# NEWSPAPER ROCK INTERPRETIVE TRAIL

*This trail is a ¼-mile loop which returns to this same point and is designed to help you better understand the natural history of the area.*

1—BIG SAGE: This gray shrub-like plant is an indicator of good soil. It moves into grasslands as the grass dies off by drought or over-grazing.

2—MOCKORANGE: This plant has a fragrant white flower which smells like an orange blossom. It is normally found in wet, warm places and indicates that runoff from the canyon wall keeps this spot relatively moist.

3—MOUNTAIN MAHOGANY: This evergreen shrub is a good browse plant and shelter for deer. The wood is good for fires as it burns hot and slow with very little smoke. (Please remember, however, that gathering wood is prohibited.)

4—BARBERRY OR HOLLYGRAPE: This prickly-leafed plant resembling holly produces a dark blue edible berry used as food by animals and the early Indians. The Hopi Indians still make various articles from the wood, which has a dark brown center surrounded by brilliant yellow. The plant is also a source of yellow dye.

5—DESERT VARNISH: The dark stain on the rock above you is called desert varnish. It is formed by the oxidation of manganese and/or iron minerals on the rock surface. Oxidation is the process which causes a nail to rust and darken. The Indians used this stain (which forms a thin crust on the rock) as a medium on which to carve their rock art.

6—SQUAWBUSH: This shrub was used extensively by the Indians. They picked the berries for food and used the small branches to weave baskets. These baskets were used for gathering and the storage of seeds, berries, and roots.

7—GAMBEL OAK: This plant produces an acorn fruit which is an important part to the diet of many animals such as deer and squirrels. Oak brush is important in watershed areas, as it slows down runoff and reduces soil erosion.

8—PINYON PINE: This tree is a characteristic member of the Upper Sonoran Life Zone, which now surrounds you. The pinyon pine survives well in this life zone and produces a nut which is eaten by both man and animals. An individual pinyon nut may contain as much as 100 calories of stored energy. The western pioneers and Indians survived many rough winters using this tree's nut and abundant firewood.

9—UTAH JUNIPER: Another important member of the Upper Sonoran Life Zone, this tree is commonly called a cedar. It has many qualities of the cedar, such as red colored zylem wood which contains a natural insect repellent and preservative. Because of this, junipers are used extensively as fence posts. The juniper fruit is a berry, which is used in Indian jewelry and as a flavoring in gin. This tree is also good for firewood.

10—POTHOLES: Usually found in rock on the bottom of stream beds, potholes are created by the erosive effect of swirling currents of water containing sand and gravel. In contrast, the potholes you see above you in the canyon wall were formed by swirling currents of air (wind) containing sand. Some areas on the sandstone wall were softer than others and eroded into potholes.

11—YUCCA: Probably used more by the Indians than any other plant, the yucca fruit was eaten fresh, roasted, or dried for winter. Fibers from the spiny leaves were extracted for use in weaving and making cordage. Dried leaves were also used in the manufacture of basketry and sandals. The roots contain a suds-making substance called saponin which can be used as soap.

12—PORCUPINE: Look above you at the spots on the pinyon pine where the bark has been removed and on down the trail at the dead pinyon which also shows debarked scars. This is the work of the porcupine. It frequently feeds on the inner bark of this tree (often causing the tree to die), but if given its choice will eat a mistletoe-like plant which grows on pine and juniper trees. This mistletoe parasite will destroy and deform large numbers of trees in a small area if allowed to grow unchecked, but fortunately, nature has provided an animal which can keep the parasite under control.

13—SOIL PRODUCTION: The rocks around you are being broken down by wind, water, ice, and lichens into smaller pieces. These pieces are being mixed with decaying plant material to form soil. Lichens (the moss-like growth on the boulder in front of you) secrete substances which dissolve the materials binding the rock particles together, thus making new soil ingredients. Lichens are used in some dyes and in the production of litmus paper (an indicator to test PH of solutions).

14—INDIAN RICE GRASS: Indians used the rice-like seeds of this grass for food. It is also good forage for cattle.

15—RED ANT COLONY: This mound was built by ants. There are more ants in the world than any other type of insect. Ants live a very organized communal life. Each is born to carry out a specific duty for its lifetime. Some gather food, some care for the queen, some protect the mound, some cultivate fungus for food. Their hard exoskeleton (skeleton on the outside of the body rather than the inside) makes it possible for them to carry objects many times their own weight.

16—RABBITBRUSH: This shrub gets its name from the Black-tailed Jackrabbit and Desert Cottontail Rabbit which use the plant for shelter. The yellow flowers and the green inner bark were used by Indians to make dye. During World War II before the discovery of synthetic rubber, the United States considered using the latex from the sap of rabbitbrush in the production of rubber.

**PLEASE BE CAREFUL AS YOU CROSS THE ROADWAY**

17—ARIZONA THISTLE: This herbaceous plant (plants with no woody parts which usually die back to the ground each year) is common to the Upper Sonoran Life Zone. The prickly flower is often visited by hummingbirds and insects as they feed and gather nectar. The flower is also a delicious treat for horses.

18—COTTONWOODS: We are now in the streamside community as noted by the water-indicating plants such as the Fremont and narrowleaf cottonwood trees (the large single-trunked trees). This life zone is the result of the presence of water. Compare the sparcely vegetated life zone on the other side of the road with the densely vegetated life zone here along the creek bed.

19—BOXELDER: The boxelder tree is a member of the maple family. It is used for rough lumber and lower quality furniture lumber.

20—RIVER BIRCH: This is a most important plant in checking stream bank erosion and providing shelter for wildlife. It has been used, however, to make many a hasty fishing pole. Remember though, that in Utah's state parks, all vegetation is protected by law.

21—INDIAN CREEK: This perennial creek originates in the Abajo (Blue) Mountains to the south. From here, it flows northwestward through Canyonlands country to the Colorado River. During rainy periods and the spring thaw, large volumes of water flow through this creek and cause much stream bank erosion, such as that downstream on the opposite bank.

22—DEADWOOD CHECKS EROSION: Looking up this wash, you see an abundance of dead wood. This dead wood helps reclaim the soil be slowing down runoff water. As the water slows down, the soil being carried settles out. Over a period of time soil and other debris will form a natural dam. This is one of the reasons we ask you not to gather firewood in the park.

23—MAN AND NATURE CHECKING EROSION: Here you see an attampt by man to speed up the process explained at the last stop. Notice the exposed roots of the river birch. This is how nature uses plants to hold the soil and keep the stream bank in place.

24—WATER SPEEDING ON ITS WAY: You are now standing near solid bedrock. Moving water erodes the rock much slower than it does soil. As a result, the water gains speed on the solid rock, and when it comes in contact with loose soil again, it is much more erosive.

25—SANDBAR WILLOW: As you climb out of the stream bed, notice the narrow-leafed shrub. These willows are another important plant for checking erosion and providing cover for wildlife. Willows were used by the early Indians to make baskets, floor mats for setting and sleeping, and handles for tools.

26—TRANSITION ZONE: Members of each of the two life zones we have visited are represented around you; cottonwood and birch from the streamside environment, sagebrush and oak from the Upper Sonoran Life Zone.

27—DISTURBED ENVIRONMENT: Here is an area covered by herbaceous (non-woody) plants. This area was disturbed during road construction and is now being reclaimed by plant life. The herbaceous plants are the first to grow, then come woody shrubs like sagebrush, and eventually trees complete the cycle.

**PLEASE, AGAIN, BE CAREFUL CROSSING THE ROAD**

28—GEOLOGY OF THE CANYON: Across the canyon, you see three distinct layers of rock. The lower, massive sandstone ledge is the Wingate Sandstone, which is believed to have originated as great sand dunes created by the wind. The layers above the Wingate make up the Kayenta Sandstone. The layered appearance indicates that this sandstone was deposited by water, probably streams. The massive white rock on the skyline is the Navajo Sandstone. It also represents prehistoric sand dunes. These formations are 200 million to 170 million years old and from the Triassic and Jurassic Ages.

29—DRY WASH: A prime example of massive soil erosion are these washes in which the soil holding plants are destroyed. They can be destroyed in a number of ways; drought, fire, over-grazing, or man's careless use of off-highway vehicles.

30—FOURWING SALTBUSH: This plant is named for its seed which has four wings and for the fact that it grows in alkaline (salty) soil. It provides a good forage for livestock and deer.

31—WILDFLOWERS: The disturbed area in front of you yields an abundance of wildflowers in the spring and summer (especially in wet years). Arid environments such as this one are noted for their colorful seasonal flowers.

32—CONCLUSION: We hope you have enjoyed this interpretive trail. Please continue to help us protect this area from litter and vandalism. For more information on Newspaper Rock and the other state parks in Utah, write to:

**Newspaper Rock State Historical Monument**
**P.O. Box 788**
**Blanding, Utah 84511**

**State of Utah**
**Division of Parks & Recreation**
**1636 West North Temple**
**Salt Lake City, Utah 84116**

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8/82 Archives Approval No. 8200179 Account No. 6002 Central Printing