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RESEARCH REGARDING THE VALORIZATION OF MEDICINAL PLANTS IN THE
LUGOJ AREA (TIMIS COUNTY)

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Abstract: The use of spontaneous plants for food or therapeutic purposes has been carried out since ancient times, with humans coming to know the beneficial or toxic properties of plants through personal experience. The research aimed to identify the main medicinal and aromatic plants of interest from the areas surrounding Lugoj, to establish the main species used by the local population, and to determine how these plants are utilized. Based on floristic studies, a summary of medicinal species was compiled according to taxonomic criteria. The main medicinal and aromatic plants used by the inhabitants of the analyzed area are discussed in terms of their importance and methods of use.

Keywords: medicinal plants, economical potential, traditional use

Introduction

Nature represents a rich source of floristic and faunal resources, offering us numerous possibilities of capitalization. The wild flora represents a valuable source of plant-based raw materials, thanks to the considerable floristic biodiversity that our country enjoys. Phytotherapy, or therapy through medicinal plants, offers suitable solutions for maintaining health and preventing diseases. Due to the side effects of synthetic drugs and the well-known issues of antibiotic resistance, the use of natural medicinal plant sources offers a viable and effective alternative. In popular tradition, plant resources are both phytopharmaceutical and food sources, all vegetative organs being used: root, leaves, fruits, flowers, seeds. Plants represent the oldest forms of care human and animal health. Romania presents a remarkable floristic diversity, with over 3.000 angiosperms, approximately 30% of European floristic species being found here. It is estimated that, over 350 species of medicinal and aromatic plants are used in Romania.

Material and method

The outline of the vascular flora was drawn up based on field studies carried out throughout the vegetation period, during the years 2022-2024. Floristic surveys were drawn up, which allowed the identification of cormophytes in the area, including species of phytotherapeutic interest. In order to identify the main species used medicinally as well as the way of capitalizing on them by the inhabitants of the researched area, a questionnaire was drawn up, which included several relevant questions in this sense. The questionnaire was applied to people from the localities: Lugoj, Știuca, Darova, Dragomirești, Pogănești, Jurești, Petroasa Mare, Herendești.

Results and discussions

Following the floristic study, 176 medicinal and aromatic plants belonging to 49 botanical families were identified. The best represented botanical families are: Asteraceae representing 16%, Lamiaceae representing 15%, Rosaceae representing 11%, Ranunculaceae representing 6%, Fabaceae and Fagaceae representing 5%; with percentages between 1% and 5% we mention Polygonaceae, Brassicaceae, Asparagaceae, Aristolochiaceae, Apiaceae, Malvaceae.



Fig 3. *Allium ursinum* fresh for use



Fig 4. Inflorescences at *Gallium mollugo*



Fig 5. Fruits of *Rosa canina*



Fig 6. Nettle infusion

Allium ursinum L. (wild garlic), is a perennial plant with a tunicate bulb and fascicular roots; the stem is straight, reaches a height of 10-20 cm. The leaves of the plant have the smell of garlic, they are ovate-lanceolate in shape, the flowers are grouped in cymes having the appearance of umbels. The villagers of Știuca and Dragomirești harvest the leurdă leaves (*Alii ursini folium*) in the spring, using them in food and to treat hypertension, intestinal worms. Bulbs (*Alii ursini bulbus*) are harvested and used as food (Fig 3.), similar to onion bulbs.

Galium mollugo L. (false baby's breath) is a perennial plant with a tetramucite stem, it is branched and 25-80 cm tall. The plant has leaves linear, whorled leaves and white flowers, grouped in cymes (Fig 4.). Locals from Lugoj and Darova harvest the above-ground part during flowering (*Galii herba*), usually in June-July to treat impotence, calm nervousness, antirheumatic. The may plant is also used for milk coagulation and cheese production.

Rosa canina L. (rosehip), is a thorny shrub with imparipinnate-compound, stipitate leaves, with pink flowers and polyachene-type fruit. The locals in the analyzed area, from all areas, harvest the fruits (*Cynosbati fructus*) in autumn, in the months of September-October. Jams and syrups are made from the fresh fruits, being recommended for their vitaminizing properties. They also make infusions from the dried fruits (Fig 5.), sometimes mixed with other species (mint, lime). They are used in the treatment of colds, flu, as a preventive measure to increase immunity, in digestive disorders (astringent), in kidney disorders (diuretic).

Urtica dioica L. (big nettle) a perennial species with rhizome and above-ground stems up to 150 cm. The species has simple, lanceolate leaves with a toothed edge, unisexual-dioecious flowers, with sepeloid perigon; the fruit is an achene. The entire plant is covered with unicellular stinging hairs. It is a plant valued both for food and medicine, being used since early spring when the first leaves appear. Leaves and herba (*Urticae folium*, *Urticae herba*) are used to combat anemia as a vitaminizer (Fig 6.), in respiratory conditions (cough), diuretic, detoxifier. Externally, the whole plant is used to treat rheumatic conditions, hair loss, wounds, dermatitis, superficial burns of the skin for healing purposes.

Taraxacum officinale F.H. Wigg. (dandelion), is a perennial herbaceous plant with rhizome and taproot; scapiform above-ground stem, 10-15 cm high. The organs of the plant secrete white latex. The leaves are pinnatisect arranged in a basal rosette. Calatides have yellow ligulate flowers; fruit achene with white pappus. Locals collect especially the young leaves, the young stems, in the spring and use them directly as food, for the slightly bitter taste, in order to stimulate the appetite (Fig 7.), vitaminizing, stimulating the stomach and liver activity (adjuvant in hepato-biliary diseases). The pharmaceutical product also refers to the use of the root (*Taraxaci radix cum herba*), but the locals use the above-ground part (the herb).



Fig 7. Preparation of syrup from dandelion inflorescences with bee honey

Conclusions

As a result of the floristic research, it is found that the analyzed area stands out for its appreciable floristic biodiversity, the spontaneous flora representing a valuable source of raw material of plant origin. Wild plants, as well as cultivated ones, contain biologically active compounds, which determine their phytotherapeutic properties. The locals in the analyzed area directly harvest medicinal and aromatic species from the spontaneous flora and rely on phytotherapeutic remedies in the treatment of various ailments. Due to the side effects of synthetic drugs as well as the well-known problems of antibiotic resistance, the use of medicinal plants offers a viable and effective alternative. It is necessary to preserve and promote these ways of using spontaneous species, of course also taking into account the need to restore plant material, in the context of the sustainable use of spontaneous resources.