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MEDICINAL IMPORTANCE OF SOME SPECIES OF *ARTEMISIA* GENUS AND THEIR SCIENTIFIC CHARACTERISTICS

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Abstract
İn article the medicinal features of some wormwood species and their characteristics were described. Azerbaijan is rich in valuable forage and medicinal plants, among which Artemisia species are particularly significant. Traditionally they are used to treat different diseases.

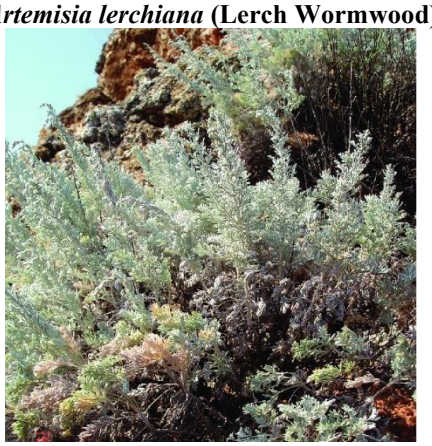
Keywords: wormwood, perennial, medicinal, anti-parasitic, antimicrobial, antifungal

Introduction

Plants belonging to the genus *Artemisia* are widely valued for their diverse medicinal properties. The biological activity of these plants is primarily due to the complex of bioactive substances they contain, such as flavonoids, essential oils, organic acids, vitamins, and a variety of macro- and microelements. These compounds contribute to regulating metabolism, enhancing immunity, and providing resistance against infections [1,2].

Below is a detailed scientific description of key *Artemisia* species studied in the region.

***Artemisia lerchiana* (Lerch Wormwood)**



Botanical Description: Semi-shrub (chamaephyte) reaching 30–60 cm in height, belonging to the Asteraceae family. Prefers saline soils and areas exposed to intense sunlight. For medicinal purposes, the leaves, flower buds, aerial parts, and roots are used. The plant is harvested during its flowering period, dried in well-ventilated shady areas, and stored in cloth bags or wooden boxes.

Its chemical composition includes essential oils (1.5–2.0%), phytoncides and alkaloids, ascorbic acid (Vitamin C) (0.8–1.2%), provitamin A (carotenoids) (0.3–0.6%), malic acid (0.5–1.0%), various macro- and microelements (Ca, Fe, K, Mg, Zn) [3]. It has antibacterial and antifungal activities, stimulates appetite and digestion, strengthens the immune system.

Traditionally infusions are used to improve digestion, stimulate the gastrointestinal tract, and enhance general health. Its decoction is applied in folk medicine to combat diarrhea, indigestion, and skin conditions [3].

***Artemisia vulgaris* (Common Mugwort)**

Botanical Description: A perennial herbaceous plant widely distributed across the world. Historically regarded as a "magical herb" to protect women from diseases [4,14,15].

Chemical Composition: essential oils (camphor-like aroma) (1.2–1.8%), bitter substances (0.5–1.0%), flavonoids (0.7–1.2%), coumarins, vitamin B complex.

It acts as an effective diuretic, regulates stomach function, and helps with inflammations, nervous disorders, and epilepsy. Additionally, it has antispasmodic and stimulating effects and is used as a culinary spice.

Traditionally it is used to treat epilepsy, insomnia, digestive disorders, and inflammation. In medieval Europe, it was believed to protect travelers and prisoners.

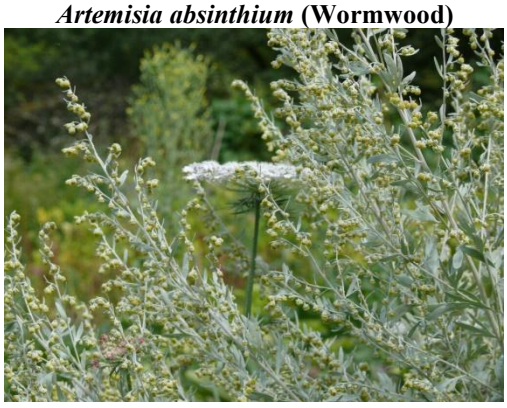
***Artemisia abrotanum* (Southernwood)**

Botanical Description: A perennial semi-shrub with many branches forming large clumps, reaching a height of 50–100 cm.

The aerial parts contain biologically active substances such as antimicrobial and antifungal essential oils, flavonoids, and coumarins, tannins.

It found large gynaecological applications, has cardiovascular benefits (tachycardia, anemia, angina pectoris), is used in respiratory infections (bronchitis, pneumonia), hair-strengthening infusions. Traditionally the plant is utilized to prepare decoctions and ointments for skin burns and frostbite, and its infusions are used to strengthen hair [6,8,10,11].

***Artemisia absinthium* (Wormwood)**



Botanical Description: A highly aromatic perennial herb, 30–100 cm tall. Noted for its silvery-green leaves and strong, bitter taste.

Chemical Composition: essential oils (~2%) (including thujone), alkaloids, carotene (12 mg%), vitamin C (175 mg%), bitter compounds (absinthin, anabsinthin), inulin, macro- and microelements (Ca, Fe, K, Mg, Mn, Cu, Zn, Co, Mo, Cr, Se, Ni, Sr, Br, B) [7,9, 15].

Pharmacological Properties: anti-parasitic (effective against malaria), stimulates bile secretion, enhances digestion, detoxifying effects. Widely used in folk and modern medicine for the treatment of gastrointestinal disorders, gallbladder diseases, and male infertility (prostate adenoma). Preparations made from *A.*

absinthium should not be used for more than two months continuously due to potential toxicity.

Conclusion

Species of the *Artemisia* genus represent a valuable natural resource with significant potential for pharmacological, culinary, and cosmetic applications. Their diverse biological activities make them indispensable in traditional and modern medicine. Further research into their active compounds and clinical effects is necessary for the development of new therapeutics.

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