

***Gnaphalium supinum* L., a New Species for Mongolia*****Gnaphalium supinum* L., nový druh pro Mongolsko**

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**Abstract** — VAŠÁK V. (1971): *Gnaphalium supinum* L., a new species for Mongolia. — Preslia, Praha, 43 : 258—260. — The first Mongolian locality of *Gnaphalium supinum* L. was found in Chentei Mts. (Asaralt Mt., N. Mongolia). It is the easternmost exclave of the distribution area of the species in Eurasia.

*Gnaphalium supinum* L. is an arctoalpine species with a circumpolar distribution. The Euro-Asiatic part of the distribution consists of two branches: the north one extends from the islands Iceland and Jan Mayen through Scotland, Fenno-Scandia to the North and Arctic Urals, where it exceeds to the westernmost part of Siberia. The southern branch of the distribution area is represented by the mountain massifs of the Pyrenees, Alps, Jura, Schwarzwald, Sudeten, Carpathians, the Balkan peninsula, the mountains Taurus, Caucasus, Transcaucasus, Soviet Central Asia (from Pamir to Tarbagatai) and the adjacent parts of China-Sinkiang. The easternmost part of the distribution area consists of isolated localities in the range of Chamar Daban Mts. south of Lake Baikal and of the newly discovered locality in Chentei in N. Mongolia. Moreover, *Gnaphalium supinum* also occurs in the eastern part of Canada and on the western and eastern coast of Greenland.

*G. supinum* is a very rare plant in Siberia. It grows in the westernmost zone adjoining the Arctic and North Urals and in the mountains of the south part of central Siberia. In the Flora of the USSR it is recorded also from the Altai Mts. (KIRPIČNIKOV 1959). This locality, however, must be considered as dubious until the new verification of the find. According to information by letter from I. KOROPAČINSKIĀ and M. KIRPIČNIKOV, there is no authentic documentary material from the Altai. On the contrary, many botanists have searched for this species in the mountains of West Siberia in vain. In the herbaria in Novosibirsk no materials of *Gnaphalium supinum* from this region are present and neither in the paper of SERGIJEVSKAJA (1961—1964) containing all the recent finds from the Altai is it mentioned.

The only hitherto reliable stated and isolated locality of *Gnaphalium supinum* in central Siberia is the Chamar Daban Mts. bordering the south coast of Lake Baikal. M. IVANOVA and V. GONČIKOV collected *G. supinum* in 1962 on the volcano Margasan in the west part of the range, and M. IVANOVA collected it in the central part of the mountains in 1963 at the springs of the river Mišichi and in the glacier kettleshole of one of the tributaries of this river (IVANOVA 1965, MALYŠEV 1968). In 1965 J. SOJÁK found *Gnaphalium supinum* not far from the river Utulik, about midway between the mentioned localities in Chamar Daban. Nothing has been published about this find until now; the respective sheet is preserved in the herbaria of the National Museum at Průhonice (PR).

In the course of our Mongolian expedition in 1966 I found *Gnaphalium supinum* in the Chentei Mts. in N. Mongolia. The species grew rather sparsely

on the slope of the highest point of the whole range, the mountain Asaralt (also Asralt chairchan, Asaraltu, Guntu-Sardyk, 2751 m) under its saddle-back on the scree in the high-mountain stony tundra at an altitude of 2200 m. This find is of phytogeographic importance not only because of the great scarcity of this species in the mountains of south Siberia, but also because it is the easternmost known finding place in Eurasia. Being more than

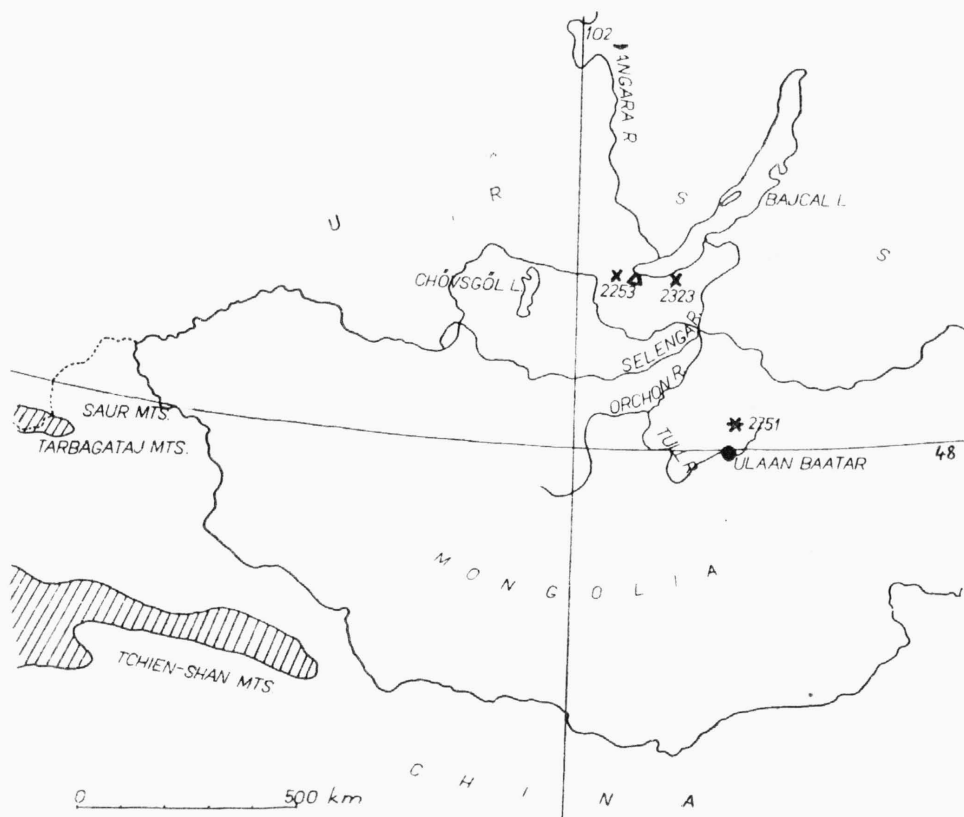


Fig 1. — Distribution of *Gnaphalium supinum* in mountains of S. Siberia and adjacent part of C. Asia; \* — the new locality in N. Mongolia, x — the localities published by IVANOVA, Δ the unpublished SojáK's locality, //// — continuous area of *Gnaphalium supinum*. — Del. H. VACKOVÁ.

350 km distant (in a straightline) SE. from the locality in Chamar Daban, it is situated just behind the important divide-rivers Angara-Selenga. It is also the first discovery of this species on the territory of the Mongolian People's Republic. (Numbers of sheets of our *Gnaphalium supinum* are 9549, 9550, 9551.)

From the phytogeographic standpoint the Chentei Mts. belong without doubt to the flora of Central Siberia, not to the flora of Central Asia. Chentei represents a continuation of the Siberian large range Jablonovyy chrebet; its 1800—2200 m high "goltsy" (alpine tundra belt above the timberline) are covered mostly with the lichen stony alpine tundra. On its moister habitats there occur sedge meadows and low alpine shrublets. The herb-rich alpine meadows occur only unfrequently. At lower altitudes there is boreal coniferous forest with *Pinus sibirica* and *Larix*

*sibirica*, on the south slopes alternating mostly with high mountain steppe. (JUNATOV 1950). The Chentei Mts. belong to the Transbaical province of the mountain taiga.

*Gnaphalium supinum* grows in the alpine and subalpine zones of the mountains up to the height of 4000 m. In the Arctic regions it inhabits various types of tundra and in the lowlands too. It is a characteristic plant of the snow coomb, it also often occurs in the moraines, on the screes, on the loosened stony slopes, less frequently on the alpine meadows. It is one of the pioneer plants occupying new cleared areas. In the Chentei Mts. I met *Gnaphalium supinum* on the stony scree in so-called "alpine lichen tundra".

Lichens of the genera *Cetraria* and *Cladonia* predominated in the locality. The higher plants growing in the neighbourhood of *Gnaphalium supinum* included *Lycopodium alpinum* L., *Juniperus pseudosabina* FISCH. et MEY., *Cobresia bellardii* (ALL.) DEGL., *Carex rupestris* BELL., *C. stenocarpa* TURCZ., *Salix berberifolia* PALL. and *S. divaricata* PALL., trailing *Salix nummularia* ANDERSS., *Betula rotundifolia* SPACH., *Polygonum viviparum* L., *Arenaria formosa* FISCH., *Ranunculus altaicus* LAXM., *Rhodiola quadrifida* (PALL.) FISCH. et MEY., *Bergenia crassifolia* (L.) FRITSCH., *Dryas oxyodonta* JUZ., *Oxytropis alpicola* ZURCZ., *Rhododendron chrysanthum* PALL., *Gentiana algida* PALL., *G. grandiflora* LAXM., *Campanula silenifolia* FISCH., *Saussurea baicalensis* (ADAMS.) ROBINS., *S. schanginiana* (WYDL.) FISCH. Not far from this habitat the last scattered shrub-like cembra pines (*Pinus sibirica* (RUPR.) MAYR. grew.

Until now only one species of *Gnaphalium* — *G. uliginosum* L. s. l. (GRUBOV 1955) has been recorded from Mongolia. According to POPOV and BUSIK (1966) it grows in Mongolia and in the environs of Lake Baikal. It is a variety, adapted to the arid climate and relatively high elevations, characterized and described as *Gnaphalium baicalense* KIRP. I suppose that besides the newly found *Gnaphalium supinum* another species probably grows in the border zone of Mongolia — *Gnaphalium norvegicum* GUNN., which has been found not only in the East Saian, on Chamar Daban, but also in the border mountain ridge Pograničnyj chrebet (MALYŠEV 1965, 1968). Its occurrence in Mongolia may be expected with a great probability.

#### Souhrn

Autor nalezl v r. 1966 v pohorí Chentej na hoře Asaralt v severní části Mongolska *Gnaphalium supinum* L. Je to první nález uvedeného druhu na území Mongolské lidové republiky a nejvýchodnější místo výskytu v Eurasii.

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