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## Poisonous Plants of Siberia as a Source of the Homeopathic Raw Material.

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### ABSTRACT

Nowadays there is an increasing interest to such an area of medicine as homeopathy. In this regard, the study of medicinal plants used in homeopathy is of great current interest. The search for new species that can be used in homeopathy is still continuing. The aim of our study was to identify Siberian poisonous plants, which could be used in homeopathy, basing on the author's own research and literature data. The conducted research allowed us to draw a list of poisonous plants of Siberia, used in homeopathy. The list includes 23 species, listed in Latin, with the indication of homeopathic raw materials, area of medicine and the diseases which can be treated applying this species in homeopathy. The author conducted field studies of medicinal plants, including poisonous plants, in Siberia, the Kuznetsk Alatau, in particular. To select the material, the technique of regular laying the key sites and a network of expedition routes were used. In most cases, namely in 17 species, the whole plant can be used as the source of raw material. The underground part alone is used in two species. The aboveground part alone is also used in two species. Most poisonous plants (14 species) are not listed in scientific medicine and are used in traditional medicine and homeopathy. 9 species of poisonous Siberian plants are used in scientific and traditional medicine and homeopathy. Poisonous plants used in homeopathy are applied in treating a variety of diseases, both of mental and somatic nature. The author hopes to continue research in this area to expand the list of species used in homeopathy to help people cope with various diseases which are not always successfully treated by the methods used in conventional medicine.

**Keywords:** poisonous plants, homeopathy.

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## INTRODUCTION

Nowadays there is an increasing interest to such an area of medicine as homeopathy. The attitude to it can be mixed, but the fact remains that a growing number of people are turning to homeopathic physicians, having lost faith in the official medicine. In this regard, the study of medicinal plants used in homeopathy is of great current interest.

The world resources of homeopathic medicinal raw materials account for 966 species of higher and lower plants which belong to 190 families, 910 substances of chemical and mineral origin, 117 species of animal origin, 380 organs and tissues and 120 nosodes used worldwide for the production of homeopathic medicinal products. Out of higher plant species used in homeopathy the biggest number belongs to such families as: *Asteraceae* - 8,4%, *Fabaceae* - 4,6%, *Lamiaceae* - 4,6%, *Apiaceae* - 4,1%, *Ranunculaceae* - 3,4%, *Rosaceae* - 3,2%, *Euphorbiaceae* - 2,3%, *Rutaceae* - 2%, *Brassicaceae* - 2%, *Apocynaceae* - 1,6% [13].

Herbal raw materials are used to produce homeopathic mother tincture. For this purpose both fresh and dried plant material (aboveground parts, leaves, underground parts, flowers, fruits, seeds, etc.) is used.

Over the past 10 years in the Russian pharmaceutical market there appeared more than 700 complex homeopathic medicinal products, which comprise plant and animal products and nosodes [13]. Vavilova N.M. in her monograph describes 326 homeopathic medications, including 213 of plant origin and 113 of synthetic and mineral origin [2]. Analysis conducted by Belodubrovskaya G.A. et al. of the number of species listed in the domestic pharmacopoeias and used in homeopathy showed that the proportion of "homeopathic" plants ranges within 34-45% of the number of species included in each edition [1]. The search for new species that can be used in homeopathy is still continuing. The aim of our study was to identify Siberian poisonous plants, which could be used in homeopathy, basing on the author's own research and literature data.

## MATERIALS AND METHODS

The author conducted field studies of medicinal plants, including poisonous plants, in Siberia, the Kuznetsk Alatau, in particular. To select the material, the technique of regular laying the key sites and a network of expedition routes were used. The occurrence and abundance of medicinal plants in the forests of Kuznetsk Alatau and other regions of Siberia were studied based on the analysis of geo-botanical descriptions [10].

## EXPERIMENTAL RESULTS AND DISCUSSION

We have conducted an inventory of Siberian medicinal plants, which are used in such a popular today field of medicine as homeopathy. In order to study these species we compiled a list of medicinal plants of Siberia, used in homeopathy. This study revealed that homeopathy works with 67 species of medicinal plants used in official medicine and 39 species of medicinal plants used in traditional medicine, relating to a total of 103 genera and 50 families [7, 8, 11-13, 15, 17]. Moreover, homeopathy makes use of not only flowering plants, which are the majority, but also gymnosperms, including such families as *Cypress*, *Pine*, *Ephedroid*, and higher cryptogams represented by such families as *Lycopodiaceae*, *Equisetales*, *Dryopteris* [13].

Special attention in our study is devoted to poisonous plants that serve as sources of homeopathic raw materials. 23 species of Siberian medicinal plants used in homeopathy belong to poisonous. By systematic pertinence the largest number of Siberian poisonous plants (4 species from each family) belongs to *Ranunculaceae* and *Solanaceae*. Of the *Ranunculaceae* family, homeopathy uses the following species: *Adonis vernalis* L., *Caltha palustris* L., *Pulsatilla flavescens* (Zucc.) Juz., *Ranunculus acris* L. The *Solanaceae* family is represented in homeopathy by: *Datura stramonium* L., *Hyoscyamus niger* L., *Solanum dulcamara* L., *Solanum nigrum* L. Next by the number is the species from the family of *Apiaceae*: *Cicuta virosa* L., *Conium maculatum* L. The remaining families are represented in homeopathy by one species of poisonous plants: *Aristolochiaceae* - *Asarum europaeum* L., *Asteraceae* - *Tanacetum vulgare* L., *Boraginaceae* - *Symphytum officinale* L., *Convallariaceae* - *Convallaria majalis* L., *Crassulaceae* - *Sedum acre* L., *Dryopteridaceae* - *Dryopteris filix-mas* (L.) Schott., *Ericaceae* - *Rhododendron aureum* Georgi, *Paeoniaceae* - *Paeonia anomala* L., *Papaveraceae* - *Chelidonium majus* L., *Parnassiaceae* - *Parnassia palustris* L., *Scrophulariaceae* - *Scrophularia nodosa* L., *Thymelaeaceae* - *Daphne mezereum* L.

Below is a description of poisonous plants, indicated with their Latin names, specifying homeopathic raw materials, the area of medicine where these species are applied and the range of treatable diseases (Table). In most cases, namely in 17 species, the whole plant can be used as the source of raw material. The underground part alone is used in two species: *Cicuta virosa* L. and *Paeonia anomala* L. The aboveground part alone is also used in two species: *Rhododendron aureum* Georgi and *Solanum dulcamara* L.

Most poisonous plants (14 species) are not listed in scientific medicine and are used in traditional medicine and homeopathy. 9 species of poisonous Siberian plants are used in scientific and traditional medicine and homeopathy.

Poisonous plants used in homeopathy are applied in treating a variety of diseases, both of mental and somatic nature.

#### Poisonous plants of Siberia used in homeopathy

Species	Homeopathic raw material	Area of medicine	Application in homeopathy
1. <i>Adonis vernalis</i> L.	Aboveground part and the whole of the plant	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Heart diseases, thyrotoxicosis, insomnia [4, 9].
2. <i>Asarum europaeum</i> L.	Underground part and the whole of the plant	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Alcoholism, hysteria, neurasthenia, dyspepsia [3].
3. <i>Caltha palustris</i> L.	The whole plant	Traditional medicine and homeopathy [9, 13, 14]	Uterine cancer and various skin diseases [3].
4. <i>Chelidonium majus</i> L.	The whole plant, roots alone, the aboveground part, flower	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Cholelithiasis, hepatitis, pneumonia, whooping cough, headache on the right side of the head, dermatosis, arthritis [3].
5. <i>Cicuta virosa</i> L.	Underground part	Traditional medicine and homeopathy [9, 13, 14]	Epilepsy, dizziness, gastritis, dermatitis, neurasthenia, etc. [3].
6. <i>Conium maculatum</i> L.	Inflorescence, tops of the aboveground part, the whole plant	Traditional medicine and homeopathy [9, 13, 14]	Paresis and paralysis, insomnia, prostate adenoma, bronchitis, uterine fibroids, etc. [3].
7. <i>Convallaria majalis</i> L.	The whole plant, the aboveground part alone, leaves, flowers	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Depression, cardiac neurosis, headache, etc. [3].
8. <i>Daphne mezereum</i> L.	Trunk and branches bark	Traditional medicine and homeopathy [9, 13, 14]	Cystitis, eczema, rhinitis, trigeminal neuralgia, stomatitis, etc. [3].
9. <i>Datura stramonium</i> L.	The whole plant, the aboveground and underground parts alone, leaves, seeds	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Manic-depressive psychosis, stuttering, hiccups, epilepsy, infectious diseases, asthma, trigeminal neuralgia, etc. [3].
10. <i>Dryopteris filix-mas</i> (L.) Schott.	Rootstock and leafstalk	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Helminthic invasions [5, 6].
11. <i>Hyoscyamus niger</i> L.	Leaves and the whole plant with seeds	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Manic-depressive psychosis, atherosclerosis of cerebral vessels, night terrors in children, bronchitis, tracheitis, fever, etc. [3].
12. <i>Paeonia anomala</i> L.	Underground part	Scientific and traditional medicine and homeopathy [4, 9, 14, 15]	Sedative
13. <i>Paris quadrifolia</i> L.	The whole plant	Traditional medicine and homeopathy [9, 13, 14]	Headaches, concussion, dizziness, drowsiness, neuralgia, bronchitis, rheumatism, digestive disorders, and others. [3].
14. <i>Parnassia palustris</i> L.	The whole plant	Traditional medicine and homeopathy [9, 13, 14]	Kidneys and bladder diseases
15. <i>Pulsatilla flavescens</i> (Zucc.) Juz.	The aboveground part and the whole plant	Traditional medicine and homeopathy [9, 13, 14]	Nerve and gastric diseases, inflammation of the inner ear, measles [9].
16. <i>Ranunculus acris</i> L.	The aboveground part and the whole plant	Traditional medicine and homeopathy [9, 13, 14]	Nerve and gastric diseases, inflammation of the inner ear, measles [9].
17. <i>Rhododendron aureum</i> Georgi	Branches with leaves and flowers	Traditional medicine and homeopathy [9, 13, 14]	Arthritis, osteochondrosis, herpes, eczema, headache, etc. [3].
18. <i>Scrophularia nodosa</i> L.	The aboveground part and the whole plant	Traditional medicine and homeopathy [9, 13, 14]	Hepatitis, headache, keratitis, mastopathy etc. [3].
19. <i>Sedum acre</i> L.	The whole plant	Traditional medicine and homeopathy	Hemorrhoids, pain in the rectum, etc. [16].

		[9, 13, 14]	
20. <i>Solanum dulcamara</i> L.	Young leaf-bearing shoots with flowers	Traditional medicine and homeopathy [9, 13, 14]	Sciatica, paralysis, rhinitis, tracheitis, gastritis, hives, etc. [3].
21. <i>Solanum nigrum</i> L.	The whole plant	Traditional medicine and homeopathy [9, 13, 14]	Ergot poisoning, ocular pressure and pruritus in the limbs, etc. [9, 16].
22. <i>Symphytum officinale</i> L.	The whole plant, the aboveground and underground parts alone.	Traditional medicine and homeopathy [9, 13, 14]	Peptic ulcer, gastritis, hemorrhoids, fractures, etc. [3].
23. <i>Tanacetum vulgare</i> L.	The aboveground part, inflorescence and flowers separately	Traditional medicine and homeopathy [9, 13, 14]	Nervous system exhaustion, dizziness, epilepsy, stomach pains, headaches, etc. [3].

### CONCLUSIONS

The conducted inventory of Siberian poisonous plants showed that 23 species are used in homeopathy and other areas of medicine and serve as a source of homeopathic raw material. However there are other understudied medicinal and poisonous plants, that could be promising to apply in homeopathy. A list of these plants is quite extensive and includes species from different families, used both in scientific and traditional medicine. The author hopes to continue research in this area to expand the list of species used in homeopathy to help people cope with various diseases which are not always successfully treated by the methods used in conventional medicine.

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