

Notes on some draught-resisting plants found
near the border of the Gobi desert.

There are about 200 species of flowering plants belonging to about 40 families being found in this arid region which I have visited during July-August, 1935. Among those families, the grass family is undoubtedly the largest one, containing about 20 genera and 40 species. The most dominant grass here is probably the *Stipa* (*Lasiagrostis*) *splendens* which, with a height up to 2 meters tall, frequently covers the whole steppe. Although having little value for fodder, this grass, on account of its tufted habit and strong roots, may be used for sand-binding purpose.

Three distinct species of *Agropyrum* have been collected, one of them is the well-known *A. cristatum* which is, of course, a good species for draught-resistant purpose and for forage. The other two species are unknown to me. One found only under shaded rocky places or in thickets is probably an unpublished species (No. 519, 620, 647, 770), while the other inhabiting either an exposed rocky slope or on steppe is probably a species related to *A. cristatum* (No. 748, 800). At first this third species was found flourishing over an extensive area on the exposed rocky slope near Bayin-obo. Afterwards it was found at Darkhan Wang where it grows together with *Elymus pseudo-agropyrum* and one species of *Iris* (the narrow-leaved species, No. 793) on the steppe. Such a mixture of plants, *Agropyrum* (Nos. 748, 800), *Elymus pseudo-agropyrum*, and *Iris* (no. 793) growing together on the steppe, will undoubtedly improve the sandy ground into a valuable forage-land.

An observation of the habitat of grasses commonly found here shows that the species of *Agropyrum* can withstand the draughtness the best, *Elymus pseudo-agropyrum*, the next, and other species of *Elymus* (such as *E. dasystachys*, *dahuricus*, *excelsus*, and *sibiricus*) are mostly growing together with *Iris* (the broader-leaved species No. 660) on the relatively moist steppe. Whereas the grasses growing on the sandy moist ground along both sides of the Batu-halka river are mostly species of *Hordeum*, *Elymus*, *Puccinellia*, *Poa*, and *Calamagrostis*. Although these grasses also form important forage-land here, they are, however, not draught-resistant plants.

Other large families next to the *Graminae* are probably the *Compositae*, *Leguminosae*, and *Rosaceae*, each containing about 16 species. On the hills (mostly granite-hills) around our camp near Naran-Obo a species of *Artemisia* (no. 731) and *Stipa breviflora* are the most prevailing plants. Besides several species of *Astragalus*, *Melilotus*, *Lespedeza*, *Vicia*, etc., 4 or 5 other leguminous spiny bushes (*Caragana*, *Halidium* ? etc) have been found growing in clumps on steppe or on slope. There is no doubt that these leguminous draught-resistant plants are worthy of introduction either for their medicinal property, for fodder, or for sand-binding purpose. Other available bushes found here on rocky slopes are *Prunus* (wild apricot), *Rosa*, *Cotoneaster*, and *Ribes*, although other bushes as *Rhamnus* (2 species) *Lonicera*,

Berberis, etc. have also been collected. Altogether there are about 20 species of woody plants distributed in this region. The most common tree found here is the Ulmus which grows by the side of dry river-beds extending from the west to the east into a considerable distance.

Signed V.L.Keng.

Camp Temur-khada.

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