꽃향유는 흰꽃향유(Elsholtzia splendens Nakai ex F. Maekawa for, albiflora Y. Lee)로, 제주도에서 채집한 갯쑥부장이속 식물은 줄기가 가로 누워 자라다가 위를 향하고, 털 이 없으며, 잎이 두껍고 크며, 커다란 꽃을 갖고 있어서 왕갯쑥부장이(Aster magnus Y. Lee & C. Kim)이라 하고, 꽃이 흰 왕갯쑥부장이를 흰왕갯쑥부장이 (Aster magnus Y. Lee & C. Kim for. albiflorus Y. Lee & C. Kim)이라고 했으며, 지리산 문수골에서 발견한 줄기끝에 1개의 작 은 꽃이삭이 달리고, 수술이 3개이며, 줄기가 아주 가는 조릿대를 닮은 식물을 문수조릿대 (Arundinaria munsuensis Y. N. Lee)로, 제주도 대청읍에서 발견한 식물은 방울난초와 유사하 나 입술꽃잎이 거의 같은 크기로 3갈래로 갈라지고, 측열편이 채찍모양이 아니며, 가운데 열편은 구부러져 암술에 붙으며, 식물이 말랐을 때 흑색으로 변하지 않는 점이 달라서 제주방올란 (Habenaria chejuensis Y. Lee & K. Lee)라고 새로 명명하였다.

주요어: 한국산 식물, 신종 6종, 3신품종식물

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