

VERDI NATURE TRAIL

Continued

Plant succession, or one plant community replacing another plant community, is occurring in this meadow area. When this meadow was a wetland, **WILD ROSE** - *Rosa woodsii*, and **COYOTE WILLOW** - *Salix exigua*, were commonly found here. As the soils dried, these plants were succeeded by upland plants such as the rabbitbrush and the sagebrush.

11 As we look north over the **FREMONT COTTONWOOD** - *Populus fremontii* treetops, we see the homes built along the Truckee River corridor. Living in the ever-growing Great Basin, we must remember that all animals share this wonderful habitat. Truckee-Loyalton mule deer, the predominant big game species found in the Verdi area, depend on this habitat for wintering, as bitterbrush and mountain-mahogany are abundant here. Herds of mule deer use this habitat as a corridor to the waters of the Truckee River, located to the north.

12 Notice the remains of the old flume and the drainage ditch located in the center of this field. The **CALIFORNIA POPPIES** - *Eschscholzia californica*, are prolific in this upland habitat. An irrigation gate dated 1965 is located in the center of the field.

13 To the east lies the Sagebrush Steppe, a transition zone for Great Basin wildlife. Non-game species found here include marmot, squirrel, mice, coyote, hawk, and sparrow. Mountain lions may also be found in this habitat. Game birds seeking shelter here include chukar partridge, mountain quail, and California quail.

14 As we stand at the edge of the rain shadow, we can imagine a large umbrella covering this Great Basin area. The umbrella shelters this region from most of the precipitation falling around it. What causes the rain shadow effect? Warm westerly winds cool as they rise over the Sierra Nevada. Cool air thins and expands, causing the clouds to release their heavy water drops. Amazingly, the Sierra Nevada may receive 200 inches of rain and snow, while here in the rain shadow, only 8-10 inches of precipitation fall annually.

15 Where did these rocks come from? As the snow melts, the cold water pushes rock and soil down the slopes of the Sierra Nevada. These boulders have tumbled many miles to reach their destination.

16 These rocks are home to moss and lichen. Moss is a green plant, and it produces a food called chlorophyll. The green moss on this rock is **BRYUM MOSS**. Lichen is the product of a symbiotic (mutually beneficial) relationship between algae and fungi. The bright green lichen is **CRUSTOSE LICHEN**. The bright yellow lichen is **CALOPLACA LICHEN**. Lichen reproduce as spores are released from the heads of the fruiting bodies.

17 This riparian habitat is an important wintering habitat for wildlife. Plants growing along this section of the nature trail include:

CURL-LEAF MOUNTAIN-MAHOGANY - *Cercocarpus ledifolius*
WILD ROSE - *Rosa woodsii*
COYOTE WILLOW - *Salix exigua*
MUGWORT - *Artemisia douglasiana*

18 The ground is lower at this point which allows spring runoff to saturate the soil. This is another example of a riparian habitat. In a riparian habitat, the plant roots seek underground water from the water table, or aquifer. During the drought years, the water table becomes shallow, and the plant roots are unable to reach the water, causing the plants to die. The dead willows found throughout this habitat are a result of the recent drought years.

19 As you walk around this bend, during the summer season, look for the red cherries found on the **CHOCKECHERRY**, and the yellow catkins hanging from the **YELLOW WILLOW** and **COYOTE WILLOW** bushes. Native Americans used the willow to weave baskets, water bottles, cradles, and frameworks for shelters. They also used this plant for medicinal purposes; salicin, a chemical relative of aspirin, is produced in the **COYOTE WILLOW**.

20 This evergreen **CURL-LEAF MOUNTAIN-MAHOGANY** is one of the few trees that provide winter forage for deer on the east slope of the Sierra Nevada. Notice the awl-shaped, curled leaf, a distinguishing characteristic of this plant.

21 This solitary plant, **CALIFORNIA BLACKBERRY** - *Rubus ursinus*, was probably started from seeds dropped by migratory birds as they passed over the trail years ago. The five-petal flowers are characteristic of

plants in the rose family. The thorns keep small animals from eating too many of the berries, allowing food for the birds.

22 **WHITE SAGE** or **WINTER FAT** - *Krascheninnikovia lanata*, appears white and fuzzy with erect stems. Early Nevadans made a medicinal tonic from the stems and leaves to cure a variety of ills. Verdi ranchers value winter fat as one of the best winter browses to fatten domestic livestock during the winter months; thus the common name winter fat. Deer also feed on winter fat.

23 Looking north of the trail, notice the **GREEN EPHEDRA** - *Ephedra viridis*. The green you see is actually the stems. Ephedra is a dioecious plant, meaning that the female plant is separate from the male plant. Both plants produce cones. Medicinally, Ephedra has been used by many cultures. Native Americans made tea from it; Asians use this plant to treat asthma and other respiratory ailments. Ephedra is high in ascorbic acid (vitamin C) and has mild antibacterial effects. Wildlife such as quail and ground squirrels nest here.

24 This French drain to the south was installed to divert spring runoff and to prevent soil erosion. Look closely for the **WESTERN FENCE LIZARD**, commonly known as the **BLUE BELLY LIZARD**, making its home along these rocks.

25 You have reached the end of the trail. Please visit the **Verdi Community Library** presently located in the **Verdi Elementary School**, to find any nature guides or additional outdoor education resources.

Interpretation is also provided in other parks by **NEVADA DIVISION OF WILDLIFE**:
Oxbow Nature Study Area, Reno
Washoe Lake State Park, Washoe Valley

Interpreted by **Adrienne Forbes, NDOW**,
Revised January 1999
To schedule educational tours call the **Oxbow Nature Study Area** at 334-3808.



VERDI NATURE TRAIL



A cooperative project sponsored by the Washoe County Schools, Washoe County Libraries and Nevada Division of Wildlife

VERDI NATURE TRAIL

1 Trail post number one, the trail head, is located at the north parking lot, adjacent to the play area. Please stay on the trail. We ask that you leave everything in the park the way you find it, so that tomorrow's visitors will enjoy the beautiful plants and natural environment you are experiencing today.

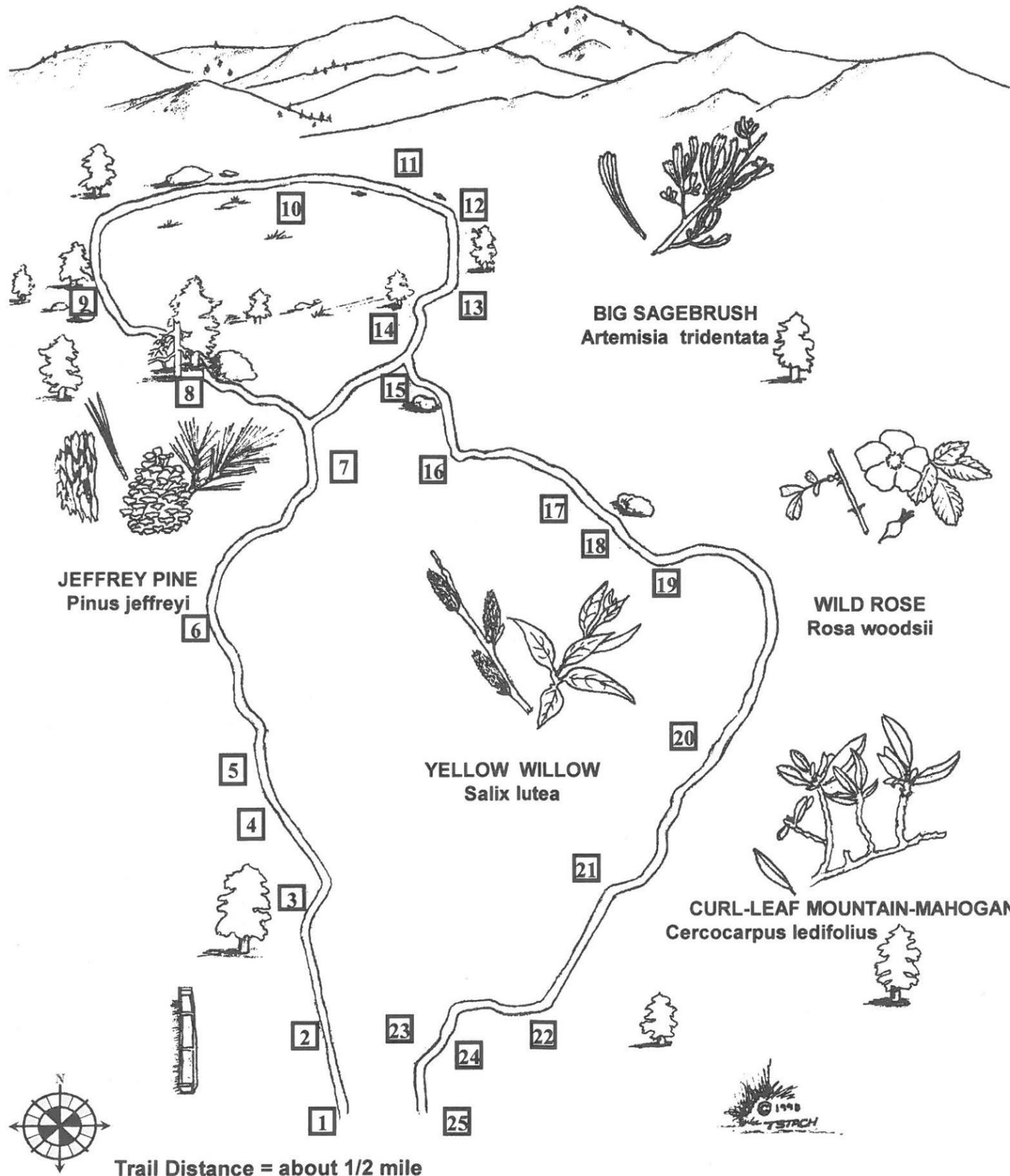
2 You are viewing the remains of a wooden flume which was previously connected to the canal located at the Bridge Street Firehouse. The flume was built during the 1920s and was used to channel spring runoff that ran across the Verdi Elementary School grounds. Local children played in the flume during the hot summer days. It remained in operation through the 1970s.

3 This upland habitat shows evidence of plant succession, in which one plant community has replaced another plant community. As the wetlands dried out, the upland plant community succeeded the wetland plants. Some of the plants growing here are:
JEFFREY PINE - *Pinus jeffreyi*
DESERT PEACH - *Prunus andersonii*
BITTERBRUSH - *Purshia tridentata*
CHOCHECHERRY - *Prunus virginiana* var. *demissa*
FREMONT COTTONWOOD - *Populus fremontii*

4 *Tridentata* is the Latin term for three-teeth. Look carefully at the leaves of the **BIG SAGEBRUSH** growing in front of you. Each leaf is marked by three teeth; thus, the scientific, or Latin name for Nevada's state flower is *Artemisia tridentata* ssp. *tridentata* (Asteraceae).

5 The dead **COYOTE WILLOW** - *Salix exigua* (Salicaceae) provides habitat for game birds such as chukar partridge, mountain quail, and California quail which are found here. These birds depend on riparian vegetation for cover and nesting areas. The willows died as the water table receded, and the roots could no longer reach the underground water supply.

6 Looking to the west notice the two pine trees. At first glance, these trees look similar, but look carefully at the subtle differences. The pine closest to the trail is the **PONDEROSA PINE** - *Pinus ponderosa*, and its neighboring pine to the west is the **JEFFREY PINE** - *Pinus jeffreyi*.



PONDEROSA PINE

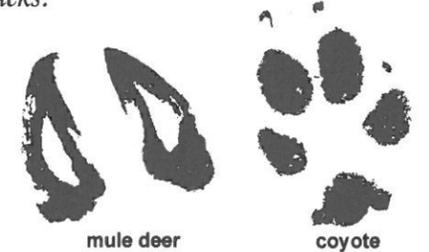
"Prickly Ponderosa"
 yellow-brown bark
 large plates, thin scales
 cones 3-6", prickly spines
 small cones on ground
 3 needle bundle, 5-10"
 100-150 ft.
 no bark odor

JEFFREY PINE

"Gentle Jeffrey"
 red-brown bark
 small, flat plates
 cones 5-10", retracted spines
 large cones on ground
 3 needle bundle, 5-10"
 150-180 ft.
 vanilla bark odor

7 Step close to this **JEFFREY PINE** and smell the vanilla odor. Next, pick up a dry pine cone and feel the gentle texture. Continuing along the trail, look for the following animal tracks:

- Mule Deer
- Cottontail Rabbit
- Coyote
- California Quail
- Ground Squirrels



8 You have arrived at Storyteller's Rock. Sit upon this cool rock and study the fire scar in the **JEFFREY PINE**. This tree was burned in a fire when it was young. It survived the fire, and as the tree grew, the new bark grew around the scorched bark, thus leaving a scar. Notice that the outer bark is also charred. As an adult tree, this pine was victim to yet another fire. Conifers like the Jeffrey pine have thick bark as an adaptation to fire.

9 Gaze to the west and enjoy this panoramic view where the Great Basin meets the Sierra Nevada. During the summer months, notice the bright green ribbons of grasses woven along the downward slopes of the mountains. These new grasses grow in the rich soils following the wet spring runoff. During the winter months, these same ribbons appear as white snow slides along the slopes.

10 As you walk through this green meadow area notice the two different species of rabbitbrush. **RUBBER RABBITBRUSH** - *Chrysothamnus nauseosus*, and **GREEN RABBITBRUSH** - *Chrysothamnus viscidiflorus*. Rubber Rabbitbrush, Asteraceae, has a pineapple scent, sticky stem, and a woolly hairy stem. Green Rabbitbrush lacks hairs and appears deep green.

Continued on Other Side

