Notes on Liukiu and Formosan Plants.

(Continued from p. 84.)

By

J. Matsumura.

Coldenia procumbens, *L.* D.C. Prodr. vol. IX, p. 558; Clark. in Hook. f. Fl. Brit. Ind. vol. IV. p. 144; Benth. Fl. Aust. vol. IV. p. 391; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 146; Henry Trans. Asiat. Soc. vol. XXIV. Suppl. p. 62.

Hab. in Formosa: ad Hong-soang (H. Kawakami, no. 17); in ruderatis ejusdem loci (Y. Tashiro, no. 83).

Calyx 5-partitus lobis oblongis acutis.

Corolla 2 mm. alta, tubulosa, 4-lobata. Stamina 4, inclusa, filamentis brevissimis; antheris ovalibus. Nucule rugosae, subspinose.

Heliotropium indicum, *L.* D.C. Prodr. vol. IX. p. 556; Bot. Mag. z. 1837; Clark. in Hook f. Fl. Brit. Ind. vol. IV. p. 152; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 147; Henry l.c. p. 69.

Hab. in monte Urabu, ins. Yonakuni, archipelagi Yaeyama (S. Tanaka, no. 409); Formosa: Hong-soang (H. Kawakami, no. 133); Heng-tsung, Tainan (C. Owatari); loco non indicato (Y. Tashiro no. 33.)

Calyx 3 mm. altus, 5-partitus, subaequalis, segmentis lineari-lanceolatis, setosis, seg. anticis 2 latioribus. Corolla hypocrateriformis, limbis intus glabris, extus villosis. Stamina 5, inclusa; filamentis nullis; antheris basi sagittatis. Stylus brevis, stigmatе depresso-capitato. Fructus angulatus, dorso costatus.

Heliotropium strigosum, *Willd.* D.C. Prodr. vol. IX. p. 546; Clark. in Hook. f. Fl. Brit. Ind. vol. IV. p. 151; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 147; Henry in Trans. Asiat. Soc. vol. XXIV. Suppl. p. 63.

Hab. Formosa : Shōka, Daichū in campis (Y. Tashiro, no. 74), Beilinzan (Y. Tashiro, no. 40) ; Formosa boreali (T. Makino) ; Byōlitsu (Honda no. 23).

Calyx 5-partitus, segmentis inaequalibus lanceolatis, extus adpresse strigosis. Corolla tubulosa vel hypocrateriformis, fauce parce barbatis, lobis ovalibus subacutis. Antherae ovatae, acutae, basi obtusae ; filamentis brevissimis. Stylus staminibus brevior, stigmate conico. Nuculae subtomentosae.

Trichodesma (Friedrichsthalia) **formosana**, Matsumura sp. nov.

Planta 2-pedalis. Caulis crassus angulatus adpresse puberulus vel glabrescens. Folia petiolata, inferiora opposita, superiora oblanceolata, elliptica acuta basi attenuata, supra scabra sub lente setulis tuberculatis conspersa, subtus subpubescentia vel parce setulosa. Flores paniculati, longe pedicellati ; calyx villosus, 5-lobatus, fructifer accrescens 32 mm-47 mm. diametro, lobis ovato-lanceolatis acuminatis intus glabris ; corollae tubus late cylindricus, 13 mm. longus, 10 mm. latus, extus 10-foveolatus, intus transverse 10-torulosus, lobis ovalibus longe acuminatis, tubo multoties brevioribus, reflexis ; filamenta nulla ; antherae lanceolato-subulatae sinistrorsum contortae, dorso tomentosae. Ovaria depressa, glabra ; stylus filiformis. 15 mm. longus. Nuculae ovatae 6 mm. longe, dentato-marginatae dorso laeves, ventre rugulosae.

Folia maxima suppetentia 390 mm. longa, 160 mm. lata, petiolis 6-40 mm. longis suffulta. Panicula 120-150 mm. demum 240 mm. longa, 120-240 mm. diametro ; pedicelli 12-20 mm. longi.

Species *T. calycosi* Colli. et Hemsl. proxime affinis distat indumento omnibus ceterisque notis ; *T. Khasiani* Clark. quoque affinis, differt corollae lobis brevioribus et latioribus.

Suffruticosa scandens cl. Tashiro adnotavit.

A cl. Henry Trans. Asiat. Soc. vol. XXIV. p. 63. sub. varietate *T. Khasiyani* indicata ad hanc speciem forsitan referenda sit.

Hab. Formosa : in montosis ad Taichū (Y. Tashiro, no. 35) ; Tenkachilaisha, Shū-shū-kai (C. Owatari).

Cynoglossum micranthum, Desf. D.C. Prodr. vol. X. p. 149 ; Maxim. Mel. Biol. vol. VIII. p. 555 ; Clark. in Hook. f. Fl. Brit. Ind. vol. IV. p. 156 ; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 150 ; Henry l.c. p. 63.

Hab. insulis Ōshima et Okinawa (Y. Tashiro) ; Formosa : Shintek (T. Makino) Hoon-tsui (C. Owatari).

Bothriospermum tenellum, Fisch. et Mey. D.C. Prodr. vol. X. p.

116; Benth. Fl. Hongk. p. 235; Maxim. Mel. Biol. vol. VIII. p. 560; Clark. in Hook. f. Fl. Brit. Ind. vol. IV. p. 167; Hemsl. Journ. Linn. Soc. vol. XXVI. p. 152; Henry l.c. p. 63.

Hab. insula Okinawa (Y. Tashiro); Formosa: Taipe (T. Makino), Byolitsu (Y. Tashiro), loco non indicato (C. Owatari).

Trigonotis peduncularis, Benth. Hemsl. Journ. Linn. Soc. vol. XXVI. p. 153; *Eritrichium pedunculare*, A. D.C. Prodr. vol. X. p. 128; Maxim. Mel. Biol. VIII. p. 548; *Eritrichium japonicum*, Miq. Prol. p. 28. Hab. insula Okinawa (Y. Tashiro).

Contributions to the Knowledge of the forest Flora of Japan. I.

By

M. Shirai.

(With Pl. V.)

In the course of studying Japanese forest flora. I have met with many species of trees which were imperfectly described by the old writers and also with those entirely new, some to Japan and others to the world. But as trees are of large size and easy of detection, our botanists have already done so much toward their discrimination, that there remains but a few species to be newly discovered. Of the many imperfectly known trees, species of salix and Bamboos are the two large groups which require some renewed and careful study.

In the following paper, I intend to describe and illustrate such new or rare species of trees as I had the opportunity to examine during the last ten years, an interval of time during which I have spent almost every summer for botanical excursions throughout the empire except Formosa and Luchoo, in order to collect specimens for my study. All the illustrations rough as they are were made with my own pencil from the natural speci-