A decorative border of various green plants and yellow flowers surrounds the text. The plants include ferns, leafy stems, and small yellow blossoms, rendered in a detailed, hand-drawn style.

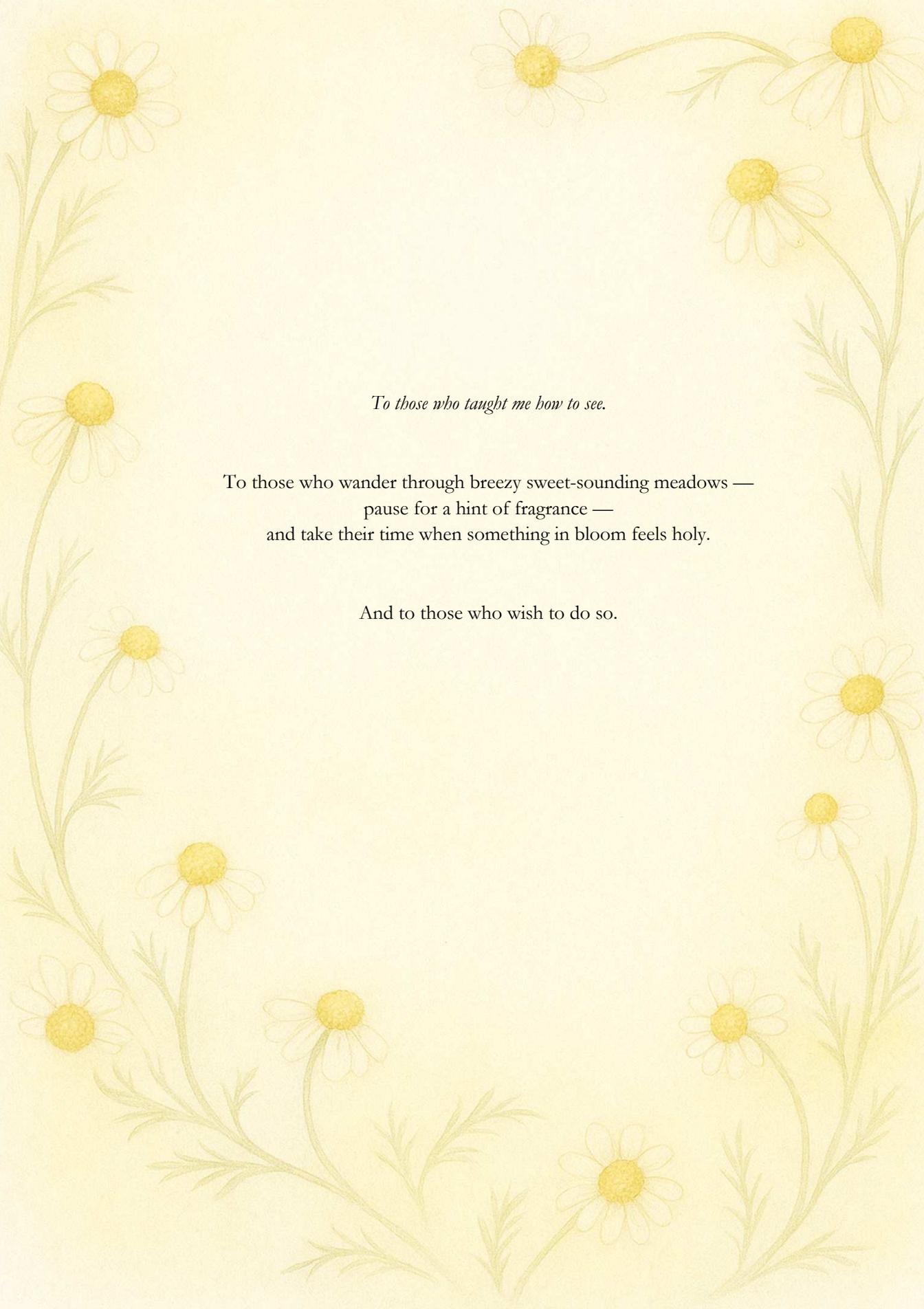
D A N U V A R O V

IN GREEN
INK

and

SILENCE

FIELD GUIDE IN FRAGMENTS • SEASONAL JOURNAL • QUIET DEVOTION



To those who taught me how to see.

To those who wander through breezy sweet-sounding meadows —
pause for a hint of fragrance —
and take their time when something in bloom feels holy.

And to those who wish to do so.

ABOUT THIS BOOK

In Green Ink and Silence is a quiet compendium of the plant world — not a botanical manual in the traditional sense, but a personal archive of observation, reverence, and kinship. I have compiled this work, not as a botanist, but as a family doctor with a deep appreciation for Nature. It is arranged not alphabetically nor by utility, but by the way plants inhabit the world: reaching, rooting, climbing, softening, surviving.

Each entry is paired with a botanical illustration and a brief reflection on the plant's form, uses, and stories — scientific, cultural, and ecological. But more than information, this book aims to offer tone and serenity through slowness, stillness and observance.

This book is by no means a test, but a trail where you are invited to choose your own pace — read what you like, skip what you will. May the plants speak to you when you both are ready.

Many of the texts were written in solitude — some beside potted leaves or rustling crowns, others in the company of moss, or memory. The quotes that divide each section seek to echo the spirit of each habitat: meadow, fen, forest floor, bark, and stone.

This book was composed for the reader who does not mind listening with their eyes — who sometimes prefers to read the shape of leaves, the weight of green, and the space between petals as carefully as the inked line of a page.

It is meant to be opened slowly, and never quite finished.



— *Dan Uvarov, MD*

First published in 2025
by Dan Uvarov
Published via Bookmundo, The Netherlands

© Dan Uvarov, 2025

All rights reserved.

Written, illustrated, and designed by the author in Tallinn, Estonia.

Designed in Garamond, adapted to B5 format.

This work remains the intellectual property of the author and may not be copied, reproduced, or adapted without express permission. No part of this publication may be reproduced, stored, or transmitted in any form — including screenshots, scans, or digital captures — without prior written permission of the author.

The moral right of the author has been asserted.

All textual content, layout design, and botanical illustrations were independently created and compiled by the author, with the support of generative artificial intelligence tools used to assist in phrasing, structural organisation, and illustration rendering. Illustrations are original compositions, produced under the author's direction, and are protected by copyright.

Latin names, botanical descriptions, and classifications follow established scientific sources and conventions. For clarity and visual consistency, botanical author citations (e.g. “L.” for Linnaeus) have been omitted throughout this volume.

Any resemblance to previously published works is purely coincidental.

The information presented in this book is for educational and cultural purposes only. It does not constitute medical advice, diagnosis, or treatment. While traditional uses of plants are noted with care, readers are strongly encouraged to consult with a qualified healthcare professional or pharmacist before using any plant, lichen, or natural remedy for medicinal purposes, especially in the context of existing conditions or ongoing medications.

ISBN: 978-9403-8-1293-9

In every walk with nature one receives far more than he seeks.

— John Muir†

This compendium was never meant to name everything — only to tread slowly and be mindful.

† John Muir (1838–1914) was a Scottish-American naturalist, writer, and advocate for wilderness preservation. Often called the “Father of the National Parks,” his work helped inspire the conservation movement and the founding of protected landscapes in the United States.

CONTENTS

☛ Trees and Shrubs ☛	1
☛ Herbs and Forbs ☛	111
☛ Grasses, Sedges and Rushes ☛	335
☛ Climbers and Vines ☛	345
☛ Aquatic and Wetland Plants ☛	353
☛ Ferns and Fern Allies ☛	369
☛ Mosses and Liverworts ☛	387
☛ Lichens ☛	399
A Final Leaf.....	413
Notes and Definitions.....	414
Botanicals and Beyond	428
Appendix A	438
Appendix B	453
Appendix C	457
Appendix D	459

❧ *Trees and Shrubs* ❧

*A tree grows not for itself, but for all
who rest beneath its crown.*



ACER PLATANOIDES

NORWAY MAPLE

SAPINDACEAE – SOAPBERRY FAMILY

HABITAT

Native to eastern and central Europe and western Asia. Widely planted as a *shade tree* in urban and suburban landscapes due to its *cold tolerance*, fast growth, and broad canopy. Found in *mixed forests*, *city parks*, *avenues*, and *campuses*. Prefers moist, well-drained soils but tolerates pollution and compacted ground.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Medium to large deciduous tree, 20–30 m tall, with a rounded or dome-shaped crown
- LEAVES: Opposite, palmately lobed with 5–7 sharply pointed lobes and smooth margins; milky sap exudes when petiole is broken
- BARK: Grey-brown, developing shallow fissures with age
- FLOWERS: Yellow-green, in upright corymbs, appearing before leaf-out in early spring
- FRUIT: Double samara (winged seeds) spreading at a wide angle
- BLOOM PERIOD: April–May
- FRAGRANCE: Slightly sweet during bloom

MEDICINAL USES

Not a major species in traditional European herbalism, though related maples (*Acer campestre*, *Acer saccharum*) were used more frequently.

- Bark and leaves sometimes applied in poultices for *minor skin irritations*
- Sap occasionally used in folk remedies as a *diuretic* or spring tonic (not commonly harvested from *A. platanoides*)
- Wood ash used in rustic contexts as *alkaline material* in soaps and ointments

FOLKLORE & SYMBOLISM

In Baltic and Slavic traditions, the Norway maple symbolised masculine vitality and quiet steadiness. Its broad leaves, often pressed in books or woven into wedding wreaths, carried meanings of balance and protection. Flowing sap in spring hinted at hidden sweetness — strength not loudly declared, but steadily given. *Acer platanoides* became known not for mythic grandeur, but for its enduring presence in schoolyards, groves, and roadsides.

ECOLOGICAL VALUE

- Provides *early nectar* for bees and flies in spring
- Dense foliage offers *nesting sites* and *shade* for birds and urban fauna
- Popular in *urban planning* for windbreaks and canopy coverage
- Invasive tendencies in some North American regions, where it outcompetes native understory flora



Acer platanoides

AESCULUS HIPPOCASTANUM

HORSE CHESTNUT

SAPINDACEAE – SOAPBERRY FAMILY

HABITAT

Native to the Balkans, now widely cultivated throughout Europe, especially in *parks, boulevards, gardens, and historic avenues*. Thrives in *deep, fertile, and moist soils*, though tolerant of urban pollution and pruning.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Large deciduous tree, 20–30 m tall, with a broad, rounded crown
- LEAVES: Opposite, large, and palmately compound with 5–7 obovate, serrated leaflets radiating from a central point
- BARK: Grey-brown and scaly, with vertical fissures on mature trees
- FLOWERS: Showy upright panicles (10–30 cm), white with yellow-pink markings; bisexual, nectar-rich
- FRUIT: Spiny capsules containing one to three glossy brown “conkers” (inedible seeds)
- BLOOM PERIOD: May to early June
- FRAGRANCE: Lightly sweet, especially in full sun

MEDICINAL USES

Historically and currently used in *phytotherapy*, especially in venous and circulatory support:

- SEEDS: Contain *aescin (escin)*, a triterpenoid saponin with *anti-inflammatory, vasoprotective, and venotonic* properties
- Used in treatments for *chronic venous insufficiency, varicose veins, haemorrhoids*
- Also employed in *topical gels* for bruising and inflammation
- LEAVES AND BARK: Mildly astringent; less commonly used today

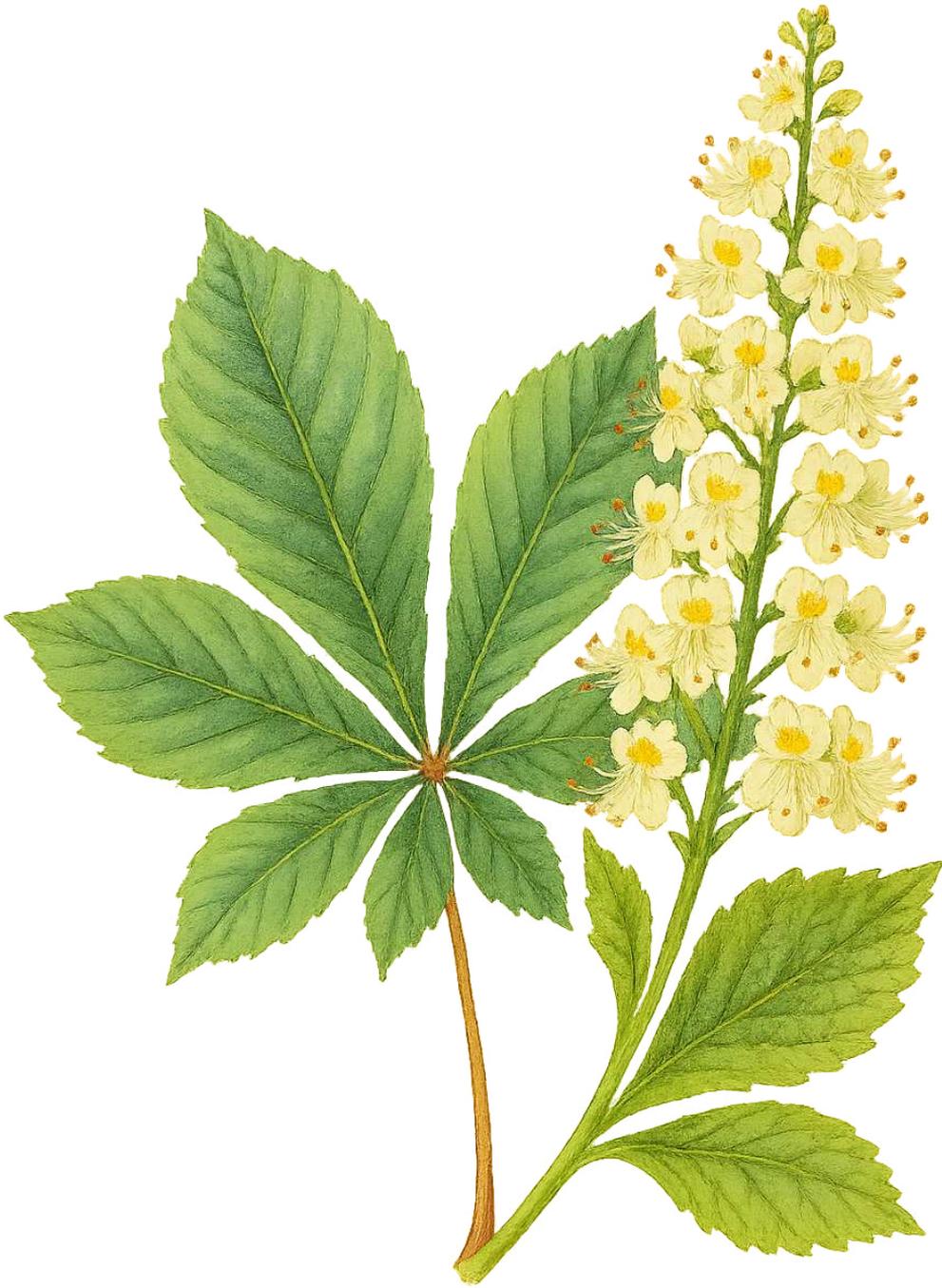
Note: Raw seeds are toxic if ingested due to saponins and glycosides

FOLKLORE & SYMBOLISM

The horse chestnut (*Aesculus hippocastanum*) has long symbolised vitality, grandeur, and renewal. Its glossy seeds, or conkers, were worn in British folk tradition to ward off rheumatism and misfortune, and later repurposed in the playground game of “conkers.” In Victorian floriography, it represented luxury and rebirth. Linked to horses and believed to aid respiratory health, the tree holds an aura of protection and nobility. Today, it is still seen as a symbol of masculine energy, autumnal resilience, and grounded strength.

ECOLOGICAL VALUE

- Flowers are *rich in nectar and pollen*, especially attractive to bees
- Host plant for certain moth species*
- Seeds consumed by deer and rodents, though inedible to humans
- Shade-providing and temperature-regulating in urban landscapes



Aesculus hippocastanum

ALNUS GLUTINOSA

BLACK ALDER

BETULACEAE – BIRCH FAMILY

HABITAT

Widespread across *Europe*, western *Asia*, and northern *Africa*, *Alnus glutinosa* thrives in *moist soils*, especially along *rivers*, *wetlands*, *ditches*, and *swampy woodlands*. It is tolerant of flooding and commonly used in *land reclamation* and *riparian restoration* projects.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Medium-sized deciduous tree, 15–25 m tall, often with a straight trunk and pyramidal crown
- LEAVES: Rounded or slightly notched at the apex, glossy dark green above, sticky (glutinous) when young
- FLOWERS: Monoecious; *male catkins* are long and pendulous, *female catkins* shorter, oval, and upright
- FRUITS: Small, woody cone-like strobiles containing winged seeds, persist on branches into winter
- ROOTS: Nodulated with symbiotic nitrogen-fixing *Frankia* bacteria

CULINARY & PRACTICAL USES

Not typically used for food, though the bark and strobiles have minor historical medicinal applications. *Wood is water-resistant when submerged*—used in bridges, piers, clog soles, and famously in the *foundations of Venice*. *Bark yields a reddish-brown dye* and has been used in *leather tanning*.

MEDICINAL & TRADITIONAL USES

Bark infusions and powders were traditionally employed as an *astringent and anti-inflammatory*, particularly for *fevers*, *sore throats*, and *rheumatism*. Once believed to have *protective magical properties*, sometimes used in *charms against evil or misfortune*.

FOLKLORE & SYMBOLISM

In Celtic and Norse traditions, the alder was a tree of protection and transformation. Its reddish sap, thought to bleed when cut, inspired myths of a *warrior spirit*. Sacred to *Druids* and tied to the balance of land and water, it stood at *thresholds*. In Estonian lore, *lepapu* was a quiet guardian of riverbanks and field edges — places where boundaries blur. Its gift was to dwell in *liminality*: thriving between worlds, seasons, and states of being.

ECOLOGICAL VALUE

A pioneer species in wetland succession, stabilizing riverbanks and *improving soil nitrogen* via symbiosis with *Frankia* bacteria. *Catkins provide early pollen* for bees; *seeds are eaten by siskins and redpolls*. Leaves decompose quickly, *enriching aquatic and riparian soils* and supporting invertebrate communities.



Alnus glutinosa

ALNUS INCANA

GREY ALDER

BETULACEAE – BIRCH FAMILY

HABITAT

Native to *Europe, western Siberia*, and parts of *North America*, *Alnus incana* thrives in *moist soils*, particularly along *riverbanks, floodplains, forest edges*, and *wet meadows*. It tolerates *poor, gravelly, or silty soils* and is known for *rapid colonization* of disturbed or nutrient-poor areas. Prefers *cool-temperate climates*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Medium-sized *deciduous tree*, typically *10–20 meters* tall, with a narrow, conical crown
- BARK: *Smooth, grey*, often speckled with pale lenticels
- LEAVES: *Ovate to elliptical*, doubly serrated, *grey-green*, and softly hairy beneath
- FLOWERS: Monoecious; *male catkins* are long and pendulous, *female catkins* shorter and upright
- FRUITS: Woody, cone-like *strobiles* persisting through winter, releasing winged seeds

CULINARY & NUTRITIONAL USE

- *Not used for food*; no edible parts
- Occasionally used in *smoking meat or fish* due to mild aromatic wood

MEDICINAL USES

Traditional uses are limited:

- Bark and leaves contain *tannins* and were historically used as *astringents*
- Bark infusions used in folk remedies for *inflammation, fevers*, and *digestive issues*
- *Not widely used* in modern phytotherapy

FOLKLORE & SYMBOLISM

In northern European traditions, the *alder tree* symbolises *resilience, purification*, and *protection*. *Alnus incana*, with its lighter bark and affinity for water, was believed to *guard against ill omens* and *mark transitions*, especially near *bridges, wells*, and *village boundaries*. Sometimes planted as a *boundary tree* or talisman.

ECOLOGICAL VALUE

- *Nitrogen-fixing species*, improving soil fertility via *actinorhizal symbiosis*
- Provides habitat and *nesting* for birds and invertebrates
- Early coloniser of disturbed sites, playing a *pioneer role* in ecological succession
- Stabilises streambanks and prevents erosion
- Important winter food source for birds via *persistent cones*



Alnus incana

ARCTOSTAPHYLOS UVA-URSI

KINNIKINNICK OR BEARBERRY

ERICACEAE – HEATH FAMILY

HABITAT

Widely distributed across the *northern hemisphere*, *Arctostaphylos uva-ursi* inhabits *boreal forests, sandy pine barrens, dry heaths, and rocky slopes* from *North America to Eurasia*. It thrives in *acidic, well-drained soils*, often in *cold, exposed areas* with full sun or partial shade. An evergreen groundcover and ecological stabiliser in *subarctic and alpine environments*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: *Prostrate, trailing evergreen shrub*, typically *10–20 cm* tall, spreading *horizontally over wide areas*
- STEMS: *Woody, red-brown, flexible, rooting at nodes*
- LEAVES: *Small, obovate, leathery, dark green, shiny above, paler beneath; persist through winter*
- FLOWERS: *Urn-shaped, pale pink to white*, clustered at stem tips; bloom *in spring*
- FRUITS: *Glossy, bright red drupes (5–8 mm)*, mildly mealy, ripening in *late summer to autumn*

CULINARY & NUTRITIONAL USE

- *Raw berries* are *bland to mildly astringent*, but edible
 - Occasionally used in *preserves, dried, or infused in spirits*
 - Traditionally used by *Indigenous peoples* mixed with *sweeter berries*
- *High in tannins*, with limited nutritional value; not a staple fruit

MEDICINAL USES

- Long-standing use in *herbal medicine* for *urinary tract health*
 - Leaves rich in *arbutin*, a compound with *antiseptic and diuretic* effects
 - Used in infusions for *cystitis, urethritis, and bladder inflammation*
- Applied externally in *wound healing poultices*
- Still found in *herbal preparations* and *urogenital health supplements*

FOLKLORE & SYMBOLISM

Revered in *northern folk traditions* as a *protective and purifying* plant, often associated with *endurance and quiet strength*. In Indigenous North American cultures, the *dried leaves* were used in *smoking blends* (kinnikinnick) for ceremonial and social purposes. Bearberry symbolises *resilience in harsh landscapes* and *grounded stability*.

ECOLOGICAL VALUE

- Provides *shelter and food* for *small mammals, birds, and bears* (hence the name)
- Early flowers attract *bees and solitary pollinators* adapted to colder climates
- Acts as a *soil stabiliser* on slopes and sand dunes through *rhizomatous spread*
- Resistant to grazing and *ideal for erosion control* in restoration projects



Arctostaphylos uva-ursi

BETULA PENDULA

SILVER BIRCH

BETULACEAE – BIRCH FAMILY

HABITAT

Widespread across Europe and temperate Asia, *Betula pendula* thrives in poor, sandy, or rocky soils, forest edges, clearings, heathlands, and degraded lands. It is a pioneer species often colonizing open or disturbed areas and is tolerant of cold climates and drought.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Medium-sized deciduous tree, typically 15–25 m tall, with a slender trunk and airy, drooping branches
- BARK: White and peeling in papery strips; marked with horizontal lenticels and dark fissures at the base in maturity
- LEAVES: Triangular to rhombic, double-serrated, bright green above and paler beneath; turn yellow in autumn
- FLOWERS: Monoecious; male catkins are long, slender, and pendulous; female catkins are shorter and erect
- FRUITS: Tiny winged nutlets grouped in cone-like catkins, dispersed by wind in late summer

CULINARY & NUTRITIONAL USE

Birch sap, tapped in early spring, is mildly sweet and consumed fresh or fermented into kvass or wine. Young leaves may be used for herbal infusions. The bark contains betulin, a compound studied for medicinal and cosmetic applications. Inner bark has been used as a flour substitute during famine.

MEDICINAL USES

Leaves, bark, and sap are diuretic, detoxifying, and mildly anti-inflammatory. Traditionally used in treating urinary tract conditions, skin eruptions, and joint pain. Birch tar derived from dry distillation has been applied in dermatology for eczema and psoriasis. Birch leaf tea is a known folk remedy across Eastern Europe.

FOLKLORE & SYMBOLISM

Revered in many Northern cultures as a tree of renewal, purity, and protection. Associated with spring rites and fertility festivals; birch twigs were used in sauna traditions and to ward off evil spirits. In Russian and Estonian folklore, the birch symbolises femininity and the cycle of life.

ECOLOGICAL VALUE

A keystone species in early successional habitats. Its light canopy encourages understory diversity. Catkins and seeds feed finches and siskins; leaves host numerous moth caterpillars. Its presence improves soil fertility through rapid leaf litter breakdown and symbiotic mycorrhizae.



Betula pendula

CALLUNA VULGARIS

COMMON HEATHER

ERICACEAE – HEATH FAMILY

HABITAT

Calluna vulgaris is widespread across Europe, especially in moorlands, heathlands, coastal dunes, and acidic coniferous forests. It thrives in poor, sandy, or peaty soils, preferring full sun and open, windy environments. A key species of boreal and Atlantic heath ecosystems, often forming large monocultures on acidic soils.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Low-growing evergreen shrub, typically 20–60 cm tall, forming dense mats
- STEMS: Woody, slender, and branched with ascending tips
- LEAVES: Tiny, scale-like, closely overlapping, green to greyish-green
- FLOWERS: Bell-shaped, pink to purple, rarely white, clustered on spikes; blooming late summer to early autumn
- FRUITS: Small capsules containing many minute seeds

CULINARY & NUTRITIONAL USE

- Not commonly consumed, but:
 - Heather honey, produced from nectar, is aromatic, dark, and gelatinous, prized for its rich flavour
 - Occasionally used in herbal teas or to flavour traditional ales

MEDICINAL USES

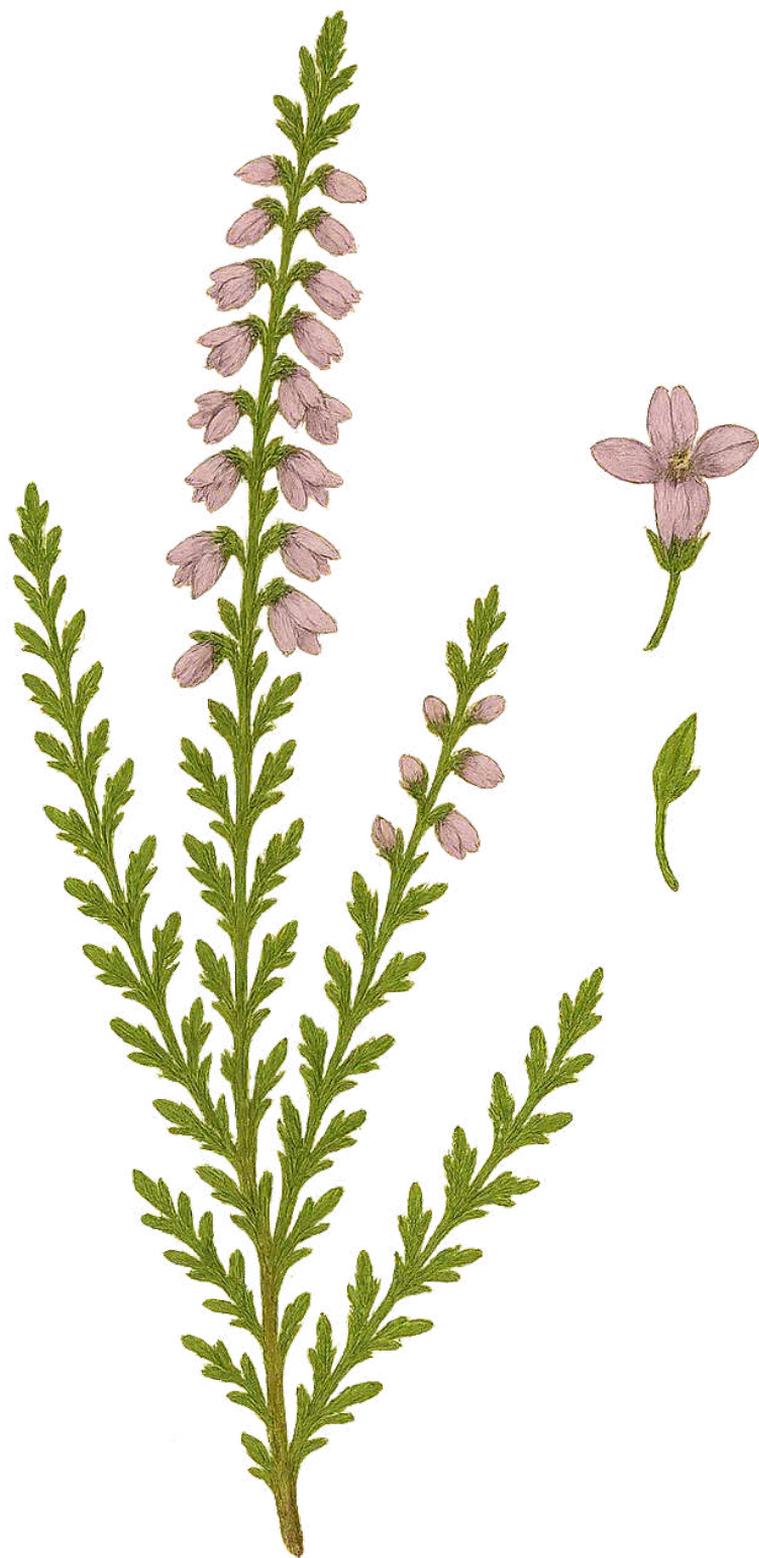
- Used traditionally as a diuretic, antiseptic, and sedative
 - Infusions made from flowering tops for urinary tract health, rheumatism, and insomnia
 - Sometimes applied externally for wounds and skin irritations
- Also found in detoxifying herbal blends

FOLKLORE & SYMBOLISM

A powerful symbol in Celtic and Nordic traditions, heather signifies protection, good luck, and admiration. White heather is particularly revered in Scottish folklore as a charm of peace and luck, often tucked into bridal bouquets. The plant is associated with solitude, endurance, and the resilience of the highlands.

ECOLOGICAL VALUE

- Provides critical nectar for bees, hoverflies, and moths, including late-season species
- Supports specialist invertebrates and nesting sites for ground birds like grouse
- Acts as a soil stabiliser on nutrient-poor slopes and moors
- Vital for heathland biodiversity, forming a foundational plant layer



Calluna vulgaris

CORYLUS AVELLANA

COMMON HAZEL

BETULACEAE – BIRCH FAMILY

HABITAT

Widespread across *Europe* and *western Asia*, *Corylus avellana* thrives in *deciduous forests, hedgerows, forest margins, and scrubby slopes*. It prefers *well-drained, humus-rich soils* in *sunny to lightly shaded* locations and is commonly found as an *understory shrub* in mixed *woodlands*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Multi-stemmed deciduous shrub, 3–8 m tall, with a broad, spreading form
- BARK: Smooth, greyish-brown, often marked with horizontal lenticels
- LEAVES: Rounded to ovate, *doubly serrated*, soft, and hairy, 6–12 cm across, turning yellow in autumn
- FLOWERS: Monoecious; *male catkins* (yellow, drooping, up to 8 cm) appear in late winter; *female flowers* are tiny, bud-like with protruding red styles
- FRUIT: Edible *hazelnuts*, borne in pairs or clusters, enclosed in a leafy, fringed *involucre* (husk)
- ROOTS: Form associations with *ectomycorrhizal fungi*, contributing to *woodland* nutrient cycles

CULINARY & NUTRITIONAL USE

Hazelnuts are rich in healthy fats, vitamin E, magnesium, and protein. Widely used in confectionery, baking, and plant-based spreads (e.g., hazelnut butter). Roasted or raw nuts are popular as snacks; oil can be extracted for culinary or cosmetic use. Leaves and bark were occasionally used in folk infusions.

MEDICINAL USES

Traditional use of leaves and bark for astringent, vasoprotective, and anti-inflammatory effects. Hazelnut oil valued for skin-nourishing properties and mild emollient effects. Some European folk medicine applied decoctions to treat varicose veins and minor bleeding. Contains tannins and flavonoids with potential antioxidant benefits.

FOLKLORE & SYMBOLISM

Associated with wisdom, protection, and inspiration in Celtic mythology. Considered a sacred tree by Druids; hazel rods were used for dowsing and divination. Featured in Irish and Welsh legends as the “Tree of Knowledge” bearing mystical nuts. In some traditions, hazelnuts were symbols of fertility and hidden truths.

ECOLOGICAL VALUE

An important early pollen source for bees, especially from male catkins. Hazelnuts feed dormice, squirrels, jays, and other *woodland* animals. Provides shelter and nesting sites for birds; dense thickets support biodiversity. Used in coppicing systems, promoting sustainable *woodland* management.



Corylus avellana

CRATAEGUS LAEVIGATA ‘PAUL’S SCARLET’

PAUL’S SCARLET HAWTHORN
ROSACEAE – ROSE FAMILY

HABITAT

A cultivated ornamental variety of *Crataegus laevigata*, this hawthorn is widely planted in urban gardens, parks, and avenues across temperate regions of Europe and North America. It prefers well-drained loamy soil and full sun to partial shade. Not typically found in the wild.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Small deciduous tree or large shrub, typically 5–8 m tall, forming a rounded, dense crown
- BARK: Smooth grey to brown, becoming slightly fissured with age
- LEAVES: Shiny dark green, 3-lobed, ovate with shallow serrations; autumn colour is yellow-brown
- FLOWERS: Double deep pink to scarlet-red, fully double rosette-like blooms in dense corymbs, appearing in late spring
- FRUITS: Often sparse or sterile due to double flowers, occasionally producing small red haws with minimal seeds

ORNAMENTAL & GARDEN USE

Celebrated for its striking floral display, ‘Paul’s Scarlet’ is among the most popular flowering trees for formal and informal gardens. Valued for compact size, pollution resistance, and easy pruning. Commonly used as a street tree or specimen plant, especially in heritage gardens and English-style landscapes.

MEDICINAL & CULINARY NOTES

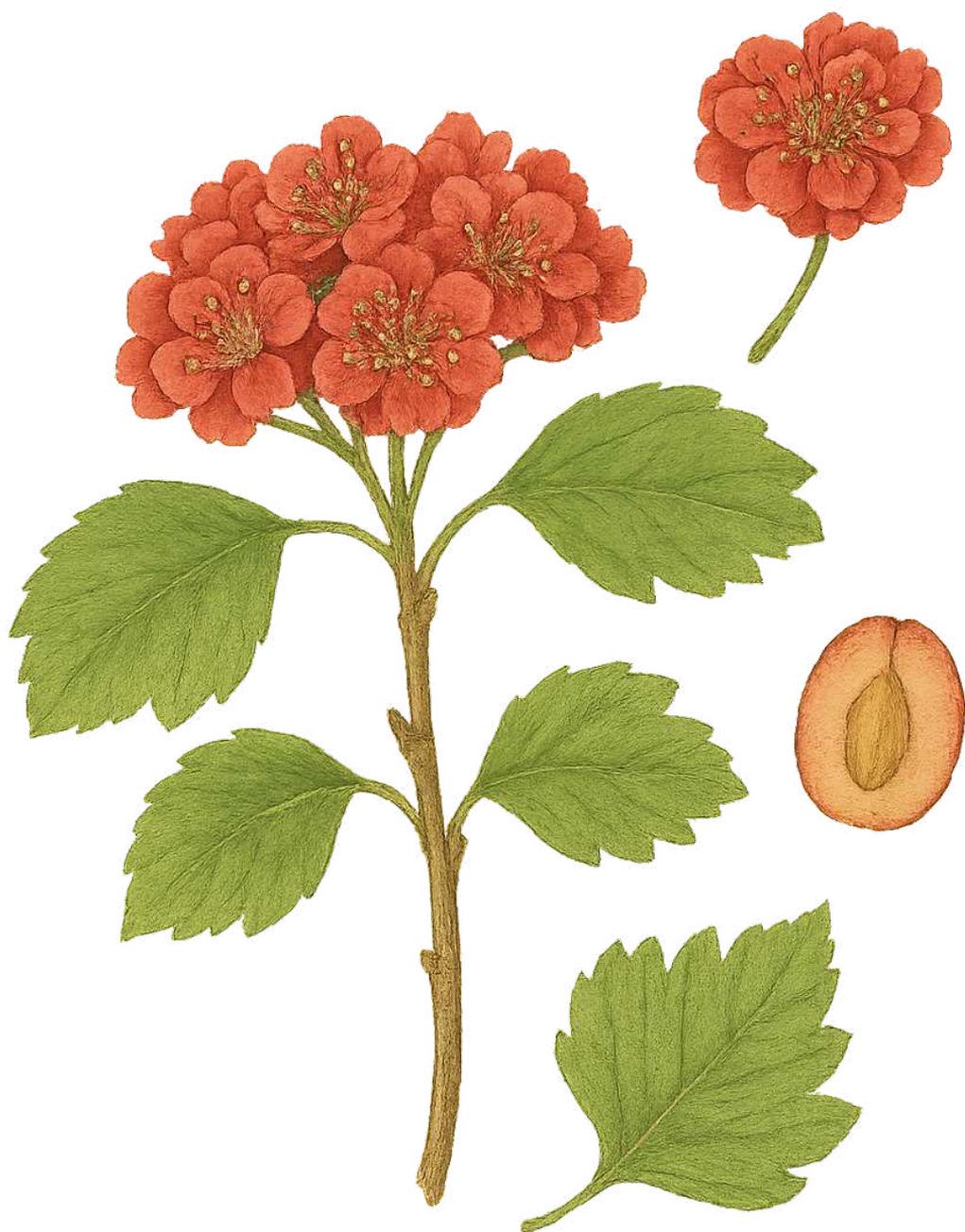
Unlike its single-flowered relatives, ‘Paul’s Scarlet’ is not commonly used in herbal medicine or for fruit harvest. Flowers are less accessible to pollinators, and fruits (if any) are minimal and ornamental. Traditional medicinal uses of hawthorn (*Crataegus* spp.) as cardiotonic and mild sedative are not applicable to this variety.

FOLKLORE & CULTURAL SIGNIFICANCE

Bred in the 19th century in England, this cultivar became emblematic of Victorian and Edwardian garden elegance. Frequently featured in May Day celebrations and romanticised in floral symbolism as a herald of love and vitality. Its namesake, “Paul,” refers to the breeder or nursery lineage, not a mythical or folkloric figure.

ECOLOGICAL CONSIDERATIONS

Less valuable to wildlife due to its semi-sterile double blossoms and reduced fruit set. Still provides some nesting cover and occasional food for birds and insects. May cross-pollinate with wild hawthorn species if planted nearby, though this is rare.



Crataegus laevigata
'Paul's Scarlet'

CRATAEGUS MONOGYNA

COMMON HAWTHORN

ROSACEAE – ROSE FAMILY

HABITAT

Widely distributed across *Europe*, *North Africa*, and *Western Asia*, *Crataegus monogyna* thrives in *hedgerows*, *woodland edges*, *scrublands*, and *pastures*. It prefers *well-drained soils* and is highly tolerant of *pruning*, *pollution*, and *urban environments*, making it common in rural and city landscapes alike.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Dense, deciduous *shrub* or *small tree* up to 10 m tall, often multi-stemmed
- BARK: Grey-brown and fissured with age
- LEAVES: Deeply lobed and toothed, glossy green, turning yellow or bronze in autumn
- FLOWERS: White, five-petaled, borne in flat-topped clusters in late spring; mildly musky fragrance
- FRUITS: Bright red *drupes* (haws) with a single seed, ripening in late summer to autumn

CULINARY & NUTRITIONAL USE

Fruits are high in *flavonoids* and *vitamin C*, traditionally used in *jellies*, *wines*, and *syrups*. Dried haws are consumed as *tea infusions* or incorporated into *tinctures*. *Young leaves* and *flower buds* can be eaten raw in small amounts—once known as “*bread and cheese*” in English folklore.

MEDICINAL USES

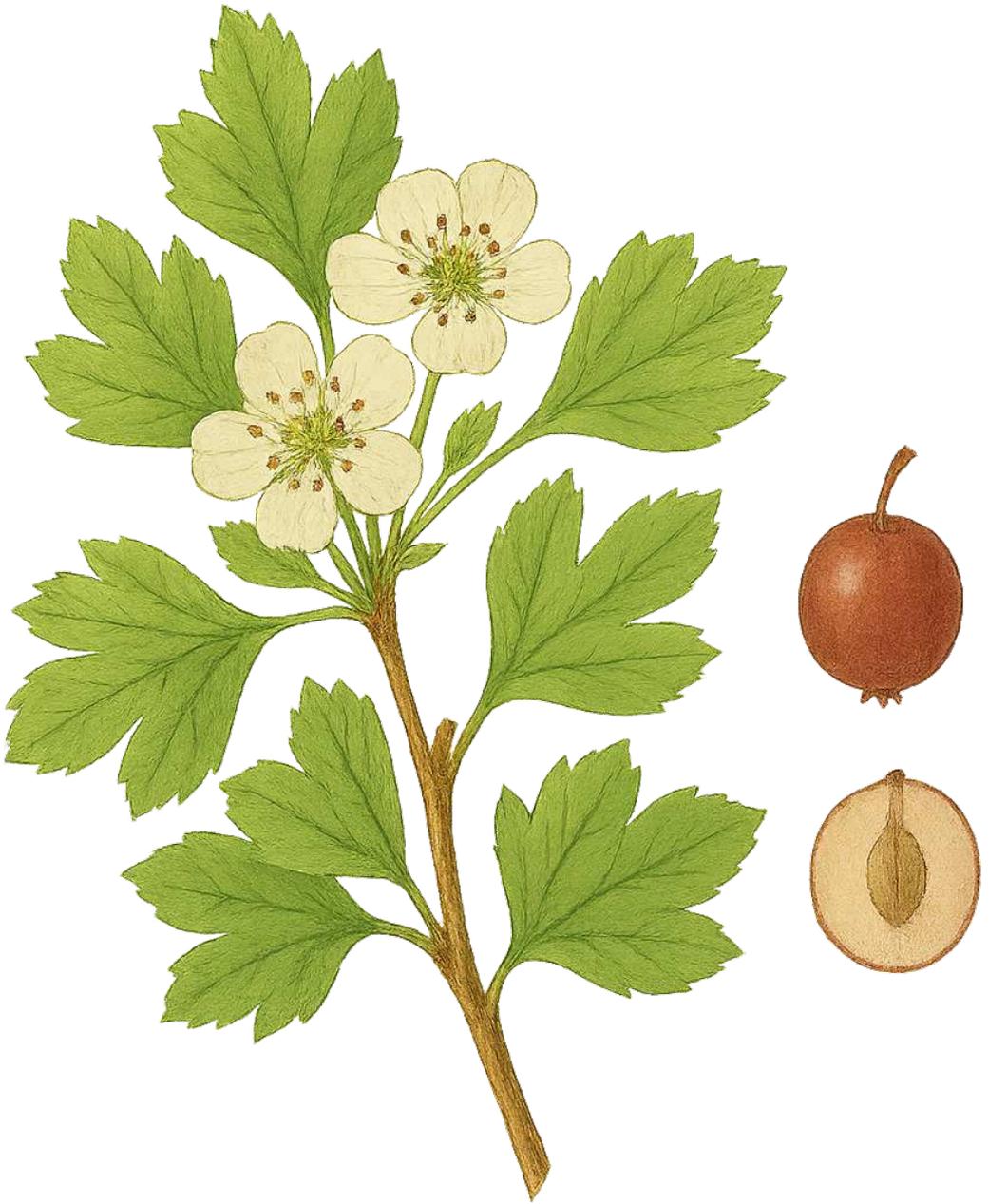
Celebrated in *herbal medicine* for its *cardiotonic properties*. Used to *support cardiovascular health*, *regulate blood pressure*, and *reduce arrhythmias*. *Flavonoid-rich extracts* are known to *improve coronary circulation* and act as *mild sedatives*. Often combined with *Leonurus cardiaca* or *Valeriana officinalis* in traditional remedies.

FOLKLORE & SYMBOLISM

Associated with *protection*, *fertility*, and the *arrival of May*—central to many *spring festivals*. In *Celtic traditions*, considered *sacred to the fae folk*; cutting hawthorn was seen as *courting bad luck*. The *Mayflower* in English tradition refers to this tree—not the tulip, nor the ship.

ECOLOGICAL VALUE

A *keystone species* in temperate ecosystems. Provides *nectar for pollinators*, *nesting sites for birds*, and *shelter for small mammals*. Its *dense, thorny growth* is ideal for forming *protective hedgerows* and *wildlife corridors*. Fruits *feed birds* such as *thrushes* and *blackbirds* through the winter.



Crataegus monogyna

EMPETRUM NIGRUM

CROWBERRY OR BLACK CROWBERRY

ERICACEAE – HEATH FAMILY

HABITAT

Widely distributed across the *northern boreal and arctic regions of Europe, Asia, and North America*, *Empetrum nigrum* inhabits *heaths, moorlands, tundra, coniferous forests, and coastal cliffs*. It thrives in *acidic, nutrient-poor soils*, forming extensive groundcover in *cold, wind-exposed, and water-logged environments*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: *Low-growing, evergreen shrub*, forming dense, mat-like carpets up to *20 cm* tall
- STEMS: *Woody, creeping or trailing*, often dark red-brown
- LEAVES: *Tiny, needle-like, dark green*, spirally arranged, with rolled margins and a channel beneath
- FLOWERS: *Inconspicuous, reddish-purple*, borne singly in leaf axils in early spring; *unisexual*, with male and female flowers often on separate plants
- FRUITS: *Glossy black drupes*, 4–6 mm in diameter; ripen in *late summer*; taste mildly sweet and earthy

CULINARY & NUTRITIONAL USE

- Berries are *edible raw or cooked*, with a *mild, slightly bitter taste*:
 - Used in *jams, jellies, juices, and fermented beverages*
 - Often combined with sweeter berries like *bilberries or lingonberries*
- Moderately rich in *vitamin C, antioxidants, and polyphenols*
- Important *subsistence food* in *Arctic and subarctic cultures*

MEDICINAL USES

- Traditionally used for:
 - *Digestive regulation*, especially as a mild *laxative*
 - *Anti-inflammatory applications* in *Sámi and Inuit medicine*
 - Leaves brewed into teas for *colds and urinary issues*
- Some studies suggest *neuroprotective and antioxidant potential*

FOLKLORE & SYMBOLISM

Often overlooked but quietly tenacious, crowberry symbolises *humility, resilience, and the overlooked riches of harsh climates*. In *Nordic and Siberian cultures*, it was associated with *survival, patience, and resourcefulness*. Its glossy black berries were sometimes said to *guard against hunger and despair*.

ECOLOGICAL VALUE

- Essential food for *ptarmigans, bears, foxes, and reindeer*
- Ground-hugging mats *reduce erosion* and insulate soil in *cold, open landscapes*
- Provides *early spring nectar* and *dense habitat* for invertebrates
- Supports *lichen and moss microcommunities* in boreal heath ecosystems



Empetrum nigrum

FORSYTHIA × INTERMEDIA

BORDER FORSYTHIA

OLEACEAE – OLIVE FAMILY

HABITAT

A widely cultivated ornamental hybrid of *Forsythia suspensa* and *Forsythia viridissima*, *Forsythia × intermedia* is adapted to temperate climates and thrives in *well-drained soils* in full sun to partial shade. It is frequently planted in *parks, gardens, and hedgerows* due to its early flowering and ease of propagation.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Deciduous, upright to arching shrub reaching 2–3 m in height and width
- BRANCHES: Slender, yellow-brown to olive-green, with opposite leaf arrangement
- LEAVES: Simple or trifoliate, ovate to lanceolate, serrated margins, medium to dark green
- FLOWERS: Bright yellow, bell-shaped, four-lobed; appear profusely on bare branches in early spring before leaf emergence
- FRUITS: Rarely set seed due to hybrid origin; reproduction is primarily vegetative (cuttings)

ORNAMENTAL & CULTURAL USES

A harbinger of spring, *Forsythia* is cherished for its explosive yellow bloom that brightens still-dormant landscapes. Used in foundation plantings, borders, mass plantings, and informal hedges. Easily shaped by pruning and tolerant of urban conditions, including pollution and compacted soils.

MEDICINAL & FOLK USES

Though less commonly used in European herbalism, *Forsythia suspensa* (one of the parent species) is a core ingredient in Traditional Chinese Medicine (TCM), where it is believed to clear heat and detoxify. Extracts show antibacterial and anti-inflammatory activity in pharmacological studies. In some folk traditions, flowering branches were used to ward off evil or welcome spring blessings.

FOLKLORE & SYMBOLISM

Often symbolises anticipation and renewal, reflecting its early blooming habit. In the Victorian language of flowers, *Forsythia* represents eagerness and expectation. The vibrant flowers are associated with optimism and vitality.

ECOLOGICAL VALUE

Provides early nectar for pollinators such as bees emerging from hibernation. Dense thickets offer nesting sites and shelter for small birds and insects. Fast growth and soil-binding roots help stabilise slopes and prevent erosion.



Forsythia × *intermedia*

FRANGULA ALNUS

ALDER BUCKTHORN

RHAMNACEAE – BUCKTHORN FAMILY

HABITAT

Native to *Europe, western Asia*, and parts of *North Africa*, *Frangula alnus* inhabits *damp woodlands, forest edges, streambanks*, and *peaty soils*. It favours *acidic, moist, but well-drained ground*, and is common in *wet heaths, alder carrs*, and *light woodland clearings*. Often found as an *understory shrub or small tree*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: *Deciduous shrub or small tree*, typically 2–5 meters tall
- BARK: Smooth, dark brown to grey, with prominent pale lenticels
- LEAVES: *Elliptic to obovate*, glossy, with *entire margins* and distinct parallel veins curving toward the tip
- FLOWERS: *Small, greenish-white*, five-petalled, star-shaped, clustered in leaf axils; bloom from *May–July*
- FRUITS: Round, pea-sized *drupes* turning from *green to red to glossy black* in late summer; mildly toxic

CULINARY & NUTRITIONAL USE

- *Not edible*; fruits and bark contain *anthraquinones*, which are *toxic in high doses*
- Historically used to make *charcoal for gunpowder* due to its *fine texture and low ash content*

MEDICINAL USES

- *Bark* was used in *traditional medicine* as a *laxative*.
 - Requires *aging or heat treatment* to reduce irritant compounds
 - Included in *herbal constipation remedies* and digestive teas
- In small doses, used to *stimulate bile flow*
- Overuse can cause *cramping and dehydration*

FOLKLORE & SYMBOLISM

In European folklore, alder buckthorn was associated with *protection against nitches and ill fortune*. Its dark bark and berries gave it a *mysterious aura*, while its resilience in damp soil earned it symbolic ties to *adaptability and quiet strength*. The name “Frangula” refers to its *brittle branches*.

ECOLOGICAL VALUE

- *Highly valuable to pollinators*: flowers attract *bees, hoverflies*, and other insects throughout summer
- Larval food plant of the *Brimstone butterfly* (*Gonepteryx rhamni*)
- Berries eaten by *birds*, which help disperse seeds
- Important *understory species* that enhances *woodland diversity and structure*



Frangula alnus

FRAXINUS EXCELSIOR

EUROPEAN ASH

OLEACEAE – OLIVE FAMILY

HABITAT

Native to most of Europe and parts of western Asia. Found in *woodlands, hedgerows, river valleys, parks, and city avenues*. Prefers *moist, fertile, well-drained soils*, especially on *limestone or chalk*. Sun-loving, often co-dominant in mixed deciduous forests.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Tall deciduous tree, typically 20–35 m in height, with an open, domed crown and strong vertical trunks
- BARK: Pale grey and smooth when young, becoming furrowed and diamond-patterned with age
- LEAVES: Opposite, pinnate with 7–13 narrow, toothed leaflets; leaflets are dark green and fall early in autumn
- FLOWERS: Small, purplish to greenish-white, borne in clusters before or alongside leaves; *not showy*, wind-pollinated; blooms in April–May
- FRUIT: One-seeded winged samaras (“keys”) hanging in dense bunches
- FRAGRANCE: Mild to neutral; flowers are not typically fragrant

MEDICINAL USES

- LEAVES: Diuretic, mild laxative, anti-rheumatic; used in infusions for *joint pain, gout, and urinary conditions*
- BARK: Occasionally used as a *fever remedy*, like willow, though less potent
- SEEDS AND SAP: Historically used in some folk preparations
- Contains *mannitol, flavonoids, and coumarins*

Used in *Western herbalism* and early European pharmacopoeias

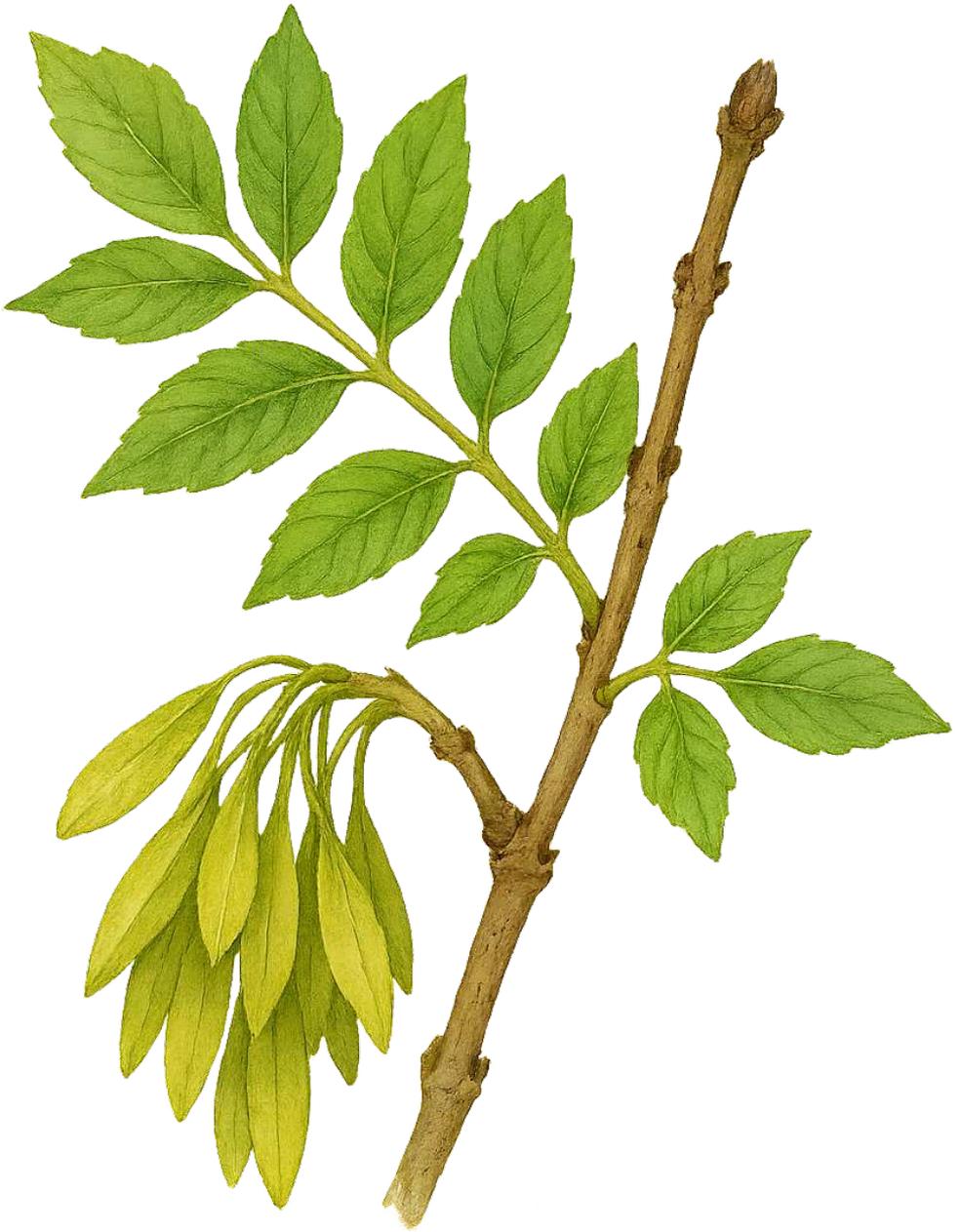
FOLKLORE & SYMBOLISM

The ash tree (*Fraxinus excelsior*) carries deep mythological weight, especially in Norse cosmology, where it is often linked to Yggdrasil — the world tree uniting heaven, earth, and the underworld. Revered for its protective power, ash was believed to ward off serpents, lightning, and malevolent forces. Its straight, resilient wood served healers, pilgrims, and ritual leaders as a staff of guidance. In English folklore, passing a sick child through a split ash trunk was thought to bring healing. Embodying strength, clarity, and willing sacrifice, ash stands as a bridge between worlds — both physical and spiritual.

ECOLOGICAL VALUE

- Supports a wide range of insects, including *ash sawfly, moth larvae, and aphids*
- Seeds are eaten by birds; branches offer roosting and nesting habitat
- Deep roots help stabilise slopes and riverbanks
- Important *canopy species in mixed hardwood forests*, particularly with oak, hazel, and elm

Note: European ash is currently threatened by *ash dieback (Hymenoscyphus fraxineus)* — a fungal disease that has devastated populations across Europe



Fraxinus excelsior

HIPPOPHAE RHAMNOIDES

SEA BUCKTHORN

ELAEAGNACEAE – OLEASTER FAMILY

HABITAT

Native to *Europe* and *temperate Asia*, *Hippophae rhamnoides* is found in *coastal dunes, riverbanks, cliffs, and alpine valleys*. It thrives in *poor, sandy, gravelly, or rocky soils*, often in *open, sun-exposed habitats*. A *nitrogen-fixing pioneer species*, it is frequently used for *soil stabilization and erosion control* on degraded land.

BOTANICAL DESCRIPTION

- GROWTH HABIT: *Deciduous, thorny shrub* or small tree, 2–6 meters tall
- STEMS: Brownish-grey, often *thorny*, with a bushy, irregular form
- LEAVES: Narrow, *lanceolate*, grey-green above and silvery beneath, densely arranged along twigs
- FLOWERS: Inconspicuous, *yellowish-green*, appearing *before leaves in spring*; dioecious (male and female flowers on separate plants)
- FRUITS: Small, bright *orange berries*, tightly clustered along branches; ripen in *late summer to early autumn*

CULINARY & NUTRITIONAL USE

- Berries are *intensely tart and aromatic*; they are used in *juices, syrups, jams, wines, desserts, and fermented tonics*; often sweetened or mixed with milder fruits due to high acidity
- Very rich in *vitamin C, vitamin E, carotenoids, flavonoids, and omega-7 fatty acids*

MEDICINAL USES

- Extensively used in *traditional Tibetan, Mongolian, and Slavic medicine*:
 - *Oil from berries and seeds* applied to treat *burns, ulcers, and skin inflammation*
 - Taken internally for *gastritis, ulcers, liver support, and cardiovascular health*
- Modern applications include *cosmeceuticals, immunomodulation, and antioxidant therapy*

FOLKLORE & SYMBOLISM

In folklore, sea buckthorn is a *symbol of strength, vitality, and sunlight in harsh climates*. Revered across northern Eurasia as a *plant of healing and endurance*, its golden berries were thought to bring *luck and longevity*. Ancient Greeks reportedly fed it to horses for a *shiny coat*, inspiring the name *hippophae* (horse-shining).

ECOLOGICAL VALUE

- Provides critical *forage and nesting cover* for *birds and small mammals*
- Berries are an important *winter food source* for various birds
- Improves *soil fertility* through *nitrogen-fixing root nodules*
- Strong root systems make it ideal for *dune, riverbank, and slope stabilization*



Hippophae rhamnoides

JUNIPERUS COMMUNIS

COMMON JUNIPER

CUPRESSACEAE – CYPRESS FAMILY

HABITAT

With a circumpolar distribution, *Juniperus communis* is found across *Europe, North America, and northern Asia*, growing in *heathlands, dry meadows, forest edges, calcareous slopes, and coastal dunes*. Tolerant of *poor, sandy soils*, drought, and cold, it thrives in *open, sunny locations* and is a key element of *northern and montane flora*.

BOTANICAL DESCRIPTION

- GROWTH HABIT: *Evergreen coniferous shrub or small tree*, typically *0.5–5 m (10 m)* tall
- Foliage: *Sharp, needle-like leaves*, arranged in whorls of three, with a *white stomatal band* on the upper surface
- CONES (“berries”): *Fleshy, spherical cones* that ripen over *2–3 years* from green to *deep bluish-black* with a waxy bloom
- FLOWERS: *Inconspicuous, dioecious* (male and female on separate plants), appearing in *spring*
- SCENT: *Distinctly resinous and fresh*, particularly from crushed needles or berries

CULINARY & NUTRITIONAL USE

Berries used as a key *flavouring in gin* (origin of the name “*juniper*”) and as an aromatic spice in *game, lamb, pork, sauerkraut, and pickling brines*. Rich in *essential oils, flavonoids, and terpenes* (notably *α-pinene* and *limonene*). Must be used *sparingly* in culinary applications due to *potent, bitter compounds*.

MEDICINAL USES

Traditionally, ash was used to stimulate appetite and digestion, promote diuresis, and ease urinary discomfort. Topical preparations helped relieve rheumatic pain, while distilled oils found use in aromatherapy and as gentle antiseptics.

⚠ Excessive intake may irritate the kidneys and is not advised during pregnancy.

FOLKLORE & SYMBOLISM

Deeply rooted in *European folk beliefs*, *Juniperus communis* is seen as a *protector plant*. In Estonian, Slavic, and Celtic traditions, juniper branches were burned to *ward off illness and evil*, and berries were carried for *luck and protection*. Juniper wood was used to carve *protective talismans*, and its smoky incense was believed to *purify homes and sacred sites*.

ECOLOGICAL VALUE

- Provides shelter and nesting sites for *birds*, including *thrushes* and *warblers*
- Berries are a crucial winter food source for *waxwings, blackbirds, and foxes*
- Needles offer year-round forage for some *herbivores*
- Host plant for several *moths* and *insects*, contributing to *biodiversity in dry habitat*



Juniperus communis

MALUS DOMESTICA

APPLE

ROSACEAE – ROSE FAMILY

HABITAT

Originally native to Central Asia, *Malus domestica* is now cultivated globally in temperate regions. It thrives in well-drained, moderately fertile loam soils with good sunlight exposure. Orchards, gardens, and homesteads often serve as its primary habitat, with numerous cultivars adapted to local conditions.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Medium-sized deciduous tree, typically 3–12 m tall
- BARK: Greyish-brown and fissured with age
- LEAVES: Ovate, serrated, and dark green; often hairy on the underside
- FLOWERS: Showy, white to pink, five-petaled blossoms in corymbs; bloom in spring before full leaf-out
- FRUIT: Pome with sweet or tart flesh; highly variable in colour, shape, and flavour depending on cultivar
- BLOOMING PERIOD: Spring (April–May); fruit matures late summer to autumn

CULINARY & NUTRITIONAL USE

Among the world’s most beloved fruits, the *apple* is consumed *raw, baked, stewed, juiced, or fermented*. It is a *staple ingredient* in *cider, pies, compotes, jams, salads*, and countless traditional dishes. Apples are rich in *dietary fibre*—particularly *pectin*, which supports *digestive health* and *cholesterol regulation*. They also contain *vitamin C* and *polyphenols* with well-documented *antioxidant properties*.

MEDICINAL USES

Traditionally used to soothe *digestive complaints*, apples also served as a *mild diuretic*. *Apple cider vinegar* has long been praised in folk medicine for its *metabolic and antimicrobial* effects. The *peel* is especially rich in *quercetin*, a flavonoid with *anti-inflammatory* and *antihistamine* properties. Modern research supports associations between *regular apple consumption* and improved *cardiovascular* and *metabolic health*.

FOLKLORE & SYMBOLISM

The apple has long symbolised knowledge, love, and renewal—its presence felt from Eden to Avalon. In Baltic and Slavic traditions, it marked both weddings and funerals, offering continuity and affection. Often sung into lullabies and woven into charms, the apple tree stood as a quiet guardian of the hearth.

ECOLOGICAL VALUE

Apple trees attract pollinators like bees, hoverflies, and other beneficial insects. Their fruit feeds birds, wasps, boars, and bears, while fallen apples nourish detritivores and enrich the soil. Orchards also offer nesting sites for birds and shelter for small mammals, sustaining vibrant hedgerow ecosystems.



Malus domestica

MALUS SYLVESTRIS

EUROPEAN CRAB APPLE
ROSACEAE – ROSE FAMILY

HABITAT

Native to *Europe*, *Malus sylvestris* grows in *woodland clearings, hedgerows, forest edges, and scrubby thickets*, favoring *well-drained loamy soils* and full sun to partial shade. Though once common, it is now considered *rare in parts of its range*, partly due to hybridization with cultivated apples (*Malus domestica*).

BOTANICAL DESCRIPTION

- GROWTH HABIT: Small *deciduous tree or large shrub*, typically *3–10 meters* tall, with a *rounded crown*
- BARK: *Grey-brown, rough and fissured* with age
- LEAVES: *Elliptic to ovate*, finely toothed, dark green above and hairy beneath
- FLOWERS: *Pale pink to white*, 2.5–3.5 cm across, *5-petaled*, blooming in *April–May*; fragrant and pollinator-friendly
- FRUITS: Small, *spherical apples* (2–4 cm), *greenish-yellow to red*, often tart and astringent

CULINARY & NUTRITIONAL USE

- Fruits are *too sour* to eat raw for most palates but used in:
 - *Cider making*
 - *Preserves, jellies, chutneys, and tart sauces*
 - *Pectin-rich additions* to aid jamming of low-pectin fruits
- Rich in *vitamin C, malic acid, and antioxidants*

MEDICINAL USES

- Traditional remedies used *bark, fruit, and leaves* for:
 - *Digestive tonics, astringents, and mild antiseptics*
 - Fruit decoctions for *colds and fevers*
- Apple blossom infusions occasionally used for *skin health* and *stress relief*

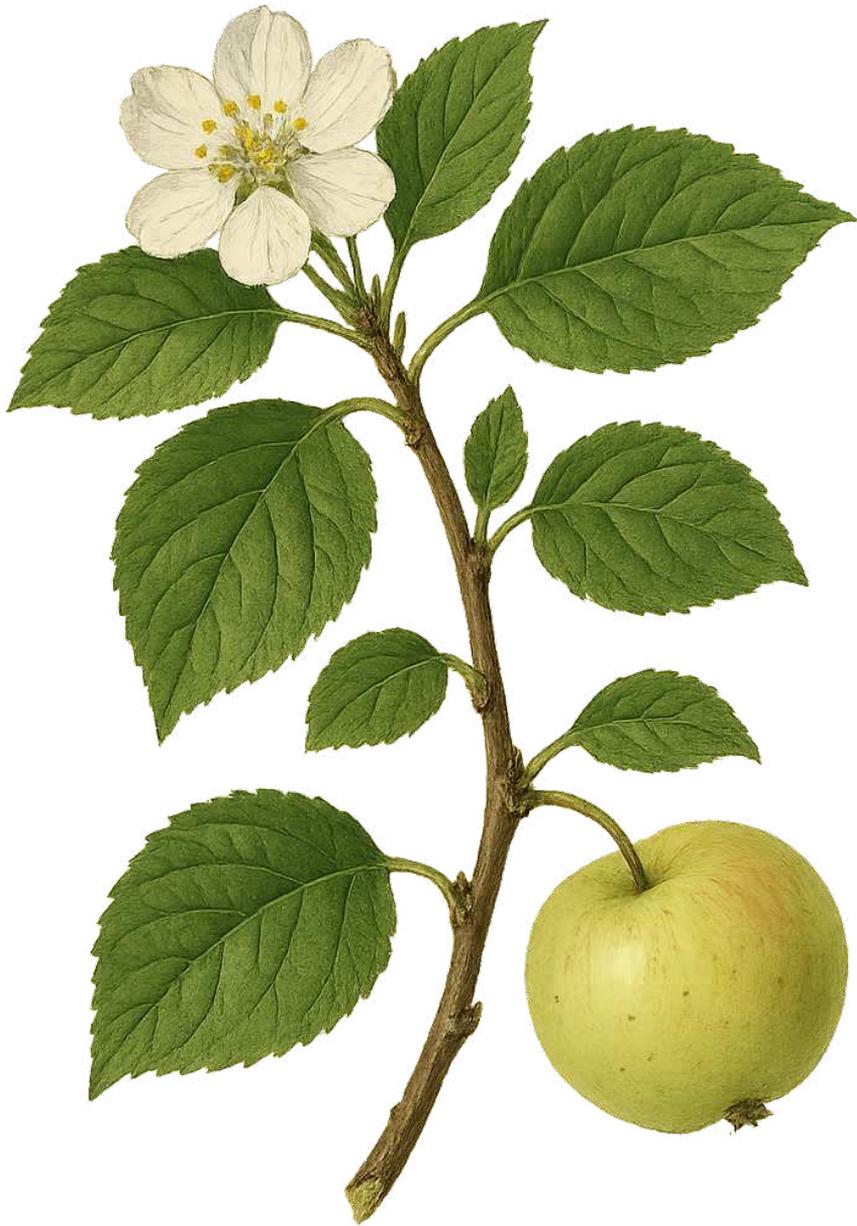
FOLKLORE & SYMBOLISM

One of the most *ancient and symbolic trees* in European folklore. Associated with:

- *Fertility, immortality, and the Otherworld* in Celtic traditions
- The *sacred apple bough* was a sign of peace and magic
- Featured in tales of *Avalon*, and tied to *autumn harvest rites*
- Seen as a *guardian tree* and emblem of *love and renewal*

ECOLOGICAL VALUE

- *High wildlife value*: fruits feed *birds, badgers, foxes, and small mammals*
- Flowers attract *bees, butterflies, and other pollinators*
- Dense canopy offers *nesting habitat*
- Serves as a *genetic reservoir* important for *apple biodiversity conservation*



Malus sylvestris

MYRICA GALE

BOG MYRTLE

MYRICACEAE – BAYBERRY FAMILY

HABITAT

Myrica gale is native to northern and western Europe and parts of North America, thriving in acidic peat bogs, wet heaths, moorlands, and sphagnum-rich fens. It grows best in open, sunny, nutrient-poor wetland areas, often forming dense colonies on waterlogged ground.

BOTANICAL DESCRIPTION

- GROWTH HABIT: Aromatic, *deciduous shrub*, typically 0.5–1.5 meters tall
- STEMS: Woody, reddish-brown, with *glandular dots*
- LEAVES: Oblong to lanceolate, *leathery, grey-green*, resinous and fragrant when crushed
- FLOWERS: *Catkin-like*, unisexual, appearing before leaf-out in *early spring*
- FRUITS: Small, *waxy nutlets*, typically dispersed by water

CULINARY & NUTRITIONAL USE

- Leaves and catkins used as a *spice or bittering agent*:
 - Traditionally added to *gruit ales* before hops became standard
 - Used to flavour *meat dishes, stews*, or infused into *liqueurs*
- High in *essential oils*, lending a *pungent, resinous flavour*

MEDICINAL USES

- Folk uses include:
 - *Insect repellent* (rubbed on skin or placed in bedding)
 - Treatment for *skin irritations, digestive complaints, and fevers*
 - Mild *antiseptic* and *anti-inflammatory* properties
- Leaves sometimes used in *aromatic baths* or *smudge sticks*

FOLKLORE & SYMBOLISM

A plant of the *wild northern bogs*, *Myrica gale* has been associated with *protection, purity, and feminine power*. In Celtic traditions, it was linked to *divination* and *moon rites*. Scottish Highlanders placed sprigs in bedding or clothes to *repel insects* and *ward off evil dreams*. Known also as *sweet gale*, it embodies the *resilient, cleansing spirit* of wetlands.

ECOLOGICAL VALUE

- *Nitrogen-fixing shrub*, improving *poor acidic soils*
- Provides cover for *amphibians* and *ground-nesting birds*
- Early catkins offer *pollen* to emerging *pollinators* in spring
- Important component in *peatland restoration* and *biodiversity enhancement*



Myrica gale