NATURAL HISTORY

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Background on Natural History

Below the massive escarpment of the Mogollon Rim of Arizona, the land tumbles down to the desert through spectacular canyons and sweeping valleys. One of these valleys is bisected by a beautiful flowing river named after the Spanish word for "green" – the Verde River.

The Verde River starts from forested pine-clad slopes along the Rim and flows southward to join the Salt River through over 150 miles of flat grasslands, lush floodplains, and rolling canyons, mesas, and desert. With elevations ranging from 6,000 feet on top of the Rim to 3,000 feet at the river, the Verde Valley is an immense biological transition zone between the desert lands to the south and the pine flats to the north.

Biologically, the Verde Valley is an ecozone, or zone of contact between two major life zones: the Lower Sonoran to the south and the Arizona Uplands to the north. Here plants from the two zones meet and intermingle, attracting birds and small animals in their search for food. This intermingling of plants and animals in a relatively small area creates a rich diversity of life that influenced human occupation of this valley for hundreds of years.

The Lower Sonoran life zone includes the area of grasslands and riparian areas below the Mogollon Rim. They offer a different variety of plants and animals, including rabbits, porcupine, raccoon, skunk, ground squirrel, antelope, fish, beaver, and fox. Some common plants include the creosote bush, mesquite, cactus, rice grass, hackberry, and walnut. Cottonwoods, sycamore, willow, and ash flourish along the streams and washes of the riparian habitats of the valley, along with a variety of bird life, including threatened and endangered species such as bald eagles, and the Southwest Willow Flycatcher.

The Upper Sonoran life zone includes the area along the Mogollon Rim and its foothills. It consists primarily of pinyon-and-juniper forest and contains a wealth of wild plant and animal resources, including deer, elk, mountain sheep, agave, yucca, pinyon nuts, oak, and prickly pear.

The rich variety of plant and animal life found in the Verde Valley creates a reservoir of biological diversity. There are over 167 species of plants representing 49 families at Montezuma Castle National Monument. This diversity of inhabitants is critical to protecting and preserving the wealth of life found in the Verde Valley. Without biological diversity the valley would be far less able to sustain the population of animals and plants that we have today.

The following natural history activities will focus on getting students to understand and appreciate complicated natural systems. Several critical ecological issues threaten our local and global environment: acid rain, ozone depletion, overpopulation, air and water pollution all threaten our future on this planet. Education is the key to our survival.

The theme of biological diversity and the unique riparian habitat found at both Montezuma Castle National Monument and Tuzigoot National Monument will be highlighted. Concepts of habitat, niche, adaptation, ecosystem, overpopulation, and the reality of extinction will be explored. The activities will provide students with the opportunity to investigate the complexity of human interactions with nature through a combination of classroom and park activities stressing a "hands-on" approach to learning.

The material on biological diversity was taken from the National Park Service Biological Diversity Program. All activities are linked to Arizona State curriculum standards.