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A FLORA OF NEVADA. NO. 33.

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MEDICINAL USES OF PLANTS BY INDIAN TRIBES OF NEVADA

by

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University of Nevada.

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FOREWORD

For a number of years inquiries have been made by interested individuals in many walks of life concerning the value and kind of plants used for medicine by the Nevada Indians. Preliminary studies were begun in 1935 by the National Emergency Relief Administration in Reno under the sponsorship of the Carson Indian Agency and the University of Nevada. This finally developed into a more intensive plan with a cooperative agreement between the Bureau of Plant Industry, of the U. S. Department of Agriculture, the Work Projects Administration, and the Botany Department of the University of Nevada. This latter phase started in 1937 and has continued for four years. During this time the work has consisted of three phases: the main one being the securing of data directly from the Nevada Indians regarding their medicinal use of the native plants; second, the collection of adequate quantities of dried material of these same plants for use in pharmacological tests and studies; and third, the accumulation of herbarium specimens of the general flora of the State to supplement the first phase of the undertaking. These plants have been identified and are now available in the herbarium of the U. S. National Arboretum at Washington, D. C. and in the Department of Botany herbarium of the University of Nevada, Reno.

The collection of herbarium material of the general flora was

carried on by several groups of collectors who covered practically all parts of the state.

The pharmacological studies are being conducted by Dr. Raymond N. Bieter, at the University of Minnesota. The results of his investigations are being published in various journals.

The greater part of the actual contact with the Indians and the accumulation and recording of that medicinal plant data has been made by the senior author, Mr. Percy Train, Agent of the Bureau of Plant Industry and his wife, although in the first year Mrs. E. V. A. Murphey, Miss Tim Breene, and Harry Sampson were also engaged in the work.

James R. Henrichs, Agent of the Bureau of Plant Industry, in addition to the collection of plants and analysis material in the field, supervised the Reno office, through which all of the field data and plant material were sent. It was later found that checking, coordinating, and preparing this large amount of information for publication involved almost as much work as obtaining the original data.

Dr. W. Andrew Archer, Associate Botanist, Bureau of Plant Industry, has assisted mostly in an advisory and editorial capacity.

INTRODUCTION

This publication is not primarily a work on ethnology, but is presented to the reader as a permanent record of approximately 300 native plants, considered to be of medicinal value by the Paiute, Shoshone, and Washoe tribes of Nevada.

The purpose for which the plants are used is given here as accurately as possible from the data secured. No attempt is made to substantiate the claims of the Indians since that province lies within the scope of the pharmacological studies already mentioned.

Especially to be stressed is the great amount of time and study which has been devoted to connecting the data thus secured with the accurate botanical determinations of the plants involved.

The knowledge of medicinal plants is confined almost exclusively to the fast disappearing older generation. As a rule the younger generation knows little and cares less about this subject, so it was felt necessary to obtain a record now, before all of this Indian medicinal plant lore would be lost forever.

SOURCE OF INFORMATION

The day of the old Indian Medicine Man, with his hocus-pocus, and bag of trinkets and charms, has long passed in Nevada. When the old medicine man died, few aspired to his place, and 'Indian Medicine' has since been used, without superstition and incantation, by the individuals themselves and a few more modern medicine men

and women. The so-called medicine man of today is simply an individual just two jumps ahead of his fellow tribesmen and alert to the opportunity presented to make money by acquiring medicinal plant knowledge handed down to him from generations past and augmented by his own experiences. Several of the latter, notably, Ike Shaw (Shoshone) of Beatty, Bronco Charlie (Shoshone) of Ruby Valley, and Dan Voorhees (Paiute) of Walker River Reservation, had a wide knowledge of medicinal plants and a substantial record of effective cures behind them.

The office of 'Chief', while nominally continued, has been reduced to little more than one of courtesy, and was not an important source of information.

In each Indian community, large or small, there were found several individuals not rated as 'medicine men' but with outstanding intelligence, reliability, and a wide medicinal plant knowledge. These were the type sought as informants and they supplied most of the information.

Especially well informed among this group were: Mrs. Orna Jagles (Shoshone), Tonopah; Tom Stewart (Shoshone), Beatty; Maggie Patterson (Shoshone), Elko; Topsy Long and Billy Mose (Shoshone), Ruby Valley; Maggie Shaw (Shoshone), Lida; Annie Lowry (Paiute), Lovelock; Judge Cleveland (Paiute), Schurz; Dave Mauwee (Paiute), Nixon; Jimmie Darrough (Shoshone), Reese River; Louise Thompson and May James (Paiute), Yerington; Willie Smokey (Washoe), Dresslerville; Anna Downington (Paiute), Reno Colony; Richard Birchum (Shoshone), Austin.

During these four years every Nevada Indian reservation, colony and community, large or small, in the entire State was visited, and a close study of the Paiute, Shoshone, and Washoe languages, as far as plant names and medicinal usages were concerned, was made in the field. By constant reverification of these data the authors feel they are presenting a comprehensive and accurate report on the medicinal usages of plants by Nevada Indians.

METHODS OF SECURING INFORMATION

It is wasted time and effort talking to an Indian about any plant unless you show it to him, for he may be talking about one plant and you another. Accurate information could be gained only by carrying large numbers of fresh and pressed plants to show them. Field herbaria in loose leaf form, containing many hundreds of accurately named local plants were carried for this purpose. Sometimes informants would show the contents of their own 'medicine bags' and again were employed to go long distances to secure and identify plants under discussion. In no case was information accepted that was not verified by actual contact with the plant involved. When informants produced their own plants, these were sent to Washington for positive determination. When identification could not be made and only Indian names secured, they were classed as 'Undetermined'.

During the work of plant collecting a rare opportunity was presented for meeting the older generation in individual families living in remote parts of the desert, as well as in larger Indian settlements and reservations in Nevada. These scattered Indian families were a rich source of medicinal plant information, for

they were more dependent upon themselves and their own medicine.

APPROACH

To walk up to an Indian and ask for his medicinal plant lore handed down from his ancestors would most certainly meet with a blank stare, or a prompt 'No savvy'. This information is zealously guarded, not only from the white man but sometimes from Indian neighbors as well.

However, contrary to expectations, only slight difficulty was encountered in getting them to 'talk' after the proper approach was worked out.

One cannot long work among the Indians without discovering that they have a good sense of humor. They will laugh at themselves, but if they can laugh at you so much the better. Nothing sends them off into gales of laughter more than hearing a white person, particularly a woman, speak their language. The surest way to arrive at a friendly atmosphere is to plunge into Paiute or Shoshone, saying a few simple sentences asking them in their own language about Indian medicinal plants and ailments. Mr. and Mrs. Percy Train, who collected the greater part of the Indian medicinal information in this report, were accompanied by a Cocker Spaniel, and a casual call to him by his Shoshone name '<u>Be</u>-ah <u>ning</u>-gee' (big ears) was always good for an astonished laugh. Without exception these methods have broken down reserve, for they know at once such knowledge bespeaks much association with Indians.

The surest way to arouse resentment and reticence is for any person to approach an Indian with a book and a pencil and

arbitrarily demand yes and no answers on any subject. Polite friendly attention given to subjects other than the information desired paid good dividends in willing cooperation later.

It soon became evident that the more the interviewer knew of Indian diseases and medicines, the more information would be volunteered. Early in the work much fewer facts were disclosed, but as the interviewer acquired a working vocabulary, less reserve was met and fuller information furnished. Later in the work, during interviews, an answer to a question in English would often be forthcoming in Paiute or Shoshone when they learned their language was understood. This fact was particularly noted in regard to the subject of venereal diseases. Their modesty was remarkable and it was seldom they would converse on the subject until it could be talked about in their own language. Later, the Shoshone term, Tim-bah-hay nut-zoo (bad disease medicine) and Quoh-nudz-uh na-tiz-u-ah (bad disease medicine), Paiute, had only to be mentioned that way when full information accompanied by a hearty laugh was usually the response. Stress was first made that we were working for the Government and the information was to be preserved for the benefit of their children and coming generations. Next, that their neighbors would not be told information given in confidence, for each family group often had their secret remedies for ailments given to their friends or sold to others, which they did not want freely circulated.

In fact, among the Indians such medicines are quite a source of income. Prices charged were amazing. Five dollars for a small

handful of dried leaves or roots was not at all uncommon. Care was sometimes taken to pulverize the material so that the buyers could not recognize the plants and gather them themselves.

METHOD OF RECORDING

It was soon found to be a mistake to work with larger groups. Much freer discussion was found with one individual or family.

Plants of known Indian medicinal use were exhibited, one at a time, to break the ice and start discussion. Then hundreds of pressed plant specimens in the field herbarium would be shown, thus checking previous information, picking up new medicinal uses, and new medicinal plants.

The Indians seemed to have little difficulty in recognizing pressed plant material if they were familiar with the plant at all.

While one person exhibited the plants and asked the questions another recorded the Indian name of the plant, its medicinal use, and Indian pronunciation of the plant name.

While many of the Nevada Indians speak English as well as a white man, the conversation might run something like this: Question: 'You see um?' Answer: 'No see um. He no grow around here'. Question: 'You see um?' Answer: 'Yeah, me see um'. Question: 'What you call um?' Answer: 'Call um Doot-see-up'. Question: 'What that mean?' Answer: 'Mean squirrel eat em'. Question: 'What you use em for?' Answer: 'Legs swell-em up, mash em up leaves, put em on. Maybeso all go away. Another time my Grandma she say, you make a boiling, you drinking, he no hurt'.

An individual report was made for each locality and every

informant listed so that all information secured can be checked back to its source. These reports, together with all original data from which this compilation was made, are on file at Washington and are available for reference.

In all, there were interviewed 275 Indians from every community in the State and 103 reports containing 575 pages of data were sent in from the field.

INDIAN PLANT NAMES

Like our own common names, many of the Indian plant names have no special meaning, but an effort was always made to break down the Indian names into their own separate meanings- thus, Enga-mo-wanya would translate Enga (red) mo-wanya (flower). Esha-wanna meaning Esha (coyote) wanna (trap or snare). Soh-noy tah-cun-oh-quah, meaning Soh-noy (little bird) tah-cun-oh-quah (food). Sah-nah tonegan, meaning Sah-nah (gummy) tonegan (flower). (See also the vocabulary page 16).

It was found that, as a rule, if the Indians had a use for a plant they had a name for it. If not used for food, medicine, or fuel, words like Enga-mo-wanya were applied to many plants having red flowers. To other plants they would reply, 'Me see him, he no got any name'. It would be safe to say that the average Indian knew as much as or more, than the average white person, about the plants and flowers around him.

A considerable variation was noted in plant names used by the same tribe in different localities. This is also true of the endings of the same word. Thus, Doot-see-up may become Doot-see-ab in

another locality nearby. Leptotaenia multifida in one part of the State will be Tohsa, then Taw-zah, Toh-sah, Toh-sup, or Toh-aw-saw-ve, or Toh-sah-ah. Even if the pronunciation in any locality is quite dissimilar the Indians appear to have no trouble in recognizing either form.

These divergencies are probably due to the fact that they have no written language. The conclusion was soon reached that there is a distinct transition going on in the syllabic sounds in these three Indian languages. This is no doubt due to the unconscious effect of the English tongue with its distinct syllables on the Indians when speaking their own language. It affects only those who speak English distinctly - in which case they pronounce their own syllables much more clearly and sometimes differently than do the older uni-lingual individuals. The speed with which the Indian words were spoken varied greatly among different Paiute bands. In some localities the speech rolls out with such extreme rapidity as to make recording difficult, while in other places the same tribe speak in a long drawn-out, sing-song manner.

Little difficulty was experienced in using English letters to record phonetically the words as pronounced by the English speaking Indians. It must be admitted, however, there are sounds almost impossible of reproduction by the English tongue and more difficult to record. Particularly in the Paiute language the P and B are sometimes interchangeable with all gradation in between. The B is sometimes intermediate between B and V and the K also between K and G. Among the Northern Paiutes at Owyhee Reservation,

there was a tendency to whisper a consonant at the end of a word - unrecordable. This latter was seldom encountered elsewhere. Many Indians took a special interest in being sure that their words were properly pronounced before recording, and whenever a list of the phonetically written plant names was shown to a young, educated Indian, he would read them off so readily as to amaze the older members of the group.

ORTHOGRAPHY

The authors anticipate some protest from ethnologists and ethnobotanists when they discover that their phonetical method has not been used in recording pronunciation of Indian plant names. The answer is, this is not a treatise on ethnology. Had it been so intended the authors would have used the newer and undoubtedly more accurate method of recording sounds which, however, would have been unintelligible to the layman.

We believe that a better service will be rendered by using the older phonetical method understood by the reader for whom this publication is intended rather than that method used and understood by a few. Anyone understanding ordinary phonetical spelling can pronounce readily these Indian words which have been separated into syllables, well enough for all practical purposes and well enough for the Indians to understand them. The accented syllables have been underscored. The accent is of greatest importance in the languages of these Nevada tribes, and whether the Indian understands you depends very largely on the proper place and amount of accent. It will be noted in the Shoshone language that the accent more

often than not is on the first syllable.

COMPARISON OF MEDICAL KNOWLEDGE

The Shoshones feel themselves superior to the other tribes and certainly were found to possess a much greater medicinal plant lore and used more native medicines than either of the other tribes. The Paiutes rate next with a considerable knowledge but used less medicine and were familiar with fewer plant names. The Washoes were found to have the least information on the subject. With the exception of the Moapa Paiutes of southern Nevada, the Washoes are the smallest tribe in the State, confined to a very small area, and gather few medicinal plants of their own. What they do use they generally secure by purchase from neighboring California tribes. Consequently, they do not know the growing plants when they see them.

The Moapa Paiutes occupy a small reservation in southern Nevada and speak quite a different language from the Northern Paiute. They have a considerable knowledge of medicinal plants and use them freely. Due to geographical location, all of the Moapa Paiute medicinal plants were from the Covillea belt of the low altitudes and of genera different from those used by the northern Indians.

In contrast with the Washoes, the Shoshones and Paiutes gathered their own medicinal plants which usually grew in the nearby mountains, traded and exchanged with distant Indian communities, and even crossed the State for species not growing near their homes.

INDIAN DISTRIBUTION

In this publication will be found a map of the State showing the principal Indian reservations, colonies, and small settlements of the Indian population of Nevada. Some small Indian communities are not indicated. (See page 15).

Generally speaking, with a few overlapping exceptions, a line could be roughly drawn from north to south through the center of the State. Paiute bands occupy the western section and Shoshones inhabit the larger eastern portion.

The Paiutes in Nevada were originally and still are more of a valley people than the Shoshones. Their more limited plant knowledge may have been caused by this environment, for few of the medicinal plants grow at lower elevations.

Shoshones were originally a mountain loving tribe and still are to a great extent, although cultivation of their own farm lands and labor on valley ranches for the whites has now brought many of them to the lower elevations. This close contact with the mountain flora produced their wider knowledge of medicinal plants.

The Moapa Paiute, numbering approximately 160, are a small subtribe, closely related to the northern Paiutes, though their language is entirely different. They have long occupied a limited area in the extreme southern portion of Nevada. Their reservation comprises some thousand acres of land entirely in the low, hot, semiarid basin along the narrow course of the Moapa and Muddy Rivers, and they have had little access to higher mountains.

The Washoes, numbering approximately 500 are the smallest of

three major tribes, and occupy a small area of fertile valley lands along the Sierra Nevada foothills near the western border of the State.

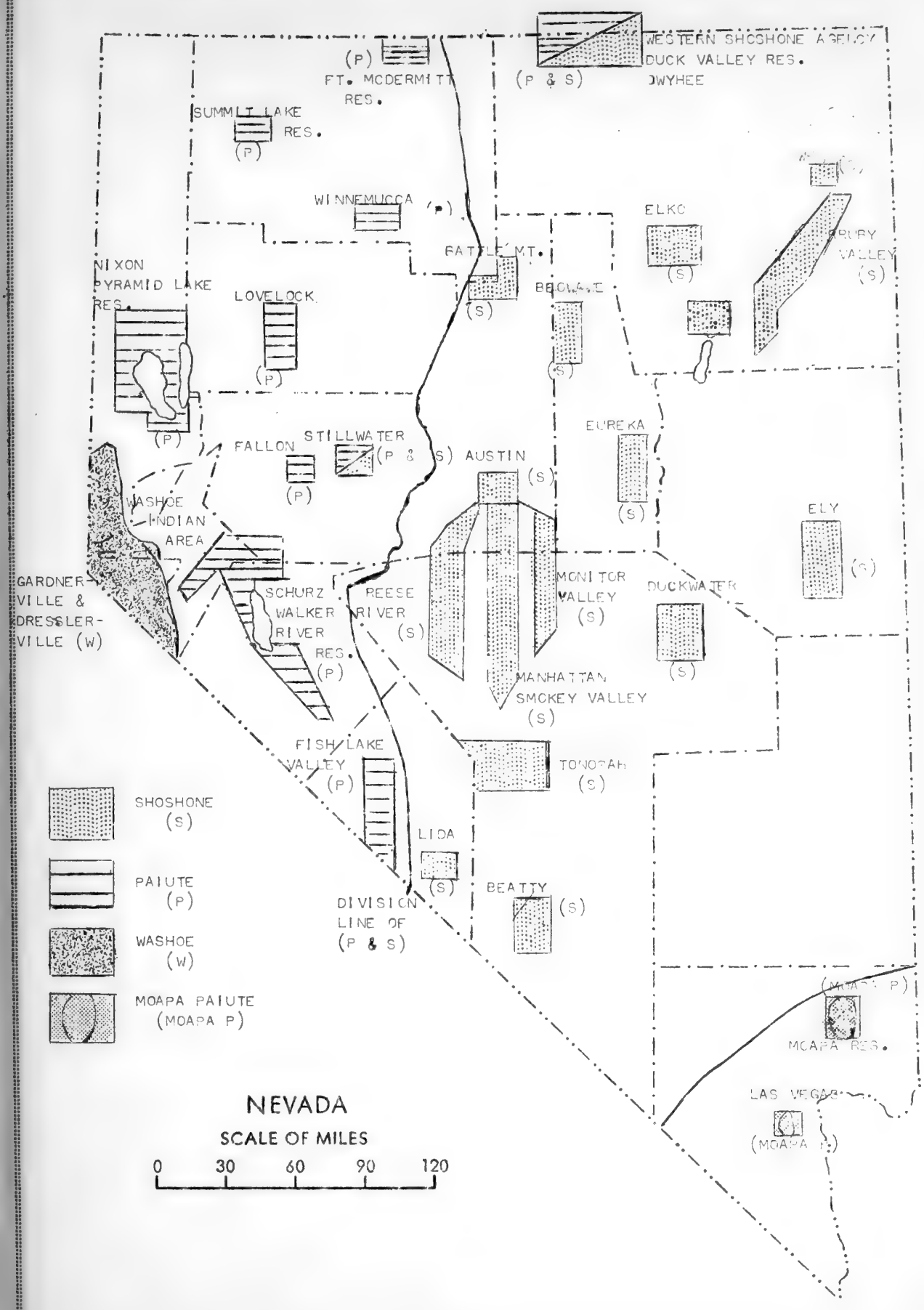
INDIAN POPULATION

No Indian census was taken by the Federal Government in 1940 and the Indian Service in Nevada was unable to supply definite total figures on the Paiute, Shoshone and Washoe population for the State. However, by taking the latter's count of those Indians on or under reservation jurisdiction, and adding the number of non-reservation individuals, based on personal knowledge, the following estimated figures for Nevada were arrived at:

Shoshones	1,712
Paiute	3,112
Washoe	489
Moapa Paiute	156
Total	5,469

Early estimates for the 1861 period, mentioned by the Indian Agency at Stewart, give the total figures on Nevada Indian population at between 7,000 and 8,500. There seems, therefore, to have been a loss of approximately thirty per cent in the last eighty years.

Mrs. Percy Train


(P)
FT. MCDERMITT RES.
SUMMIT LAKE RES.
(P)
WINNEMUCCA (P)
NIXON
PYRAMID LAKE RES.
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LOVELOCK
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BATTLE MT.
(S)
BELMONT
(S)
ELKO
(S)
RUBY VALLEY
(S)
EUREKA
(S)
FALLON
STILLWATER
(P & S)
(P)
AUSTIN
(S)
WASHOE INDIAN AREA
GARDNERVILLE & DRESSLERVILLE (W)
SCHURZ
WALKER RIVER RES.
(P)
REESE RIVER
(S)
MONITOR VALLEY
(S)
DUCKWATER
(S)
ELY
(S)
MANHATTAN
SMOKEY VALLEY
(S)
FISH LAKE VALLEY
(P)
TONOPAH
(S)
LIDA
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BEATTY
(S)
DIVISION LINE OF (P & S)
SHOSHONE (S)
PAIUTE (P)
WASHOE (W)
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0 30 60 90 120

PARTIAL VOCABULARY OF INDIAN NAMES AND TERMS

MOAPA PAIUTE

ah-kuk: sunflower, or any sunflower-like plant, especially those having edible seed.

kiva: mountain.

kiva ah-kuk: mountain sunflower.

kiva kah-nav: mountain willow.

i-era-midja: turtle leg.

quoh-soh-no-ah-bim: burn, or sting plant; a name applied to Urtica.

quoy-oh-guv: quail brush.

wuh-siwimp: prickly; a term applied to Argemone.

PAIUTE

ah-dye-ee: diarrhea.

ah-dye-ee na-tizuah: diarrhea medicine.

ah-kuh: any sunflower-like plant, especially those having edible seed.

ah-ku-pu: a variant of the preceding.

ah-rahd-zee-ah-ee: neuralgia. Also meaning toothache.

ah-rahd-zee-ah-e na-tizuah: toothache medicine.

ba-wa: swelling.

ba-wa na-tizuah: swelling medicine.

bee-hee nooma na-tizuah: literally - pneumonia pain medicine.

bee-shet-you: good.

bee-shet-you na-tizuah: good medicine.

booie: eye.

booie nooma na-tizuah: eye pain medicine.

coo-day-ee na-tizuah: burn medicine.

coo-see: gray.

coo-see ah-kuh: gray sunflower.

coo-see suh-e-wee: gray willow.

dah-keep-poh-noh na-tizuah: kidney medicine.

dahm-hah-nooma: literally - pains all over.

dama: tooth.

dama na-tizuah: literally - tooth medicine, but used to mean toothache medicine.

dogo-wah: rattlesnake.

dogo-wah na-tizuah: snake medicine, i. e., snakebite medicine.

doo-ee-nah na-tizuah: rheumatism medicine.

dootsie: little.

dootsie tah-bah-she-up: little sunbrush.

dosa: white.

esha: coyote or wolf.

esha ton-ub: wolf berry.

he-quip-o-seh: wind plant.

he-vee-nah na-tiz-uah: sore throat medicine.

ka-sigh-yah-gava: little round blossoms.

ki-bah: mountain.

ki-bah pah-quanna-av: mountain water mint, or literally - mountain water smell.

ki-ee-vah: mountain.

kuh-eeb: squirrel or chipmunk.

kuh-eeb tah-kuh-no-quah: squirrel food.

mo-gu: thorny.

mo-gu see-ab-boo-e: thorny berry.

moh-ah: old time, or long ago.

moh-ah na-tiz-u-wabbe: literally - old time medicine plant: meaning - medicine plants of early days.

nah-cah na-tizuah: ear medicine.

nah-cah nooma: earache.

nah-who-goo-e-duh: whooping cough.

na-tizuah: medicine.

na-tiz-u-wabbe: plant used for medicine.

natz-see-kah na-tizuah: cut, or wound medicine.

nay-hoo: burns.

neu-muh: stomach.

neu-muh nooma: stomach pain.

neu-muh nooma baddo na-tizuah: medicine to wash out stomach pain.

neut-see-quah na-tizuah: medicine to drive out pain.

nooma: pain.

no-roop-pah-wah: diphtheria.

nut-tiz-u-ah: medicine; a variant of na-tizuah.

oh-diz-uh: rat food.

oh-ha: yellow.

oh-ha quee-dah: yellow color.

oh-hee: cough, or cold.

oh-hee-bah na-tizuah: cough, or cold medicine.

oh-hoe-buh: hard.

oh-hoe-buh wah-hava: hard grass.

oh-na: rock.

oh-na nut-tiz-u-wabbe: rock-plant medicine.

oy-ee na-tizuah: emetic medicine.

pah-bah-uh-avva: spots all over, i. e., meaning - smallpox.

pah-tee-dah-wit: roots for food.

pah-wah na-tizuah: swelling medicine.

pah-wah-gah-bish: plant growing around springs.

pah-wha: boils.

pah-wha na-tizuah: boil medicine.

par-o-wah: bear.

par-o-wah tah-cun-o-quah: bear food.

pee-ee-ah-gub: cotton root; name applied to Lygodesmia.

pee-havvie: sugar.

pee-shik-cah-mah: it tastes good.

pee-tuk-quah: roots.

pee-wit-tah-oy-vah: tuberculosis.

poo-ee bah-hoon: green tobacco.

poo-ee-quee-dah: green color.

poo-gooey rup: horse tongue plant.

poo-heg-wee-dah: blue color.

puh-hee: hairy.

puh-hee ah-kuh: hairy sunflower.

quee-dah: color.

quee-dutz: constipation.

quee-nat-zee: little bird.

quoh-nudz-uh: venereal disease.

quoh-quavvie: sugar.

sah-nah: gummy.

sah-nah tonegan: gummy flower.

see-gupe: a general term applied to shrubby plants with yellow flowers, such as Tetradymia.

see-quee-dah: gray color.

soy-noy-e tah-cun-oh-quah: humming bird food.

spee-gee nooma: headache.

suh-bah: chills.

suh-e-wee: willow.

suh-quee-dah: red color.

tah-cun-o-quah: food.

tah-rah-gee-noob: that which pops when stepped on. A term applied to plants with inflated fruits, such as Astragalus and Physaria.

todse, or toh-see: white.

todse-tonega: white flower.

toh-see ten-ava: white roots.

toh-gowah dama: snake tooth, a name applied to curved white spines of Tetradymia.

wadda-e-gop: chipmunk tongue.

wah-hava: grass.

whood-see tah-cun-oh-quah: sagehen food.

who-quee-dah: black color.

SHOSHONE

ah-kuh: general term for sunflower group, especially those having edible seed.

ahn-nah-da: physic.

ahn-na-da nut-zoo: physic medicine.

ahn nut-zoo: toothache medicine.

andra-vitch qwanna: wild Indian smell.

ash-ah nut-zoo: it is medicine.

bah: water.

bah-dib-ah: water nuts.

bah gah: juice.

bah-gah tu-boh-nemba: juice to write with, applied to fruits of Smilacina.

bah-sah-mup: water cedar.

bah sa-ma-be: water juniper.

bah wah-do-roh: water whistle.

bas-ah-oh-hee: tubercular cough.

bas-un-dook: tuberculosis.

bay-quee nut-zoo: swelling medicine.

be-ah: big.

be-ah ning-ee: big ears.

be-ah soon-gah: big thorny plant.

bee-sha wannup: milk hemp or string.

bee-wah: stomach.

be-heu-ah nut-zoo: heart medicine.

boh-hobe: a name for the big sagebrush, Artemisia tridentata.

bom-bee: head.

bom-bee gum-bah nut-zoo: headache medicine.

boo-ee nut-zoo: eye medicine.

boo-eep nut-zoo: gall medicine.

booie: blue.

booie betah: blue color.

boo-see-ah nut-zoo: head lice medicine.

buh nut-zoo: blood medicine.

buh-quoy-hoy: bloody diarrhea.

combu: rabbit.

combu tah-sum-beh: rabbit foot.

coo-see: gray or dusty.

coo-see hoop-ie: gray stick.

coo-see too-roombe: gray tea plant.

dag-e-boh nut-zoo: kidney medicine.

dah-wahgum-bah: toothache.

das-e-ah: smallpox.

dimbe: rock.

dimbe see-bup-ee: rock brush.

dogowah: rattlesnake.

doh-numb nut-zoo: neck medicine.

doo be-tah: black color.

doot-see-ab: chipmunk food.

dosa: white.

dosa be-tah: white color.

dosa hop-ee: white wood.

dosa koy-ah: white top.

dosa toy-yah: white mountain.

du-boh-hobe: little sagebrush.

du-ee-nah: rheumatism.

duh-dah: little.

duh-na-ee-go: dinner tongue - meaning to vomit.

du-hu: shrub or brush.

ee-wah hu-binga: morning flower.

ek-wee mutz-so-y-noo-ee: blue flowers hanging down.

enga be-tah: red color.

enga mo-wanya: red flowers.

enga pah wee-ub: red plant.

esha: coyote.

esha wannup: coyote snare.

eshan-div-o-wip: just weeds.

goop-pah-joom-bah: squeaky teeth.

hu-binga: flower.

huh-nabbe: fuzzy plant.

i-etz: bluebird, a name applied to the Duckwater band of Shoshones.

ip-ooie hu-binga: sleeping flower.

kah: rat.

kah-quas-ee: rat tail.

kah-seep: rat urine.

kay nut-zoo: no or not medicine.

mo-goon du-hu: thorny brush.

mogu see-am-boo-e du-hu: thorny brush berries.

mo-wanya: flower.

mo-weng: flower head hanging down.

mutz-so-y-noo-ee: flowers hanging on each side of stem.

nah-gah-ha: little.

nah-gee: ear.

nas-ee-kah nut-zoo: cut medicine.

new-ha: Indian.

new-wha bah-hoon: Indian tobacco.

new-wha-no-ko nut-zoo: liver plant medicine.

ning-ee: ear.

nut-tah-zoom: medicine.

nut-zoo: medicine.

oh-ha: yellow.

oh-ha tone-zee-ah: yellow headed flowers.

oh-hee: cough.

oh-hee nut-zoo: cough medicine.

oh-sah-rum-boh-zip: wind house plant.

pah: water.

pah-gah-dah-bohn-ub: basket marker dye.

pah quanna: water smell or odor, a name applied to the mints.

pah see-go: water lily.

pah-wah: boils.

pah-wah nut-zoo: boil medicine.

pee-gee wanna: milk hemp, or string, a term applied to milkweeds.

quanna: smell or odor.

quee-dah nut-zoo: physic medicine.

quee-duh-quanna: strong nauseous odor.

quee-ja-ho hu-binga: whistle flower, applied to Equisetum.

quoy-hee nut-zoo: stomach medicine.

sag-gee-gee: rattle pod seed.

sah-nah: gummy, sticky.

sah-nah cav-oh-no-ah: gummy heads.

sa-ma-be: juniper.

see-bup-ee: brush or shrub.

see nut-zoo: foot medicine.

see-vah sun-e-quoh: rubber gum.

so-go: ground.

so-go ah-so-bin: ground flower.

so-go ron-zee-ah: ground plant.

sohn-go nut-zoo: lung medicine.

soh-nip: grass.

sun-ee-quoh: chewing gum.

tah-cah-ve: snow.

tah-cah-ve hoopie: snow brush.

tah-cah-ve toy-yah: snow mountain.

tah-vah see-go: poison lily.

tah-vee sun-ee-quoh: cotton gum.

tim-bah-hay: bad disease, venereal disease.

ting-wee-buh: rock smoke, a name for Chamaebatiaria.

toh-doe-quah bee-zip: snake paint.

toh-gowah dama: snake teeth.

toh-no-bah: place of greasewood and water; i. e., Tonopah

toh-sahn-ah-boh-kip: plant where the wind lives.

toh-sav-ee shoshone: meaning white-knife Shoshone, an Owyhee band of the tribe.

too-coo-bug-um: arrow.

tot-zip: dense or thick brush.

toya-abba-hobe: mountain brush.

toy-yah: mountain.

toy-yah pah-gah-dit: mountain lakes.

toy-yah-pah-quanna: mountain water mint.

toy-yah-tim-bah-zip: mountain rock plant.

tu-ba: pine nuts.

tu-ba de-ka: pine nut eaters.

tuh-cup: food.

tu-vah-sah: woman without children, i. e., sterile.

uah nut-zoo: wound medicine.

wanda-vah-sah: woman without children.

wanna: hemp, string, or snare.

wannup: hemp or string, also means snare.

wee-gah zah-moh-nee-ah: plant that sticks to blankets.

wee-pah: rain water.

wee-ub: plant.

wenna-zoh see-bup-ee: comb brush.

who-gee-jup: strong poles.

witch-ah soh-oh: sagehen cheeks.

wit-toy nut-zoo: emetic medicine.

wong-govie: lumber tree.

wuh-toy-ee nut-zoo: emetic medicine.

wya nut-zoo: burn medicine.

zahn-be nut-zoo: good medicine.

WASHOE

auga: mountain sheep.

auga lem-lu: mountain sheep food.

bahn-kos: smoke.

bah-hah mo-mo: white round balls, as applied to flowers of Angelica.

dah-la-ak: mountain.

dah-o-pah-phu-le: a flower, any flower.

dah-po-poy-ee: white color.

dah-zat-so-me: green color.

del-he-wee: thunder.

del-lay-leg-ee: red color.

del-moo-eh: valley.

dim-ah: water.

dim-ah dah-goosh: water plant.

mood-zuck: medicine.

mushaga-moh-bah: bear blanket.

oo-chu-lee: chipmunk.

oo-chu-lee mah-too: chipmunk tongue.

poh-lo-pee-soh: wood rat ear.

tee-daoh: roots of a plant.

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LIST OF THE ABBREVIATIONS USED

(Moapa P)	Moapa Paiute
(P)	Paiute
(S)	Shoshone
(W)	Washoe
(E)	English

All localities mentioned in the following text occur in the State of Nevada.

BOTANICAL LIST

ABIES CONCOLOR Lindl. Pinaceae

(P) ca-ta-vee. (S) wong-govie. (W) mah-hah-wa; shaw-wa-eh. (E) white fir.

The soft resin from the bark is eaten to cure tuberculosis. The dose being a teaspoonful daily (Reno - P & W) or a little each day until cured (Gardnerville & Dresslerville - W).

The pitch is warmed and used as a poultice for sores (Wells - S), applied to boils (Wells - S), or mixed with Psathyrotes ramosissima for the same purpose (Fallon - S). The fresh pitch is applied to cuts and then covered with a bandage (Reno - P).

The boiled bark infusion is drunk freely instead of water for tuberculosis (Reno - P & W).

A tea from the needles, taken internally, is valued in pulmonary troubles and often the resin from the bark is added to the brew (Owyhee - P & S).

For venereal disease treatment see under Juniperus utahensis.

ABRONIA TURBINATA Torr. Nyctaginaceae

(S) nut-zooh-boh-hombe. (E) white sand verbena.

A poultice of mashed leaves can be used for swellings (Austin - S).

ABRONIA VILLOSA S. Wats. Nyctaginaceae

(S) bah-gun-boh-hombe. (E) pink sand verbena.

The roots are mashed and applied as a moist poultice for burns (Lida - S).

ACHILLEA LANULOSA Nutt. Compositae

(P) todze-tonega; toe-tee-tone-ga; toh-tee-tone-e-gah; toh-tee-tonega; wats-ov. (S) coo-see-pah-wah-zip; dogowah-wan-guh; donzee-anga; pah-ronzee-ah. (W) wem-see.

(E) yarrow.

The inflorescence is boiled and the tea taken in small doses to relieve stomach-ache or indigestion (Ruby Valley and Upper Reese River - S), or used as a wash for itch or as a liniment for muscular pains (Battle Mountain - S).

A poultice of mashed leaves is applied on swellings or sores (Duck Valley, Reno, Schurz, and Smith Valley - P, S & W), or as a compress for headaches (Smith Valley - P), also the boiled leaves serve as a poultice for collar sores on horses (Ft. McDermitt - P). A solution of boiled leaves is used as a wash for fevers (Yerington - P), or, when strained, as drops for sore eyes (Ft. McDermitt - P). The leaf decoction is taken internally for colic or dyspepsia (Reese River - S), or in quantities of less than a teaspoonful at a time over a period of several hours, for headaches (Wells and Yerington - P & S).

In a single instance it was reported that the green leaves could be chewed to relieve toothaches (Duck Valley - P & S) but in many localities the Paiutes and Shoshones prefer the root for that purpose, the more common method being to insert a small portion in the tooth cavity. Another method is to mash the root so that the pulp can be inserted in the hollow tooth or else placed along the inflamed area. In one community the root is dried and pulverized before using (Summit Lake - P) although some of the Indians here

now prefer Sloan's Liniment in place of the old remedy. Sometimes the roots are boiled and the hot solution used as a wash along the jaws to relieve the pain of toothaches (Lovelock - P). Some of the Indians believe the continued use of the root will kill the nerve of an ulcerated tooth (Austin, Elko, and Owyhee - P & S).

The root is sometimes chewed for colds (Nixon - P), or when boiled the solution is taken for gas pains and is believed to be good for the kidneys (Owyhee - P).

One family employs the root substance as a local anaesthetic (Winnemucca - S). They cited an experience of one of the men who had received a deep cut in the thigh. It was certain that foreign matter had been imbedded in the wound, but due to the intense pain the wound could not be opened. So there was applied a dressing of fresh roots which had been mashed to a pulp. After a half hour the wound was opened and cleaned without causing undue pain to the patient. The same family always employ a preliminary soaking in a solution of boiled roots to assist the extraction of deeply imbedded splinters.

The entire plant can be boiled and used as a poultice for pains or for sores (Elko, Ft. McDermitt, and Owyhee - P & S), or the mashed green plant serves as a dressing to reduce swellings (Ruby Valley - P).

The solution from the plant is used as a liniment or as a wash for sores or rashes (Duck Valley, Ft. McDermitt, and Schurz - P & S). It also serves to disinfect cuts and saddle sores on horses (Ft. McDermitt - P).

The plant decoction is taken internally, a cupful twice daily, as a blood tonic after childbirth, and for bladder ailments (Ft. McDermitt and Owyhee - P). It is given also for colds, to stop diarrhea (Beowawe - S) and for upset stomach (Stillwater - S).

The crushed green plant was smelled to relieve headaches (Duck Valley - P & S).

For treatment of gonorrhea see under Leptotaenia multifida.

AGASTACHE URTICIFOLIA (Benth.) Kuntze — Menthaceae

(P) kibah-pah-quanna-ah; kibah-pah-quanna-av; pah-quanna.

(S) toya-pah-quanna; wee-yah. (E) mint.

A cold water infusion of the leaves is used for indigestion and stomach pains (Winnemucca - P); while the boiled plant is taken as a tea for colds (Schurz - P) and as a physic (Owyhee - S).

The mashed leaves are made into a poultice for swellings (Fallon - P).

AMELANCHIER spp. — Rosaceae

(S) duh-hee yemba. (E) service berry.

For snowblindness the green, inner bark is boiled with sugar. When cool, one drop of the solution is placed in each eye, three times daily. The solution is sometimes made by boiling the roots and inner bark together (Wells - S).

ANEMOPSIS CALIFORNICA (Nutt.) H. & A. — Saururaceae

(Moapa P) cheu-pahn-iv. (S) chew-pon-iv. (E) yerba mansa.

The leaves are boiled in a quantity of water and used as a bath for muscular pains and for sore feet (Moapa - P).

The mashed roots are boiled to make a poultice for swellings, or the decoctions used as an antiseptic wash (Beatty - S).

A tea from the boiled roots is taken for stomach ache (Beatty and Tonopah - S) or more commonly as a tonic for general debility following colds (Beatty and Tonopah - S). For this latter purpose, one woman has a special preparation (Lida - S). She dries the roots, then roasts and browns them before preparing the decoction. One-half to a cup of the brew is taken daily.

There was one report of using the boiled plant as a tea in the treatment of gonorrhea (Beatty - S).

ANGELICA BREWERI A. Gray Umbelliferae

(P) bogo (S) bee-ah-bogo; be-ah boquah. (W) dah-hah-mo-mo dah-o-pah-phu-le.

The root of this plant has general use throughout the State in the treatment of colds or chest ailments. It is sometimes collected in the fall and saved through the winter. A tea from the boiled roots, usually taken hot, is used for colds (Austin, Battle Mountain, Dresslerville, Elko, Gardnerville, Reno, and Wells - P & S). One preparation for severe cough or heavy chest colds is made by boiling the root with a little whiskey, and this is taken hot, one teaspoonful several times a day (Ruby Valley - S). Sometimes the root is dried, shaved fine, and smoked in cigarettes, especially for head colds (Ruby Valley and Wells - S). For tuberculosis a

decoction of boiled roots is taken over a long period of time (Round Mountain - S). As a bronchitis remedy the root is dried and scraped, the pieces then soaked in water but not boiled. The solution is given a few teaspoonfuls at a time, twice a day, over a period of two weeks (Gardnerville and Dresslerville - W). As an influenza specific it is taken frequently as tea. To improve the flavor it may be mixed with the root of Leptotaenia multifida (Minden - W). For whooping cough the split root is covered with whiskey and boiled, the dose being one-half teaspoonful for children (Ruby Mountain - S). As a tonic the docoction is taken hot as a tea in small doses of one-half cupful or less, three times a day (Battle Mountain - S). Small pieces of the dried root are chewed for sore throat or coughs (Dresslerville, Gardnerville, Fallon, and Reno - P & W).

The big roots are pulped and applied as a poultice for pneumonia and the same preparation serves in the case of rheumatic pains or swellings (Elko - S); for cuts and sores the root is mashed and smeared on, a bandage being used if necessary (Reno - P).

In kidney ailments a cupful of roots are boiled in a gallon of water and the patient uses this instead of drinking water (Reno - P). For venereal diseases the root decoction is taken in small quantities, the solution serving also as a cleansing wash (Ruby Valley and Wells - S).

To cure horse distemper see under Leptotaenia multifida.

ANGELICA sp. (?) Umbelliferae

(P) kibah na-tizuah.

The roots seen obviously belonged to an umbelliferous plant. The Indians said that it grows in the Sweetwater Mountains.

The material is used to cure colds in much the manner as Leptotaenia multifida, that is by drinking a boiled tea, chewing the raw roots, or smoking dried bits in cigarettes (Yerington).

APLOPAPPUS NANUS (Nutt.) D. C. Eat. Compositae

(P) oh-diz-uh; see-gup-ee; tah-bah-she-up. (S) dim-be-see-bup-ee; dimbe-tah-ba-she-bupe; timba-wop. (E) goldenweed.

The flowering tops are boiled and one-half cupful of the solution taken to stop stomach-ache or stomach cramps (Upper Reese River - S); the flowering heads and the stems, boiled together, are used for coughs and colds (Schurz and Manhattan - P & S). The stems alone, are boiled for a decoction which is taken hot for colds (Winnemucca - P). The whole plant is boiled and the solution taken for severe colds (Upper Reese River - S), for grippe and high fever (Austin - P), for stomach trouble or to stop diarrhea (Owyhee - P).

APLOPPAPUS STENOPHYLLUS A. Gray Compositae

(P) sana-abu. (S) poo-hee na-tizuah. (E) goldenweed.

The roots are boiled and used as a wash for sore eyes (Ft. McDermitt - P & S).

AQUILEGIA FORMOSA Fisch. Ranunculaceae

(P) enga-moh-wanya; pah-wah-cub; pah-wah-gah-bish; pah-wah-gumb. (S) enga-moo-y-nee; enga-moh-wanya; enga-mutz-oh-wanna; pah-wah-gum; pam-i-ooh. (E) columbine.

The ripe seed are mashed, moistened, and then rubbed vigorously in the hair to discourage head lice (Lida - S). Maggie Shaw says that Death Valley Indians of California use the plant in the same manner.

The boiled roots are used as a tea to stop diarrhea (Wells and Battle Mountain - S), for stomach aches (Wells - S), and as a cough remedy (Summit Lake - P). The fresh roots are mashed and rubbed briskly on aching rheumatic joints (Fallon - P).

The roots and leaves are boiled together and the decoction taken in doses of one-half cupful several times daily for one or two days to counteract dizziness or for biliousness (Manhattan - S).

The roots of this plant are boiled with those of Gilia aggregata, the resulting brew being used to induce vomiting (Stillwater - S).

The whole plant, boiled, serves as a remedy for venereal diseases, the decoction being taken in small doses, three times daily (Wells - S).

ARABIS PUBERULA Nutt. Cruciferae

(S) don-zeah. (E) rockcress.

The crushed plant serves as a liniment or as a mustard plaster (Owyhee and Elko - S).

ARCTROSTAPHYLOS PATULA Greene — Ericaceae

(S) yah-he-wat-um. (E) green manzanita.

Leaves are boiled and the solution drunk for venereal disease (Beatty - S).

ARENARIA ACULEATA S. Wats. — Caryophyllaceae

(S) boo-ee nut-zoo. (E) sandwort.

A solution of boiled roots serves as an eyewash (Beatty - S).

ARGEMONE PLATYCERAS Link & Otto — Papaveraceae

(P) esha-ah-goo-wha; seg-quoh-ha. (S) sag-ee-da; sag-ee-dump; wya-sag-wee-duh; wya-sag-gee-gee. (E) prickly poppy.

The root is warmed, mashed, and applied on gums or inserted in tooth cavities to relieve toothache; or it can be applied as warm poultice in a cloth against the jaws for the same purpose (Elko - S). The more general use is to grind the ripe seed to an oily paste to make a salve for burns, sores or cuts (Battle Mountain, Dresslerville, Elko, Eureka, Gardnerville, Monitor Valley, Ruby Valley, Tonopah, Upper Reese River, Wells, and Yerington - P, S & W). In one preparation the seed are cooked before grinding into a paste to be used as a poultice to bring boils to a head (Ruby Valley - S). As an emetic and physic the ripe seed are roasted, finely mashed and taken as a dose of one teaspoonful (Lida - S); as a physic only the ripe seed are roasted, ground finely, and rolled into tiny pills, two or three of these serving as a dose (Beatty - S); but sometimes the dosage is one or two teaspoonfuls of the powdered substance (Tonopah - S). The seed are ground and made into a tea to be used

as a wash for eye soreness (Austin - S); head lice are killed by using ripe seed which have been pulverized and moistened, the paste then being rubbed into the hair (Tonopah - S).

ARTEMISIA DOUGLASIANA Besser Compositae

(P) wadzo-ba. (W) paal-luwe-it. (E) sagebrush.

The plants are burned over a fire and the fumes inhaled for the grippe (Reno - P); the crushed green leaves are made into compresses for headache (Reno - P) or the boiled leaves can be used as a wash for the same purpose (Reno - W); for rheumatism the boiled leaves are applied as a liniment (Reno - W).

ARTEMISIA DRACUNCULOIDES Pursh Compositae

(P) coo-see wah-aba; pah-wat-sov; wat-sov. (S) bah-wah-zip; bav-oh-hoe-be; enga-pah-wah-ga; pah-wah-zip; pava-hobe. (E) sagebrush.

The tops of the plant are boiled or heated on a stove and used as a hot poultice for sprains, swellings or rheumatism (Lovelock and Yerington - P); or the green plant is pulped and used as a poultice for sore throats or neck glands (Stillwater - S).

A hot solution made from boiled branches serves as a wash to relieve rheumatism (Yerington - P), or the liquid is taken internally for colds and as a physic (Ely - S).

The whole plant is boiled to prepare a decoction which is drunk three times daily or used as a wash for venereal diseases (Beatty - S). The same liquid is taken as a tonic after childbirth

in doses of a half-cupful once a day for a week (Winnemucca - P). Used externally the solution was said to relieve nettle stings (Battle Mountain,- S).

Tom Pabawenas uses steam from the boiling plant to relieve eye trouble, by placing a towel over his head and allowing the steam to come into his face for short periods (Wells - S).

ARTEMISIA GNAPHALODES Nutt. Compositae

(P) coo-see pah-wah-zip; coo-see quatz-oh-bah; coo-see-sah-wah-be; coo-see sah-wavvy; coo-see-wy-up; koh-see-wah-ah; pah-wadz-oh-buh; wat-sob; wat-so-vah; whood-see-tah-cun-oh-quah. (S) bah-vah-hoe-be; bav-oh-hoe; coo-see-pah-zip; coo-see-pah-wah-zip; pah-vah-hobe; pava-hobe. (W) auga-lem-lu. (E) sagebrush; western mugwort.

A boiled leaf decoction is an internal treatment for heavy colds, head colds, coughs, and headaches (Dresslerville, Gardnerville, Manhattan, Peavine Creek, and Wells - S & W). The solution is used also as a cooling, aromatic wash for headaches (Dresslerville - W). The leaves are mixed with pitch of Pinus monophylla, boiled and the decoction taken for coughs (Wells - S). The branches are boiled slightly and the tea taken hot in small doses for coughs and colds (Beowawe - S).

The tops of the Artemisia mixed with the roots of Osmorhiza occidentalis are boiled and the resulting liquid taken as a warm or hot drink for coughs (Ruby Valley - S). The tops alone are boiled as a remedy for colds and taken hot in amounts less than one-half

cupful at a time for severe infections (Elko and Wells - S), or one big teaspoonful several times daily (Ruby Valley - S). The roots and tops are employed in a hot drink to cure heavy colds (Smoky Valley - S), and the whole plant is boiled for a cough remedy (Ruby Valley - S). The whole plant boiled with Osmorhiza occidentalis roots is used as a decoction in small doses, taken hot, for coughs, heavy colds, and fevers (Wells - S). It is interesting to note that one woman grows the plant near her house and gathers material to dry and store for winter use (Ely - S). See also under Chrysothamnus nauseosus var. speciosus.

There is a rather general employment of the plant as a regulator of menstrual disorders in women or girls, the usual remedy consisting of a hot tea made from fresh or dried leaves (Austin, Beowawe, Elko, Owyhee, Reese River, and Winnemucca - P & S). A steam bath is made of the plant for young girls reaching maturity (Elko - S). A tea from boiled roots or the entire plant is given as a tonic after childbirth, the quantity of liquid taken varying from two to three cupfuls a day and extending over a period of two weeks to a month or more (Ft. McDermitt, Summit Lake, and Winnemucca - P).

A tea for influenza is made by boiling the branches (Lovelock - S), or a steam bath is employed to sweat out the infection, the patient being covered with blankets and placed on a layer of branches which are smoldering on a bed of coals (Schurz - P). The same sort of a sweat bath serves also in the treatment of rheumatism (Schurz - P), or poultices of steamed plants, or merely bruised leaves are applied to rheumatic or aching portions of the body (Battle

Mountain, Summit Lake, and Owyhee - P). A leaf decoction for an eyewash was reported once (Nixon - P), or again merely an infusion made with cold water (Beowawe - S).

For swellings, boils, and sores, a poultice of fresh moist leaves is employed (Smith Valley - P), or else the stems and leaves are bruised and applied in the same way (Yerington - P). The whole plant is boiled and used as a healing wash for rash, itch or any skin eruption (Upper Reese River and Winnemucca - P & S); to relieve aching, feet are soaked in water in which the plant has been boiled (Yerington - P).

To stop diarrhea the whole plant is boiled and a cupful of the solution taken (Manhattan - S) or only the tops are boiled and the tea taken in a dose of one-half cupful (Fallon - P). For stomachaches the whole plant, or the young growth only, is boiled and the tea taken hot, or cold (Ely and Upper Reese River - P & S). The same solution is used as a physic (Stillwater - S). The boiled tops are used to make a tea which is considered effective, when taken over a long period, in the treatment of venereal diseases (Fallon and Lovelock - P).

To dye hair black, a solution of the boiled plant was combed into the hair every day (Lovelock - P).

The steeped leaves are made into compresses for headaches and fevers (Reno - P), in this last respect being especially suitable for babies (Owyhee - P & S).

ARTEMISIA NOVA A. Nels. Compositae

(S) bah-que-numb; boh-hoe-be; du-boh-hobe; toyabe-behobe.

(E) chicken sage; small sagebrush.

Boiled leaves are taken as a tea for coughs and colds (Tonopah and Upper Reese River - S).

ARTEMISIA SPINESCENS D. C. Eat. Compositae

(P) kuh-eeb tah-cun-oh-guah; kuh-wepit-tuh-cun-o-guah.

(S) doot-see-ab; dootsie-up; koo-buh tah-cun-o-quah; ku-ba-tah-cun-oh-quah. (E) bud sage; button brush.

The more common use of the plant is as a poultice for swellings, and most frequently, among the Paiutes at least, the green leaves are mashed for the purpose (Fallon and Schurz - P); or again it is the young branches which are used (Elko, Hawthorne, Smith Valley, and Winnemucca - P).

A poultice of the whole plant, either fresh or boiled, serves for a wide range of minor ailments such as rash and itch (Elko - S). The green leaves are mixed and mashed with commercial chewing tobacco to rub or smear on sores or bruises (Reno - P); old bedridden people are rubbed every day with a handful of the green leaves to prevent bed sores (Schurz - P). The mashed green leaves serve to draw out boils (Schurz - P).

To stop haemorrhages, especially those due to tuberculosis, the boiled branches are made into a tea which is taken cool in a dose of about a half-cupful (Wells - S); for the same purpose, the leaves and flowers are boiled, strained, and taken as a hot tea to the quantity of a half-cupful (Fallon - P); also the decoction is sniff-

ed up the nostrils to stop nosebleed (Wells - S).

As a wash, the stems and leaves are boiled and used for rheumatism (Nixon - P); or the leaves alone are crushed, moistened with water, and rubbed onto the skin for irritation and rashes (Ely - S). For influenza the whole plant is boiled and taken as a tea and also used as an external wash (Wells - S). For chest congestions, coughs, or colds, the root is boiled and taken as a hot tea in doses of less than a half-cupful (Yerington - P).

For severe stoppage of the bladder fresh flowers and leaves are boiled and the tea taken when cool (Fallon and Ft. McDermitt - P). To relieve chronic stomach troubles, cramps or indigestion, small doses of tea made from boiled branches are taken (Lovelock and Smith Valley - P).

ARTEMISIA TRIDENTATA Nutt. Compositae

(P) pah-eesh sah-wavvy; pah-hoe-be; pah-wavvy; sah-wah-be; sah-wavvy. (S) bah-guh-yoom; bah-hoe-be; bah-vah-hoe-be; boh-hoe-be; boh-ombe; sah-wah-be; wah-gup-pee. (W) da-bel; tah-bul. (E) big sagebrush.

This plant, next to Leptotaenia multifida, is the most widely used in the State and is most commonly employed in the treatment of colds. In many settlements the boiled green leaves are made into a hot tea for that purpose, although in some places it may be taken cold (Round Mountain - S) or the leaves are eaten raw (Owyhee and Nixon - P & S). The usual dose of the tea seems to be a half cupful taken several times a day (Gardnerville, Dresslerville, Lovelock, Belmont, and Ruby Valley - P, S & W).

The tops, rather than the leaves, are usually preferred, and in this preparation it is sometimes recommended that the first water be discarded using only the second water for the tea (Battle Mountain and Wells - S); in fact, some Indians claim that the tea should not be bitter, and also caution that an overdose acts as an emetic (Belmont - S). One woman collects branches with flowers and leaves to dry and store for the winter, and she prepares a cough remedy by boiling a handful of the material, in water to cover, with a little salt added (Ruby Valley - S). Again the proportions of the dried substance may be only a pinch to a cup of water (Yerington - P). For head colds the branches are burned on top of the stove and the fumes inhaled (Smith Valley - P). The green leaves may be mashed and applied as a poultice for chest colds (Reno - P). The tea for colds can be prepared also by boiling the tops of this plant with the roots of Leptotaenia multifida (Fallon - P) or with young twigs of Juniperus utahensis (Austin, Lovelock, and Reese River - P & S).

In a reliable cure for pneumonia, the leaves are boiled in water with a pinch of salt and a tablespoonful of the warm solution is given each time the patient coughs (Tonopah - S). In another treatment for the disease the leaves are boiled with the root of Leptotaenia multifida and the hot tea taken internally, also hot packs of the solution are placed upon the chest (Lovelock - P).

Branches are burned on the top of the stove as a fumigant for rooms after an illness or the basket and blankets used during a childbirth are held in the smoke (Gardnerville and Dresslerville - W).

All three tribes of the Indians favor the tea brew as a general tonic (Austin, Dresslerville, Gardnerville, Lovelock, and Owyhee - P, S & W) and it is especially favorable after childbirth (Fallon, Reno, Schurz, and Yerington - P & S).

There are various methods to relieve headaches: a tea from the boiled branches is taken internally (Hawthorne and Schurz - P), the solution from the boiled leaves is used to bathe the head (Monitor Valley - S), or fumes from burning plants may be inhaled (Fallon - P). Also recommended is the use of crushed and moistened green leaves applied as poultices directly on the forehead (Upper Reese River - S).

The branches are boiled to make a tea to relieve stomach-aches (Hawthorne and Schurz - P), it is favored especially for children (Fallon - P). A half-cupful of the hot solution is given for stomach cramps (Wells - S). Sometimes the raw leaves are chewed for indigestion (Beatty and Owyhee - P & S).

To break a fever by producing a sweat, one-half cupful of the tea from boiled leaves is supposed to be effective (Elko and Owyhee - S); and for malarial fever a small quantity is taken three times daily (Reno - P).

For cuts, wounds or sores the boiled leaves are made into an antiseptic wash (Fallon, Lida, and Owyhee - P & S) or applied directly as a poultice (Wells - S) or the branches may be dried, pulverized and applied as a healing powder (Battle Mountain - S). The steeped leaves can be applied as a wet dressing to promote healing of stubborn bullet wounds (Yerington - P). The leaf decoction is

used warm, as an antiseptic bath for newborn babies (Tonopah - S).

The plant, in addition, has a considerable range of application for other purposes: the boiled branches serve as hot poultices for various aches and pains, especially rheumatism (Wells - S); or the decoction, used hot, makes a good wash or liniment for lumbago or muscular cramps (Fallon and Upper Reese River - P & S); or to alleviate red ant bites (Upper Reese River - S), also as a foot bath for aching and swollen feet if continued for several hours (Smith Valley - P).

The strained liquor from boiled leaves can be used as a gargle for sore throat (Upper Reese River - S). Leaves steeped in hot water are laid directly on inflamed eyes (Ruby Valley - S); mashed leaves are applied along the cheek next to the gums to stop a toothache (Upper Reese River - S). For poisoning of any sort the tea is taken internally or if no water is available the leaves can be chewed (Reno - S).

A rather novel employment occurs where the dried leaves are finely pulverized to serve as a sort of talcum powder for babies (Ft. McDermitt, Stewart, and Winnemucca - P).

ASCLEPIAS CRYPTOCERAS S. Wats. Asclepiadaceae

(P) hewovey; wa-na. (E) milkweed.

The boiled root provides a solution used as a wash to relieve headaches (Nixon - P).

The latex is employed to cure ringworm (Stewart - P).

ASCLEPIAS SPECIOSA Torr. Asclepiadaceae

(P) nah-quee-dah nat-tizuah; toh-hawk-quee; ut-sah-av; wee-ab-a-nuh. (S) be-ah bee-sha divo-oh-wip; be-jah-no-ko; be-sha-no-ko; bee-sha-wannup; pee-gee-wanna. (E) milkweed.

The latex is used as an antiseptic and healing agent on sores (Ely, Schurz, and Smith Valley - P & S), syphilitic sores (Wells - S), ringworm (Elko - S), and cuts (Round Mountain - S). It is applied to remove corns and calluses (Round Mountain - S).

The silk is burned off the ripe seed and these are then ground and applied as a salve on sores (Hawthorne - P). The seed are boiled in a small amount of water and the solution used to soak rattlesnake bites in order to draw out the poison (Winnemucca - P).

A hot tea from the boiled roots is taken internally to bring out the rash of measles (Yerington - P). A half-cupful once or twice a day is taken as a cough medicine (Fallon and Lovelock - P) and in the same quantities especially for tuberculosis (Lovelock - P). Less than a half-cupful of the solution taken internally stops bloody diarrhea (Elko - S). The solution can also be utilized externally as a wash for rheumatism (Hawthorne - P).

The mashed root, moistened with water, is applied for several days as a poultice to reduce swellings (Round Mountain - S).

ASTER FRONDOSUS (Nutt.) T. & G. Compositae

(P) tods-e-tonega.

The stems and flowers, when soaked in water were used by one

Indian as a soothing, medicinal wash for rheumatism (Summit Lake - P); while another, in the same locality, considered the tea from dried stems, without leaves, to be a general blood tonic.

ASTER LEUCANTHEMIFOLIUS Greene Compositae

(S) hoo-nut-zoo. (E) September aster.

The whole plant, boiled, was taken as a blood tonic, twice a day for a week (Wells - S), or the tops only were brewed and the drink taken warm as a physic (Duckwater - S).

ASTER SCOPULORUM A. Gray Compositae

(S) dimbe-be-ett-zee; duh-na-eye-go. (E) dwarf aster.

For headaches, the fresh or dried leaves are boiled to make a tea which is taken internally in a quantity of not more than a cupful (Round Mountain and Upper Reese River - S). A poultice, made from leaves mashed in cold water, had special use for swollen jaws or neck glands (Summit Lake - P).

The washed roots were scraped and soaked in cold water to make an eyewash (Battle Mountain - S).

ASTRAGALUS SCAPOSUS A. Gray Leguminosae

(S) tim-bah-hay nut-zoo (a general name). (E) locoweed.

The cleaned roots are scraped and boiled to make a decoction, which is taken over a long period of time for venereal disease (Belmont - S).

ASTRAGALUS spp. Leguminosae

(S) coopi-joomb; gup-wuh-ghu; tok-quee. (E) locoweed.

A decoction of the boiled root serves as a wash for granulated eyelids and for toothaches (Austin and Upper Reese River - S). Another informant recommended that the root be soaked in cold water for a half day and that the solution be used sparingly as an eye-wash and for sores (Upper Reese River - S).

ATRIPLEX CANESCENS (Pursh) Nutt. Chenopodiaceae

(S) moo-rocn-up. (E) saltbush.

Fresh roots are boiled with a little salt in water and the solution employed in a dose of a half cupful as a physic (Lida - S).

BALSAMORHIZA HIRSUTA Nutt. Compositae

(P) key-gah-da-goop. (W) auga-lem-lu. (E) balsamroot.

This is considered to be an especially good medicine by the Indians. From the boiled root is secured a solution that looks like a thin yellow soup. This is used internally for severe stomach and bladder troubles (Ft. McDermitt, Smith Valley, Summit Lake, and Walker River - P). There was one unconfirmed report that the root decoction could be taken for female complaints (Reno - W).

BALSAMORHIZA SAGITTATA (Pursh) Nutt. Compositae

(P) ah-ku-pah; coo-see quah-soop; pah-kuk. (S) ah-kuk; coo-see ah-kuh. (W) shugil-artus; sugilatse. (E) arrow-leaf balsamroot; balsamroot sunflower.

One-half a cup of tea from boiled roots is taken daily over a

long period for venereal disease (Hawthorne, Mason Valley, and Smith Valley - P). The mashed root is used as a dressing for syphilitic sores (Ruby Valley - S) or the dry, powdered root is applied for the same purpose (Mason Valley - P). The mashed root is utilized also for swellings or insect bites (Austin, Ruby Valley, and Smith Valley - P & S). Burning the root in a room after an illness is thought to be a good fumigant (Fallon and Reno - P & W). The root decoction is employed as an eyewash (Wells - S) or as a brew to be taken for stomach-aches (Summit Lake - P). The gummy sap which exudes from freshly dug and cut roots is collected in a spoon and swallowed as a cure for consumption (Summit Lake - P).

BATTARREA PHALLOIDES (Dicks.) Pers. Lycoperdaceae

(P) be-sha soo-ah-pah. (E) puffball.

This fungus is gathered in the young stage, sliced, and applied as a dressing for swellings and sores (Fallon - P).

BERBERIS REPENS Lindl. Berberidaceae

(P) cor-ren-nup pah-vee; poo-heg-wee-dah. (S) so-go-diem; so-go-du-yembe; toh-yuh-tu-yuh-bu-huh. (E) barberry.

For general aches or rheumatic pains the leaves are boiled and taken as a tea (Beatty - S) or the roots alone are used for the same purpose (Wells - S).

The boiled roots produce a yellow solution which is taken as a tea to prevent or stop bloody dysentery (Austin, Elko, and Moapa - P & S); also to thicken the blood of haemophilic persons (Moapa - P). In a number of localities it is used regularly as a blood

tonic or purifier (Battle Mountain, Elko, and Hawthorne - P & S). In this connection a Shoshone at Battle Mountain, says that the roots should be steeped, not boiled, and that the first water is discarded. He recommends doses of less than a half-cupful several times a day.

The same decoction from boiled roots is administered as a drink for venereal diseases (Elko and Owyhee - P & S), as a cough medicine, sometimes with whiskey added (Ely and Owyhee - P & S), for bladder difficulties (Ft. McDermitt - P), and as a kidney medicine (Eureka - S).

The stems only are boiled to make a tea which is taken as a tonic for stomach troubles (Winnemucca - P).

BRASSICA spp. Cruciferae

(E) wild mustard.

The ripe seed are ground to make poultices for burns (Wells - S).

BRICKELLIA OBLONGIFOLIA Compositae
var. LINIFOLIA (D.C. Eat.) Robins.

(S) sahn-a-wap.

An adequate botanical specimen was secured from an Indian woman, in fact she produced broken fragments of the plant from a medicine bag but the medicinal data was quite vague. None of her associates recognized the plant. She merely said that the stems and leaves were boiled and taken as a stomach medicine (Elko - S).

CASTILLEJA LINARIAEFOLIA Benth. Scrophulariaceae

(S) anga-quee-ah-wee-tumb; dogowah-die-um. (E) paint-brush.

Prized particularly as a remedy for venereal diseases, the Beatty Indians travel long distances to secure the plant. A solution of boiled roots, taken in small amounts as a drink, is said to cure venereal disease, if the treatment is continued a long time (Beatty and Tonopah - S). The root decoction acts as an emetic and physic (Ione and Tonopah - S) and is taken also to 'purify' the blood (Ione - S).

CATABROSA AQUATICA (L.) Beauv. Gramineae

(S) bah-soh-nip.

This grass, usually found in moist locations, is reported by one Indian to have a stimulating or tonic effect if boiled and taken as a decoction (Ely - S).

CAULANTHUS CRASSICAULIS (Torr,) S. Wats. Cruciferae

(S) wah-numb.

The roots of the plant when soaked in warm water produce a brown color. This infusion is taken internally as a blood tonic (Ely - S).

CERCOCARPUS LEDIFOLIUS Nutt. ex T. & G. Rosaceae

(Moapa P) dunumbe. (P) toobe; toobe-buh-ah; too-pee. (S) doh-numbe; toh-nombe; too-bap-ee; too-be; too-bee-boh-ah; too-nambe; too-pee. (E) mountain mahogany.

Judging from the number of reports this plant would appear to be one of the more important sources of medicinal remedies for the Indians. Its main use seems to be for pulmonary disorders, especially in the treatment of tuberculosis. Practically all of the informants specified that the bark must be dried, sometimes for as long as two years, before use. After drying, the bark strips are boiled to make the decoction and usually it seems essential that the tea drinking must continue for a long time to aid the condition (Fallon, Lovelock, Mason Valley, and Schurz - P). One Indian recommended that the bark be mixed with young twigs and leaves of Purshia tridentata and boiled, the cool decoction then being taken frequently for pains in the lungs due to tuberculosis (Fallon - P). A decoction of the dried root was used for the medicine at one place (Hawthorne - P). Another medicine is prepared from the soft inner bark of the tree. This is scraped off, sifted and dried. When needed it is boiled and taken as a drink (Nixon - S). See also under Populus trichocarpa.

For coughs and colds the dried bark decoction is taken (Moapa and Wells - P & S), but in one locality a cold water infusion was preferred (Smith Valley - P). Again the medicine is prepared from an infusion of the inner bark (Mason Valley - P) or from the steeped leaves (Summit Lake - P).

The second of the important uses for the dried bark is in the treatment of sores, cuts, burns, and wounds. It is applied mostly as a powder but sometimes as a paste. Usually it is the dry

bark which is ground to a powder for this purpose (Fallon, Owyhee, Schurz, and Tonopah - P), or sometimes the soft inner bark (Austin and Reno - P & S), and a bark decoction was recommended in some instances (Round Mountain and Tonopah - S). One Indian uses the pulverized wood instead of the bark for cuts or burns (Austin - S); likewise the same substance was a specific to dry up syphilitic sores (Yerington - P). The leaves and bark are ground to make a poultice for swellings (Beowawe - S).

For heart disorders a tea decoction was prepared from the leaves or from the bark (Beowawe, Reno, Ruby Valley, and Schurz - P & S).

A decoction of the dried bark, or sometimes of the inner bark only, served as a cold drink to be taken for several days in doses of one-half to a full cup daily, had general favor as a blood tonic (Manhattan, Moapa, Schurz, Smith Valley, and Wells - P & S).

The bark decoction was said to be good for a number of other troubles, such as stomach-ache, venereal diseases (Fallon - P), diarrhea, stomach ulcers, and pneumonia (Schurz - P). For diphtheria the soft inner bark was scraped off and soaked in water as a drink (Austin - S), and the same substance, when boiled and strained, served as a wash for eye diseases (Nixon - S).

See also under Populus trichocarpa for venereal disease treatment, and under Ephedra viridis for diarrhea medicine.

CHAENACTIS DOUGLASII (Hook.) H. & A. Compositae

(P) hoot-see-eva; si-eg-iv; toh-hoe-quah. (S) witch-ah das-ah-dee-ah; witch-ah-numba; yahn-gan-gooie.

One of the Paiute names commonly applied to this plant is 'bawa na-tizua' meaning - 'swelling medicine' and it is utilized mostly in that capacity. The fresh plants, or sometimes only the leaves, are crushed and applied as a poultice (Austin, Battle Mountain, Nixon, Owyhee, Ruby Valley, Stillwater, Wells, and Winnemucca - P & S). To prepare a bath for severely swollen limbs or dropsical conditions, a great number of plants are heated in a tub with just enough water to cover. The patient soaks the affected parts for several hours (Battle Mountain - S).

The whole plant or only the leaves, are boiled as a drink for coughs or colds (Nixon and Summit Lake - P).

An interesting idea is displayed in a treatment for rattlesnake bites. First the leaves and stems of the plant are pulped and used as a poultice, then, provided the snake has not bitten itself, it is skinned and sections of the raw flesh are also used as poultices, these being changed every few minutes (Schurz - P).

A decoction of the boiled plant, in a dose of a half-cupful or less, is an emetic for indigestion or a sour stomach (Wells - S).

Unconfirmed reports also claim that the tea is a heart depressant (Austin and Winnemucca - P).

CHAMAEBATIARIA MILLEFOLIUM (Torr.) Maxim. Rosaceae

(P) par-o-wah tah-cun-o-quah. (S) ting-wee-buh.

(E) fernbush.

The fresh, or dried, leaves are boiled and taken as a tea for stomach-aches or cramps (Ely and Mason Valley - S).

It is said that severe cases of lumbago have been cured by

drinking a tea which is made by boiling the young shoots of this plant with the roots of Salix exigua. The two are brewed a long time and the tea taken several times daily for a week or more (Hawthorne - P).

CHRYSOTHAMNUS NAUSEOSUS var. ALBICAULIS (Nutt.) Rydb. Compositae

(S) see-bape. (E) gray rabbitbrush.

The steeped leaves, taken as a tea, serve for stomach disorders and for colds (Beatty and Elko - S), and the dried leaves and flowers are steeped as a general tonic (Austin - S).

CHRYSOTHAMNUS NAUSEOSUS var. SPECIOSUS (Nutt.) Hall Compositae

(S) tah-bah-she-up. (E) rabbitbrush.

The roots and tops, boiled together, are taken as a tea in doses of a half-cupful to stop bloody diarrhea (Manhattan - S). A cough medicine was prepared by boiling the stems and leaves together, the liquid being given in a dose of a half-cupful or less, once or twice a day (Manhattan - S). One family prepares a remedy for coughs and colds by boiling the stems of the rabbitbrush with young tops of Artemisia gnaphalodes (Ruby Valley - S).

CHRYSOTHAMNUS VISCIDIFLORUS (Hook.) Nutt. Compositae

(P) see-gu-pee; tah-bee-she-goop; tah-beese-see-goop.

(S) nagaha-see-bup-ee; oh-ha-see-bup-e. (E) little rabbitbrush.

For coughs, the young growth is boiled and utilized as a tea (Yerington - P) or else the leaves are merely crushed and soaked in

water to prepare the drink for colds (Owyhee - P).

One Indian said that the remedy used during the last influenza epidemic was made by boiling this plant with the roots of Leptotaenia multifida to make a hot potion (Stillwater - S).

Rheumatism is treated by the application of poultices made from crushed stems and leaves which are then moistened (Lida - S). Relief from the same ailment is secured by taking an Indian sweat bath (Reno - P). For preparation of the sweat bath see under Artemisia gnaphalodes.

The finely mashed leaves were inserted in tooth cavities to stop toothaches (Austin - S).

CICUTA OCCIDENTALIS Greene — Umbelliferae

(P) hah-kee-noop; hah-ken-oop; haw-ken-noop. (S) hah-tee; hah-tumbe. (E) poison parsnip; water parsnip.

In treating rattlesnake bites the main purpose seems to be the reduction of the swelling and this is said to be accomplished by applying poultices of the pulped root (Ft. McDermitt and Stewart - P).

For ordinary swellings the roots are roasted over coals and then made into poultices (Fallon and Lovelock - P), the same sort of poultices are applied while warm to rheumatic joints (Fallon - P) and also to deaden muscular pain (Austin and Round Mountain - P & S).

Open wounds are never treated with the pulp because of its poisonous nature (Round Mountain - S). Although most Indians are well

aware that the plant is poisonous, some use it, nevertheless, as a wash for sore eyes or granulated lids. The roots are boiled and the solution allowed to cool (Upper Reese River - S).

CLAYTONIA PERFOLIATA Donn — Portulacaceae

(E) miner's lettuce.

The plants are soaked in water, then mashed to make poultices for rheumatic pains. It is claimed that the substance penetrates and burns like a mustard plaster, thereby acting as a counter-irritant (Ely - S).

CLEMATIS LIGUSTICIFOLIA Nutt. — Ranunculaceae

(P) esha-wanna. (S) esha-wanna; esha-wannup. (E) virgin's bower; wild clematis.

As a poultice to reduce swellings or bring boils to a head the mashed leaves are utilized (Tonopah, Upper Reese River, and Wells - S) and sometimes leaves of Plantago major are combined in the poultices for the same purpose (Peavine Creek and Smoky Valley - S); rheumatic pains, bruises, and wounds are also treated by this method (Manhattan and Smoky Valley - S). One family prepares poultices of mashed and moistened seed for severe burns (Upper Reese River - S).

The branches of this plant can be used as a counter-irritant by whipping sore or painful areas (Wells - S). As a wash or tub bath, either hot or cold, for dropsical conditions the boiled leaves are thought to be efficacious (Round Mountain and Yerington - P & S)

and at the latter place a hot solution employed as a foot bath relieves tired feet.

For syphilitic sores, leaves are dried, ground to a powder, and applied as a healing agent or a solution of the boiled leaves serves the same purpose (Tonopah - S). Andy Fraser claims that he cures headaches by smelling the crushed leaves (Peavine Creek - S) but Orna Jagles crushes the dried leaves to a fine powder and uses the material as a snuff (Tonopah - S).

For a stomach-ache or cramps the leaves, or even better, the roots are boiled and taken as a tea. One to three cupfuls can be taken at a time provided the tea has not been made too strong (Round Mountain - S).

CORALLORRHIZA MACULATA Raf. Orchidaceae

(E) coralroot.

Unverified information indicated that dried stalks of this orchid, or of the snow plant, Sarcodes sanguinea, could be steeped as a tea to build up the blood in pneumonia patients (Owyhee - P & S). This belief may be due to the reddish coloration of the two plants.

CORDYLANTHUS RAMOSUS Nutt. ex Benth. Scrophulariaceae

(S) tim-bah-hay nut-zoo.

One group of Indians recognize this plant as being the "bad disease medicine", i. e. the venereal disease remedy of the locality. The plant is boiled and used as a tea drink (Stillwater - S).

COWANIA MEXICANA D. Don Rosaceae

(Moapa P) uh-nop. (S) be-ah huh-nabbe; huh-nabbe.

(E) cliff rose.

One cure for smallpox is prepared by boiling together the leaves of the Cowania, powdered rock lichens, and 'kah-seep'.* The solution is taken morning and night in doses of a half-cupful (Ruby Valley - S). In another community the smallpox remedy is made by boiling the tops of the Cowania with the pitch of Pinus monophylla, the decoction being taken in quantities of less than a half-cupful four times daily (Wells - S). An antiseptic wash for smallpox or measles is made by boiling together the young tops, the flowers and leaves (Beatty - S) or the solution may be prepared by boiling the Cowania leaves with pine pitch (Ruby Valley - S).

Venereal diseases are treated by drinking a strong tea from boiled leaves and young stems, or sometimes the leaves and flowers (Moapa and Stillwater - P & S). The same solutions serve also as a physic (Beatty, Moapa, and Stillwater - P & S), for colds (Moapa - P), or for pains in the back over the kidneys (Beatty - S).

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* 'Kah-seep', a black pitch-like substance, was at first thought to be the dung of either bats or mountain rats but final inquiries indicate that it is the dried urine of mountain rats. (See also under Purshia tridentata for further use of 'kah-seep'.)