TABLE OF CONTENTS

1. Alnus sinuata (Regel) Rydb.

2. Alnus incana (L.) Moench (Mountain Alder)

3. Alnur rhombifolia Nutt.

4. Alnus crispa (Ait.) Pursh subsp. crispa

5. Alnus Glutinosa Gaertn.

6

CLASSIFICATION

CLASS

7

SUBCLASS

7

SUPERORDER

7

ORDER

7

FAMILY

7

SUB-FAMILY

7

TRIBE

7

GENUS

7

PLANT CHEMISTRY

CONSTITUENTS

8

25

LATIN NAME: Alnus rubra Bong. (287-72)

OTHER LATIN NAMES: Syn: A. oregana (287-72); (342-369)

COMMON NAMES: Red Alder

Red Alder, Oregon Alder (287-72); Luwi (Coastal Tsimshian, 243-65); K'us (Central Carrier (- 295); Tag Alder, Common Alder, Smooth Alder (124-125); Tl'axwimes (Kwakiutl, 150-279); Kal (Red Alder, 220-25); Wainiik (Aleut, 'parts of bush or tree used in banya, or steam bath', 339-128), Veyniki (Russian, 339-128); Namaasaluwi (Alder bark, Coastal Tsimshian, 243-78), Luux or Am Luux (Alder Tree, Coastal Tsimshian, 358-8).

PLANT DESCRIPTION:

GENERAL:

New twigs not puberulent, generally glabrous; trees up to 25 m;(287-72) Rapidly growing deciduous tree up to 80 ft. tall (generally 15 to 20 feet tall), with thin bark, greenish on younger trees, turning gray to whitish with maturity. The inner bark and fresh wood tend to turn deep red-orange on exposure to air. (44-119); Tree up to 10 (rarely 15) meters tall, with stem up to 40 cm in diameter, sometimes a shrub forming into dense thickets; bark smooth, grayish; (342-369); A fast-growing, straigth-trunked,

deciduous
tree up to 25 m (about 80 ft) tall, with trunks up to 8 dm (30 in.) in diameter. The bark
when young is smooth and greenish, becoming coarse and grey or whitish with age. The bark
and wood tend to turn deep red or orange when exposed to moist air. (137-190) The stems
are numerous, and from six to fifteen feet high. (124-125)

BARK:

LEAVES:

Leaf blades broadly elliptic to ovate-elliptic, 5-15 cm, sinuate, margins slightly
revolute, much paler (rusty-gray) beneath than above; (287-72) Bright green, oval-shaped,
pointed, and coarsely toothed, serrated edges. (44-119); Leaves dark green and nearly
glabrous above, paler and rusty-pubescent below, elliptic to ovate, with revolute margin,
shallowly lobed, the lobes coarsely toothed and glandular-denticulated; (342-369); The
leaves are bright green, lighter beneath, oval-shaped, pointed, and coarsely toothed.
(137-190) It has elliptic-ovate leaves that are dark green on top and rusty-haired
underneath. (195-123)

BUDS:

FLOWERS:

Catkins develop and flower before the leaves, on twigs of previous year;

Clusters of
separate sexes - long, pendulant male catkins and short, woody female cones.
Both types
are green and resinous when immature. The male catkins, when ripe in early
spring, are
reddish; ripe female "cones" are brown. (44-119) and clustered (137-190). When
ripe, the
male catkins release large clouds of pollen (early spring) (137-190). Catkins
are formed
in Autumn. Blossoms in March & April. (124-125). The male flowers are borne in
long,
hanging, clustered catkins, which release large clouds of pollen when they ripen
in early
spring. The female flowers are borne in long, hanging, clustered catkins, which
release
large clouds of pollen when they ripen in early spring. The female flowers are
borne in
short, clustered, egg-shaped "cones", green and resinous when immature, brown
and woody
when ripe. (137-190). Blossoms in March and April. (124-125)

REPRODUCTION CYCLE:

FRUIT/SEEDS:

Fruit with wing 1/5-1/2 as wide as nutlet (287-72); Cones short-peduncled;
nutlets
narrowly winged. (342-369); The fruits or nutlets are small, flat, and slightly
winged
laterally. (137-190)

HABITAT:

Moist lowlands. (287-72) Moist woods, swampy areas, and recently cleared ground.

(44-119)
River banks. Forming thickets on boarders of ponds, rivers, and swamps. (); Wet places,
river bottoms, along creeks. (342-369).

RANGE:

Alaska south, West Cascades and on Olympic Peninsula, to California, also in Idaho.
(287-72) Common west of the Coast and Cascade Mountains along the entire Coast, and also
occurs sporadically in the Southern and Central Interior (137-190). Indigenous to Europe
and America. (124-125) It is found in evergreen ad redwood forests from Northern
California to Alaska. (195-123)

VARIETIES:

KEY TO VARIETIES

SOME SIMULAR SPECIES:

1. Alnus sinuata (Regel) Rydb.

OTHER LATIN NAMES: Syn: Alnus crispa (Ait.) Pursh subsp. sinuata (Regel) Hult., A.
viridis var. sinuata Regel (342-369); A. sitchensis (Regel) Sarg. (137-190).

COMMON NAMES: Sitka Alder, Wavy-leaved Alder (287-72); Slide Alder, Green Alder, Mountain
Alder (137-190);
APPEARANCE:

Catkins developing and flowering with the leaves, on twigs of current year; fruits with thin, membranous wings at least half as wide as nutlet; leaf blades ovate, 3-10 cm, not revolute, only slightly paler beneath than above, finely 1-2 serrate and more or less sinuate; winter buds sharply acute; shrubs, 2-4 (8) m; moist places, lowland to subalpine; Alaska south, in Cascades and Olympic mountains, to northern California, east through Washington and Oregon to much of Idaho and Montana; (287-72) Similar to subsp. crispa, (5) but leaves are larger and broader, more or less lobed. Occurs in a more distinct subalpine region along the coast. The branches are bowlike and pressed along the slopes by the snow, forming almost impenetrable thickets on the mountainsides, especially in the coastal zone. An extreme variation with laciniated, sharply serrulated or double-serrulated leaves is var. laciniata Hult. Subsp. sinuata introgrades with subsp. crispa; (32-369) Broadly winged nutlets and sharply acute winter buds (137-190). Often forms dense patches on slide areas and avalanche runs in the mountains. (137-190) Grows in appropriate habitats throughout B.C. (137-192).

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

2. Alnus incana (L.) Moench (Mountain Alder)

OTHER LATIN NAMES: Syn: A. occidentalis, A. rugosa (DuRoi) Spreng., A. incana var.
occidentalis (Dippel) Hitche. (Grows in B.C.), A. tenuifolia Nutt.(287-73, 137-190);
Betula alnus var. incana L., A. incana var. virescens S. Wats.; A. incana subsp.
tenuifolia (Nutt.) Breitung (342-370); A. serrulata (269-181 ?).

COMMON NAMES: Mountain Alder (287-73); Speckled Alder, Smooth Alder (146-270); White
Alder, Thinleaf Alder (137-190); Wadub' (Chippewa, 211-299); Grey Alder (119-47); Tag
Alder, Smooth Alder, Red Alder (141-18); Hazel Alder (195-123); Common Alder, Speckled
Alder (369-181);

APPEARANCE:

Catkins developing and flower before the leaves, on twigs of previous year; Fruits
wingless; leaf blades sinuate or not, neither revolute nor rusty-gray beneath; new twigs
and petioles strongly puberulent; shrubs to small trees. Leaf blades sinuate or lobed,
serrate-denticulate, elliptic or ovate-oblong, 3-7 (11) cm; stamens mostly 4,

filaments
scarcely 1/2 as long as the anthers; shrubs, 2-5 (12) m; moist to wet places, low to high
mountain; Alaska south, Eastern Cascades, to California, east to Nova Scotia, south in
Rocky Mountains to New Mexico. (287-73) Large shrub or small tree with first grayish,
later reddish, bark; leaves roundish or oblong, ovate, dull grayish-green above, paler
beneath, pubescent when young, glabrescent in age, closely toothed, the teeth finely
serrated, rounded or subcordate at base; cones short-peduncled; nutlets with thin, narrow
margin. Forms thickets along streams. A. incana described from Europe, subsp. tenuifolia
from the Rocky Mountains and the Blue Mountains. Very closely related to A. rugosa (Du
Roi) Spreng. (Betula rugosa Du Roi) of eastern North America and to A.incana subspl incana
of Europe. (342-370); Blunt winter buds (137-190). Found throughout the Interior east
of the Coast Mountains, except in the far northeastern corner of the Province. (137-192)
Leaves have pointed tips and are greyish or bluish-green beneath. When young the lower
leaf surface bears reddish hairs. Not native to Europe, but sometimes planted either for
timber or to form shelter belts. (119-47)

(2a) Alnus serrulata Willd. (Tag Alder): A well-known shrub, growing in clumps and
forming thickets on the borders of ponds or rivers, or in swamps. It bears flowers of
a reddish-green colour in March and April. The bark is blackish gray, with

small, corky
warts, the inner surface being orange-brown, striated. The taste is astringent and
somewhat bitter. (141-18) Shrub or tree with blackish bark that is lightly speckled with
small, grayish to orange lenticels, its leaves are elliptic to obovate, finely serrate
and usually fine-haired underneath. It can be found from Nova Scotia to Oklahoma,
Florida, and Louisiana. (195-123) Tall shrub or tree with leaves that have double teeth
or even small lobes, pale green beneath, usually hairy on the veins. The fruit 2-3.5 mm
with very
narrow wings. Range: Nfld. to Mack. and B.C., soujth to Md., VA., Iowa, Calif.; also in
Eurasia, in wet soil. (369-181)

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

3. Alnus rhombifolia Nutt.

OTHER LATIN NAMES:

COMMON NAMES: White Alder (287-73);

APPEARANCE:

Catkins developing and flower before the leaves, on twigs of previous year; Fruits
wingless; leaf blades sinuate or not, neither revolute nor rusty-gray beneath; new twigs
and petioles strongly puberulent; Leaf blades 1-2 serrate, elliptic or oblong-rhombic,
4-8 cm; stamens 1-3, filaments mostly subequal to anthers; trees, 5-20 mm.; B.C. south,
East Cascades, to Baja California, east to western Idaho. (287-73)

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

4. Alnus crispa (Ait.) Pursh subsp. crispa

OTHER LATIN NAMES: Syn: Betula crispa Ait.; Alnus viridis Vill. subsp crispa

(Ait.) Love
& Love. (342-368)

COMMON NAMES: Mountain Alder (342-368); Green Alder (369-181);

APPEARANCE:

Ascending shrub, up to 3 meters tall; leaves glutinous, fragrant, ovate to elliptic,
glabrous above, pubescent on nerves below, finely and sharply serrulate or biserrulate;
cones on long, slender peduncles. Occupies a somewhat indistinct subalpine region,
diminishing in height with increasing altitude, becoming, at its altitudinal limit, a
prostrate dwarf shrub (f. strangula Fern.) Introgrades with subsp. sinuata in the southern
part of its range. (342-368) A shrub to 3 m high, the younger leaves more or less
glutinous and hairy, the buds without stalks. The leaves with sharp, fine teeth, when
mature dark green above. The fruit only 1-2.1 mm wide and surrounded by pale membranous
wings. Range: Lab. to Alaska, s. to Mass., N.Y., Mich. to N. Calif.; higher mts of N.C.
and Tenn. in bogs, shores and cold woods. (369-181)

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

5. Alnus Glutinosa Gaertn.

OTHER LATIN NAMES: Syn: Betula Alnus (141-17)

COMMON NAMES: Common Alder (141-17); Black Alder (195-122); European Alder, Owler
(195-122);

APPEARANCE:

The English Alder is a moderately-sized tree or large shrub of dark colour, usually
growing in moist woods or pastures or by streams. The leaves are broadly ovate, stalked,
and usually smooth. The catkins are formed in the autumn, the fruiting ones having scales
rather like a tiny-fir-cone; the flowers appear in early spring, before the leaves are
fully out. Grows in Europe south of the Arctic Circle, including Britain, Western Asia,
North Africa. (141-17) A deciduous tree up to 80 feet high. The flowers are segregated
by sex into separate catkins, the reddish-purple female ones developing into hard cones
that contain the seeds. Two to eight catkins will occur in a cluster on a forked

peduncle.
(195-122) The young branches are usually sticky with short-stalked buds which are violet.
The leaves (3-9 cm) are short-stalked, sticky when young, and rounded with a notched apex
and a doubly toothed margin. Catkins appear in the autumn but elongate in February to
April. Tkhe male catkins (2-6 cm) are in groups of 4 to 6 at the ends of the twigs. The
female catkins are short, upright and cylindrical and the fused bracts become woody,
changing during maturity into rounded cones. These cones, at first green, become black
after pollination by wind, and stay on the tree until the following year, even after the
seeds have fallen out. The cones resemble small (1.5 cm) pine cones, but are different
botanically. The fruits are small, flattened nutlets with a loosely woven margin which
enables them to float in water. (119-46)

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

6.

OTHER LATIN NAMES:

COMMON NAMES:

APPEARANCE:

FLOWERS:

FRUIT:

TWIGS:

BARK:

HABITAT:

RANGE:

OTHER:

CLASSIFICATION

CLASS: Angiospermae (118-10)

SUBCLASS: Dicotyledoneae (118-10)

SUPERORDER: Hamamelidae (118-14)

ORDER: Fagales (118-59)
FAMILY: Betulaceae (Birch) (118-59)

- 6 genera, 170 species (118-59)

SUB-FAMILY: Betuloideae (118-59)

TRIBE: Betuleae (118-59)

GENUS: Alnus (118-59)

- Appears to be 4 species in B.C.
- 30 species worldwide (118-59) 30 species of deciduous monoecious trees and shrubs widely
distributed throughout the northern hemisphere and ranging as far south as Peru. (215-4)
- 10 species in the United States (215-4)

PLANT CHEMIRTRY:

CONSTITUENTS:

- 1974 Frances Densmore, How Indians Use Wild Plants for Food, Medicine & Crafts,
303. "Tannin, volatile oil, and resins." (211-303)

TOXICITY:

POISON SYMPTOMS:

TREATMENT:

FOOD USES:

NATURE'S FOOD USES:

NATIVE FOOD USES:

- 1982 Nancy Turner, Food Plants of B.C. Indian's, Part 1, 119. "The slimy cambium layer, between the bark and the wood, was scraped off and eaten by the SECHELT, MAINLAND COMOX, and some other Coast Salish groups. It was eaten fresh, usually with some type of oil, or dried in cakes for winter use. After white contact, the Sechelt mixed it with sugar. The SAANICH sometimes placed the bark in steaming pits with camas bulbs to colour them red. The SWINOMISH SALISH in Washington ate alder cambium, but only during an incoming tide." (44-119)

EUROPEAN FOOD USES:

LIQUEURS:

TEAS:

RECIPES:

MEDICINAL USES:

MODE OF ACTION:

NATIVE MEDICINAL USES:

- 1884 E.M. Holmes, Notes on recent donations to the Museum of the Pharmaceutical Soc. London, The Pharm. J. & Trans. Oct. 302-304, Hudson Bay CREE 303. "Napatihe or

Green Alder. This is the bark of Alnus viridis. It consists of thin shreds which have
evidently been scraped off the young brances. The inner surface is of a pale dull brown
and the exterior greenish brown. It has a very astringent taste with a slight bitterness
and a flavour recalling that of the leaves of Arbutus Uva-Ursi. It is used in dropsy."
(369-182)

- 1915 Frank G. Speck, Medicine practices of the Northwestern Algonquians. Proceedings Intern Congress of Americanists. xix; 303-32. PENOBSCOT 309. "Alder (Alnus sp.) bark boiled in water stops cramps and retching..312. A concoction of seven
herbs is taken as a sudorific before entering the sudatory (sweat bath); alder bark, witch
hazel twigs, fir twigs, cedar boughs, sweet-flag, prince's pine, lambkill and a kind of
brake"...MONTAGNAIS 315. "Twigs of alder are boiled and drunk for impure blood...Alder
bark is used as a brew in small quantities for fever." (369-182)

- 1915 Frank G. Speck, Medicine practices of the Northwestern Algonquians. Proceedings Intern Congress of Americanists. xix; 303-32. Tantaquidgeon MOHEGAN 319.
"Twigs of speckled alder are steeped and used for bathing purposes, for sprains, bruises,
headache, and backache." (369-182)

- 1922 W.D. Wallis, American Anthrop. 24;24-30, Medicines used by the Micmac Indians. MICMAC used the bark for bleeding, hemorrhage of lungs, diptheria. (369-182)

- 1923 Huron H. Smith, Ethnobotany of the Menomini, Bull. Pub. Mus. Milwaukee

4;1-
82, page 26. "The bitter inner bark of this alder is used for poultices to reduce
swellings. For more power from the alder, the Menomini employ the root bark...When the
mucus is too loose in a cold, then it will be congested somewhat by drinking an infusion
of the root bark. This infusion may also be used as a wash for sores, being astringent
and healing..As a wash to cure saddle gall in horses...The inner bark is made into an
infusion which is used as an alternative. (This last is given under A.rugosa and the first
part under A. incana, which are now considered one species)." (369-182)

- 1926-27 Frances Densmore, Uses of Plants by the Chippewa Indians, Forty-fourth
annual Report of Bur. Am. Ethn. Smithsonian Inst., page 328. "An informant said that
the only regulation concerning the scraping was that the root of alder must be scraped
toward the plant"...346. The inner bark of the alder and arrow wood (Viburnum
acerifolium). "In preparing these, scrape the stalks carefully, removing only the thin
outer covering and using the green part underneath. Put the scrapings of this bark from
both trees in boiling water to make decoction to be drunk as an emetic...359. The root
of the alder. In preparing this remedy the root must be scraped upward. A weak decoction
is made from a few inches of the root and a pint of water. The following ingredients are
added to this: 4 bumblebees are caught and put in a box to die of themselves. In catching
the bees they must be stunned but not injured. It destroys the efficacy if the

bees are
treated otherwise. The bees are dried, ground to a powder, and put in a leather packet
until needed. When the medicine is to be used, a pinch of this powder, and put in a small
teacup of the above decoction. The dose is a tablespoonful. Two doses are usually
sufficient for difficult labor (in childbirth). A specimen of the bee was obtained and
identified as a common bumblebee"...360. A decoction of equal parts of the roots of alder,
red-osier dogwood and alternate-leaved dogwood as a wash or compress for sore eyes."
(369-182)

- 1928 Arthur C. Parker, Indian Medicine and Medicine Men, 36th Ann. Archeolog. Rep
1928;9-26 Min. of Educ. SENECA 11. "Tag alder used as a diuretic." (369-182)

- 1928 Huron H. Smith, Ethnobotany of the Meskwaki, Bull. Pub. Mus. Milwaukee 4;189-
274, page 206. "Specimen 5137 of the Dr. Jones collection is the root of Alnus incana.
This is boiled and drunk by children who pass blood in their stools." (369-182)

- 1932 Huron H. Smith, Ethnobotany of the Ojibwe, Bull. Pub. Mus. Milwaukee 4;348-
433, page 358. "The Flambeau Ojibwe use the root for its hemostatic qualities. When one
passes blood in his stools, the root tea will act as an astringent and coagulant..The
eclectic (white) practitioner in the United States and Canada employ it in a powdered
condition for dusting upon chafed body surfaces. (369-182)

- 1933 Huron H. Smith, Ethnobotany of the Potawatomi, Bull. Pub. Mus. Milwaukee 7;32-127, page 43. "The Potawatomi scrape the inner bark...and use the juice obtained to rub on the body to cure the itch. A bark tea is made for flushing the vagina and to make a rectal application with their home-made form of syringe as described previously, to shrivel the anal muscles and thus cure cases of piles. Potions of the bark tea are also drunk to cure the flux. The powdered inner bark of the speckled alder is used to sprinkle upon the galled spots of their ponies to cure them. Nickell (white) says that the bark has alterative, emetic and astringent properties. The Herbalist says that the bark has been used in the treatment of scrofula and has been considered as alterative and emetic."
(369-183)

- 1945 Erna Gunther, Ethnobotany of Western Washington, 46. "The QUILEUTE make a steam bath by putting leaves in an alder tub with hot rocks and sitting on it, and cover themselves with elkskin or bearskin." (46-46)

- 1945 Jacques Rousseau, Le folklore botanique de Caughnawaga, Etudes Ethnobotaniques quebecoise. Contrib. Inst. Bot. Univ. Mon. 55;7-74. MOHAWK transl. pg 38. "To calm the pain resulting from blows, drink every two hours an infusion of fragments of one year old plants. While it is boiling add water three times. When the urine is thick drink a decoction of the twigs of the alder and the roots of

Agropyron
repens (twitch grass)."

- 1959 W.H. Mechling, The Malecite Indians with notes on the Micmacs. Anthropologica
8;239-263. MALECITE of maritime provinces of Canada used the bark of the black alder,
'A. incana' for ulcerated mouths. (369-183)

- 1975 Catharine McClellan, My Old People Say, 228. TAGISH "A brew of boiled water
and alder bark is a good cure for the "trench mouth" that children sometimes get from
eating too much snow and ice." (296-228)

- 1977 Virgil Vogel, American Indian Medicine, 270. "Alnus species: Josselyn reported
in 1672 that "an Indian bruising and cutting of his knee with a fall, used no other remedy
than alder-bark, chewed fasting, and laid to it; which did soon heal it." He pronounced
a decoction of alder "also excellant, to take the fire out of a burn or scald." (146-270)

- 1977 Virgil Vogel, American Indian Medicine, 270. "He (Dr. Clapp) further remarked
on the use of alder by the Indians. Dr. Clapp added that it was useful, externally and
internally, in decoction or infusion, for diseases of the skin, "especially those of the
herpetic kind." (146-270)

- 1977 Virgil Vogel, American Indian Medicine, 270. ""Common alder" was an ONONDAGA

remedy for ague and inflammation. The PENOBSCOTS boiled the bark of alder species in water
to make a drink to stop cramps and retching, while the MONTAGNAIS boiled the twigs and
drank the brew for "impure blood". The same tribe steeped red-alder bark for an infusion
to stop cholera. Speck also reported the use of alder by the CATAWBAS for children's
constipation. The POTAWATOMIS scraped the inner bark of speckled alder (Alnus incana [L]
Moench) and used the juice to rub the body to cure itch. A bark tea was made for flushing
the vagina and to make rectal application with a homemade syringe, to shrivel anal
muscles, and to cure piles. Potions of bark tea were drunk to cure flux, and the powdered
inner bark was used to sprinkle upon galled spots of ponies. The MESKWAKIS boiled the bark
of the same species and gave the decoction to children with bloody stools. The MENOMINEES
used the inner bark for poultices to reduce swellings, and an infusion of bark was given
to solidify loose mucus in a cold and for a wash in sores. It was considered astringent
and healing. An infusion of the inner bark of smooth alder (A. rugosa) was used in this
tribe as an alterative. The DELAWARES once chewed the bark of this species for a
poultice." (146-270)

- 1978 John Riley. Personal communication from G. Fireman of Attawapiskat, James Bay.
His CREE mother still used the inner bark of alder as a moist poultice to stop heavy

bleeding from wounds. (369-183)

- 1983 George Deagle, Haida Medicine, 26. "Alnus rubra: Strips of the bark of this
tree were collected, often in spring, to be used as an ingredient of several medicines
made up from either "all different kinds of plants you find", or "four different kinds
of trees". All informants mentioned the rich orange to reddish-teak color produced in
medicine by this bark and one elderly male stated his wife used the bark "just to add a
little color". Several informants stressed the importance of collecting the bark early
in the morning, before eating, from relatively new growth on the trees. Another common
convention was to take the bark from the part of a tree first exposed to the rays of the
rising sun, at dawn. Taylor's work mentions the use of alder bark as an eye poultice.
Recollections of her informant suggested that this was learned from the Kaigani Haida of
Alaska. Clinical descriptions obtained in this research suggested that conjunctivitis
(reddened eyes with purulent discharge) was the usual indication for a decoction made
solely of alder bark. The more usual use of the bark was in combination with other
agents." (220-26)

- 1986 Norma Meyers (Red Alder, Alnus rubra): "Steep the bark of the red alder tree
(alnus rubra), to make a tea that is most beneficial to lungs and skin. (Do not boil,

or it will be over-strong and acrid.) My husband's great aunt used it as her daily tea,
to give lung strength for long sessions of dancing at potlatch feasts, and for strength
to gather food, (fish, berries, roots and barks) on two long canoe trips each day. Her
strength stayed with her till she moved to Alert Bay and changed to store-bought foods
and did without the alder tea. A pharmacist's son at Alert Bay had asthma. This red alder
tea recommended by a local chief cured him. The chief's daughter contracted T.B. The
red alder tea cured her when the white doctor gave up. A young lady had eczema of the
hands. Red alder hand baths were the curative remedy. A child had pimples on his bottom.
The local medical remedies did not work. But sitting him in red alder tea did! Best of
all - sleeping under a red alder tree brings good dreams. And wearing a spray of red
alder leaves under a cap, or as a head wreath, brings clean thinking and clears away brain
fatigue." (HANDOUT)

EUROPEAN MEDICINAL USES:

- 1633 John Gerarde, The Herball or general history of plants gathered by John Gerarde of London, Master in Chirurgerie. 1477-78. "The leaves of Alder are much used
against hot swellings, ulcers, and all inward inflammations, especially of the Almonds
and kernels of the throat."

- 1640 John Parkinson, Theatrum Botanicum, "The inner barke hereof boiled in

vinegar,
is an approved remedy to kill lice, to cure the itch, and take away scabbes, and drie them
up in a very short space: The same also is singular good to wash the teeth, both to take
away the paines, to fasten those that are loose, to cleanse them from corruption and to
keepe them firm. (345-26)

- 1640 John Parkinson, Theatrum Botanicum, "The leaves put under the bare feete of
travellers, that are surbated with travelling, are a great refreshing unto them: the said
leaves while they have the morning dew on them, laid in a chamber troubled with fleas will
gather them thereinto, which being quickely cast out, will ridde the chamber of them: of
the barke is made a black dye. (345-34)
- 1640 Nicholas Culpeper, Culpeper's Complete Herbal, 24. "Government and Uses: It
is a tree under the dominion of Venus, and of some watery sign or other, I suppose Pisces,
and therefore the decoction, or distilled water of the leaves, is excellent against
burnings and inflammations, either with wounds or without, to bathe the plabe grieved
with, and especially for that inflammation of the breast, which the vulgar call an ague.
If you cannot get the leaves, which in winter is impossible, make use of the bark in the
same manner. The leaves and bark of the alder tree are cooling, drying, and binding. The
fresh leaves laid upon swellings dissolve them, and stay the inflammations. The leaves

put under the bare feet galled with travelling, are a great refreshing to them. The said
leaves gathered while the morning dew is on them, and brought into a chamber troubled with
fleas, will gather them thereunto, which being suddenly cast out, will rid the chamber
of these troublesome bed-fellows." (140-24)
(Nicholas Culpeper, 1616-1654, English astrologer-physician)

- 1748 Peter Kalm, Travels in North America, Philadelphia October the 14th. 104. "A
Swedish inhabitant of America told me that he had once cut his leg to the very bone, and
that some blood had already congested within; that he had been advised to boil the inner
bark, and to wash the wound often with the water; that he had followed this advice, and
had soon got his leg healed, though it had been very dangerous at first." (369-181)

- 1799 Wiliam Lewis, The New Dispensatory Containing the Elements of Pharmacy and
the Materia Medica, 6th Edition, pg. 83. "Leaves and bark of European alder a bitter
styptic of disagreeable taste. Used in intermittent fevers. A decoction of the bark for
inflammation of tonsils. Leaver chopped and heated efficacious for dispersing milk in the
breast as a cataplasm." (369-181)

- 1830 C.S. Rafinesque, Medical Flora, Vol 2. Samuel C. Atkinson, Philadelphia,
pg.188. "Alnus serrulata. Near streams from Canada to Florida. Leaves vulnerary and
astringent, repel the milk when bruised and applied to the breast. Bark styptic,

dies
brown, and with vitriol black. The coner also die black. The inner bark of the root is
emetic and dies yellow. The vood produces a light charcoal, the very best for gunpowder...called Sulling by the Canada tribes, who use the bark in poultice for
swellings and strains. (369-182)

- 1931 M. Grieve, A Modern Herbal 18. "Medicinal Action and Uses (A. serrulata): Alterative, tonic, astringent, emetic. A decoction or extract is useful in scrofula,
secondary syphilis and several forms of cutaneous disease. The inner bark of the root
is emetic, and a decoction of the cones is said to be astringent, and useful in haematuria
and other hemorrhages.

When diarrhoea, indigestion and dyspepsia are caused by debility of the stomach, it
will be found helpful, and also in intermittent fevers.

It is said that an excellant ophthalmic powder can be made as follows: bore a hole
from 1/2 to 1 inch in diameter, lengthwise, through a stout piece of limb of Tag Alder.
Fill the opening with finely-powdered salt, and close it at each end. Put into hot ashes,
and allow it to remain until the Tag is almost charred (three to four days), then split
it open, take out the salt, powder, and keep it in a vial. To use it, blow some of the
powder upon the eye, through a quill.

DOSAGE: Of fluid extract, 1/2 to 1 drachm. Infusion of 1 oz. of bark in 1 pint of
boiling water - in wineglassful doses. Almim, 4 to 10 grains." (141-18)

- 1931 M. Grieve, A Modern Herbal 17. Alnus glutinosa (Common Alder). "CONSTITUENTS:
The bark and young shoots contain from 16 to 20 percent of tannic acid, but so much
colouring matter that they are not very useful for tanning. This tannin differs from that
of galls and oak-bark, and does not yield glucose when acted upon by sulphuric acid,
which, it is stated, resolves it into almine red and sugar." (141-18)

- 1931 M. Grieve, A Modern Herbal 17. Alnus glutinosa (Common Alder). "MEDICINAL
ACTION AND USES: Tonic and astringent. A decoction of the bark is useful to bathe
swellings and inflammations, expecially of the throat, and has been known to cure ague.
Peasants on the Alps are reported to be frequently cured of rheumatism by being covered
with bags full of the heated leaves." (141-18)

- 1955 J. Auguste Mockle, Contributions a l'etude des plantes medicinales due Canada. Paris ed. Jouve. Quebec transl. 34. "Alnus crispa (green alder), the bark is
astringent and febrifuge, containing 9 to 10% of tannin. The inner bark of the root is
emetic. The fresh leaves are used to apply to tumors and inflamed tissues...Alnus incana
the bark astringent." (369-183)

- 1972 Jeanne Rose, Herbs & Things, 36. "Alder (Alnus glutinosa - common alder or A.
nigra - black alder). A decoction of alder bark boiled with agrimony, wormwood, dodder,
hops, some fennel with smallage, endive, and succory roots is used to strengthen

and
cleanse the liver and spleen. Drink four ounces daily for some time. Use the dried bark,
as fresh bark will cause one to vomit. Boil the inner bark in vinegar and rub this
solution on the body to kill lice, cure scabies, and dry up scabs. If rubbed on the teeth
it will cleanse them. Place alder leaves in corners and on the floor to ward off fleas."
(314-36)

- 1973 Nancy Turner, The Ethnobotany of the Southern Kwakiutl Indians, 279. "Alder
bark was an important medicine. It was peeled from the young trees in the spring,
scrubbed, cleaned, and dried in the sun, and stored for future use (Brown, 1969; Johnson,
1969). If a woman had tuberculois and spat blood, she would suck four pieces of alder
bark in her mouth. She usually got well after this (Boas, 1930). An extract of the bark,
made by pouring boiling water over it, was drunk for tuberculosis and asthma, and was
rubbed on the skin for sores and eczema (Brown, 1969; Roberts, 1969). A poultice for
sores and aches was made by mixing broken-up alder bark with 'Fucus', black twinberry bark
(Lonicera involucrata), and tobacco (Nicotiana sp.) (Cranmer, 1969)." (150-279).

- 1926-27 Frances Densmore, Uses of Plants by the Chippewa Indians, Forty-fourth annual Report of Bur. Am. Ethn. Smithsonian Inst., page 303. "Alnus incana (L.) Moench. Speckled Alder. The bark is alterative, astringent, and emetic." (211-299)
Medicine for diseases of women. (211-286)

- 1977 Virgil Vogel, American Indian Medicine, 270. "Brickell (1737) reported that the leaves and bark of black alder were cooling and binding and were used in "hot Swellings and Ulcers in the Body." Barton, mentioning black alder under the names of Virginia winterberry (Prinos verticllatus L., and Prinos Gronovii Michx.), reported that the bark was astringent, bitter, and pungent; that the berries were bitter; that it was long a popular remedy, ordinarily employed as a decoction in intermittent fevers, dropsy, and gangrene, in the last of which it had "great efficacy." It was also given internally, and externally as a wash. Dr. Porcher held that the berries were tonic and astringent and were used in intermittent fever and diarrhea, while the leaves were a substitute for tea. Wooster Beach found a decoction of black-alder bark good for worms and "to purify the blood." He claimed that a minister was cured by this remedy from a lung infection which rendered him unable to preach. Black Alder, (Prinos verticillatus L.) was official in the USP, 1820-94, and was used as an astringent and tonic." (146-270).

- 1979 Joseph Meyer, The Herbalist, 125. "The bark is commonly known to be an alternative and an emetic. DOSE: 1 teaspoonful to 1 cup of boiling water. Drink cold 1 or 2 cups a day; of the tincture, 1/2 to 1 fluid dr." (124-125)

- 1983 John Lust, The Herb Book, 122. "PROPERTIES AND USES: Astringent, bitter, emetic, hemostatic. Fresh alder bark will cause vomiting, so use dried bark for

other
than emetic purposes. A decoction of the bark makes a good gargle for sore throat and
pharyngitis. The powdered bark and the leaves have been used as an internal astringent
and tonic, and the bark also as an internal and external hemostatic against hemorrhage.
Boiling the inner bark in vinegar produces a useful external wash for lice and for skin
problems such as scabies and scabs. You can even use the liquid to clean your teeth.
Preparation and Dosage: Decoction: Boil 1 tsp. of bark or leaves in 1 cup of water. For
internal use, take 1 to 2 cups a day, in mouthful doses. Tincture: A dose is from 1/2 to
1 tsp. Powder: A dose is from 8 to 12 grains. (195-122,123) Alnus glutinosa, Alnus
ruba, Alnus serrulata. Medicinal Parts: Leaves & bark.

- 1983 Rick Langshaw, Medicinal Herbs & Edible Plants of the Canadian Rockies, 6.
"Alder bark boiled in vinegar is a good remedy for lice and their associated symptoms -
approximately 1/8 oz of bark per cup of vinegar. This also makes an excellant mouth-wash
when distilled with tap water. Use a half & half ratio." (291-6)

- 1983 Rick Langshaw, Medicinal Herbs & Edible Plants of the Canadian Rockies, 6.
"Gather the outer and inner bark, drying & aging it for up to several weeks. WARNING:
Unaged bark will provoke vomiting and pains in the stomach. After aging, the bark's
effect is similar to that of rhubarb for constipation. Mix approximately 1/8

cup of
powdered bark to one cup of brown apple-cider. Take one teaspoon 3 times a day after
meals for about 3 days or until relief is obtained." (291-6)

- 1985 Frances Graham, Plant Lore of an Alaskan Island, 128. "The INNER BARK has been
used for several purposes. Boil it and drink the tea to reduce high fever or to get rid
of gas. This tea may also be taken as a gargle for a sore throat or laryngitis. The same
bark, boiled in vineagar, may be effective as a wash to kill lice or for other skin
problems. Dried alder bark acts as an astringent. The FEMALE FLOWER CLUSTERS, which
don't look like flowers at all, are green, then brown late in the year; oblong; and less
than 1 inch in lenght. They can be boiled into a tea and taken in small quantities for
relief from diarrhea. In the plant-screening program of the National Cancer Institute it
was found that red alder, which does not grow in our area of Alaska, contains two
anti-cancer agents. We were unable to determine if our species of alder was also tested.

RUSSIAN MEDICINAL USES:

- 1969 Alma Hutchens, Indian Herbalogy of North America, 4. (Black Alder) "MEDICINAL
PART: Bark. SOLVENT: Boiling water. BODILY INFLUENCE: Tonic, Alterative, Astringent,
Cathartic. USES: Very similar in action to Cascara when used for constipation. Alder

is an agent used for jaundice, diarrhoea, gangrene, dropsy and all disease with symptoms
of great weakness. It has had success in treatment of dyspepsia, combined with 2 drams
of powdered Golden seal (Hydrastis) infused in 1 pint of boiling water and when cold taken
in wine glass doses periodically throughout the day and repeated daily.
     Make sure you age the outer and inner bark, as the green bark will provoke strong
vomiting, pain and gripping in the stomach. Let the decoction stand and settle two or
three days, until the yellow colour is changed to black. In this manner it will
strengthen the stomach and procure an appetite.
     The 'berries' are cathartic and vermifuge when combined with apple cider, a pleasant
and effective worm medicine for children. Plan on giving this when the moon is full, as
they are most conducive to treatment. Fast the patient before going to bed and give a
herbal laxative, fasting again in the morning, and repeat Alder medication. Repeat again
after four weeks as the larvae will still be present.
DOSE: 1/2 dram of powdered bark to 1 dram of apple cider; 1 teaspoonful three times a day,
for three days in a row, or as above." (215-4)

- 1969 Alma Hutchens, Indian Herbalogy of North America, 4. (Black Alder)
"EXTERNALLY: The decoction forms an excellant local application in gangrene, indolent
ulcers and in some affections of the skin. The inner bark boiled in vinegar is an approved
remedy to kill head lice and to relieve the itch and take away scabs by drying them up
in a short time. For oral hygiene, it is cleansing to the teeth and to take

away pain,
at the same time firming to the gums."(215-4)

- 1969 Alma Hutchens, Indian Herbalogy of North America, 4. (Black Alder)
"HOMOEOPATHIC CLINICAL: Tincture of the bark of the young twigs and the bark of Alnus
rubra, Tag Alder, and Alnus glutinosa, Common Alder of Europe, is clinically used for
Ammenorrhoea and Leucorrhoea, Enlarged Glands, Gleet, Haemorrhage, Psora, Rheumatism,
Scrofula, Syphilis and many kinds of skin sickness such as Herpes, Impetigo, Prurigo."
(215-5)

- 1969 Alma Hutchens, Indian Herbalogy of North America, 5. (Black Alder)
"RUSSIAN
USE: Three species of Alnus incanc (Olha), black, grey, and white, have a prominent place
in Pharmacopoeia and Folk Medicine. Parts used: Cones (Fructus Alni), bark of the young
twigs (Cortex Alni), Leaves (Folia Alni). These parts of Alder contain 16% of Tannin,
which gives predominant characteristics as an astringent. USES: As a tea it is used for
loose stomach (diarrhoea) and bleeding thereof. DOSE: 3 to 4 cups a day, a mouthful at
a time. Can be combined with other herbal teas for astringent and tonic uses. The extract
in alcohol or Russian vodka can be used before meals, 25 to 40 drops 3 times a day.
(215-5)

CHINESE MEDICINAL USES:

INDIAN (AYURVEDIC) USES:

HOMOEOPATHIC MEDICINE:

PREPARATION & DOSAGES:

COLLECTING & DRYING:

VETERINARY MEDICINE:

MATERIAL USES:

PREPARING THE BARK FOR USE:

BASKETS:

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 194. "BASKETRY: They (the THOMPSON) sometimes used the young twigs for basket imbrication, while the OKANAGAN made cordage from the bark of young alders and occasionally used the roots as a substitute for red cedar roots in making coiled baskets. They were peeled, split, and soaked in water to make them pliable for weaving. The CARRIER wove fishing nets of alder bark, then dyed them black by boiling them in their own juice." (137-194)

BURIAL PRACTICES:

COSMETICS:

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 194. "PERFUME: The

Thompson
used the fragrant stems of mountain alder as a scent or perfume." (137-194)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 193. "TATTOO: The SAANICH,
a Straits Salish group, mixed red alder bark with cedar bark and Indian paint fungus,
burned them to a powder, and inserted this under the skin with a needle, as a tattoo.
They also put the bark in steaming pits to colour their camas bulbs pink. The HAIDA used
the charcoal from the wood for tattooing and put about half a cup of the bark in their
wash water as a bleach substitute." (137-193)

CULTIVATION:

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 190. "Alnus rubra: Red Alder
is a common "Pioneer" species of recently logged areas." (137-190)

- 1985 Frances Graham, Plant Lore of an Alaskan Island, 129. "Alder is the first tree
to grow back on a logged or burned area; it was the first tree to grow in Alaska after
the glaciers retreated. It served an important purpose in future plant development
because it adds nitrogen to the soil." (339-129)

DYEING:

- 1633 John Gerarde, The Herball or general history of plants gathered by John Gerarde of London, Master in Chirurgerie. 1477-78. "The barke is much used of poor

country Diers, for the dying of course cloth, cappes, hose, and such like into a blacke
colour, whereunto it serveth very well." (369-181)

- 1748 Peter Kalm, Travels in North America, Philadelphia October the 14th. 104. "I
found afterwards, myself, that the alders in some places of Canada were but little
inferior to the Swedish ones. Their bark is employed here in dyeing red and brown."
(369-181)

- 1931 M. Grieve, The Modern Herbal, 17. Alnus glutinosa (Common Alder). "DYEING:
The bark is used as a foundation for blacks, with the addition of copperas. Alone, it
dyes woolens a reddish colour (Aldine Red). The Laplanders chew it, and dye leathern
garments with their saliva. An ounce dried and powdered, boiled in three-quarters of a
pint of water with an equal amount of logwood, with solution of copper, tin, and bismuth,
6 grains of each, and 2 drops of iron vitriol, will dye a deep boue de Paris. Both bark
and young shoots dye yellow, and with a little copper as a yellowish-gray, useful in the
half-tints and shadows of flesh in tapestry. The shoots cut in march will dye cinnamon,
and if dried and powdered a tawny shade. The fresh wood yields a pinkish-fawn dye, and
the catkins a green." (141-17)

- 1945 Jacques Rousseau, Le folklore botanique de Caughnawaga, Etudes
Ethnobotaniques quebecoise. Contrib. Inst. Bot. Univ. Mon. 55;7-74. MOHAWK

transl.
pg 84. "The alder was used formerly to make a brown dye for wool, more intense than that
obtained with labrador tea." (369-183)

- 1977 Judy McGrath, Dyes From Lichens & Plants, 55. "DYEING (leaves): Colors ranging
from Tan, caramel, yellow, gold, red, green, brown, gray, and black. (111-55) Use method
3. Crush leaves by hand before using as a dyebath. Use 1 to 2 lbs of leaves per pound
of fiber. Place leaves in a pot and cover with lukewarm water. Let stand several hours
or overnight. Bring slowly to a boil and simmer 30 minutes for small leaves or 45 minutes
to 1 hour for large leaves. Strain leaves out of dyebath and cool. Add clean, wet,
alum-treated fiber and simmer 30 minutes or more, depending on desired shade of color.
Remove fiber and rinse well. The dyebath from leaves can be used several times. The
larger, tougher leaves available to most dyers will need to be cut or chopped."
(111-50)

- 1977 Judy McGrath, Dyes From Lichens & Plants, 55. "DYEING (Bark): Colors Tan to
gray-brown. (111-57) You will usually need 1 lb. of any root or bark to dye 1 lb. of
fiber. Place finely chopped roots or bark in a pot and cover with lukewarm water. Let
stand overnight or longer. Bring to a boil and simmer at least 8 to 12 hours. The dyebath
can be turned off overnight and reheated the next day, simmering for another day to obtain

a stronger color. The roots and bark can often be re-used a second time for a weaker but
still effective, pleasant dyebath. Strain the roots or bark from the dyebath. Add clean,
wet, untreated or alum-treated fiber and simmer for 8 hours or more. The dyebath can be
turned off overnight with the fiber remaining in the bath and reheated the next day, thus
getting as strong a color as possible from the dye." (111-52)

- 1985 Frances Graham, Plant Lore of An Alaskan Island, 171. "Tree bark should be
collected in the spring, as the sap is highest then. Gather from young trees that are
free of moss. (Do not peel bark all the way around the tree - this will kill the tree.)
Dry the bark. It can then be kep for several years if stored in a dry place. As almost
all tree barks contain tannic acid, the addition of iron salts gives dark colors. Alder
(Alnus crispa): Gather branches and strip off outer and inner bark. (Use 2 pounds bark
to 4 gallons water.) Cut bark into small strips and soak overnight in water to cover.
Boil for 2 hours in the same water. Strain, add enough water to make 4 gallons, add 1
pound yarn, and simmer 1 hour. No mordant: Brown. With 2 ounces alum mordant (2/3 ounce
cream of tartar): Shades varying from ice green to orange. With Copperas mordant: Gray
brown. (339-171)

DYEING:(NATIVE)

- 1916 F.W. Waugh, Iroquois Foods and Food Preparation, Mem. 86 Anthrop. ser. 12 Can. Dept. Mines. Ottawa. pg. 68. "Decoctions of hemlock bark and roots, also the bark of the alder, are used in colouring spoons and other wooden articles a deep red. These become further darkened and polished by usage." (369-182)

- 1923 Huron H. Smith, Ethnobotany of the Menomini, Bull. Pub. Mus. Milwaukee 4;1-82, page 26. "Alder bark is boiled to yield a reddish brown dyestuff. The cloth or other material to be colored is immersed in the boiling liquid." (369-182)

- 1926-27 Frances Densmore, Uses of Plants by the Chippewa Indians, Forty-fourth annual Report of Bur. Am. Ethn. Smithsonian Inst., page 373. "Yellow dye, light yellow. Use only the inner bark of the alder, though both inner and outer bark can be used. Either green or dried bark can be used. Pound the bark until it is in shreds and steep it, putting in the material while the dye is hot and letting it boil up. Nothing is needed to set the color." (369-182)

- 1932 Huron H. Smith, Ethnobotany of the Ojibwe, Bull. Pub. Mus. Milwaukee 4;348-433, page 425. "The Flambeau Ojibwe use the inner bark for dyeing a light yellow, or with other ingredients to get a red, red brown or black. In occasional cases where sweet grass is dyed yellow, the woman chews the inner bark and draws a wisp of sweet grass through her mouth weaving it in for color." (369-182)

- 1935 Diamond Jenness, The Ojibwa Indians of Parry Island, their social and

religious life. Nat. Mus. Can. Bull. 78 Anthrop. ser. 17 Ottawa. Parry Island OJIBWA
Lake Huron 114. "Red dye from boiled alder bark." (369-183)

- 1945 Marcel Raymond, Notes ethnobotaniques sur les Tete de Boule de Manouan. transl. 119. "The alder was the only dye plant known to Neweiacitic. The inner bark
gives a clear yellow." (369-183)

- 1945 Erna Gunther, Ethnobotany of Western Washington, 20. "QUILEUTE: Dyed with alder
juice to give it a rich red-brown color." (46-20)

- 1973 Nancy Turner, The Ethnobotany of the Southern Kwakiutl Indians, 279. "DYEING:
The bark was chewed and boiled in urine to make a bright red dye for staining canoes,
masks, totem poles, cedar bark mats and ceremonial cedar bark rings (Boas, 1909; Brown,
1969; Cranmer, 1969). Many Kwakiutl myths describe how a person feigned bleeding by
chewing alder bark and spitting out the juice (Boas, 1909)." (150-279)

- 1975 Catharine McClellan, My Old People Say, Part 1, 315. "TAGISH: Alder bark used
for dark wine colour." (296-315)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 192. "Alders were extensively
utilized by B.C. Indians, for dyeing, for carving, and for fuel. As a source of dye they
are known to native peoples across the continent. In the Province (B.C.) virtually every
Indian group used alder in this capacity. Red alder was used along the Coast

and in some
areas of the Interior where it could be found; otherwise mountain alder or occasionally
Sitka alder was used. Both wood and bark were employed. Colours ranging from almost black
to dark brown to russet to bright orange-red were obtained by varying the preparation
techniques. Basket materials, cedar bark, ropes, fishing nets and lines, wooden articles,
mountain goat wool, feathers, porcupine quills, human hair, and buckskin were all dyed
with alder. It was even used for tattooing." (137-192)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 192. "NATIVE DYEING: The simplest method of preparing alder dye was to boil the bark and/or wood in a small
quantity of water, and then to steep the material to be coloured in the solution. This
procedure usually yielded a reddish-brown dye, suitable for fishing nets and basket
materials. It had the effect of making nets and lines invisible to fish under water.
The HAIDA, NOOTKA, and KWAKIUTL produced a brighter red for cedar bark by chewing the
alder bark, spitting the saliva into a container, and bringing it to a boil by adding red
hot rocks." (137-192)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 193. "NATIVE DYEING: The KWAKIUTL, TLINGIT, and BELLA COOLA often used urine as a mordant to obtain a bright red
dye. The TLINGIT carved vessels out of red alder trunks and filled them with children's
urine, allowing it to stand for a time until it absorbed the red colouring from

the alder
wood, then dipped the material to be dyed into the solution. The BELLA COOLA used the
following procedure: In summer they used scrapings from the inner bark, in winter large
pieces of the bark with the wood attached. They placed water into a vessel, then added
urine and alder bark. Using red hot rocks they heated this mixture gradually to the
boiling point, stirring it occasionally. When it boiled, some of the bark was taken out
and more added. This process was continued until the solution was a deep red. It was
allowed to stand for a few minutes, then the cedar bark or other material to be dyed was
put in, gently worked until saturated, and finally hung up to dry. Several pieces of
cedar bark could be dyed in the same solution provided more bark and stones were added
at intervals to maintain the proper strength and temperature. T.F. McIlwraith, who
recorded this procedure in his book, The Bella Coola Indians (1948), stated that it was
still being followed in the 1940's and that even at that time hot rocks were used to heat
the solution, because it was believed that heating on a stove would produce inferior
results." (137-193)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 194. "TREATMENT OF HIDES: The
Interior peoples commonly used alder bark to treat animal hides. The LILLOOET rubbed
skins on peeled alder trees to darken their colour from yellowish to reddish-

brown. The
OKANAGAN simply rubbed them with the fresh bark. They made a concentrated red paint by
boiling the wood in water for a long time, until the liquid had nearly evaporated, then
adding a few drops of fish oil, stirring constantly, and finally removing it from the heat
and powdering it on a piece of alder bark. This could be used on wood and hides, or as
a body paint. The SHUSWAP sometimes mixed the bark with Saskatoon berries to make a dark
purple dye for hides. They made a black dye by boiling the bark with roasted iron
pyrites. The regular reddish-brown colouring, reportedly the most commonly used pigment
of the SHUSWAP, was employed for dyeing gambling sticks, porcupine quills, hair, feathers,
straw, dressed skins, and buckskin clothes. These items were simply soaked in an alder
bark solution, taken out and wrung or squeezed dry, then resoaked until the desired shade
was obtained. The FLATHEAD of Montana used alder dye to tint moccasins yellow, feathers
reddish-brown, and human hair a flaming red." (137-194)

CORDAGE:

CHARCOAL (GUNPOWDER):

- 1931 M. Grieve, A Modern Herbal, 17. "The branches make good charcoal, which is
valuable for making gunpowder." (141-17)

- 1975 Dr. Triska, The Hamlyn Encyclopedia of Plants, 47. "Charcoal from the

wood is
used in the manufacture of gunpowder." (119-47)

FODDER:

- 1586 Rembert Dodoens, Kruydeboech (Dutch Herbal), "The leaves (Black Alder) be good
fodder or feeding for kine (cows), and cause them to yeeld store of milke."(345-59)
- 1931 M. Grieve, A Modern Herbal, 18. Alnus Glutinosa. "Horses, cows, sheep and goats
are said to eat it, but swine refuse it. Some state that it is bad for horses, as it
turns their tongues black." (141-18)

INK:

IMPLEMENTS:

- 1633 John Gerarde, The Herball or general history of plants gathered by John Gerarde of London, Master in Chirurgerie. 1477-78. "The European alder...the wood or
timber is not hard, and yet it will last and indure verie long under the water, yea longer
than any other timber whatsoever: wherefor in the fenny and soft marish grounds they do
use to make piles and posts thereof, for the strengthening of the walls and such like.
This timber doth also serve very well to make troughs to convey water instead of pipes
of lead."(369-181)

- 1931 M. Grieve, The Modern Herbal, 17. Alnus glutinosa. "The trees are often grown

in coppices, which afford winter shade for stock on mountain grazings without appearing
to injure the grass beneath, and can be cut down for poles every nine or ten years. The
wood is much used. When young it is brittle and very easily worked. When more mature it
is tinted and veined; in the Highlands of Scotland it is used for making handsome chairs,
and is known as Scottish mahogany. It has the quality of long endurance under water, and
so is valuable for pumps, troughs, sluices, and particularly for piles, for which purpose
it is said to have been used in sixteenth-century Venice and widely in France and Holland.
The roots and knots furnish good material for cabinet-makers, and for the clogs of
Lancashire mill-towns and the south of Scotland the demand exceeds the supply, and birch
has to be used instead. It is also used for cart and spinning wheels, bowls, spoons,
wooden heels, herring-barrel staves, etc. On the Continent it is largely used for
cigar-boxes, for which its reddish, cedar-like wood is well adapted. After lying in bogs
the wood has the colour but not the hardness of ebony." (141-17)

- 1975 Dr. Triska, The Hamlyn Encyclopedia of Plants, 47. "The wood of the alder is
soft, light and easy to split. Originally white, it changes its colour quickly to red
if exposed to the air. The wood is rich in tannic acid and therefore resistant to water;
it is often used in constructions which are placed in or near water." (119-47)

- 1975 Dr. Triska, The Hamlyn Encyclopedia of Plants, 47. "The wood is also used for
woodcuts, pencils, ornamental boxes and bowls." (119-47)

PEST CONTROL:

- 1833 George Howard, A rare and choice collection of well-tried and invaluable recipes for healing human beings and likewise horses, cows, sheep, dogs &c.&c, Quebec 44. "To Kill Fleas and Bugs. Cover the floor with leaves of alder gathered while
the dew hangs upon them. - Adhereing to these, they are killed." (369-182)

- 1931 M. Grieve, A Modern Herbal, 17. "They are clammy, and if spread in a room are
said to catch fleas on their glutinous surface." (141-17)

NATIVE WOOD USES:

- 1973 Nancy Turner, The Ethnobotany of the Southern Kwakiutl Indians, 279. "CARVING:
Alder wood is straight grained and easy to carve. The Kwakiutl used it to make dishes
of all sizes, from small bowls for individuals to large tubs for tribal feasts. The dish
maker would select a straight tree six spans at the base, with no low branches, chop it
down, and cut it to the desired length. He would then split the log down the middle, and
carve the dish with an adze in such a way that the heartwood formed the bottom of the
dish. The rim of the dish was painted with charcoal mixed with oil (Boas, 1921). Alder
wood was also used to carve spoons, rattles, masks, headdresses, nose and ear pendants,

and labrets (Boas, 1909). The rotten wood was used to carve figures and for smoking salmon
(Boas, 1935). Alder wood was an excellent fuel because of its hot smokeless flame (Boas,
1921). (150-279)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 194. "CARVING: The absence
of pitchy flavour in the wood and its smooth, evengrained texture made it ideal for
carving spoons, and serving platters. Some of the finest examples of Northwest coast
bowls and feast dishes are made of red alder. It was also used to carve rattles, masks,
head-dresses, arrowpoints, pendants, labrets (ornaments worn on a pierced lower lip),
canoe bailers, and paddles. In addition, the HAIDA carved spoons, small dishes, masks,
and rattles from the smaller Sitka alder, and the KOOTENAY made pipe stems from mountain
alder twigs." (137-194)

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 194. "FUEL: It (alder) makes
excellent fuel and is considered one of the very best woods for smoking salmon and cooking
deer meat because it has a low pitch content and does not impart any unpleasant flavour
to the food. The green, fresh wood was not as satisfactory as seasoned or partially
rotted wood for this purpose. The CARRIER put alder bark chips in with the hot rocks at
the bottom of steam-cooking pits; they would burn for many hours with a slow, steady heat.

The OKANAGAN used the burnt ashes of alder and birch to clean their teeth." (137-194)

SMOKING MIXTURE:

TANNING:

- 1931 M. Grieve, A Modern Herbal, 17. "Alnus glutinosa (Common Alder): The leaves have
been used in tanning leather." (141-17)

- 1979 Nancy Turner, Plants in B.B. Indian Technology, 194. "The SHUSWAP and THOMPSON
steeped buckskins overnight in a cooled solution of alder bark, colouring and tanning them
at the same time. (137-194)

WRITING OR ART MATERIAL:
HISTORY & BELIEFS:

HISTORICAL RECORDS:

SPIRITUAL BELIEFS:

NOMENCLATURE:

RELATIONSHIP TO OTHER LIFE-FORMS:

- 1975 Dr. Triska, The Hamlyn Encyclopedia of Plants, 46. "Coral-like outgrowths form
on the roots in clusters. These contain symbiotic bacteria which absorb nitrogen from
the air and convert it into nitrogenous compounds. These are subsequently absorbed by

the cells of the alder." (119-46)

AGE:

STORIES:

- 1979 Nancy Turner, Plants in B.C. Indian Technology, 193. "Several of the Coastal groups have mythical traditons containing episodes in which the hero of a story feigns bleeding at the mouth by chewing pieces of red alder bark and letting the saliva ooze from his lips, in order to fool his enemies into believing he was dead." (137-193)

ILLUSTRATIONS:

- Good B/W of all 4 species (287-72)
- Excellant B/W of 4 species + distribution map (342-370)
- Good color illustration of A. glutinosa (119-47)

<<WARNING>>

The information in these articles is primarily for reference and education. They are not intended to be a substitute for the advice of a physician. The instructor does not advocate self-diagnosis or self-medication; He urges anyone with continuing symptoms, however minor, to seek medical advice. The reader should be aware that any plant substance, whether used as food or medicine, externally or internally, may cause an allergic reaction in some people.