

Studies in the Gesneriaceae of the Old World

V.—Notes on *Ancylostemon*

BY

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The genus *Ancylostemon* was established by Craib (in Notes Roy. Bot. Gard. Edinb. xi, 232, 266: 1919) as one of his segregates from *Didissandra* C.B.Cl. sens. Craib (= *Corallodiscus* Batalin); that is a segregate from the group of species having four stamens whose anthers cohere in pairs. Consequently no comparison was made between *Ancylostemon* and *Oreocharis*, of which a primary diagnostic feature is that the anthers are free from one another. The cohesion of the anthers is probably a valid distinction (it will be discussed at greater length when a revision of *Oreocharis*, now in progress, is published), but it should be noted that in *A. vulpinus* the link is physically very slender and can easily be destroyed by the pressure of drying.

Ancylostemon takes its name from the sharply inflexed apex of the filaments, a feature in which the new species now described are quite characteristic of the genus. In two respects, however, they necessitate some alteration in Craib's generic description. In the first place all the species known to Craib had orange flowers. We now describe *A. purpureus*, a purple-flowered species collected in Szechuan on two separate occasions by E. H. Wilson. *A. purpureus* also falls short of the generic character of *Ancylostemon* in having a straight corolla-tube, without any inflation on the dorsal side, which Craib mentions as a feature of the genus. *A. vulpinus*, another new species described below, appears to agree with *A. purpureus* in lacking the dorsal swelling on the corolla-tube, although it is typical of *Ancylostemon* in other respects. Although a slight dorsal inflation on the corolla-tube could, no doubt, be easily missed in dried specimens, in such species as *A. concavus* and *A. convexus*, in which it is well developed, it is clearly visible in the herbarium.

In addition to the three new species described, comments will be found under *A. concavus*, *A. saxatilis* and *A. Mairei* of three other interesting specimens any of which may well receive specific rank when further material becomes available. In these cases, however, the differential characters are not sufficiently well marked to justify their being described from single specimens.

Key to the species of *Ancylostemon*

- | | |
|---|-----------------------|
| 1. Flowers purple | 1. <i>purpureus</i> |
| 1. Flowers orange | |
| 2. Peduncle and petiole covered with a dense felt of cinnamon hairs | 2. <i>notochlaena</i> |
| 2. Peduncle and petiole clad with bristly brown hairs | |
| 3. Ovary shortly but densely pubescent | 3. <i>saxatilis</i> |
| 3. Ovary glabrous or with a few scattered hairs | |
| 4. Calyx at flowering time not over 7 mm. long | |
| 5. Leaf membranous; upper surface with a covering of short white hairs in addition to some brown bristles; lower surface with very short and sparse white hairs between the bristly veins. Seeds 1 mm. long | 4. <i>convexus</i> |

5. Leaf chartaceous; upper surface with a dense covering of longish white hairs in addition to some brown bristles; lower surface also with dense white hairs between the bristly veins.
Seeds 0.5 mm. long 5. *Mairei*
4. Calyx at flowering time about 1 cm. long 6. *conceivus*
6. Corolla shortly pubescent on the outside 6. *conceivus*
6. Corolla with long bristles on the outside 7. *vulpinus*
7. Corolla twice length of calyx, not inflated dorsally 7. *vulpinus*
7. Corolla three times length of calyx, inflated dorsally above the middle 8. *trichanthus*

1. **A. purpureus** Burt et Davidson **sp. nov.** inter congeneres floribus parvis purpureis numerosis facile distinguitur. Ob folia longitudine latitudinem multoties excedentia *A. notochlaenae* accedens sed ab hoc indumento minus pannoso celeriter dignoscitur.

Herba perennis foliis omnibus basalibus. *Petiolus* 6.5 cm. usque longus, pilis brunneis dense villosus. *Lamina* plus minusve elliptico-lanceolata, 11 cm. usque longa, 3.5 cm. usque lata, apice acuta, basi variabilis aut attenuata aut rotundata, marginibus levissime sinuato-crenulatis, supra pilis sparsis praedita, subtus densiuscule praecipue adnervos pilosa; nervi utrinque 6-8 ascendentes. *Inflorescentiae* axillares, multi-(10-30)-florae; scapus 9-14 cm. altus, primum densius demum tenue brunneo-villosus. *Bractae* 6-8 mm. longae, et 3 mm. usque latae, naviculares, extra (inferne) brunneo-pilosae. *Pedicelli* (florum primorum) 2-3 cm. longi, graciles, pilis glandulosis et eglandulosis induti. *Calyx* ad basin 5-partitus; segmenta anguste lanceolata 4-5 mm. longa, 1.5 mm. lata, integra, breviter brunneo-pilosa. *Corollae* tubus 8 mm. longus, ad orem paullo angustatus, extra breviter glanduloso-pubescent, intra glaber; lobi 5; anticus 2 mm. longus et 2.5 mm. latus; laterales 2 mm. longi et lati; duo postici 3 mm. longi, 1 mm. lati ad medium connati. *Stamina* 4; filamenta glabra, linearia, superiora ad corollam per 3 mm. adnata, 4 mm. libera, inferiora ad corollam per 4 mm. adnata, 4 mm. libera, omnia apice abrupte inflexa; antherae per paria apicibus cohaerentes, 0.75 mm. longae, 1.25 mm. latae, thecis ovatis basi paullo divergentibus. *Discus* cupularis, 1.5 mm. altus, margine obliquo irregulariter crenato. *Gynoeceum* glabrum 6 mm. longum, ovario 4 mm. longo, 1.5 mm. lato, stylo 2 mm. longo; stigma capitatum breviter bilobum. *Fructus* 1.5-2.5 cm. longus et 3 mm. usque latus.

W. China. Probably Szechuan, between Kiating and Tatsien-lu, shady rocks, flowers dark purple, 2100 m., 10 July 1903, Wilson (Veitch Exped.) 4277 (Holotype in herb. Kew). W. Szechuan, August 1908, Wilson 2260 (Herb. Kew).

2. *A. NOTOCHLAENA* (Lévl. et Van.) Craib in Notes Roy. Bot. Gard. Edinb. xi, 266 (1919).

No additional material of this species has been seen.

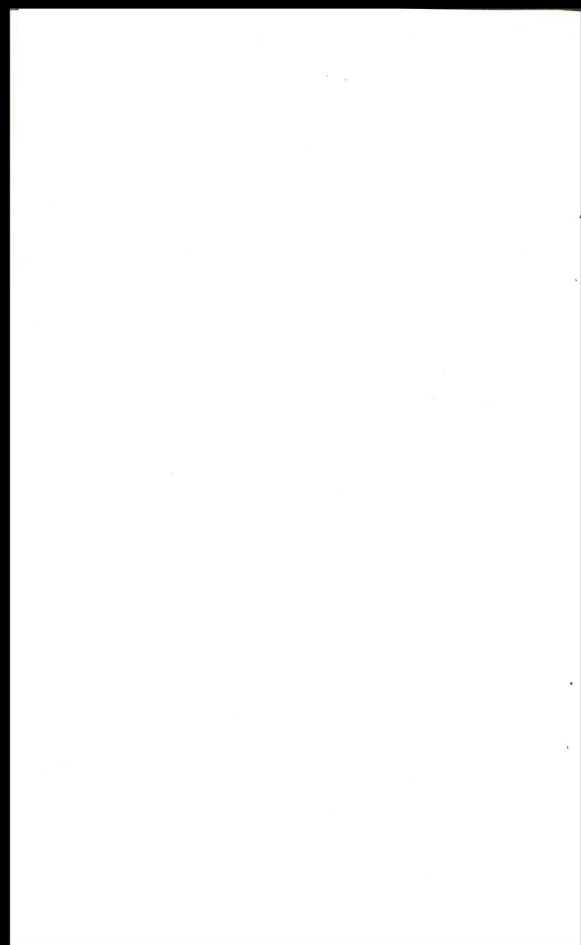
3. *A. SAXATILIS* (Hemsl.) Craib in Notes Roy. Bot. Gard. Edinb. xi, 266 (1919).

Under this species we are tentatively including what is either an interesting variant or a distinct, but closely allied, species. It was collected by R. P. Farges in the district of Tchen-kéou-tin in eastern Szechuan (spec. in herb.



PLATE I

Ancylostemon purpureus Burtt et Davidson



Kew), and the idea that it may only be a variant of *A. saxatilis* is strengthened by the fact that the same collector found normal *A. saxatilis* in the same neighbourhood (spec. in herb. Edinb.). In leaf-characters the two sheets do not seem to be distinguishable, and both show the pubescent ovary which is the salient characteristic of *A. saxatilis*. In inflorescence the Kew sheet collected by Farges stands apart from all other material of the species in its more numerous flowers and smaller corollas. There are up to 7 flowers in an inflorescence, almost subumbellate, on pedicels only up to 1 cm. long, and the corolla itself is about 1.4 cm. long. In normal *A. saxatilis* the flowers are paired, the pedicels are 1.5 cm. long and the corolla 2.6 cm. long.

4. *A. CONVEXUS* Craib in Notes Roy. Bot. Gard. Edinb. xi, 235, 267 (1919). Additional material of this species is of no particular interest.

5. *A. MAIREI* (Lévl.) Craib in Notes Roy. Bot. Gard. Edinb. xi, 267 (1919). No additional material that can be definitely referred to this species has been seen, but a single specimen (McLaren's collector AC 53, 1938) from an unspecified locality in Szechuan is closely allied and represents either a form of *A. Mairei* or an undescribed species. It differs in having somewhat less shaggy leaves, which also are less deeply toothed, calyx 5 mm. long (against 3.5 mm.) and corolla 3.2 cm. long (against 2.2 cm.). On the single herbarium specimen available the inflorescence does not stand clear above the leaves as it does in *A. Mairei*. Until further (and more accurately localised) material is available it does not seem desirable to do more than call attention to the existence of this specimen.

6. *A. CONCAVUS* Craib in Notes Roy. Bot. Gard. Edinb. xi, 234, 266 (1919).

The following additional material has been seen:—

Yunnan. Wei-si-Hsien, Yeh-Chih, herb, yellow flower on grassy slope, August 1935, C. W. Wang 68682 (Arn. Arb.). Herb, mountain slopes, 3400 m., C. W. Wang 68264 (Arn. Arb.). S. Chungtien, Kung-shiang-shu, Snow Mountain on the way to Kai-lou-wei (Yangtze bank), 3100 m., plant 3 ins. high, flower yellow, moist shady situations on fallen tree trunks, 25 August 1939, K. M. Feng 1821 (Arn. Arb.).

There is also an anomalous specimen which differs from *A. concavus* in its darker green leaves which are relatively much narrower (8.9 cm. long and 3.5 cm. broad). The ovary has long scattered hairs on it (not the short close ones characteristic of *A. saxatilis*) while the calyx appears to be more cylindric (less funnel-shaped) than in normal *A. concavus*. This specimen is:—

N.W. Yunnan. Chengkang, Snow Range, 2800 m., rare, herb 3–5 in. on bark of trees, leaf brown-hairy, flower yellow, T. T. Yü 17037 (Arn. Arb., E.).

7. *A. vulpinus* Burtt et Davidson, **sp. nov.** inter congeneres corollæ tubo haud postice inflato distincta. Ab *A. concavo* Craib calyce purpureo latiore segmentis acutis, ab *A. trichantho* infra descripto corolla calyce duplo (nec triplo) longiore, ab ceteris speciebus calyce majore etiam differt.

Herba perennis foliis omnibus basalibus. *Petiolus* 2 cm. longus, setis densis longis vulpinis patulis et subter eis pilis aliis albis brevioribus obtectus. *Lamina* plus minusve ovata, 3.5 cm. longa et (maturitate?) 2 cm. lata, margine irregulariter lobulata, lobulis iterum saepe lobulatis, basi plus minusve rotundata, apice obtusa; pagina superior dense et regulariter pilis albis brevibus et (praecipue inter nervos primarios) pilis albis longis, insuper ex costam basinque versus setis brunneis sparsis oblecta; pagina inferior uti

superiora pilis albis brevibus, ad nervos etiam setis longis brunneis dense oblecta; nervi supra subimpressi, infra leviter prominentes. *Inflorescentia* axillaris, circiter 3-5-flora; scapus 5-7 cm. altus, dense brunneo-setosus. *Bractae* lanceolatae vel ovato-lanceolatae 5-8 mm. longae, siccitate purpureae, brunneo-setosae. *Pedicelli* ad 1.5 cm. longi, uti scapus setosi. *Calyx* leviter inflatus, 10 mm. longus, 6 mm. latus vix ad medium divisus; segmenta 5 triangulari-acuminata, interdum dente marginali parvo instructa; calyx totus siccitate purpureus sparsius et longe brunneo-setosus. *Corolla* tubo anguste infundibuliformi, 17 mm. longa, ore circiter 5 mm. lata, extra longe brunneo-setosus, intra breviter et sparsissime pubescens; lobi 5, subaequales, circiter 4 mm. longi et 3 mm. lati, obtusi. *Stamina* 4; filamenta superiorum per 9 mm. corollae adnata parte libera 4 mm., ea inferiorum per 11 mm. adnata, parte libera 4 mm., omnia apice sub antheris abrupte inflexa et leviter incrassata, antherae per paria apicibus levissime cohaerentes, 1 mm. longae et 0.75 mm. latae, apice apiculatae, loculis leviter divergentibus. *Discus* cupularis 2.75 mm. altus, margine inferiore bidenticulatus. *Gynoeceum* 15 mm. longum; ovarium 10 mm. longum in stylum 5 mm. longum abiens; stigma crassum capitatum leviter bilobum. *Fructus* 12 mm. longus et 3 mm. latus. *Yunnan*. Pe-yen-tsin, August 1911, coll. S. Ten, comm. F. Ducloux, 7690 (holotype in Herb. Mus. Paris). Steep hill-slopes above Tapintze, June 1888, J. M. Delavay (Herb. Mus. Paris).

8. *A. trichanthus* Burt et Davidson, sp. nov. *A. vulpino* Burt et Davidson arcte affinis, sed calyce trientem corollae tantum aequante, corolla paullo longiore, tubo postice ad apicem leviter inflato pilis eis *A. vulpini* brevioribus praedito. *Herba* perennis, foliis omnibus basalibus. *Petiolus* usque ad 7.5 cm. longus, setis longis brunneis et insuper pilis albis brevibus modice praeditus. *Lamina* late ovata, 5.5 cm. longa et 4.75 cm. lata, margine obtuse lobata, lobis ipsis crenulatis, basi rotundata, apice obtusa; pagina superior pilis albis brevibus et aliis setis sparsis longis brunneis; pagina inferior ad nervos setis brunneis longis et pilis albis brevibus, intra nervos pilis albis brevibus sparsis tantum praedita; nervi supra inconspicui subtus prominuli et setis brunneis notati. *Inflorescentia* axillaris, 1-4-flora; scapus 5-7 cm. altus, setis brunneis longis sparse indutus. *Bractae* lanceolatae ad ovato-lanceolatae, 2-6 mm. longae, siccitate virides vel purpureae, setis brunneis et insuper pilis albis brevibus. *Pedicelli* 2.5 cm. usque longi, setis brunneis et pilis albis brevibus induti. *Calyx* plus minusve inflatus, 5-8 mm. longus, 3-6 mm. latus, ad medium in segmentis 5 triangularibus marginibus interdum denticulatis divisus, siccitate viridis vel interdum purpureus, setis brunneis sparsis praeditus. *Corollae* tubus longus et angustus, postice supra medium leviter inflatus, 1.7-2 cm. longus, infra medium circiter 2 mm. diametro, aequaliter pilis brunneis mediocriter indutus; lobi 5, obtusi, subaequales, circiter 4 mm. longi, 3 mm. lati. *Stamina* 4; superiora ad corollam per 13 mm. adnata, parte libera 3 mm. longa; inferiora per 14 mm. adnata, parte libera 3 mm. longa; filamenta sub apice abrupte inflexa; antherae per paria apicibus cohaerentes, 0.75 mm. longae, 1 mm. latae, loculis late divergentibus. *Discus* cupularis, 2.25 mm. altus, margine fere bidenticulata. *Gynoeceum* 11 mm. longum, ovario 7 mm. longo, stylo 4 mm. longo; stigma capitatum, leviter bilobum. *Fructus* 2 cm. longus et 2 mm. latus.

Yunnan. Beyendjing, San kia tsen, flores flavi, 2 September 1919, Simeon Ten 1267 (Herb. Nat. Hofmus. Vienna).



HERB. MUS. HIST. NAT. VINDOB.
(BOTANISCHE ABTHEILUNG des k.-k. naturhist. Hofmuseums, Wien)

Ancylostemon concavus Ledeb.
- fr. Kuhn -
China, Yunnan: Beyending, Lan hia-tsun.

Aug. 2 II. 1919 V.G. Ton, n° 1267

Ancylostemon trichanthus
Burt et Davidson
Determinavit
J.L.S.

PLATE II

Ancylostemon trichanthus Burt et Davidson