

UNIVERSITY OF HOHENHEIM



Cypriot plants of folk medicine

Seminar contribution to the module "Terrestrial Ecosystems" (2101-230)
Institute of Botany (210a) · University of Hohenheim · Stuttgart
presented by Theresa Kühn on January 23, 2019

Cypriot plants of folk medicine

- Introduction
- The seven plants of the Bibel
- More examples



Almond blossom [1].

Introduction

As a result of evolution plants produce a mixture of chemicals among other things to protect themselves from being eaten by animal predators.

The empirically and accruing knowledge about the use of plants for medicinal purposes was gathered over centuries. Not only by human, but also by animals, for example wounded animals smear their injuries with pine – tree resin to accelerate healing.

Also sheep and goats, which have been bitten by snakes, look for and eat the plant *Euphorbia helioscopia* which they normally do not eat.



Euphorbia helioscopia [2].

Introduction

Hippocrates, who is just considered the first physician of mankind, raised the use of medicinal plants into a true science. They refer to plants which are used for a variety of purposes such as food, drinks, flavoring, cosmetic, perfume, incense and religious ceremonies.

Medicinal plants comprise the main source of drugs, even the industries use pharmaceutical plants as a raw material to manufacture drugs.

Plant remedies are usually cheaper, more easily available and have less side effects. Therefore it is important to increase the understanding and appreciation about medicinal plants. But to be careful and well – informed before use, it is a matter of the dose.

The seven plants of the Bibel

The Bible describes Israel as a land blessed with seven species of fruit and grain. All seven species can be encounter in Cyprus.

*A land of wheat, barley, grape vines, figs and pomegranates,
a land of olive oil and honey*

Deuteronomy 8: 8.

Punica granatum L. – Lythraceae

Characteristics

A small much branched deciduous spiny tree or shrub, up to 5 - 6 m high, with shiny narrow leaves 3 - 7 cm long.

The flowers are large, solitary or in small clusters. The flowering period is April to June.

The legend says that Pomegranate, a native plant of the Orient, was first planted on the island by Aphrodite. Today it is widely cultivated all over Cyprus.

Due to the numerous stamens it is a symbol of fertility.



Pomegranate tree loaded with fruits [3].

Punica granatum L. – Lythraceae

Ingredients

The bark of the stem and the root, as well as the rind of the unripened fruits, is rich in alkaloids and tannin.

It also contains malic acid, flavonoids and ellagic acid.

Medical effect

They are used effectively against intestinal parasites.

The juice of the fruit is regarded valuable in cases of kidney diseases. It is also known to have a positive effect on HIV, diabetes, fever and diarrhea.



Punica granatum flower [4].



Pomegranate fruits [5].

***Ficus carica* L. – Moraceae**

Characteristics

A densely branched stiff tree up to 5 m high when cultivated, or a scrambling shrub when semiwild. Common all over Cyprus and flowering from August to November.

It has a pollinating insect called *Blastophaga grossorum*.

Ingredients

The leaves and stem exude a milky juice when cut. It contains vitamins A, B, C, fruit acid, carbohydrates as fructose, pectin (roughages) and phosphor.



Fig tree in the spring [6].

***Ficus carica* L. – Moraceae**

Medical effect

The fruits and the milky juice of the plant are used against boils, skin infections and to destroy warts.

It is also used as food, in example as marmelade or juice, which should help against cold, vitamin deficiency, liver disease and digestion problems.



Open fig [7].

Olea europaea L. – Oleaceae

Olive trees are common in the Mediterranean area.

The olive, as the source of olive oil, is an important fruit in the Mediterranean region.

It is one of the core ingredients in the Mediterranean cuisine and also have curing effects.

The tree resists the long summer drought.



Old olive grove [8].

Olea europaea L. – Oleaceae

Characteristics

The evergreen tree or shrub can rarely exceed 15 m and can gain an age up to 1000 (-2000) years.

The flowers are small, white and feathery, the trunk is typically twisted.

Ingredients

The drupes contain vitamins A, B1, B2, B16, E, folic acid and trace elements like K, Ca, Mg and Fe as well as phytochemicals.



Olives from Jordan [9].

Olea europaea L. – Oleaceae

Medical effect

Olive oil is used for skin care.

It also has an hypoglycemic, antibacterial, antioxidant, antiviral and anti-inflammatory effect, wherefore it is applied for diabetes, heart problems, immune deficiency, digestive problems and urinary tract diseases.



Olive blossoms [10].

Vitis vinifera L. – Vitaceae

Characteristics

It is a liana growing up to 32 m in length, with flaky bark.

The leaves are alternate, palmately lobed. The fruit is a berry, known as a grape. It is flowering from June to August.

Ingredients

Grapes with different colors have different ingredients, for example the blue ones contain capillary protective pigments.



Grapevine [11].

Vitis vinifera L. – Vitaceae

Medical effect

Dry grapes include a high fructose share which is an ideal energy source. The leaves are used as pads to make tea. But as well the blossoms are eligible to create tea.

Wine is stimulating, white wine affect water expelling and red wine affect astringent.

The oil from the pits contains a lot of unsaturated fats.



Male blossoms of *Vitis vinifera* L. [12].

Nerium oleander L. – Apocynaceae

Characteristics

An evergreen robust shrub, up to 4 m high, with darkgreen, narrow, lance shaped leaves, growing in pairs or to three.

The flowers are large, pink coloured, or sometimes white, on terminal heads. It flowers from april to september.

It is common all over Cyprus, along water courses and commonly cultivated as an ornamental plant along roadsides.



Nerium oleander L. [13].

Nerium oleander L. – Apocynaceae

Ingredients

The leaves and flowers contain a poisonous milky juice which is rich in salicine and other alkaloids.

Medical effect

Infusions from its leaves and flowers have been widely used externally against psoriasis.

The oleander leaves are also used as a very effective rat poison: The burrows of the rats are tamped with a compact mass of oleander leaves. The rats, in effort to escape, eat the leaves and die almost instantly.



White Oleander blossoms [14].

Juniperus phoenicea L. – Cupressaceae

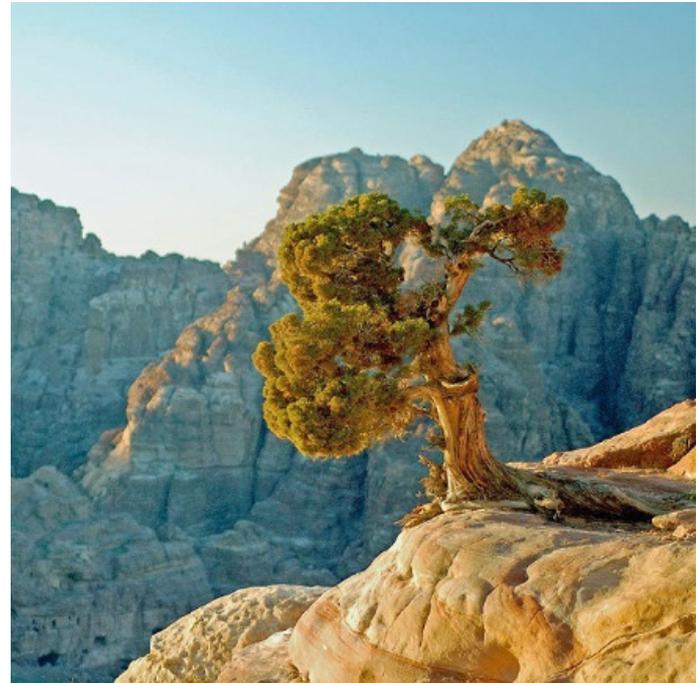
Characteristics

An evergreen, aromatic shrub or small tree, up to 8 - 10 m high, with glandular leaves. It flowers from february to april.

It is common on rocky ground, in pine forest, macchia, dry slopes, from sea level to around 350 m high.

Ingredients

The whole plant, especially the fruits, contain a fragrant oil. The fruits also contain a bitter tasting mixture of tannins, resins and organic acids which gives them a characteristic aroma and spicy flavor.



Juniperus phoenicea L. [15].

Juniperus phoenicea L. – Cupressaceae

Medical effect

Used in medicine mainly as a diuretic and as a stomach tonic, as well as in the treatment of urinary infections, cystitis and dermatitis.

Infusions and extracts from fruits and fresh leaves are used as a very effective antiseptic. A side – effect is an increase of appetite. Due to its flavoring and aromatic properties it is the principal flavoring and aromatic substance in gin.



Juniperus phoenicea L. fruits [16].

Arbutus andrachne L. – Ericaceae

Characteristics

Small evergreen tree or shrub, up to 5 – 6 m high, with an unmistakably smooth red bark. Leaves stalked, leathery, dark green and shiny. The flowering period is from february to april.

It is an characteristic plant of the macchia, rocky places, woods and thickets.



Arbutus andrachne L. [17].

Arbutus andrachne L. – Ericaceae

Ingredients

The ripe fruits, reminiscent of strawberries, are edible and can be also tasty.

The leaves and bark are rich in tannic and gallic acid, resinous compounds and pectins.

Medical effect

An infusion made from its leaves is prescribed in cases of respiratory, urinary and genital haemorrhages, against diarrhoea and cystitis.



Arbutus andrachne L. flowers [18].

***Rosmarinus officinalis* L. – Lamiaceae**

Characteristics

Small evergreen aromatic shrub with leathery leaves, greygreen or darkgreen in colour. Lower surface of leaves with tiny white hairs. The flowering period is all over the year.

It is very rare as a wild plant in Cyprus, growing locally on rocky shores. However it is very common as a cultivated plant.

Rosmarine has been a great importance in religion. It is the plant that accompanies the dead to their eternal home, the plant of graves and cemeteries. It is also regarded as a symbol of fidelity.



Rosmarinus officinalis L. [19].

***Rosmarinus officinalis* L. – Lamiaceae**

Ingredients

The leaves and flowers are rich in essential oil which contains terpens and other substances.

Medical effect

Used as a very effective antiseptic, as a tonic and as an antispasmodic.

Infusion made from its leaves is used as a digestive.

Rosmarine leaves boiled in wine are used externally by villagers against arthritis as well as in the treatment of bruises and injuries.

Also used as an insecticide.



Rosmarinus officinalis L. flowers [20].

Prunus dulcis (Mill.) D.A. Webb – Rosaceae

Characteristics

Deciduous tree, 6 - 10 m high with elliptically-lanceolate leaves. Flowering from march to april with pale pink or white colored blossoms. The almonds are drupes.

Ingredients

The fruits contain oils, proteins, carbohydrates, vitamins and mineral salts, but also hydrocyanic acid, wherefore one should not eat more than 20 almonds a day.



Prunus dulcis (Mill.) D.A. Webb [21].

Prunus dulcis (Mill.) D.A. Webb – Rosaceae

Medical effect

Almond milk was even from ancient times known as a beauty product. Good for skin care, itching and burns.

Almond oil, after destillation of hydrocyanic acid, can be used as a laxative, massage oil and as an ointment.

All in all the ingredients have a laxative, hematopoietic, antispasmodic and reassuring effect.



Almond blossom [22].

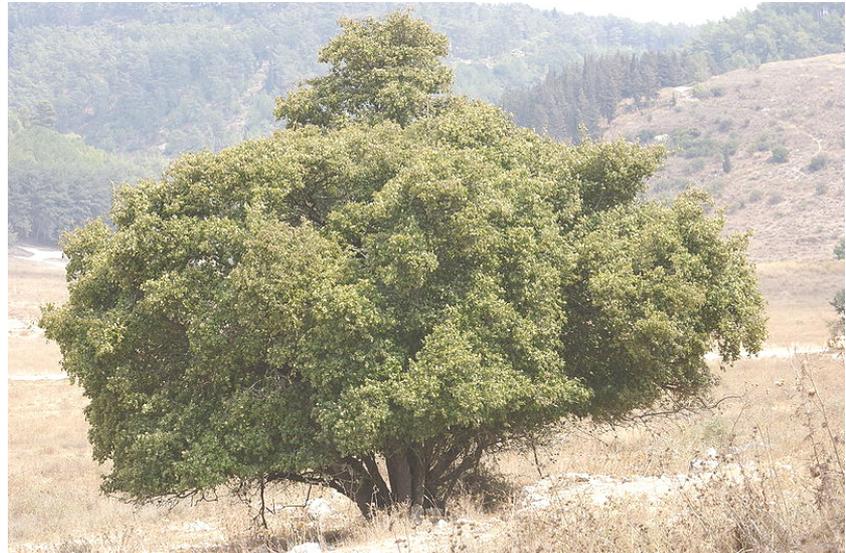
***Styrax officinalis* L. – Styracaceae**

Characteristics

Deciduous shrub or small much branched tree 3 - 7 m high, with petiolated, broadly elliptical leaves.

The underside of the leaves covered with white wooly hairs, upperside almost hairless.

It is found in thickets and woods on rather moist sites, from sea level to about 1 250 m a.s.l..



Styrax officinalis L. [23].

***Styrax officinalis* L. – Styracaceae**

Ingredients

It is rich in styracine benzoic acid and other benzoic compounds.

Medical effect

It has medicinal, aromatic and balsamic qualities.

Gum storax, obtained by making incisions in the stem and the branches is used both in pharmacopoeia and perfumery. It is used for incense, chronic cystitis, gonorrhoea and enteritis stomach problems as well as tuberculosis.

In Cyprus the fruits have been used by villagers in the catching of eels.



Styrax officinalis L. fruits [24].

References

Ciftcioglu, G.C. (2015): Sustainable wild-collection of medicinal and edible plants in Lefke region of North Cyprus. – *Agroforest Syst* 89: 917-931.

Della, A., Paraskeva-Hadjichambi, D. & A.C. Hadjichambis (2006): An ethnobotanical survey of wild edible plants of Paphos and Larnaca countryside of Cyprus. – *Journal of Ethnobiology and Ethnomedicine* 2: 34.

Fakir, H., Korkmaz, M. & B. Güller (2009): Medicinal plant diversity of western Mediterranean region in Turkey. – *Journal of Applied Biological Sciences* 3 (2): 33-43.

Georgiades, C. (1987): *Flowers of Cyprus. Plants of Medicine*, vol. I-II. – Nicosia.

Karousou, R. & S. Deirmentzoglou (2011): The herbal market of Cyprus: Traditional links and cultural exchanges. – *Journal of Ethnopharmacology* 133: 191-203.

Ozturk, M., Uysal, I., Gücel, S., Mert, T., Akcicek, E. & S. Celik (2008): Ethnoecology of poisonous plants of Turkey and northern Cyprus. – *Pak. J. Bot.* 40 (4): 1359-1386.

https://botanik.uni-hohenheim.de/fileadmin/einrichtungen/botanik/exkursion_i/2017_Nordzypern/2017_14_Pflanzen_Zyperns_in_der_Volksmedizin.pdf.

Illustrations

- [1] Jeantosti: <https://commons.wikimedia.org/wiki/File:Amandier1.jpg>.
- [2] Sphl: https://commons.wikimedia.org/wiki/File:Euphorbia_helioscopia2.jpg
- [3] Amnon Shavit: https://commons.wikimedia.org/wiki/File:Pommegranate_tree01.JPG.
- [4] Stan Shebs: https://commons.wikimedia.org/wiki/File:Punica_granatum_flower.jpg.
- [5] Tim Reckmann: https://commons.wikimedia.org/wiki/File:Granatapfel_2013.jpg.
- [6] Gibe: <https://commons.wikimedia.org/wiki/File:Feigenbaum.JPG>.
- [7] Rainer Zenz: <https://commons.wikimedia.org/wiki/File:Feige-Schnitt.jpg>.
- [8] Adrian Michael: https://commons.wikimedia.org/wiki/File:Olivenb%C3%A4ume_Umbrien.jpg.
- [9] Nick Fraser: <https://commons.wikimedia.org/wiki/File:Olivesfromjordan.jpg>.
- [10] Sputnikcccp: https://commons.wikimedia.org/wiki/File:Olive_blossoms.jpg.
- [11] Olga Ernst: [https://commons.wikimedia.org/wiki/File:Weinrebe_auf_Farm_Bo_La_Motte_\(Franschhoek\).jpg](https://commons.wikimedia.org/wiki/File:Weinrebe_auf_Farm_Bo_La_Motte_(Franschhoek).jpg).
- [12] Pacrat: https://commons.wikimedia.org/wiki/File:Lambrusque_fleur_male.jpg.
- [13] JoJan: https://commons.wikimedia.org/wiki/File:Batalha.Nerium_oleander01.jpg.
- [14] Claus Thoemmes (CTHOE): https://commons.wikimedia.org/wiki/File:Nerium_Oleander.JPG.
- [15] Vladimer Shioshvili: https://commons.wikimedia.org/wiki/File:Juniperus_phoenicea_Petra.jpg.
- [16] Franz Xaver: https://commons.wikimedia.org/wiki/File:Juniperus_phoenicea_1.jpg.
- [17] Easy n: https://commons.wikimedia.org/wiki/File:10.10.09_09_Arbutus_near_Matat.JPG.
- [18] A. Barra: https://commons.wikimedia.org/wiki/File:Arbutus_andrachne1.jpg.
- [19] Adrian Michael: https://commons.wikimedia.org/wiki/File:Busch_Rosmarinus_officinalis.JPG.
- [20] H. Zell: https://commons.wikimedia.org/wiki/File:Rosmarinus_officinalis_0003.JPG.
- [21] Manfred Heyde: https://commons.wikimedia.org/wiki/File:Almond_Prunus_dulcis.jpg.
- [22] Jeantosti: <https://commons.wikimedia.org/wiki/File:Amandier1.jpg>
- [23] Eitan f: https://commons.wikimedia.org/wiki/File:Styrax_officinalis_tree.JPG.
- [24] Denis prévôt: https://commons.wikimedia.org/wiki/File:Styrax_officinalis_fruits.jpg.

All requests at 17.01.2019