

MACKENZIE DELTA AND INUVIK PLANT FIELD GUIDE

Inuvik and the Arctic delta • Season 11



TREES

EDIBLE

TOXIC

TRADITION

KNOWLEDGE • SKILL • DISCIPLINE • SURVIVAL

Independent educational field guide • verify current laws, local conditions, and expert guidance

REGION AT A GLANCE

Delta trees, tundra berries, wetland toxins and culturally important plants north of the Arctic Circle.

Filming region: Mackenzie River Delta near Inuvik, Northwest Territories, Canada

Alone season(s): 11

Ecology: Arctic delta and taiga-tundra transition with white spruce islands, willow floodplain, peatland, lakes and tundra heaths

The Mackenzie Delta is a vast network of channels, lakes, peatlands and alluvial islands. White spruce can form surprisingly tall forests on better-drained islands, while black spruce, tamarack, willow and dwarf birch dominate colder or wetter ground. Tundra berries and sour greens may persist into autumn, but plant growth is slow and flood history can shift communities from one island to the next.

FIELD PRIORITIES

- Use landform and drainage to predict plants: spruce on raised islands, willow on flood edges, berries on heaths and peat.
- Never collect roots from delta marshes or white-umbel plants.
- Learn bog rosemary before making any Labrador tea.
- Leave dwarf shrubs and peat mats intact; recovery is exceptionally slow.
- Local Gwich'in and Inuvialuit knowledge and harvest protocols take priority over general guidebook summaries.

NON-NEGOTIABLE PLANT SAFETY

Never consume a plant from one photo, one common name or one guide. Positive identification requires multiple traits and a reliable regional source. Do not experiment with medicinal dosing. For suspected poisoning, remove plant material from the mouth, preserve a sample or photo, contact emergency services or a poison centre, and do not induce vomiting unless directed.

POSITIVE IDENTIFICATION PROTOCOL

Use a repeatable process. Confidence is built from independent features, not intuition.

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1. PLACE

Record habitat, moisture, slope, elevation and nearby dominant plants.
- 2

2. FORM

Decide tree, shrub, vine, herb, grass-like plant, fern or succulent.
- 3

3. LEAVES

Check arrangement, shape, edge, veins, hairs, odor and underside.
- 4

4. STEM & BARK

Look for thorns, sap, pith, lenticels, buds, twig color and texture.
- 5

5. FLOWER / FRUIT

Count petals, inspect clusters, seed structures and fruit attachment.
- 6

6. CROSS-CHECK

Match at least three reliable sources and rule out every dangerous look-alike.

AUTOMATIC STOP LIST

- No tasting to identify.
- No wetland roots.
- No unknown white umbels.
- No unknown bulbs.
- No unknown milky sap.
- No medicinal experiments.

DOCUMENTATION KIT

Photograph whole plant, leaf top and bottom, stem, bark, flowers, fruit and habitat. Add a scale object. Record date, location and confidence. Never let an AI label overrule a regional botanist.

TREES AND WOODY PLANTS

Identification, practical material properties and conservation cautions.

WHITE SPRUCE	TREE / WOODY
<i>Picea glauca</i> IDENTIFY Sharp single needles with a pungent odor when crushed, flexible hanging cones and gray scaly bark; may be tall on raised delta islands. HABITAT & SEASON Well-drained alluvial islands, river terraces and sheltered valleys. Season: Year-round DOCUMENTED USE Strong poles, roots, carving wood and fuel. Spruce islands also indicate relatively firm, elevated ground. CAUTION Shallow permafrost and eroding banks can undermine trees. Do not strip living roots. LOOK-ALIKES Black spruce is narrower with shorter needles and smaller persistent cones.	
1	
BLACK SPRUCE	TREE / WOODY
<i>Picea mariana</i> IDENTIFY Narrow spire crown, short four-sided needles and small dark cones that remain on branches. HABITAT & SEASON Peatlands, cold flats and poorly drained delta margins. Season: Year-round DOCUMENTED USE Small straight poles, sheltered dead twigs and resinous fuel. CAUTION Shallow roots create windthrow hazards. Smoky fires require ventilation. LOOK-ALIKES White spruce is fuller-crowned and favors better-drained islands.	
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TREES AND WOODY PLANTS

Identification, practical material properties and conservation cautions.

TAMARACK

TREE / WOODY

Larix laricina

IDENTIFY

Soft needles in clusters, tiny upright cones and yellow autumn foliage that drops before winter.

HABITAT & SEASON

Fens, wet lowlands and peat margins. Season: Year-round wood

DOCUMENTED USE

Rot-resistant poles, roots and frames; dry wood makes durable fuel.

CAUTION

Small trees can be old and slow-growing. Wet tamarack is difficult to ignite.

LOOK-ALIKES

Spruces keep needles in winter and have sharp single needles.

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BALSAM POPLAR

TREE / WOODY

Populus balsamifera

IDENTIFY

Tall tree with pointed leaves, pale undersides and sticky strongly aromatic buds; furrowed gray bark on older stems.

HABITAT & SEASON

Floodplains, channel banks and young alluvial islands. Season: Buds late winter to spring; wood year-round

DOCUMENTED USE

Light carving wood and quick fuel. Aromatic buds have documented traditional external uses.

CAUTION

Riverbank trees may be undercut. Bud resin can trigger salicylate or fragrance sensitivity.

LOOK-ALIKES

Willows usually have narrower leaves; aspen has rounder leaves on flattened stalks.

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TREES AND WOODY PLANTS

Identification, practical material properties and conservation cautions.

DWARF BIRCH

TREE / WOODY

Betula glandulosa

IDENTIFY

Low many-branched shrub with small round toothed leaves, resin-dotted young twigs and tiny catkins.

HABITAT & SEASON

Tundra heaths, peatland margins and wind-exposed slopes. Season: Spring through fall leaves; twigs year-round

DOCUMENTED USE

Fine twigs make light brush, bedding and small bundles; dense patches can mark firmer hummocks.

CAUTION

Do not strip large areas for bedding. Shrubs are slow-growing and important snow traps.

LOOK-ALIKES

Dwarf willow leaves are often narrower; alder has larger cone-like catkins.

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FELTLEAF WILLOW

TREE / WOODY

Salix alaxensis

IDENTIFY

Tall shrub or small tree with long lance-shaped leaves, dark green above and densely white-felted beneath; flexible yellow-brown twigs.

HABITAT & SEASON

Riverbanks, floodplains, gravel bars and moist valleys. Season: Spring through fall leaves; twigs year-round

DOCUMENTED USE

Straight flexible rods for wattle, stakes, baskets and repair splints. Willow thickets can provide wind protection.

CAUTION

Flood edges may collapse. Do not self-dose bark; salicylate risks apply.

LOOK-ALIKES

Other willows are common; feltleaf is recognized by the strongly white-woolly underside.

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DOCUMENTED EDIBLE PLANTS

Documented foods only. Positive identification and safe preparation remain essential.

LINGONBERRYDOCUMENTED EDIBLE

Vaccinium vitis-idaea

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

HABITAT & SEASON
Open spruce woodland, tundra heath and peat hummocks. Season: Late summer through winter

DOCUMENTED USE
Ripe berries are documented food and often persist after frost.

CAUTION
Confirm evergreen leaves and fruit crown. Avoid animal-contaminated patches.

LOOK-ALIKES
Bearberry has mealy fruit and leaves with netted veins.

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BOG BLUEBERRYDOCUMENTED EDIBLE

Vaccinium uliginosum

IDENTIFY
Low woody shrub with blue-green oval leaves and blue berries with a waxy bloom and crown.

HABITAT & SEASON
Tundra heath, peat margins and open taiga. Season: Late summer

DOCUMENTED USE
Ripe berries are documented food.

CAUTION
Check woody stems and fruit crown. Berry color alone is not enough.

LOOK-ALIKES
Bilberry has green angular stems and darker-staining flesh.

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DOCUMENTED EDIBLE PLANTS

Documented foods only. Positive identification and safe preparation remain essential.

CLouDBERRY

DOCUMENTED EDIBLE

Rubus chamaemorus

IDENTIFY
Low unarmed herb with rounded lobed leaves and a single amber-orange raspberry-like fruit.

HABITAT & SEASON
Peatlands, wet tundra and bog margins. Season: Mid- to late summer

DOCUMENTED USE
Fully ripe amber fruit is documented food and culturally important.

CAUTION
Unripe red fruit is firm and sour. Avoid trampling peat hummocks.

LOOK-ALIKES
Dwarf raspberry species may have more divided leaves and red fruit.

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CROwBERRY

DOCUMENTED EDIBLE

Empetrum nigrum

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

HABITAT & SEASON
Wind-exposed tundra, gravel ridges, heaths and bog margins. Season: Late summer through winter

DOCUMENTED USE
Ripe berries are documented food, water-rich and persistent.

CAUTION
Low berries collect grit and animal contamination. Confirm creeping woody stems.

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

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DOCUMENTED EDIBLE PLANTS

Documented foods only. Positive identification and safe preparation remain essential.

MOUNTAIN SORRELDOCUMENTED EDIBLE

Oxyria digyna

IDENTIFY
Low perennial with kidney-shaped leaves on long stalks and reddish branching flower/seed stems.

HABITAT & SEASON
Moist gravel, streambanks, talus and snowbed edges. Season: Summer

DOCUMENTED USE
Young leaves are documented sour food and a source of flavor in Arctic diets.

CAUTION
High oxalate content means small portions only; avoid with kidney disease. Confirm leaf shape and habitat.

LOOK-ALIKES
Young dock species may be similar but are larger and have different seed structures.

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FIREWEEDDOCUMENTED EDIBLE

Chamerion angustifolium

IDENTIFY
Tall colonies with narrow leaves, magenta four-petaled flowers and long silky-seeded capsules.

HABITAT & SEASON
River bars, burns, disturbed ground and open spruce woodland. Season: Young shoots spring; flowers summer

DOCUMENTED USE
Young shoots and leaves have documented food use after correct identification and cooking; dry stems yield light fiber.

CAUTION
Older shoots become tough. Do not identify very young shoots without leaves.

LOOK-ALIKES
Dwarf fireweed species are shorter and favor wet gravel but are generally similar at genus level.

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TOXIC PLANTS - AVOID

High-consequence species to recognize before any gathering begins.

NORTHERN WATER HEMLOCK

TOXIC - AVOID

Cicuta virosa

IDENTIFY

Wetland perennial with divided leaves, white umbrella flower clusters and thick chambered roots.

HABITAT & SEASON

Marshes, slow channels, lake margins and wet sedge meadows. Season: Spring through fall

DOCUMENTED USE

No use. Never dig or taste wetland roots.

CAUTION

Extremely poisonous and may cause seizures and death. Roots are especially dangerous.

LOOK-ALIKES

Angelica and other Apiaceae can resemble it. Expert identification is essential.

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NORTHERN MONKSHOOD

TOXIC - AVOID

Aconitum delphiniifolium

IDENTIFY

Deeply divided palmate leaves and blue-purple hood-shaped flowers.

HABITAT & SEASON

Moist tundra, river valleys and mountain meadows. Season: Summer

DOCUMENTED USE

No food or medicinal use.

CAUTION

All parts contain potent aconitine alkaloids and can cause fatal heart and nerve effects.

LOOK-ALIKES

Larkspurs have a rear spur but are also toxic.

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TOXIC PLANTS - AVOID

High-consequence species to recognize before any gathering begins.

BOG ROSEMARY

TOXIC - AVOID

Andromeda polifolia

IDENTIFY

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

HABITAT & SEASON

Sphagnum bogs and peat hummocks. Season: Year-round leaves

DOCUMENTED 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.

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RED BANEERRY

TOXIC - AVOID

Actaea rubra

IDENTIFY

Woodland herb with divided leaves, white flower clusters and glossy red berries on stout stalks.

HABITAT & SEASON

Moist spruce woodland and rich river-valley sites near treeline. Season: Fruit late summer

DOCUMENTED USE

No food use.

CAUTION

Berries and roots are poisonous and can cause serious gastrointestinal and cardiovascular effects.

LOOK-ALIKES

Red berries on woody *Vaccinium* shrubs have simple leaves, not divided herb leaves.

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TRADITIONAL-USE PLANTS

Published cultural or historical uses - not prescriptions or dosing advice.

LABRADOR TEA

TRADITIONAL-USE

Rhododendron groenlandicum

IDENTIFY
Evergreen shrub with rolled-edge leaves densely rusty-woolly beneath and white flower clusters.

HABITAT & SEASON
Peatland margins and wet spruce forest. Season: Year-round leaves

DOCUMENTED USE
A culturally important documented beverage and traditional-use plant.

CAUTION
Strong or repeated infusions can cause illness. Bog rosemary must be ruled out.

LOOK-ALIKES
Bog rosemary is narrow and pale beneath; Labrador tea is rusty-woolly.

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ALASKA WORMWOOD

TRADITIONAL-USE

Artemisia tilesii

IDENTIFY
Tall aromatic perennial with gray-green divided leaves and many small greenish flower heads.

HABITAT & SEASON
River bars, disturbed soil, camps and moist tundra margins. Season: Summer through fall

DOCUMENTED USE
Documented northern Indigenous uses include aromatic washes, steam and external preparations.

CAUTION
Concentrated internal use is not recommended. Artemisia can interact with pregnancy, seizures and medications.

LOOK-ALIKES
Other wormwoods vary in leaf division; smell alone is not a complete identification.

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TRADITIONAL-USE PLANTS

Published cultural or historical uses - not prescriptions or dosing advice.

YARROW

TRADITIONAL-USE

Achillea millefolium

IDENTIFY
Aromatic finely divided leaves and flat white to pink flower clusters.

HABITAT & SEASON
Dry river gravel, trails and disturbed ground. Season: Summer through fall

DOCUMENTED USE
Published traditional uses include external washes and aromatic preparations; dry tops can be light tinder.

CAUTION
Allergy and anticoagulant concerns apply. Do not put dirty leaves on wounds.

LOOK-ALIKES
Poison hemlock is taller with hollow spotted stems and umbrella flowers.

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MOUNTAIN AVENS

TRADITIONAL-USE

Dryas integrifolia

IDENTIFY
Low evergreen mat with small leathery leaves, white flowers usually with eight petals and feathery seed heads.

HABITAT & SEASON
Calcareous gravel, tundra slopes and windswept ridges. Season: Summer flowers; leaves year-round

DOCUMENTED USE
Leaves have documented traditional beverage and medicinal uses in some northern communities; mats help stabilize gravel and indicate exposed, well-drained ground.

CAUTION
Do not uproot mats. Internal use is not recommended without local knowledge and medical guidance.

LOOK-ALIKES
Other Dryas species differ in leaf teeth and flower details; hybrids occur.

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SEASONAL AND HABITAT PLANNING

Availability is local and variable. Use these patterns to plan observation, not to assume harvest.

PHASE	WHAT TO EXPECT	FIELD EMPHASIS
SPRING / THAW	New shoots, flowers, catkins and wetland hazards become visible.	Learn leaves and flowers before fruit; avoid roots and bulbs.
SUMMER / PEAK GROWTH	Maximum foliage; most edible greens and traditional-use herbs are identifiable.	Photograph multiple traits; note habitat and abundance.
AUTUMN / FRUIT & FROST	Most berries, hips, cones and seed structures mature.	Confirm entire plant; leave food for wildlife and regeneration.
WINTER / PERSISTENT	Evergreen shrubs, bark, twigs, cones and persistent fruit remain.	Rely on woody traits; snow and frost obscure herb identification.

HABITAT FORECAST

HABITAT	LIKELY PLANTS	PRIMARY RISK
Dry ridge / exposed slope	White spruce, Black spruce, Tamarack	Windthrow, fire, protected slow-growing plants
Moist forest / sheltered valley	Balsam poplar, Dwarf birch, Feltleaf willow	Look-alikes, falling timber, poor visibility
Wetland / peat / stream edge	Northern water hemlock, Northern monkshood	Water hemlock or toxic bog shrubs; unstable ground
Open disturbance / camp edge	Lingonberry, Bog blueberry, Cloudberry, Crowberry	Contamination, invasive species, human chemicals

SEASONAL REALITY

A late frost, drought, fire, flood, browsing pressure or poor flowering year can remove an expected food source. Build plans around several independent resources and assume that every crop may fail.

LOOK-ALIKE AND HAZARD MATRIX

The most important plant knowledge is often knowing what not to touch, taste or dig.

HAZARD	FIELD CUE	RULE
Northern water hemlock	Wetland perennial with divided leaves, white umbrella flower clusters and thick chambered roots.	Extremely poisonous and may cause seizures and death. Roots are especially dangerous.
Northern monkshood	Deeply divided palmate leaves and blue-purple hood-shaped flowers.	All parts contain potent aconitine alkaloids and can cause fatal heart and nerve effects.
Bog rosemary	Low evergreen bog shrub with narrow rolled-edge leaves pale beneath and small pink urn-shaped flowers.	Contains grayanotoxin-type compounds and may cause vomiting, dizziness and heart effects.
Red baneberry	Woodland herb with divided leaves, white flower clusters and glossy red berries on stout stalks.	Berries and roots are poisonous and can cause serious gastrointestinal and cardiovascular effects.

SUSPECTED POISONING

1. Stop exposure.

2. Remove material from mouth; rinse.

3. Do not induce vomiting.

4. Save a sample/photo.

5. Call emergency services or poison control.

6. Monitor breathing and consciousness.

HARVEST ETHICS

Take the common, leave the rare.

Never girdle a tree.

Avoid roots and whole plants.

Leave wildlife food.

Follow Indigenous and protected-area rules.

Restore disturbed ground.

SOURCES, SCOPE AND LIMITATIONS

Taxonomy and regional occurrence change. Verify the current name, distribution and legal status before publication or field use.

1. Plants and biodiversity resources of the Northwest Territories
Government of the Northwest Territories - regional flora and ecology

<https://www.gov.nt.ca/ecc/en/services/biodiversity>

2. Flora of the Canadian Arctic Archipelago
Canadian Museum of Nature - scientific Arctic flora

<https://nature.ca/aaflora/data/index.htm>

3. Flora of North America North of Mexico
Flora of North America Association - scientific flora

http://floranorthamerica.org/Main_Page

4. Aboriginal Plant Use in Canada's Northwest Boreal Forest
Marles, Clavelle, Monteleone, Tays and Burns; Canadian Forest Service - ethnobotany

<https://publications.gc.ca/site/eng/9.611374/publication.html>

5. Canadian Poisonous Plants Information System and poison-safety resources
Agriculture and Agri-Food Canada / Canadian poison centres - poison safety

<https://infopoison.ca/>

6. Plants of the World Online
Royal Botanic Gardens, Kew - taxonomy and distribution

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

INDEPENDENT PUBLICATION NOTICE

This guide is an independent educational reference and is not affiliated with HISTORY, the Alone television series, local Indigenous governments or protected-area authorities. Traditional-use notes summarize published sources and do not transfer cultural authority. Local knowledge holders, current regulations and qualified medical or botanical professionals take precedence.