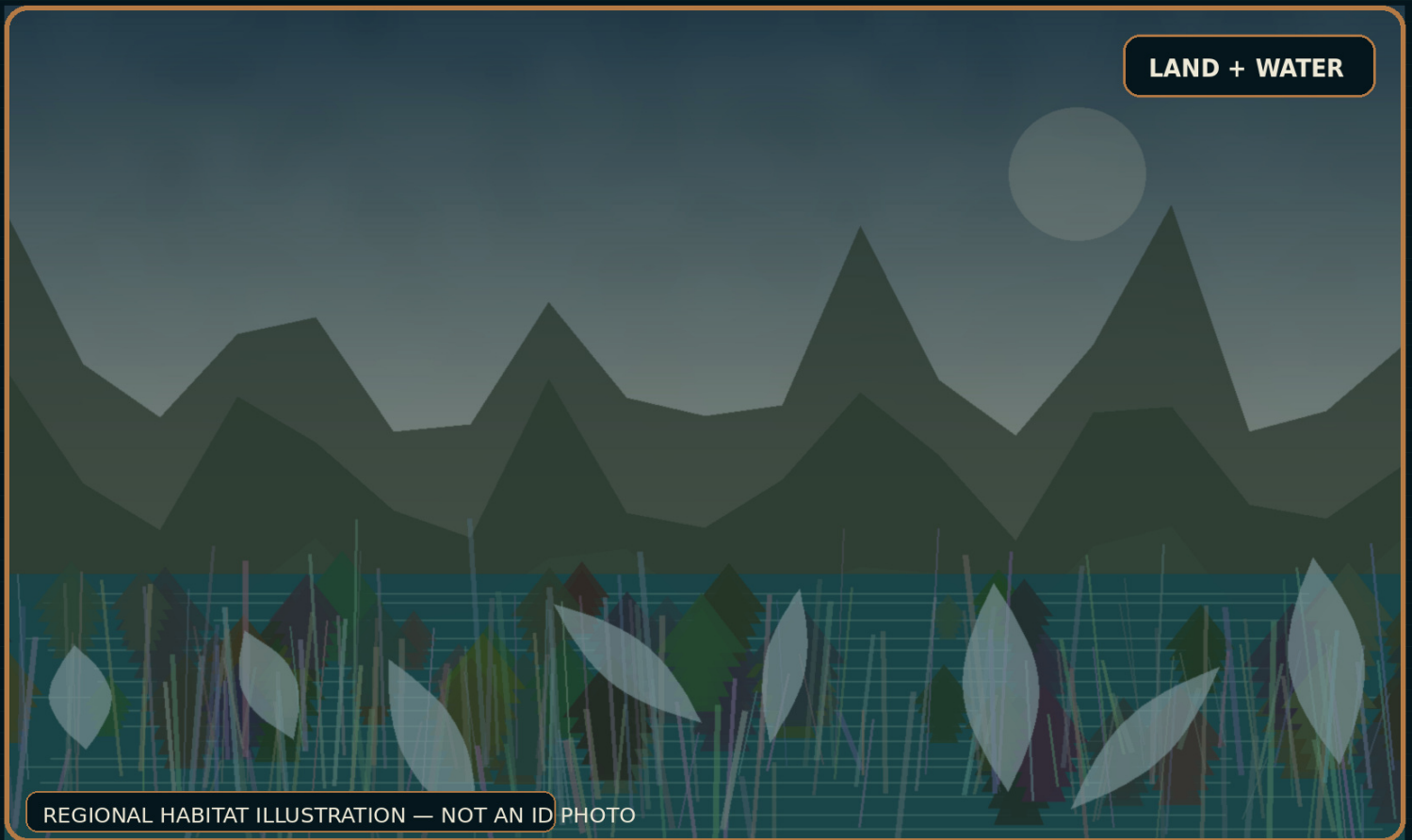


CENTRAL ANDES PUNA & ALTIPLANO PLANT SURVIVAL GUIDE

South America • USDA-EQUIVALENT ZONES 3-8 • KÖPPEN ET / BSk



USEFUL

EDIBLE

MEDICINAL

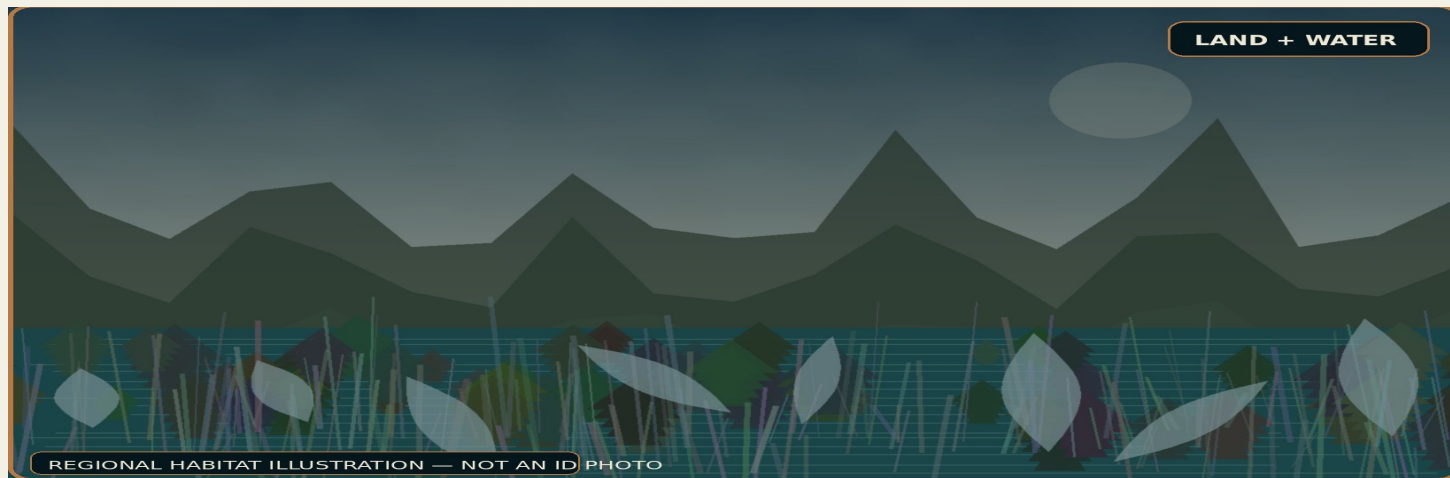
POISONOUS

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: South America USDA-equivalent hardiness: 3-8 Köppen: ET / BSk

Regional habitat: High-elevation grassland, bofedal wetland and rocky slope

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

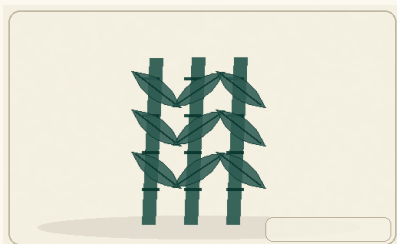
1. Deadfall and shed bark.
2. Abundant annual greens and fruit.
3. Pruned shoots and leaves.
4. Small stems from common thickets.
5. Roots, bark and whole plants only with permission and no safer substitute.

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

SOUTH AMERICAN MOUNTAIN BAMBOO

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Chusquea spp.

IDENTIFY: Solid or nearly solid segmented culms; dense branching at nodes; narrow grass leaves.

HABITAT / SEASON: Andean and Atlantic montane forest, often forming thickets. Season: Culms year-round; shoots seasonal.

SURVIVAL USE: Arrow shafts, basketry, shelter lattice, containers and friction-fire spindles; shoots of selected species require expert preparation.

CAUTION: Dense thickets hide cliffs and animals. Some bamboos flower and die en masse.

LOOK-ALIKES: Reeds are hollow and rooted in wetlands rather than woody mountain thickets.

TASKS: arrow shaft, basketry, construction, bow drill spindle

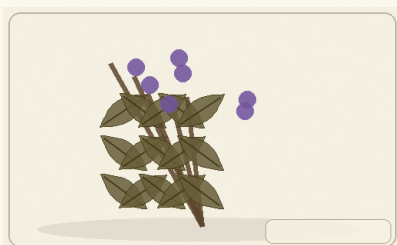
Verified images: POWO

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1

WILLOWS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

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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2

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

COMMON JUNIPER

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Juniperus communis

IDENTIFY: Stiff sharp needles in whorls of three with one pale band; blue-black berry-like cones.

HABITAT / SEASON: Rocky heaths, boreal openings, mountains and steppe. Season: Cones late summer through winter; wood year-round.

SURVIVAL USE: Dense aromatic wood for pegs and small tools; mature cones have limited documented culinary use.

CAUTION: Avoid medicinal use in pregnancy or kidney disease. Oils are concentrated and irritating.

LOOK-ALIKES: Crowberry has softer tiny leaves and glossy black fruit.

TASKS: pegs, tinder, seasoning

Verified images: POWO

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3

CORDILLERAN CYPRESS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Austrocedrus chilensis

IDENTIFY: Narrow tree with flattened scale-leaf sprays, reddish fibrous bark and small oval cones.

HABITAT / SEASON: Drier Andean forest and steppe margin. Season: Year-round.

SURVIVAL USE: Decay-resistant wood for small stakes, kindling and light frames from deadfall.

CAUTION: Populations may be protected and affected by disease. Do not strip living bark.

LOOK-ALIKES: Arrayan has broad opposite leaves and smooth orange bark.

TASKS: stakes, fuel, frames

Verified images: POWO

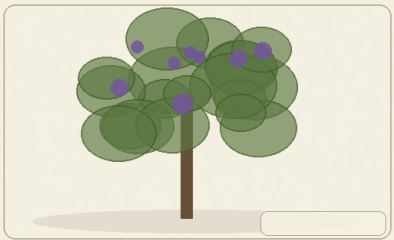
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4

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

ALDERS
USEFUL MATERIAL



Alnus spp.

IDENTIFY: Oval toothed leaves; catkins; woody cone-like female structures persist through winter.

HABITAT / SEASON: Wet thickets, streambanks, avalanche tracks and disturbed forest. Season: Wood year-round; leaves growing season.

SURVIVAL USE: Straight stems for racks and wattle; seasoned alder burns evenly and is widely used as smoking wood.
CAUTION: Wet alder smokes heavily; dense thickets can hide unstable banks.
LOOK-ALIKES: Birch lacks persistent woody cones.
TASKS: poles, wattle, fuel, smoking

Verified images: POWO
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5

MATERIAL SELECTION SCREEN

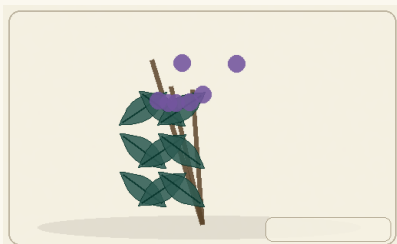
Before cutting, test straightness, grain, dryness, hidden rot, sap or smoke toxicity, and whether the species is protected. Match the material to the load: springy bow wood, straight shaft wood, soft dry hearth board, harder spindle, fibrous cordage, or resin-free cooking fuel.

LAND-BASED EDIBLE PLANTS

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

WILD AND CULTIVATED QUINOA RELATIVES

LAND FOOD



Stylized form diagram — not an identification photograph

Chenopodium quinoa / *C. pallidicaule*

IDENTIFY: Erect branching herb with variable triangular leaves and dense seed panicles; surfaces may be mealy.

HABITAT / SEASON: Andean fields, disturbed highlands and plateau margins. Season: Seeds late growing season; leaves earlier.

SURVIVAL USE: Clean seed is documented staple food after washing away bitter saponins; young leaves are cooked greens.

CAUTION: Wild chenopods vary; saponin-rich seed must be washed and contaminated field margins avoided.

LOOK-ALIKES: Poisonous nightshades have star flowers and berries, not dense grain panicles.

TASKS: food seed, food green

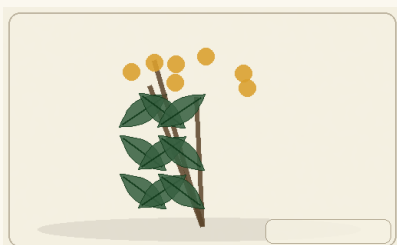
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OCA

LAND FOOD



Stylized form diagram — not an identification photograph

Oxalis tuberosa

IDENTIFY: Clumping Oxalis with trifoliate leaves, yellow flowers and colorful elongated tubers.

HABITAT / SEASON: Cultivated and escaped Andean highlands. Season: Tubers after frost or late season.

SURVIVAL USE: Tubers are documented food, often sun-cured and cooked.

CAUTION: Oxalate content varies. Do not dig wild Oxalis unless a known cultivated patch and land permission are clear.

LOOK-ALIKES: Other Oxalis species have small bulbs or rhizomes, not large tubers.

TASKS: food tuber

Verified images: POWO

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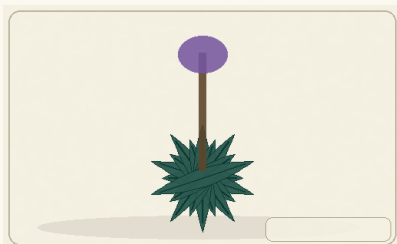
7

LAND-BASED EDIBLE PLANTS

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

MACA

LAND FOOD



Stylized form diagram — not an identification photograph

Lepidium meyenii

IDENTIFY: Low rosette with divided leaves and a swollen turnip-like hypocotyl; tiny white mustard-family flowers.

HABITAT / SEASON: High central Andes cultivation and disturbed puna. Season: Harvest late season.

SURVIVAL USE: Cooked or dried storage organ is documented food in established cultivation.

CAUTION: Wild collection is unreliable and may be illegal; mustard-family roots are not interchangeable.

LOOK-ALIKES: Other *Lepidium* species lack the same enlarged storage organ.

TASKS: food root

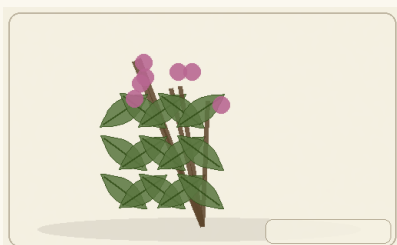
Verified images: POWO

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8

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

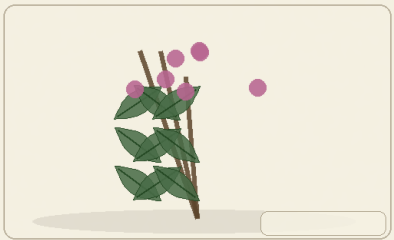
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LAND-BASED EDIBLE PLANTS

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

WILD ONIONS AND GARLIC
LAND FOOD



Allium spp.

IDENTIFY: Narrow leaves or hollow stems; spherical flower heads; clear onion or garlic odor in leaf and bulb.

HABITAT / SEASON: Meadows, rocky slopes, open woodland and stream terraces. Season: Spring through fall.

SURVIVAL USE: Leaves, flowers and bulbs of positively identified Allium are documented food and seasoning.
 CAUTION: Every sampled part must smell of onion, but odor is not the only test. Avoid unknown bulbs.
 LOOK-ALIKES: Death camas lacks onion odor and can be fatal.
 TASKS: food green, food bulb

Verified images: POWO

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FOOD HARVEST SCREEN

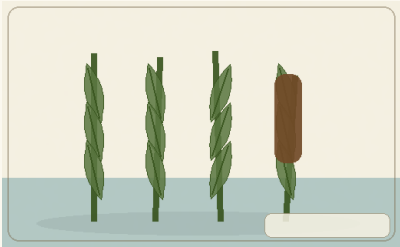
Confirm species, plant part and maturity. Check whether cooking, leaching, peeling, fermenting or repeated water changes are required. Reject mold, animal contamination, roadside plants, chemically treated ground and any food whose safe preparation cannot be completed with current water and fuel.

WATER AND WETLAND EDIBLE PLANTS

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

TOTORA RUSH

AQUATIC FOOD



Schoenoplectus californicus subsp. tatora

IDENTIFY: Tall round green stems with small brown flower clusters near the tip; forms dense lake and marsh beds.

HABITAT / SEASON: Andean and South American lakes, marshes and slow water. Season: Young shoots and rhizomes seasonal; stems year-round.

SURVIVAL USE: Rhizomes and tender shoots have documented food use; stems make mats, boats, baskets and thatch.

CAUTION: Water quality and harvest rights matter. Sedges are difficult to identify when not flowering.

LOOK-ALIKES: Cattails have broad flat leaves and brown cylinders.

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

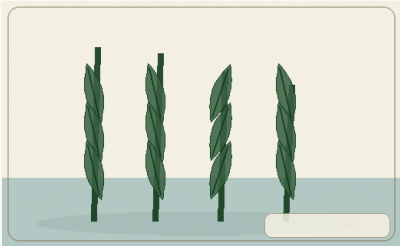
Verified images: POWO

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WATERCRESS

AQUATIC FOOD



Nasturtium officinale

IDENTIFY: Creeping hollow stems; pinnate leaves with a larger rounded terminal leaflet; small white four-petaled flowers.

HABITAT / SEASON: Cold flowing springs and streams, often where nutrient-rich. Season: Cool seasons.

SURVIVAL USE: Tender tops are documented food and are usually cooked in survival settings.

CAUTION: Raw watercress can carry liver flukes and sewage pathogens. Avoid downstream of livestock, roads or settlements.

LOOK-ALIKES: Water hemlock has divided leaves and umbrella flowers; never rely on habitat alone.

TASKS: food green

Verified images: POWO

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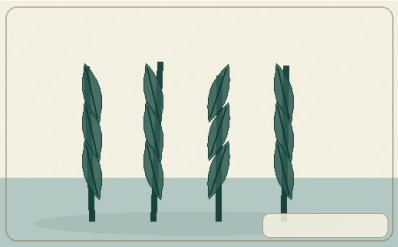
12

WATER AND WETLAND EDIBLE PLANTS

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

BROAD PONDWEEDS

AQUATIC FOOD



Stylized form diagram — not an identification photograph

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

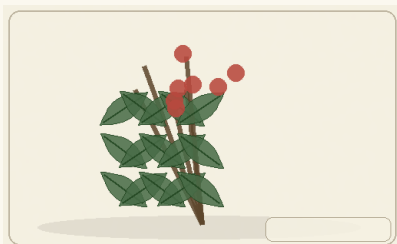
Check five separate questions: Is the species correct? Is the plant part edible? Is the water free of sewage, mining or farm runoff? Are parasites or harmful algal blooms plausible? Is entry and exit from the water safe? A “yes” to the plant and a “no” to the water still means do not eat.

MEDICINAL AND TRADITIONAL-USE PLANTS

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

MUÑA

TRADITIONAL-USE



Minthostachys mollis

IDENTIFY: Mint-family shrub with opposite aromatic leaves and small white-lilac flowers.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Andean dry slopes, field edges and highland scrub. Season: Leaves growing season.

SURVIVAL USE: Documented Andean seasoning and traditional digestive use; dry stems aid tinder.

CAUTION: Essential oils and concentrated teas are not safe field dosing, especially in pregnancy.

LOOK-ALIKES: Other mint-family shrubs require flower and scent confirmation.

TASKS: seasoning, medicine, tinder

Verified images: POWO

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YARROW

TRADITIONAL-USE



Achillea millefolium

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

Stylized form diagram — not an identification photograph

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

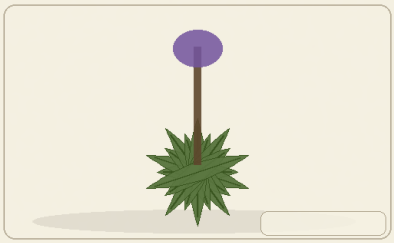
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MEDICINAL AND TRADITIONAL-USE PLANTS

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

GOLDEN ROOT
TRADITIONAL-USE



Rhodiola rosea and related spp.

IDENTIFY: Fleshy blue-green leaves on upright stems, yellow flower clusters and thick aromatic rhizome.

HABITAT / SEASON: Cold Eurasian alpine cliffs, streambanks and tundra. Season: Summer.

SURVIVAL USE: Widely documented traditional-use plant.
CAUTION: Wild populations are vulnerable to root harvest. No field dosing; may affect mood, sleep and medications.
LOOK-ALIKES: Other Rhodiola and Sedum species are similar.
TASKS: medicine

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MEDICINAL RESTRAINT

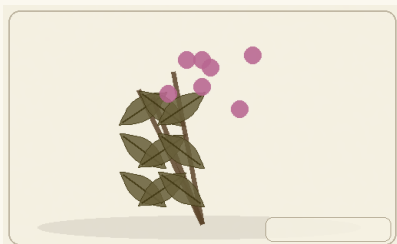
A plant can be culturally important and pharmacologically active yet still be the wrong survival choice. Unknown concentration, dehydration, pregnancy, allergies, chronic illness and medicine interactions can turn a traditional remedy into a second emergency.

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

MONKSHOODS

POISON — AVOID



Stylized form diagram — not an identification photograph

Aconitum spp.

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

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

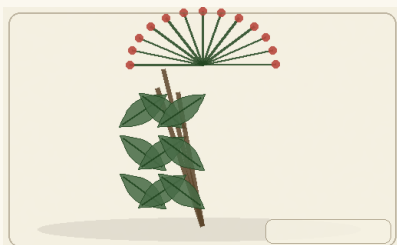
Verified images: POWO

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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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POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

DATURAS / THORN APPLES

POISON — AVOID



Datura spp.

IDENTIFY: Large foul-smelling leaves; upright trumpet flowers; spiny egg-shaped capsules.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Disturbed warm ground, dry riverbeds and fields worldwide. Season: Summer-fall.

SURVIVAL USE: No use.

CAUTION: All parts contain dangerous tropane alkaloids causing delirium, overheating, seizures and death.

LOOK-ALIKES: Brugmansia has hanging trumpets on woody shrubs and is also toxic.

TASKS: poison

Verified images: POWO

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FALSE HELLEBORES

POISON — AVOID



Veratrum spp.

IDENTIFY: Tall herb with broad strongly pleated leaves around a stout stem and branched greenish flower clusters.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Wet meadows, seeps and stream margins in temperate and montane regions. Season: Spring through summer.

SURVIVAL USE: No food use.

CAUTION: All parts are poisonous and may cause vomiting, slow heart rate, low blood pressure and collapse.

LOOK-ALIKES: Young shoots can resemble wild leek but lack onion odor and have broad pleated leaves.

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	South American mountain bamboo, Willows	Use dead, shed or pruned material first.
Bow-drill hearth	Willows	Use dead, shed or pruned material first.
Bow-drill spindle	South American mountain bamboo	Use dead, shed or pruned material first.
Tinder	Common juniper, Muña, Yarrow	Use dead, shed or pruned material first.
Fuel / coals	Cordilleran cypress, Alders	Use dead, shed or pruned material first.
Cordage / fiber	Willows, Wild roses	Use dead, shed or pruned material first.
Basket / mat	South American mountain bamboo, Willows, Totora rush	Use dead, shed or pruned material first.
Container / wrap	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Fruit food	Wild roses	Verify part, maturity and preparation.
Green food	Wild and cultivated quinoa relatives, Wild onions and garlic, Watercress	Verify part, maturity and preparation.
Seed / nut	Wild and cultivated quinoa relatives	Verify part, maturity and preparation.
Root / starch	Totora rush	Verify part, maturity and preparation.
Traditional-use	Willows, Muña, Yarrow, Golden root	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. Tropicos

Missouri Botanical Garden — American and global botanical records

<https://tropicos.org/>

9. Flora e Funga do Brasil

Jardim Botânico do Rio de Janeiro — Brazilian scientific flora

<https://floradobrasil.jbrj.gov.br/>

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.