

CANADIAN BOREAL SHIELD & PEATLANDS PLANT SURVIVAL GUIDE

North America • USDA-EQUIVALENT ZONES 2-4 • KÖPPEN Dfc / Dfb

LAND + WATER

REGIONAL HABITAT ILLUSTRATION — NOT AN ID PHOTO

USEFUL

EDIBLE

MEDICINAL

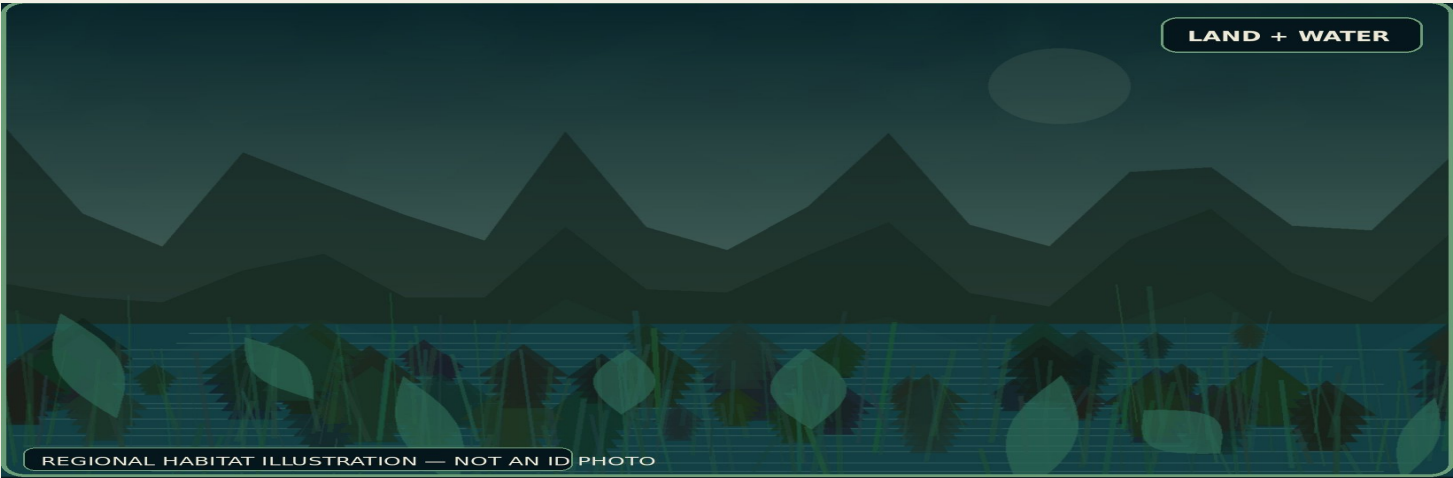
POISONOUS

IDENTIFY • EAT • BUILD • HEAL • AVOID

Illustrations show habitat and form; verify every plant with current regional photographs and expert sources.

REGION AT A GLANCE

A continental bioclimatic region, not a destination or a promise that every listed plant occurs at every site.



Continent: North America USDA-equivalent hardiness: 2-4 Köppen: Dfc / Dfb
Regional habitat: Boreal Shield forest, lakes, muskeg and peatland
Zone warning: hardiness describes winter minimum temperature only; rainfall, heat, soils, fire, elevation and seasonality still control the flora.

FIELD PRIORITIES

- Use the continent, climate band and habitat as filters — never as proof of identity.
- Match at least three independent traits and rule out every dangerous look-alike before harvest.
- Treat water plants as both botanical and water-quality decisions; parasites, sewage and algal toxins can defeat correct identification.
- Take material from deadfall or abundant growth first. Roots, bark and whole plants are the most destructive harvests.
- Medicinal notes document traditional use only; the guide gives no dosing and does not replace medical care.

SURVIVAL STANDARD

A correct plant name is only the beginning. Also verify plant part, maturity, preparation, dose, contamination, legal access and local cultural protocol. When any one of those is uncertain, do not consume or medicate.

POSITIVE IDENTIFICATION AND PRACTICAL USE

The illustrations are form diagrams. The linked POWO and iNaturalist pages provide current photographs and taxonomic context.

1

1. PLACE

Confirm continent, elevation, water regime, soil and disturbance.

2

2. FORM

Tree, shrub, vine, herb, grass, sedge, palm, fern, succulent or aquatic.

3

3. LEAF

Arrangement, veins, edge, hairs, glands, sap, odor and underside.

4

4. STEM / BARK

Thorns, pith, nodes, buds, lenticels, fibers, latex and branching.

5

5. FLOWER / FRUIT

Petal count, inflorescence, fruit attachment, seed and maturity.

6

6. EXCLUDE

Name every dangerous look-alike and explain why it is different.

7

7. VERIFY

Use current regional flora, qualified local knowledge and several photos.

AUTOMATIC STOP LIST

No tasting to identify.
No unknown roots, bulbs or white umbels.
No unknown milky sap.
No raw wetland foods.
No medicinal dose experiments.
No smoke from unknown toxic wood.

USEFUL-PLANT HIERARCHY

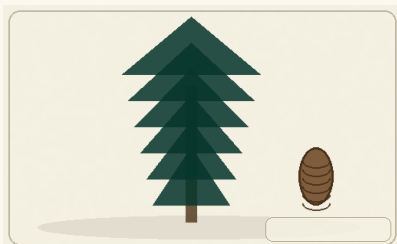
1. Deadfall and shed bark.
2. Abundant annual greens and fruit.
3. Pruned shoots and leaves.
4. Small stems from common thickets.
5. Roots, bark and whole plants only with permission and no safer substitute.

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

BLACK SPRUCE

USEFUL MATERIAL



Picea mariana

IDENTIFY: Narrow spire crown; short four-sided blue-green needles; small dark persistent cones.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Muskeg, peatland, cold flats and thin rocky soils of North America. Season: Year-round.

SURVIVAL USE: Small straight poles, resinous dry twigs, roots for lashings and dependable fuel. Lower dead branches often remain sheltered and dry.

CAUTION: Shallow roots make windthrow common. Resinous smoke needs ventilation.

LOOK-ALIKES: White spruce has longer needles and larger cones and favors better-drained sites.

TASKS: poles, fuel, tinder, cordage, resin

Verified images: POWO

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1

JACK PINE

USEFUL MATERIAL



Pinus banksiana

IDENTIFY: Two short twisted needles; irregular crown; strongly curved cones that persist on branches.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Dry Boreal Shield ridges, burns and exposed bedrock. Season: Year-round.

SURVIVAL USE: Resin-rich kindling, quick fuel and light poles.

CAUTION: Dead pine can drop limbs without warning; sparks travel.

LOOK-ALIKES: Lodgepole pine usually has straighter cones and longer needles.

TASKS: poles, fuel, tinder

Verified images: POWO

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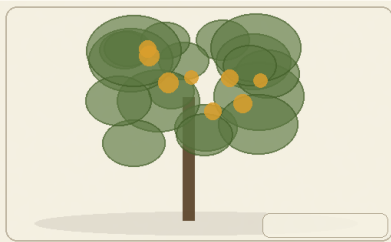
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USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

PAPER AND WHITE BIRCHES

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Betula papyrifera / *B. pendula* group

IDENTIFY: White to pale peeling bark with dark horizontal lenticels; toothed leaves; hanging catkins.

HABITAT / SEASON: Boreal and cool temperate forest, burns, river terraces and mountain slopes. Season: Bark and wood year-round; sap in spring; leaves summer.

SURVIVAL USE: Loose dead bark is exceptional tinder and a short-term waterproof sheet. Wood carves cleanly for utensils and burns hot when dry; straight shoots can become light arrow shafts.

CAUTION: Never girdle living trees. Birch bark flame spreads fast. Birch polypore and chaga are fungi, not part of this plant profile.

LOOK-ALIKES: Aspen bark is smooth and does not peel in paper sheets; alders retain woody cone-like catkins.

TASKS: tinder, container, carving, fuel, arrow shaft

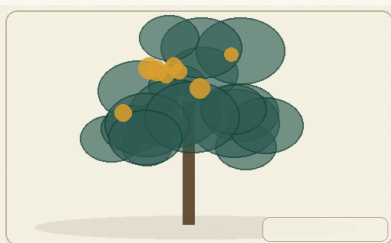
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3

TREMBLING ASPEN

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Populus tremuloides / *P. tremula*

IDENTIFY: Round finely toothed leaves on flattened stalks that tremble; smooth pale bark.

HABITAT / SEASON: Burns, clearings, boreal forest and mountain valleys. Season: Leaves spring-fall; wood year-round.

SURVIVAL USE: Light carving wood, quick fuel and one of the best soft hearth-board woods for friction fire when dry.

CAUTION: Standing dead stems often rot internally. Test poles before loading.

LOOK-ALIKES: Birch leaves are more pointed and bark peels.

TASKS: bow drill board, carving, fuel, poles

Verified images: POWO

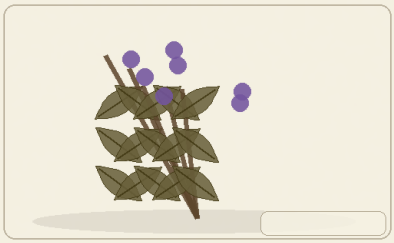
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USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

WILLOWS
USEFUL MATERIAL



Salix spp.

IDENTIFY: Alternate narrow to oval leaves; flexible twigs; catkins; many species root along wet ground.

HABITAT / SEASON: Riverbanks, lake margins, floodplains, tundra valleys and moist forest. Season: Twigs year-round; leaves and catkins in the growing season.

SURVIVAL USE: Flexible rods for baskets, fish traps, wattle, arrow shafts and repair splints. Dry punky willow and softer species can serve bow-drill hearth boards; denser pieces make spindles. Bark has documented salicylate-related traditional use.

CAUTION: Species identification is difficult. Do not self-dose bark with aspirin allergy, bleeding risk, kidney disease, pregnancy, or in children with viral illness.

LOOK-ALIKES: Alders have cone-like female catkins; some dogwoods have opposite leaves.

TASKS: arrow shaft, bow drill board, basketry, cordage, medicine

Verified images: POWO
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MATERIAL SELECTION SCREEN

Before cutting, test straightness, grain, dryness, hidden rot, sap or smoke toxicity, and whether the species is protected. Match the material to the load: springy bow wood, straight shaft wood, soft dry hearth board, harder spindle, fibrous cordage, or resin-free cooking fuel.

LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

LINGONBERRY

LAND FOOD



Stylized form diagram — not an identification photograph

Vaccinium vitis-idaea

IDENTIFY: Low evergreen shrub; leathery oval leaves with pale dots beneath; bright red berries with a crown.

HABITAT / SEASON: Boreal forest, tundra heath, alpine ground and bog hummocks. Season: Late summer through winter.

SURVIVAL USE: Ripe berries are documented food and often persist after frost; suitable fresh, cooked or dried.

CAUTION: Confirm woody evergreen leaves and fruit crown; avoid animal-contaminated patches.

LOOK-ALIKES: Bearberry has netted leaf veins and mealier fruit.

TASKS: food fruit

Verified images: POWO

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BILBERRY / BOG BLUEBERRY GROUP

LAND FOOD



Stylized form diagram — not an identification photograph

Vaccinium myrtillus / V. uliginosum

IDENTIFY: Low woody shrub; blue to blue-black berries with a crown; leaves alternate and small.

HABITAT / SEASON: Boreal, montane and tundra heath. Season: Mid- to late summer.

SURVIVAL USE: Ripe berries are documented food and can be dried or cooked.

CAUTION: Color alone is not enough; confirm woody stem and Vaccinium fruit crown.

LOOK-ALIKES: Black-berryed herbs lack woody stems; crowberry has needle-like leaves.

TASKS: food fruit

Verified images: POWO

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LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

CROWBERRY

LAND FOOD



Stylized form diagram — not an identification photograph

Empetrum nigrum

IDENTIFY: Creeping evergreen mat with tiny grooved needle-like leaves and shiny black berries.

HABITAT / SEASON: Arctic and alpine heath, bog margins and windswept coasts. Season: Late summer through winter.

SURVIVAL USE: Ripe berries are documented food, mild and water-rich.

CAUTION: Low fruit gathers grit and animal contamination.

LOOK-ALIKES: Juniper has stiff needles in whorls and blue waxy cones.

TASKS: food fruit

Verified images: POWO

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WILD ROSES

LAND FOOD



Stylized form diagram — not an identification photograph

Rosa spp.

IDENTIFY: Prickly stems; compound toothed leaves; five-petaled flowers; red to orange hips.

HABITAT / SEASON: Open woods, thickets, prairie, dunes and mountain slopes. Season: Hips late summer through winter.

SURVIVAL USE: Fleshy hip walls are documented food after the irritating hairs and seeds are removed; good for simmering or drying.

CAUTION: Internal hairs irritate skin and mouth. Avoid sprayed or moldy fruit.

LOOK-ALIKES: Hawthorn has simple lobed leaves and woody thorns.

TASKS: food fruit, cordage

Verified images: POWO

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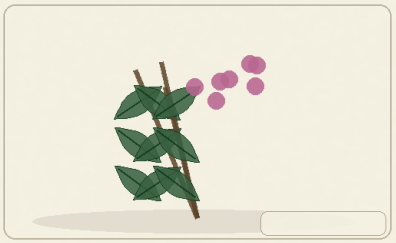
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LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

FIREWEED

LAND FOOD



Stylized form diagram — not an identification photograph

Chamerion angustifolium

IDENTIFY: Tall colonies; narrow alternate leaves; magenta four-petaled flowers; long silky-seeded capsules.

HABITAT / SEASON: Burns, avalanche tracks, river gravel and disturbed northern ground. Season: Young shoots spring; flowers summer.

SURVIVAL USE: Young shoots and leaves are documented food after correct identification and cooking; dry stalks yield light fiber and tinder.

CAUTION: Older plants become tough. Very young shoots can be confused with other herbs.

LOOK-ALIKES: Purple loosestrife has opposite leaves and dense flower spikes.

TASKS: food green, fiber, tinder

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FOOD HARVEST SCREEN

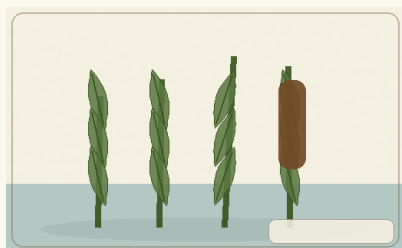
Confirm species, plant part and maturity. Check whether cooking, leaching, peeling, fermenting or repeated water changes are required. Reject mold, animal contamination, roadside plants, chemically treated ground and any food whose safe preparation cannot be completed with current water and fuel.

WATER AND WETLAND EDIBLE PLANTS

Freshwater, marsh, tidal and marine foods. Correct ID does not make dirty water safe.

CATTAILS

AQUATIC FOOD



Stylized form diagram — not an identification photograph

Typha spp.

IDENTIFY: Tall flat strap leaves; dense brown cylindrical female flower spike below a narrower male section.

HABITAT / SEASON: Marshes, pond edges, slow channels and wet ditches. Season: Shoots spring; pollen early summer; rhizomes year-round where lawful.

SURVIVAL USE: Documented food parts include young inner shoots, pollen and processed rhizome starch. Leaves make mats, baskets and thatch; seed down can bulk tinder.

CAUTION: Water can concentrate sewage, metals and parasites. Raw rhizome requires correct processing; avoid contaminated marshes.

LOOK-ALIKES: Yellow flag iris has sword leaves and showy flowers but no brown cattail head.

TASKS: food shoot, food starch, basketry, thatch, tinder

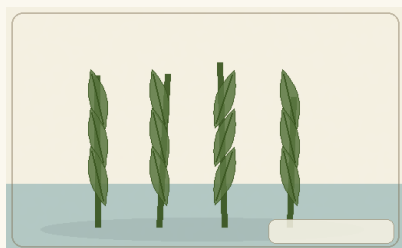
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WILD RICE

AQUATIC FOOD



Stylized form diagram — not an identification photograph

Zizania spp.

IDENTIFY: Tall aquatic annual grass; open branching flower head with separate male and female sections; long dark grains.

HABITAT / SEASON: Shallow lakes, slow rivers and marshes in North America. Season: Late summer to early fall.

SURVIVAL USE: Mature grains are documented food and can be parched, winnowed and cooked.

CAUTION: Harvest rights and methods are culturally and legally regulated. Avoid moldy grain and polluted water.

LOOK-ALIKES: Common reed has feathery panicles but no long dark grain.

TASKS: food grain, thatch

Verified images: POWO

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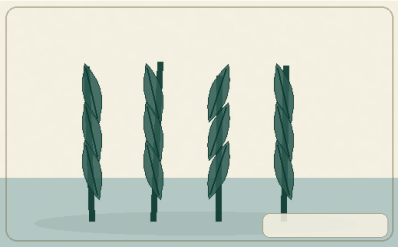
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WATER AND WETLAND EDIBLE PLANTS

Freshwater, marsh, tidal and marine foods. Correct ID does not make dirty water safe.

BROAD PONDWEEDS

AQUATIC FOOD



Potamogeton spp.

IDENTIFY: Submerged or floating leaves with parallel veins; small flower spikes rise above water; flexible stems.

HABITAT / SEASON: Lakes, ponds and slow rivers across temperate and cold regions. Season: Growing season.

SURVIVAL USE: Tubers, young shoots or seeds of some species have documented food use; beds shelter fish and invertebrates.

CAUTION: Species identification and water quality are essential. Avoid stagnant, cyanobacteria-rich or polluted water.

LOOK-ALIKES: Water smartweed has jointed stems and pink flower spikes.

TASKS: food aquatic

Verified images: POWO

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AQUATIC HARVEST SCREEN

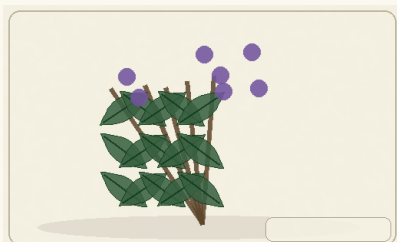
Check five separate questions: Is the species correct? Is the plant part edible? Is the water free of sewage, mining or farm runoff? Are parasites or harmful algal blooms plausible? Is entry and exit from the water safe? A “yes” to the plant and a “no” to the water still means do not eat.

MEDICINAL AND TRADITIONAL-USE PLANTS

Traditional and historical uses only — no dosing, diagnosis or treatment claims.

LABRADOR TEA

TRADITIONAL-USE



Stylized form diagram — not an identification photograph

Rhododendron groenlandicum / *R. tomentosum*

IDENTIFY: Evergreen rolled-edge leaves with rusty-woolly undersides; white terminal flower clusters.

HABITAT / SEASON: Bogs, wet taiga and muskeg. Season: Leaves year-round.

SURVIVAL USE: Culturally important documented beverage and traditional-use plant in northern regions.

CAUTION: Strong or repeated infusions can cause illness; bog rosemary is a dangerous look-alike.

LOOK-ALIKES: Bog rosemary leaves are narrower and pale rather than rusty beneath.

TASKS: medicine, beverage

Verified images: POWO

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YARROW

TRADITIONAL-USE



Stylized form diagram — not an identification photograph

Achillea millefolium

IDENTIFY: Aromatic finely divided leaves; flat clusters of small white to pink flower heads.

HABITAT / SEASON: Dry openings, trails, grassland, shore gravel and disturbed soil. Season: Summer through fall.

SURVIVAL USE: Documented traditional external uses include washes and aromatic preparations; dry flower heads make light tinder.

CAUTION: Possible allergy, pregnancy and anticoagulant concerns. Not a substitute for wound cleaning or medical care.

LOOK-ALIKES: Poison hemlock is much taller with hollow purple-spotted stems and true umbels.

TASKS: medicine, tinder

Verified images: POWO

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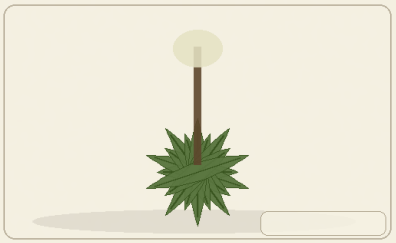
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MEDICINAL AND TRADITIONAL-USE PLANTS

Traditional and historical uses only — no dosing, diagnosis or treatment claims.

BROADLEAF AND RIBWORT PLANTAINS

TRADITIONAL-USE



Stylized form diagram — not an identification photograph

Plantago major / P. lanceolata

IDENTIFY: Basal rosette with strong parallel ribs; leafless spikes of tiny flowers and seeds.

HABITAT / SEASON: Trails, camps, meadows and disturbed soil. Season: Spring through fall.

SURVIVAL USE: Young leaves and seeds are documented food; clean leaves have traditional external use on minor irritation.

CAUTION: Do not put dirty leaves on open wounds. Seeds swell with water and can obstruct if taken dry in quantity.

LOOK-ALIKES: Docks have netted veins; plantain ribs run from the base.

TASKS: food green, medicine

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MEDICINAL RESTRAINT

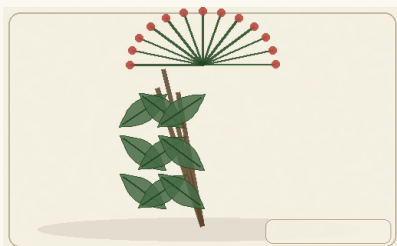
A plant can be culturally important and pharmacologically active yet still be the wrong survival choice. Unknown concentration, dehydration, pregnancy, allergies, chronic illness and medicine interactions can turn a traditional remedy into a second emergency.

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

WATER HEMLOCKS

POISON — AVOID



Stylized form diagram — not an identification photograph

Cicuta spp.

IDENTIFY: Wetland perennial with divided leaves, white umbrella flower clusters and thick chambered rootstocks.

HABITAT / SEASON: Marshes, wet meadows, stream edges and ditches across the northern hemisphere. Season: Spring through fall.

SURVIVAL USE: No survival use. Make wetland root gathering a prohibited activity unless a qualified botanist is present.

CAUTION: Extremely poisonous; small amounts, especially roots, can cause violent seizures and death.

LOOK-ALIKES: Angelica, cow parsnip and other Apiaceae can look similar. Never taste to decide.

TASKS: poison

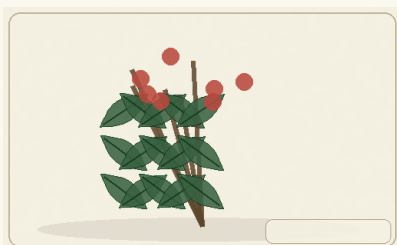
Verified images: POWO

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BOG ROSEMARY

POISON — AVOID



Stylized form diagram — not an identification photograph

Andromeda polifolia

IDENTIFY: Low evergreen bog shrub with narrow rolled-edge leaves pale beneath and pink urn-shaped flowers.

HABITAT / SEASON: Sphagnum bogs and peat hummocks. Season: Year-round leaves; flowers early summer.

SURVIVAL USE: No food or tea use.

CAUTION: Contains grayanotoxin-type compounds and may cause vomiting, dizziness and heart effects.

LOOK-ALIKES: Labrador tea leaves are broader and rusty-woolly beneath.

TASKS: poison

Verified images: POWO

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POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

BANEERRIES

POISON — AVOID



Actaea spp.

IDENTIFY: Woodland herb with divided leaves, white flower clusters and red, white or black berries on stout stalks.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Moist temperate and boreal forest. Season: Fruit late summer.

SURVIVAL USE: No food use.

CAUTION: Berries and roots are poisonous and can affect the gastrointestinal and cardiovascular systems.

LOOK-ALIKES: Edible *Vaccinium* berries grow on woody shrubs with simple leaves.

TASKS: poison

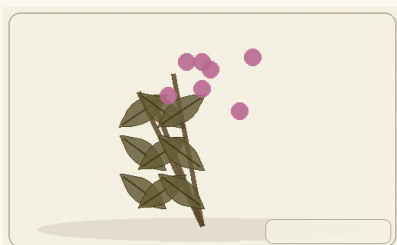
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MONKSHOODS

POISON — AVOID



Aconitum spp.

IDENTIFY: Deeply divided palmate leaves; blue, purple, yellow or white hood-shaped flowers.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Moist mountain meadows, streambanks and cool forest. Season: Summer.

SURVIVAL USE: No food or field medicinal use.

CAUTION: All parts contain potent aconitine-type alkaloids; ingestion can cause fatal heart and nerve effects.

LOOK-ALIKES: Larkspurs have a rear spur and are also toxic.

TASKS: poison

Verified images: POWO

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SURVIVAL TASK MATRIX

Choose the least destructive plant that meets the job. A material that works poorly but is abundant may beat the perfect rare species.

TASK	BEST REGIONAL CANDIDATES IN THIS GUIDE	FIELD DECISION
Bow / spring wood	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Arrow or dart shaft	Paper and white birches, Willows	Use dead, shed or pruned material first.
Bow-drill hearth	Trembling aspen, Willows	Use dead, shed or pruned material first.
Bow-drill spindle	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Tinder	Black spruce, Jack pine, Paper and white birches, Fireweed	Use dead, shed or pruned material first.
Fuel / coals	Black spruce, Jack pine, Paper and white birches, Trembling aspen	Use dead, shed or pruned material first.
Cordage / fiber	Black spruce, Willows, Wild roses	Use dead, shed or pruned material first.
Basket / mat	Willows, Cattails	Use dead, shed or pruned material first.
Container / wrap	Paper and white birches	Use dead, shed or pruned material first.
Fruit food	Lingonberry, Bilberry / bog blueberry group, Crowberry, Wild roses	Verify part, maturity and preparation.
Green food	Fireweed, Broadleaf and ribwort plantains	Verify part, maturity and preparation.
Seed / nut	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Root / starch	Cattails	Verify part, maturity and preparation.
Traditional-use	Willows, Labrador tea, Yarrow, Broadleaf and ribwort plantains	Documented use only; no field dosing.

SEASONAL OPERATING RHYTHM

PHASE	PRIMARY OPPORTUNITY	PRIMARY RISK
Early growth	Shoots, greens, flowers, sap and easy bark identification.	Toxic shoots and bulbs are hardest to separate before flowering.
Peak growth	Maximum leaf and flower information; fiber plants mature.	Heat, insects, sap and water contamination.
Fruit / seed	Highest food density; nuts, berries, pods, grains and tubers.	Mold, wildlife encounters and unripe or toxic fruit.
Dormant / dry	Wood, bark, evergreen leaves, persistent fruit and roots.	Fewer diagnostic traits; overharvest of stored underground parts.

SOURCES, IMAGE VERIFICATION AND EMERGENCY

Every profile links to current taxonomic and photograph searches. Treat community photographs as evidence to compare, not as a final authority.

1. 2023 USDA Plant Hardiness Zone Map

USDA Agricultural Research Service — hardiness-zone reference

<https://planthardiness.ars.usda.gov/>

2. Plants of the World Online

Royal Botanic Gardens, Kew — taxonomy, distribution and images

<https://powo.science.kew.org/>

3. World Flora Online

World Flora Online Consortium — global plant taxonomy

<https://www.worldfloraonline.org/>

4. Global Biodiversity Information Facility

GBIF Secretariat — occurrence records and licensed media

<https://www.gbif.org/>

5. World Checklist of Useful Plant Species

Royal Botanic Gardens, Kew — documented plant uses

<https://kew.iro.bl.uk/concern/datasets/7243d727-e28d-419d-a8f7-9ebef5b9e03e>

6. Poison Control

National Capital Poison Center — poisoning first-response guidance

<https://www.poison.org/>

7. WHO Monographs on Selected Medicinal Plants

World Health Organization — medicinal-plant safety and monographs

<https://www.who.int/publications/i/item/9241545178>

8. Flora of North America North of Mexico

Flora of North America Association — regional scientific flora

http://floranorthamerica.org/Main_Page

9. USDA PLANTS Database

USDA Natural Resources Conservation Service — North American distribution and traits

<https://plants.usda.gov/>

SUSPECTED POISONING

Stop exposure. Remove material from the mouth and rinse. Do not induce vomiting unless directed. Save a sample or clear photographs. Contact local emergency services or a poison center. Monitor airway, breathing and consciousness.

PUBLICATION LIMITS

Regional lists are representative, not exhaustive. Species ranges, names, laws and preparation practices change. Local floras, land managers, Indigenous knowledge holders, poison centers and clinicians take precedence.