

Fam. **Crassulaceæ**

(determ. by OVE PAULSEN).

Cotyledon spinosus L., Sp. pl. ed. 1 (1753) 429; Ledeb., fl. Ross. II (1844) 174; Hook. f., Fl. Brit. Ind. II (1879) 416; *Umbilicus spinosus* D. C.; Krylow, fl. Alt. (1903) 452.

Eastern *Pamir*, Yam-bulak-bashi glacier, Mus-tagh-ata, 4439 m., 15th Aug. 1894 (flowering).

Geogr. area: Siberia, Mongolia, Altai, Thian-shan, W. Tibet.

Sedum algidum Ledeb., Fl. altaica II (1830) 194; Ledeb., fl. Ross. II (1844) 177; Hemsley, in Journ. Linn. Soc. 35 (1902) 177.

Eastern *Pamir*, Old moraine of the Korumde glacier, Mus-tagh-ata, 4367 m., 27th July 1894 (flowering and in fruit).

The identification is not quite satisfying. The flowers are bisexual, 4- or 5-numbered, on pedicels exceeding them in length. The squamæ hypogynæ are ovate, longer than broad, crenate above. Stamens longer than corolla. Styles recurved, very short.

Geogr. area: Mongolia.

Sedum dubium O. Pauls. nov. sp. (Pl. VII, Fig. 2 and Text Fig. 4).

Perennis glabra, caudex verticalis crassitie pennæ gallinæ squamiferus squamis latis obtusis, caulibus mortuis nullis. Caules floriferi erecti v. procumbentes in spec. 4—6 cm. alti, superne foliati. Folia sparsa linearia minute calcarata. Inflorescentia 2-3-flora umbelliformis pedicellis calyce æquilongis. Sepala 5 libera 2 mm. longa oblongo-lineararia. Petala 5, ut videtur lutea, 3 mm. longa, oblonga obtusa. Stamina 10, epipetala petalis inferne breviter coalita, omnia petalis æquilonga. Squamæ hypogynæ late lineares, apice dentatæ. Carpellæ 5 stylibus rectis.



Fig. 4. Squama, sepal, petal and filaments of *Sedum dubium*.

The species is characterised by its tenderness, by the blunt sepals and petals and by the shape of the squamæ. I am well aware that it may be a form of some already known species, but of which of them I don't know. Hence, it seems better to keep it apart.

Northern *Tibet*, Camp. XII, Kayir, Ara-tagh, 4183 m., 23th July 1900 (flowering).

Sedum fastigiatum Hook. f. et Thomson, in Journ. Linn. Soc. (Bot.) II (1858) 98; Hook. f., Fl. Brit. Ind. II (1879) 419; Hemsley, in Journ. Linn. Soc. 35 (1902), 177.

Northern *Tibet*, Mandarlik, 3437 m., medio July 1900; near upper Kum-köl, 3882 m., 27th July 1900 (w. unripe fruit).

Geogr. area: Himalaya.

(?) *Sedum quadrifidum* Pallas, Reise III, Anhang (1778) 46, tab. P, fig. 1; Ledeb., fl. Ross. II (1844) 177; Hook. f., Fl. Brit. Ind. II (1879) 418; Hemsley, in Journ.