

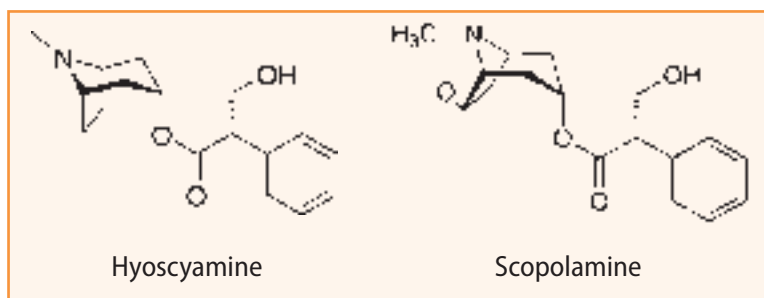
**Distribution:** Khovs., Khang., Mong-Dag., Khyang., Khovd, Mong. Alt., Dund. Khalkh, Dor. Mong., Gobi-Alt., Dor. Gobi.

**Habitat:** Mountain slopes, among and below rocks, hills and residual mountains, dry ravines and shrubberies [2–5].

**Parts used:** Herb and root

**Traditional Uses:** The taste is bitter and potency is cool, oily. It is used as the following: as an antibacterial, against anthrax, stomach and skin worms, hypothermia, to reduce tumors, as and as an analgesic. Also used for treating encephalitis, glanders, pain of stomach, aspermia, and sexual unresponsiveness. It is an ingredient of the following traditional prescriptions: Brugru-5, Gurgumchun, Gurgum-13, Jidangaa-10, Tamprom-9, Deva-10, Sertun-7, and Tamprom-7 [5–9].

**Chemical constituents:** The epigeal part contains flavonoids: neoisorutin, glucoepirutin [10], rutin, quercetin-3-O- $\beta$ -D-glucofuranosyl-(6 $\rightarrow$ 1)- $\alpha$ -L-rhamnopyranoside-7- $\alpha$ -L-rhamnopyranoside [11,12], alkaloids: hyosciamine, scopolamine [11], 6-hydroxyatropine [13]. Root contains alkaloids: atropine, scopolamine, cuskhygrine [14], flavonoids: liquiritigenin, gvaiaverine, coumarin: scopolin, fabriatrin, scopoletin, umbelliferone, and also  $\beta$ -sitosterol, 3-O- $\beta$ -D-glucopyranoside- $\beta$ -sitosterol [15].



**Qualitative and quantitative assay:** Alkaloids of the plant are identified by the precipitation reaction and paper chromatography using the solvent system: butanol-acetic acid-water (4:1:5), detection reagent: Dragendorff's reagent. Total alkaloid content is titrated with sodium hydroxide after transferring to salt [16].

**Qualitative and quantitative standards:** Loss on drying, 13–15.0%. Ash, 6–7.0%. Organic matter, not more than 0.5% and mineral matter, not more than 0.5%. Total alkaloid content, 0.3% [16].

**Bioactivities:** Anticonvulsant, ulcerogenic, antipyretic, antiparasitic [14]. Fabriatrin has a bile-expelling activity [15].